

THE PROCESS OF ENTERPRISE INTERNATIONALIZATION – AN ANALYSIS OF COMPANIES OPERATING IN HIGHLY SPECIALIZED NICHE INDUSTRIAL SEGMENTS

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Purpose: The aim of this paper is to determine the nature of the internationalization process and to identify the distinguishing features of small and medium-sized enterprises operating in highly specialized niche industrial segments.

Design/methodology/approach: The research process was designed as a multi-stage study. In the first stage, a comprehensive review of the literature was conducted. The next stage consisted of qualitative empirical research based on the case study method. Within its framework, in-depth interviews with company managers were conducted, and the collected material was analyzed using the content analysis approach proposed by P. Mayring. Two techniques were employed: summarizing and explicative analysis. The net result of this stage consisted of compiling case reports and presenting the conclusions.

Findings: The findings of the study allowed for the identification of the features distinguishing entities operating in highly specialized niche industrial segments, as well as the specific nature of the internationalization process in the analyzed small and medium-sized enterprises, the forms and markets of their foreign expansion, and the driving force behind their engagement in international activities.

Research limitations/implications: The presented results provide an introduction and contribution to further, more in-depth analyses, which appear essential for a more comprehensive understanding of the internationalization processes of small and medium-sized enterprises operating in highly specialized niche industrial segments. This paper lays the groundwork for future research that may employ both qualitative and quantitative methods.

Originality/value: The enterprises under study offer comprehensive and individually customized solutions addressing their clients' specific needs. They provide purchasers with specialized offers designed to meet the particular challenges faced by industrial customers. A key element of their strategic approach involves implementing innovation, developing new technological solutions, and expanding engineering services in close collaboration with clients. They are innovators and leaders within their respective highly specialized niche industrial segments, successfully pursuing internationalization across numerous European and global markets.

Keywords: internationalization, small and medium-sized enterprises, case study.

Category of the paper: Research paper.

1. Introduction

The history of the internationalization of economic activity can be traced back to the antiquity, when the main cross-border occupation was trade between countries and empires, such as Greece, Egypt or Rome. Last century, especially the post-war period, witnessed development of international commerce. It was the time when numerous entities and concerns undertook international activities, which led to increased economic exchange between states.

The dynamic development of the internationalization of European companies was significantly shaped by reinforcing economic integration within the European Union, especially when the single EU market was introduced in 1993. Key factors that played a crucial role in the process were the deregulation and liberalization of many sectors, the elimination of administrative barriers and the arrangements of conditions for the free movement of goods, services, capital and people. The implementation of the single internal market principles was particularly crucial, as it facilitated the access to foreign markets for smaller entities without the necessity to invest capital or managerial resources in these markets. The companies were able to conduct foreign sales in a manner similar to domestic sales, taking advantage of unified regulations and simplified trade procedures. At that time, many small and medium-sized enterprises, niche market providers as well as firms conducting business in narrowly specialized sectors of the economy engaged in internationalization.

For the above reasons, the internationalization of small and medium-sized enterprises operating in specialized areas of the economy, conducting business in niche industrial segments, and offering innovative products or solutions for highly specialized market segments is an especially captivating scope of research.

The aim of this paper is to define the specific nature of the internationalization process and to identify the features that determine small and medium-sized enterprises operating in highly specialized niche segments of the industry.

The research process has been designed in stages. The first part comprised a literature review. The next stage consisted of qualitative empirical research based on the case study method. In-depth interviews with company managers were also conducted as part of this stage. The collected material was then subjected to content analysis according to the approach proposed by P. Mayring. The net result was the compilation of case reports and the presentation of conclusions drawn from the conducted studies of the enterprises.

2. Theoretical background

In recent years, an intensification of internationalization processes undertaken by enterprises has been observed. These activities are no longer the exclusive domain of large corporations, but are increasingly undertaken by small and medium-sized enterprises as well. It should be noted that small and medium-sized enterprises, especially those having an innovative nature and emerging from countries with relatively small domestic markets, may face the necessity of engaging into internationalization at an early stage of their development. (Petraite et al., 2022). Companies operating in specialized niche industrial segments, where competitiveness is based on distinctive competencies and innovative solutions, demonstrate remarkable foreign market activity. According to the OECD a broader concept of internationalization incorporating entities involved in the social and solidarity economy “can be defined as a set of processes involving multilateral flows of goods, services, financial resources and “intangible assets” (information, skills, business models, knowledge and more) within and between organisations and across countries. More importantly, this set of processes can be both outward-oriented (selling or investing abroad) or inward (such as acquiring know-how or other intangibles assets from international sources)” (OECD, 2023, p. 17). Firms’ internationalization process, “perceived as the temporal and spatial evolution of firms’ distribution of resources and governance structures across national borders” (Gammeltoft, Cuervo-Cazurra, 2021, p. 4).

In the subject literature, many scholars conceptualize the internationalization of enterprises in two fundamental approaches: the static and the dynamic, the latter also referred to as the process-oriented perspective (Kutschker, Schmid, 2011; Richta, 2012; Perlitz, 2004).

The first approach—static internationalization—refers to a situation in which a company establishes foreign connections or undertakes activities of an international nature without the necessity of continuing them in the future. Such an activity may take a form of one-time or occasional venture, often unrelated to any long-term internationalization strategy, e.g. a single export transaction or an ad hoc action driven by arising market opportunities, undertaken without the intention of building a sustained presence in foreign markets.

The second approach—dynamic internationalization—assumes that internationalization is continuous, sequential, and long-term in nature. Within this framework, foreign activities develop gradually, progressing from simpler forms (e.g. exporting) to more advanced ones (e.g. foreign direct investment, establishment of subsidiaries, or manufacturing abroad). A key element of this approach is the temporal context — the enterprise moves through successive phases of international development as it gains experience, knowledge, and competencies. Internationalization understood as a process is accompanied by increasing levels of engagement in foreign markets and the adoption of progressively more complex forms of international activity. Within the process-oriented approach, specific models of

internationalization can be distinguished, such as the stages model of the Uppsala School (Johanson, Wiedersheim-Paul, 1975; Johanson, Vahlne, 1977) which conceptualizes a defined sequence of actions based on the growth of organizational experience, or innovative internationalization models (Bilkey, Tesar, 1977; Lim et al., 1991). According to this approach, internationalization is a dynamic phenomenon, evolving over time and dependent on a range of internal and external factors.

In the process of enterprise internationalization, key strategic decisions include the choice of the form of internationalization, the appropriate timing of foreign expansion, and the sequence of entering foreign markets.

The internationalization of a company involves a set of crucial strategic decisions that significantly influence its presence and development in international markets. The decision regarding the mode of entry into foreign markets constitutes one of the fundamental parts of an enterprise's internationalization strategy. It affects not only the scope and form of the firm's presence beyond home country's borders, but also the level of capital involvement and the risk associated with international operations. The literature identifies broad range of possible forms of business activity in foreign markets, encompassing both entry modes with relatively low levels of commitment and risk, and more advanced forms characterized by higher levels of risk. The most frequently quoted modes include: direct and indirect exports, licensing agreements, franchising, management contracts, subcontracting, cooperative forms such as joint ventures and strategic alliances, as well as foreign direct investment in the form of foreign subsidiaries, representative offices, or minority shareholdings in foreign entities. (Jeannet, Hennessey, 2004; Bradley, 2005; Duliniec, 2009; Berndt, Altobelli, Sander, 2023) The choice of a specific form depends on a variety of factors, such as industry characteristics, the level of specialization, resource availability, degree of risk, as well as the company's experience and strategic objectives. In case of firms operating in highly specialized niche industrial segments, the most prevailing forms of internationalization are based primarily on exporting and direct foreign investment. In this context, foreign representative offices play a particularly important role, as they allow companies to enter international markets with relatively low level of capital and managerial commitment abroad. Another commonly used form of direct foreign investment is the establishment of wholly-owned subsidiaries, that is, dependent entities created by the parent company outside its home country. Such investments represent an example of the so-called internal, organic international growth (greenfield investment), which involves building a new organizational structure from the ground up in a foreign market. Greenfield investments enable a company to maintain full control over its operations, tailor its strategy to host country conditions, and preserve organizational culture consistency across borders. However, the most common form of entry into foreign markets remains exporting, which may take two main forms: indirect and direct. Indirect exporting involves selling products through a domestic intermediary, meaning the company does not establish direct relationships with foreign buyers, does not commit resources abroad, and faces relatively low international business risk.

This form of exporting is often chosen by small and medium-sized enterprises or during the early stages of internationalization, as it minimizes the costs and risks related to market entry and does not require capital or personnel involvement abroad. The form is mainly employed in less strategically significant markets. Direct exporting, on the other hand, involves delivering products directly to foreign customers or intermediaries responsible for further distribution, which requires greater resource commitment and the establishment of business relationships. Thus, the difference between these two forms of exporting lies not only in the level of risk and control over foreign market operations, but also in the degree of activity and engagement of the company in international markets.

The existing literature and management practice identify various typologies of temporal approaches (timing) to international expansion. The most common classification distinguishes three main strategy models: successive, simultaneous, and mixed (Swoboda, 2021; Hollensen, 2007; Backhaus, Voeth, 2010).

The successive strategy, also referred to as the cascade or waterfall model, involves entering consecutive foreign markets gradually and in stages. A company first initiates activities in one foreign market, and only after gaining experience and consolidating its position there does it decide to expand into another market. This approach minimizes risk and allows the company to adapt to the conditions of individual foreign markets better. It may, however, result in a slower pace of international expansion.

In contrast, the simultaneous strategy, also known as the sprinkler model, relies on entering multiple foreign markets at the same time. The company undertakes internationalization in several countries simultaneously, aiming to rapidly gain market share across individual national markets. This model is characteristic of large enterprises possessing adequate resources. It enables dynamic expansion, but is also associated with higher risk.

The third option is the mixed strategy, which combines elements of both successive and simultaneous models. As part of this strategy, a business entity may initially enter a few select markets concurrently (e.g., the most significant ones from the company's perspective), and then gradually develop its foreign presence in subsequent stages. The mixed model enables flexible adaptation to changing conditions in foreign markets.

The choice of the appropriate temporal approach to internationalization should be preceded by a comprehensive analysis of the company's potential, resources, strategic objectives, as well as conditions in target markets. Proper planning of the sequence and pace of foreign market expansion is crucial for the effectiveness of the internationalization process.

Internationalization is a complex and dynamic process that necessitates continuous analysis of the external environment. Therefore, decisions related to the form and timing of expansion are of paramount importance to succeed in foreign markets. It should be noted that expanding sales markets and exporting business models increase and entail the labor input needed to understand, implement and adapt to the specific conditions of foreign markets (Kumar, 2018, p. 7). A misexecuted internationalization process may lead to severe consequences for

enterprises, including the need to withdraw from previously captured foreign markets. This process is referred to as de-internationalization, which means exiting from a foreign market previously targeted for expansion (Tang, Zhu, Cai, Han, 2021; Trąpczynski, 2016). Causes for this state of affairs may include poor decisions regarding the form of expansion, inappropriate timing of entry, or insufficient foreign market intelligence. This process not only involves financial costs, but may also undermine a company's reputation and its prospective expansion opportunities in other countries.

Technological innovations play a crucial role in shaping competitive capabilities of enterprises, constituting one of the pillars of their internationalization. These technological innovations enable enterprises to increase efficiency and productivity, as well as implement solutions that support the goals of corporate social responsibility. In this context, such responsibility can be broadly understood as a sustainable interdisciplinary integration of technical, ecological, social, and economic progress (Zweck, 2007). The ability to create and adapt new technological solutions empowers companies to compete more effectively in foreign markets, particularly in niche segments where competitive advantage is built on unique competencies and innovative solutions.

Technological progress and innovation may be understood as a complex process encompassing exploration, discovery, experimentation, development, imitation, and adoption of new products, manufacturing processes, business models, or organizational structures (Dosi, 1988). The above-mentioned factors are especially important in the context of internationalization, as they allow companies to compete successfully beyond domestic borders. Moreover, implemented innovations often enable entities to replace existing solutions with more efficient, less resource-intensive, and more environmentally friendly alternatives, enhancing the firm's reputation and competitive position. Enterprises that actively invest in technological development possess a lasting source of competitive advantage, including foreign markets, by offering innovative products or inventive technological solutions.

The internationalization of small and medium-sized enterprises operating in niche highly specialized industrial segments plays a critical role in the context of innovativeness. These entities operate in small markets, often with highly specialized, and narrow product portfolio, which requires extensive industry expertise, as well as a premium, carefully customized offer. A peculiar group of enterprises comprise the so-called hidden champions—relatively small or medium-sized entities with a strong position in a narrow industrial segment, holding leading positions in their lines of business, exporting products to a wide range of countries, and generating a substantial proportion of their revenues abroad. Hidden champions implement niche strategies focused on innovation and internationalization, which form the foundation of their competitive advantage and position them as leaders in foreign markets (Zastempowski, 2011; Witt et al., 2024). Due to the limited domestic demand, these enterprises face the necessity of acquiring clients abroad at the nascent stage of their development. Internationalization is not an optional growth trajectory for them, but rather a strategic

imperative delivering increased revenues, optimal use of production capacities, and improved profitability of the business. It should be noted that the considerable share of internationalization of the entities called hidden champions is difficult to reconcile with study findings and literature on internationalization of small and medium-sized enterprises due to the fact that a significant part of their revenue is generated in foreign markets (Audretsch et al., 2018). Enterprises, especially small and medium-sized ones, operating in niche specialized industrial segments (within the B2B model) sometimes expand their international presence without establishing extortionate foreign structures, taking advantage of networks of trading partners, technical representatives, or other foreign distributors. These companies present their products at major international fairs, using them as important channels for establishing contacts with foreign partners and acquiring sales contracts abroad. Enterprises operating in highly specialized niche industrial segments are playing an increasingly significant role in global internationalization processes.

3. Research method

The conducted exploratory study employed a qualitative approach using the case study method. Both secondary and primary data were analyzed, the latter obtained through in-depth interviews with representatives of selected enterprises. The empirical material was processed using qualitative content analysis, which allowed for the identification of key categories and behavioral patterns. As a recognized research method in management sciences, the case study approach made it possible to capture the specific nature of internationalization processes profoundly, particularly in the context of small and medium-sized enterprises operating in highly specialized niche industrial segments. The study contributed to a better understanding of the mechanisms determining innovation processes within enterprises, as well as the dynamics of their internationalization processes.

A case study is an empirical research method aimed at a detailed examination of a contemporary phenomenon set in its real-life context—especially in situations where the boundaries between the phenomenon and its environment are not clearly defined. The approach relies on multiple data sources and types of evidence, while data collection and analysis are guided by predefined theoretical assumptions (Yin, 2015). The implementation process of the case study comprises several key stages, beginning with the development of the research concept and the formulation of specific research questions. Subsequently, a detailed research plan is prepared, including appropriate data collection procedures and tools. The next stage involves fieldwork, during which empirical material is systematically collected. The gathered data are then subjected to in-depth analysis and evaluation, leading to the final elaboration and presentation of results in the form of a case description.

The first stage of the study focuses on designing the case study, which includes defining the purpose, scope, and subject of analysis, as well as formulating research questions. This stage forms the groundwork of the entire research process, setting the direction for subsequent exploratory activities. In the present study, the objective was to determine the specific characteristics of the internationalization process and to identify distinguishing features of small and medium-sized enterprises operating in highly specialized niche industrial segments.

Due to the adoption of the case study method, a set of research questions was formulated to identify the key aspects of the analyzed enterprises:

- What features distinguish entities operating in highly specialized niche industrial segments?
- How did the internationalization process of the analyzed enterprises progress?
- In what forms and in which foreign markets do these entities conduct their international activities?
- What factors propelled the enterprises to undertake internationalization?

In the subsequent stage, a detailed research design was developed, including the selection of appropriate data collection instruments and analytical procedures to obtain answers to the research questions. A multiple-case study strategy was adopted, with cases selected purposefully based on criteria consistent with the research assumptions. In the present study, the selection of enterprises for the case studies was undertaken purposively, taking into account criteria designed to address the formulated research questions. The key criteria included conducting international business activities and operating in highly specialized niche industrial segments, as well as ensuring diversity among the surveyed entities in terms of industry, company size, and legal and organizational form. A supplementary criterion constituted the possibility of conducting interviews with senior executives, such as board presidents or sales and export directors. Conclusively, two enterprises were selected: Evers GmbH and Masterflex SE. The empirical material was derived from both primary data, collected through in-depth interviews conducted in selected enterprises, and a variety of secondary sources (e.g., reports, websites, industry articles, and publications). In order to analyze the qualitative data, the content analysis method was applied, following the approach proposed by P. Mayring (2022a, 2022b, 2023), which allows for the systematic structuring, reduction, and interpretation of respondents' statements (Komor, Grzyb, 2023).

The next stage involved preparing data collection tools and conducting field research. An interview scenario was designed at this stage, which was followed by a pilot study aimed at identifying potential ambiguities in the research instrument, after which enhancements were introduced. Empirical data were collected from both primary and secondary sources. During fieldwork, semi-structured expert interviews were conducted with first-level management representatives. The interviews were carried out personally by the study's author at company headquarters in Germany, recorded digitally, and supplemented with notes. Then, full transcriptions of the recordings were produced using the "F4" software.

In the data analysis and interpretation stage, the empirical material was systematically processed to provide answers to the previously formulated research questions. The interview data were analyzed using qualitative content analysis, in accordance with the methodological guidelines of P. Mayring (2022b, 2023), which enabled the interpretation of textual data within the research framework. In order to streamline the efficiency of the process of data analysis, the MAXQDA software (version 2020) was utilized, facilitating effective coding, reduction, and organization of the collected empirical material. Two complementary techniques were employed following Mayring's (2022b, 2023) approach: summarizing and explicative analysis (Komor, Grzyb, 2023). The summarizing analysis aimed to reduce the original research material by developing inductive analytical categories that served as the basis for further interpretation. In turn, the explicative analysis expanded and refined the meaning of content extracts, requiring broader interpretive context. Additional contextual information and references were considered to achieve a more comprehensive understanding of the processes under study.

The final stage of the study involved the preparation of a case study report. This report contains a synthesized presentation of the analytical results and provides a holistic view of the phenomena accompanying the internationalization processes of the analyzed enterprises.

3. Case studies of small and medium-sized enterprises

The following case studies are based on the results of an analysis of primary data obtained from in-depth interviews conducted between 2023 and 2024 with individuals holding executive positions: the President (first entity), the European Sales Director, the European Export Director, as well as the Export Manager (three respondents from the second entity). The analysis also included secondary data obtained from other available sources. Such elaboration of case studies enables a comprehensive insight into the internationalization processes undertaken by entities operating within highly specialized niche industrial segments.

3.1. Case study of Evers GmbH

Evers GmbH was established in the 1930s by Rudolf Evers as a wholesale enterprise designed to meet the supply needs of local industry. Over the time, the company's scope of activities underwent a transformation. Currently, Evers is engaged in market activities focused on innovational solutions in four areas: lifting, securing, transportation, and packaging. Evers GmbH is a relatively small company. In 2024 it employed 80 people and generated revenues of approximately EUR 25 million.

In the 1970s and 1980s, the company began to offer a new product portfolio, including securing pallet transportation by means of wrappers, carton sealing machines, and strapping equipment. It was the time when Evers started presenting its products at fairs, including the largest packaging fair in the world - “Interpack” in Düsseldorf. From the 1990s, the company continued to expand its product range, becoming a significant player in the German market in four business areas. In the following years, Evers, together with manufacturers such as SpanSet, Rieger & Dietz Kettenfabrik, and other trading companies, founded SIP GbR (a cooperative service venture), creating a unique collaboration network between leading manufacturers and industrial trade.

Currently, Evers provides solutions for industry in the areas of lifting, securing, transportation, and packaging. In the “lifting” sector, it offers solutions and products such as slings, load-lifting equipment, lifting devices, crane technology, and hydraulics. In the “securing” division, the company provides comprehensive solutions for load safety and fall protection, as well as special products. In the scope of “transportation” the entity supplies transport systems, horizontal transport equipment, and pallet-related lifting systems. In the area of packaging, the company offers eco-friendly packagings, tables and weighing technology, pallet securing equipment, transportation packaging, and cushioning materials. As one company representative points out in this context, *We are not a manufacturer of goods, but we rather offer innovative solutions for industrial companies that come to us with specific problems. Then, our team works on appropriate solutions – we act as an industrial advisor.* The company purchases suitable products, make adjustments, and delivers ready solutions for industrial enterprises. In order to serve its clients fully and attract new customers, the company also organizes seminars on topics such as workplace safety, lifting and transporting loads, and courses for crane and forklift operators. The company also offers services for its clients, including maintenance, diagnostics, and technical inspections in accordance with occupational safety and health regulations.

Evers GmbH places great importance on innovation, and therefore the company has established a strategy and innovation management department to dynamically adapt internal and external processes of the company to changing client needs. It also develops custom-designed solutions for offshore applications, the transport of oversize machines, and other forms of transportation requiring moving heavy loads. The company has developed and patented a lifting device, which allows safe and easy adjustment of length under load. Evers’ innovative solutions were recognized in the 27th edition of the TOP 100 innovation competition for midsize companies, when the company won an award for its exceptional innovativeness and outstanding innovation results. It also won the “Tackern” marketing award for overall marketing communication.

A distinguishing feature of Evers GmbH is that it is not a manufacturer of goods, but it focuses on consulting and solving client problems in term of lifting, securing, transportation, and packaging, offering individually customized comprehensive solutions for

industrial customers. The entity uses products already existing in the market, refines them to a certain extent and by the means of innovative approach it prepares a comprehensive individual offer in order to solve problems of its clients. As one respondent points out, *projects are carefully adjusted to individual specifications in order to meet customer's needs and optimal solutions – we mainly sell comprehensive solutions.*

Initially, the company expanded its sales activities in Germany, then in Europe, and later to other markets. Internationalization began at the beginning of the current century. At that time, the company was partaking in international fairs, gaining experience in projects collaborating with large corporations, and conducting various marketing activities. At present, as a well-known supplier, the company receives most inquiries from clients via online channels. The main driving force behind foreign activity was the expansion of its existing customers abroad, which gave rise to a demand for Evers GmbH's innovative solutions. Currently, the company markets its comprehensive range of products to more than 50 countries worldwide, where it holds a well-established position as an international solutions provider. It has no foreign branches or representative offices. It is reasonable to assume that the company operates in the form of exporting. In the context of sales to the USA, a respondent states " *We hold video conferences with interested companies and offer solutions that are exported to this market, or our employees travel to the USA to implement our solutions onsite, but all activities are managed from the company headquarters in Oberhausen.* The main outlet markets for the company are the USA and European countries. Some international projects continue for years – for instance, one project in the USA was first successfully implemented in one branch and then it was gradually extended to other branches over the following years. It should be noted that, offer inquiries are not always forwarded from foreign branches of industrial corporations, but purchases for individual foreign markets are often made by headquarters. At Evers GmbH, all sales representatives have excellent fluency in English, which allows them to coordinate and support projects in foreign markets. Moreover, employees specialize in individual product groups and they are able to provide professional and customized consulting. As one representative observes in this context: *This is precisely our internationalization strategy.*

Although Evers GmbH is recognized as a small enterprise, thanks to its innovativeness and provision of individual, comprehensive industrial solutions, it operates globally and sells its products to many countries worldwide.

3.2. Case study of Masterflex SE

Masterflex SE is a publicly traded company dealing in plastics processing and based in Gelsenkirchen. The enterprise was founded in 1987 in Herten as Masterflex Kunststofftechnik GmbH. In 1994, the entity was relocated to Gelsenkirchen, where it remains to this day.

The company specializes in the production of high-quality flexible hoses and connection systems used in numerous sectors of the industry. Masterflex operates in more than 250 specialized industry segments, such as aviation and space industry, medical technology, machinery and equipment manufacturing, chemical industry, food industry and pharmaceuticals, transportation, robotics, automotive industry, and wood, metal, and paper processing industries. The Masterflex Group mainly produces hoses made of polyurethane-based products, e.g. extraction hoses and hoses for transporting materials, dust and gases. The Masterflex Group markets its products under five brands: Masterflex, Matzen & Timm, Novoplast Schlauchtechnik, Fleima-Plastic, and Masterduct.

The Masterflex Group operates globally, primarily in Europe, South and North America, as well as in Asia and Oceania. It employs approximately 660 staff members. In 2023 the revenues amounted to 101 million euros and an operating profit (EBIT) reached 12.4 million euros. The main manufacturing plants of the Masterflex Group comprising a portfolio of six corporate brands and 14 operational subsidiaries are located in Gelsenkirchen, Düsseldorf, Halberstadt, Norderstedt, and Houston (USA). The company is a global market and innovation leader in terms of technically advanced hoses and connection systems.

Since its establishment, the company has followed a development strategy based on two key areas:

- internationalization –expansion into foreign markets,
- implementation of technological product innovations – continuous innovations in terms of new, technologically advanced hoses and connection systems.

Foreign expansion became a priority already in the nascent stages of the company's activity.

Just four years after its establishment, Masterflex founded a subsidiary in Lyon, France. In the same year, it began its expansion into the British market by creating a subsidiary - Masterflex Technical Hoses Ltd. Three years later, a branch was opened in the United States, which also manufactures high-tech hose systems for the American market. In the following years, another branch was established in Sweden, serving as a sales representative office for the Scandinavian markets. In 2011, through a subsidiary, Masterflex launched manufacturing and its own distribution network in the Czech Republic and Slovakia. As a respondent accounts in this aspect: *the subsidiary in the Czech Republic is now also responsible for product sales in Central and Eastern Europe, including the Polish market.* In 2010 Brazil became another direction of expansion, where a distribution company was established. The following year, the Asian management company Masterflex Asia Pte. Ltd. was founded in Singapore, along with a branch near Shanghai, China. The main driving force behind internationalization was the existence of a global market for industrial hoses, the opportunity to sell comprehensive solutions abroad, and the development strategy adopted by the company.

The company markets its products in all European countries, where key markets include France, Spain, Italy, the Scandinavian countries, and Central and Eastern Europe. Over 50% of Masterflex's revenue is generated in foreign markets. It should be noted, however, that as one

respondent points out, the actual level of export may be significantly higher than indicated by available data: *our German customers purchase Masterflex products and then transport them to their production facilities outside Germany. The scale of this indirect export cannot be explicitly estimated.* The company cooperates in many countries with technical trade partners, such as specialized wholesale companies or independent representatives of the hose industry operating on their own behalf. Wholesale sales account for approximately 50% of revenues, the remaining revenues are earned from individual custom solutions for end customers. As a respondent accounts: *Apart from our own foreign branches, we conduct sales mainly through direct business contacts with large industrial clients, as well as through our intermediaries, i.e., foreign business partners.* The distribution model based on intermediaries does not always bring the expected results in foreign markets, because the price margins imposed by brokers may negatively impact the price competitiveness of Masterflex products. The company adjusts its expansion strategy to the specific nature of individual domestic markets, taking into account the diversity of the market environment, including existing cultural conditions. As one of the respondents notices in the above context: *We have a general corporate strategy, but in certain foreign markets, we adapt our strategy to the local realities and how things work in a given country, because a strategy that is effective in Germany will never fully function in France or Poland.*

Wholesale sales account for approximately 50% of the company's revenue. The remaining revenue comes from provision of individual, comprehensive solutions to end customers in the industrial sector. The Masterflex Group offers consulting services and designs specific custom solutions as part of the so-called Engineering Services. These include additional engineering services, the fulfillment of comprehensive technical orders, and the delivery of complete systems based on hose technology, which enables building competitive advantages and generating additional sources of income. As a respondent observes: *We are strongly oriented towards consulting to recommend optimal hoses for our clients. We are an innovative company, dedicated to solving our customers' problems by offering them specific, individualized solutions.*

Since its inception, the enterprise has followed the development strategy based on innovativeness and implementation of technologically advanced solutions in the area of hoses and connection systems. Just five years after its establishment, Masterflex developed a world-class novelty, that is a plastic compound formula that enabled the production of flame-retardant polyurethane (PU) hoses as an alternative to traditional PVC hoses for the first time. In 1997, the company developed an innovative method of lining steel pipes with highly abrasion-resistant polyurethane (PU). In subsequent years, the research and development department systematically introduced numerous innovations in the area of technologically advanced hoses and connection systems to the market. The most important innovative products are, for example: the electrically heated hose "Templine", the spiral hose Master-PUR Trivolution,

flame-retardant hoses used, among others, in welding robots, and the Master-PUR DualFlow connection designed for the food industry.

The enterprise has been repeatedly recognized for its innovative activities and development of new technologies. The Masterflex Group has been named several times as one of the most innovative medium-sized companies in Germany in the TOP100 ranking, which acknowledges entities for effective innovation management and innovative achievements. Furthermore, the "Capital" magazine, together with the research institute Statista, have honored Masterflex as one of the most innovative companies in Germany. Particularly noteworthy is the fact that Masterflex has been repeatedly included in the "world market leader" index in German-speaking countries, developed by the University of St. Gallen in Switzerland, published by WirtschaftsWoche magazine. This distinction is only awarded to companies characterized by leading technologies and the highest product quality. In order to be ranked among the world market leaders, companies must meet numerous criteria, including holding the first or second position in terms of revenue in at least one significant global market segment, the annual revenue (at least 50 million euros) must derive at least 50% from foreign markets on at least three continents.

The distinguishing feature of Masterflex is not only the production and sale of innovative products, but also counseling services and solving customers' problems related to flexible hoses and connection systems through the design of custom-made systems under the so-called Engineering Services, as well as the provision of specialized, individual, and comprehensive solutions for the industrial sector. What sets Masterflex apart from other enterprises is the fact that, despite being a medium-sized entity, it is an innovator in its industrial segment and successfully implements an internationalization strategy across numerous global markets.

Based on its innovative achievements to date, the development of hi-tech products and new hose technologies, and the awards received for their contribution to the said areas, the Masterflex Group considers itself a global innovator and market leader in hose and transmission systems and defines itself as one of the Hidden Champions.

Summary

The conducted exploratory study, serving as a preliminary study, allowed the formulation of a characterization of the internationalization process and to identify the key distinguishing features of small and medium-sized enterprises operating in highly specialized niche industrial segments. Thereby, the aim of the research was fulfilled. The descriptions of individual company case studies presented in the previous section address the research questions formulated in the paper. The study revealed several key phenomena and mechanisms accompanying the internationalization process of the companies under study, as well as the

distinguishing features of companies operating in highly specialized niche segments of industry, which are presented below. In spite of the fact that the analyzed enterprises belong to the group of small and medium-sized entities, they are engaged in internationalization in numerous countries worldwide, and foreign operations are an essential part of their development. The enterprises undertake internationalization mainly in the markets of EU countries and selected major global markets, including the United States and China. In the context of the expansion, they apply both exporting and foreign direct investment schemes in foreign markets. Due to the specific nature of their activities in highly specialized niche industrial segments, exporting typically take the form of direct sales to the end customer (a business) or through foreign partners, mainly technical wholesalers. In terms of foreign direct investment, these include foreign branches serving as sales representative offices and/or manufacturing plants. The driving force behind the internationalization of the said companies is based on the adoption of development strategies, the existence of a highly specialized global industrial market, and the international expansion of their existing clients.

Significant differences were identified between the analyzed firms with regard to the forms of foreign expansion pursued, resulting from their size, legal and organizational form, available resources, and stage of internationalization development. The first enterprise, a smaller entity operating as a limited liability company, possesses relatively modest resources and has been engaged in international activity for approximately 20 years. Its foreign activities are mainly limited to export-based forms, occasionally carried out as comprehensive solutions implemented directly at clients' sites by its own employees. However, the majority of international activities are conducted from the headquarters, using modern communication tools. The second of the analyzed enterprises operates on a substantially larger scale, being a European public limited company, endowed with substantial resources and pursuing international activities nearly since its establishment. It is currently at an advanced stage of internationalization development, generating over 50% of its revenues in foreign markets. This company employs diversified forms of expansion, such as exports, foreign capital subsidiaries (both production and commercial), as well as sales through trading partners and foreign representatives.

The common distinguishing feature of the analyzed enterprises is their strong orientation toward meeting the needs of industrial customers. These entities provide comprehensive and individually customized solutions to their clients' problems, combining consulting, designing and technical competencies. They offer, manufacture, and deliver specialized, comprehensive solutions as part of a personalized offer in response to specific challenges faced by industrial-sector clients. The active implementation of innovations, new technological solutions, and the development of engineering services in close collaboration with customers is an essential element of their strategy. These entities are innovators and leaders in their highly specialized niche industrial segments, successfully operating in numerous foreign markets.

Limitations and future research

The findings of the study presented herein have certain limitations. The article serves as a starting point for further, more in-depth qualitative and/or quantitative analyses, which seem to be necessary for a more comprehensive understanding of the nature of small and medium-sized enterprises operating in highly specialized niche industrial segments. The presented research was based on an exploratory approach aimed at providing preliminary study and contributing to further analyses that would enable the identification of the internationalization process and the characteristic features of these entities. Future qualitative research may expand the analysis of certain behaviors of enterprises in the internationalization process, basing on the initial observations and research questions formulated in this study. At the same time, the preliminary results obtained in the paper may prepare a groundwork for formulating and developing research hypotheses or provide valuable information for prospective quantitative studies. It would be crucial to obtain more detailed insights into the internationalization of entities referred to as hidden champions, particularly those operating in specialized niche industrial segments that pursue global internationalization despite their limited recognizability.

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