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## Servitization as a Concept for Managing the Development of Small and Medium-sized Enterprises

### 1. Introduction

Contemporary economic trends, above all the increase in the importance of intangible assets, globalization, mobility of production factors, lower transaction costs as well as the diffusion of innovation and new technologies, significantly contribute to the development of the post-industrial economy era. It is characterized by a relative regress of industrial manufacturing in favor of the growth of the importance of the service sector in the socio-economic development as well as in the building of competitiveness of countries and regions and the creation of national wealth (Shek, Chung, Leung, 2015, pp. 205-215; Ulbrych, 2016, pp. 253-264).

One of the manifestations of this trend in the sphere of management is the modification of the scope of market activity of modern enterprises (mainly manufacturing ones) consisting in the shift towards services. This concept is referred to as servitization and means a strategic transformation of the business model towards service provision activities which form the basis for companies'

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competitiveness and competitive advantage in the long-term perspective. These changes are observed on the basis of numerous surveys conducted in international cross-sections (Neely, 2008; Dachs et al., 2014) as well as in individual countries, e.g.: in China (Xu et al., 2015), in the UK (Huxtable, Schaefer, 2016), in Italy (Mastrogiacomo et al., 2017), in Croatia (Prester, Peleš, 2017), or in France (Crozet, Milet, 2017). They constitute a significant managerial challenge also for Polish companies (Kozłowska, 2017, pp. 350-358), though empirical analyses in this case are still fragmentary and strongly limited.

Although research is mainly conducted in large business entities, servitization is an interesting proposition also for small and medium-sized enterprises. Taking this into account, the aim of the article is to present the basic features, stages, advantages and threats of servitization as a concept for managing the development of companies in the SME sector. A literature review (theoretical approaches and results of secondary research) and the authors' own empirical research carried out in the form of a case study of the company called Mikomax sp. z o.o. from Poland served to achieve the aim of the article.

## **2. Servitization as a modern concept of management**

In general terms, servitization is associated with the progressive transformation of socio-economic systems towards a quantitative and qualitative increase in the importance of service provision activities compared to manufacturing and/or commercial activities. At the macro- and meso-economic level, it is also referred to as tertiarization of the economy, it is directly related to deindustrialization, and it is marked by a significant reduction in the share of industry in creating value added and domestic product, export value, investment expenditure and employment in favor of the service sector (Skórska, 2011, pp. 93-94). In this approach, servitization plays a transformative role, and it is one of the most important factors of economic growth and building competitiveness of economies and developing investment attractiveness of individual countries and regions (Szymańska, 2015, pp. 101-102). In microeconomic terms, it is an interesting, modern concept of management based on a strategic transition from a product-based to a service-based business model (Rondini et al., 2016, p. 366).

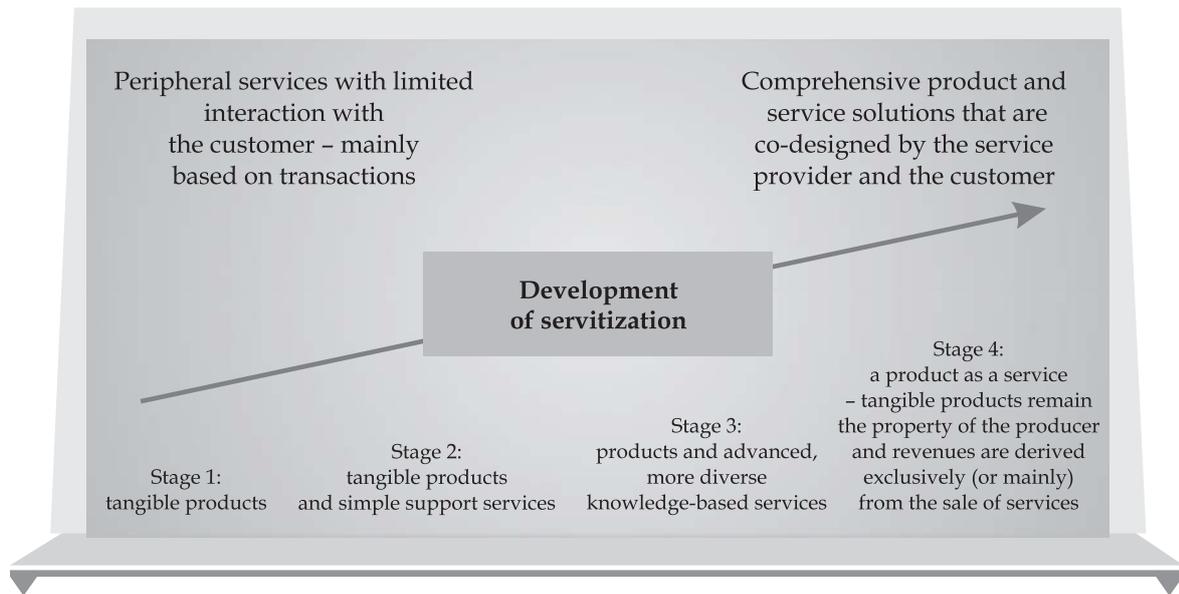
The concept of servitization was introduced into the theory of management sciences by S. Vandermerwe and J. Rada (1988, pp. 314-316), who defined it as adding value by manufacturing enterprises to core corporate offerings through services in the framework of fuller market packages or "bundles" of customer-focused combinations of goods, services, support, self-service, and knowledge.

This approach has become the basis for the perception of business operations through the prism of a continuum from the manufacturing company – the producer of pure goods (PPG) – through a variety of indirect models – to the producer of pure services (PPS) (Ambroise et al., 2016). In the framework of this continuum, managers can make servitization decisions based on such criteria as: the degree of integration of the service with the product, allocation of property rights, the place of creating value for the customer, as well as the source of revenue for the company. As a result, diverse models of servitization are possible, and their implementation is based on the application of Product-Service Systems (PSS). PSS integrate tangible products and intangible services into one cohesive market solution enabling synergic implementation of specific functions that create value and meet customers' needs (Sheng et al., 2017, p. 494). The following solutions are possible in this respect (Barquet et al., 2013; Van Ostaeyen et al., 2013):

- in the field of product and service integration and allocation of property rights: (1) product-oriented PSS, (2) use-oriented PSS; (3) result-oriented PSS,
- in the field of creating value for the customer: (1) solution-oriented performance based PSS; (2) effect-oriented performance based PSS, (3) demand fulfillment-oriented performance based PSS,
- in the field of the source of revenues for the seller: (1) input-based PSS; (2) availability-based PSS, (3) usage-based PSS.

The PPG-PPS continuum and the diversity of PSS mean that companies can servitize their activities to a different extent, and the implementation of this concept can be of a staged nature, ranging from product sales through the expansion of the service offer to the full integration of products and services (Ducq et al., 2012; Dinges et al., 2015). The successive stages of the implementation of servitization in company development management are shown in fig. 1.

Most of the studies conducted so far concern the implementation of servitization in large enterprises. The cases of implementing this concept by market leaders such as ABB, Apple, Canon, Caterpillar, Dell, General Electric, IBM, Michelin, Ricoh, Rolls-Royce, Sony, or Xerox (Perona, Sacconi, Bacchetti, 2017, pp. 1-28; Kowalkowski et al., 2017, pp. 4-10) have been examined in detail. However, less extensive empirical analyses conducted indicate that servitization can also be successfully implemented in the SME sector companies. Small and medium-sized enterprises are characterized by their own specificity (Lachiewicz, Matejun, 2012, pp. 13-22) which favors the transformation of business models based on manufacturing into solutions based on the sale of services. This specificity includes basing a competitive advantage on intangible assets,



**Figure 1. The stages of the implementation of servitization in company development management**

Source: own study

a high level of entrepreneurship, flexibility and low formalization of activity, physical proximity of markets and the ability to develop direct relationships with partners based on networks of personal contacts. On the other hand, shortages of human resources, material and financial resources, reluctance to finance operations by means of external funds, as well as the use of simplified management methods may hinder the implementation of servitization in these entities.

I. Confente, A. Buratti and I. Russo (2015, pp. 312-331) draw attention to these issues in their research. On the basis of case studies of 14 small Italian enterprises representing the footwear industry, they identified drivers and barriers/threats to the implementation of servitization in this type of entities. In the group of drivers, marketing factors (customer-oriented strategy, customer requirements and demand for services) played a major role. The respondents also pointed to the strategic context of the implemented concept which they treated as the main source of distinguishing the company's offer building its long-term competitive advantage. Among the barriers/threats, high capital expenditures and service provision costs, staff shortages, too small orders, difficulties in cooperation with external partners, the need for internal reorganization, as well as problems related to the promotion of a new brand in the market were mentioned.

These factors determine the range of challenges faced by small and medium-sized enterprises implementing servitization. W. Zhang and S. Banerji (2017, pp. 217-227) as well as A. Pistoni and L. Songini (2017, pp. 37-110) indicate that the implementation of the discussed concept requires changes in the company's organizational structure, in the adopted business model, the approach to development processes, as well as in the area of customer relationship management and risk management. C. Kowalkowski, L. Witell and A. Gustafsson (2013, pp. 18-30) based on case studies of 13 SMEs also emphasize that a prerequisite for the implementation of servitization in these entities is their relational capacity in the construction and use of value constellations in inter-organizational networks for acquiring resources necessary to implement the company's service offer in business practice.

Despite many implementation challenges, servitization can be a source of specific development benefits for small and medium-sized enterprises. The studies conducted by A. Valtakoski and L. Witell (2018, pp. 1144-1164) on a sample of 224 IT SMEs from Finland show that the ability to provide services requiring direct customer interaction (front-office services) positively affects the financial performance of the surveyed companies. These benefits occur especially in younger companies, supporting their ability to acquire new customers. The results of comparative cross-sectional studies carried out by M. Crozet and E. Milet (2017, pp. 820-841) on a sample of 44,324 French manufacturing enterprises of various sizes (of which 74.6% servitized their activities) indicate that the implementation of the discussed concept contributes significantly to the increase in profits and employment in micro and small enterprises. In addition, it has a positive impact on the level of revenue and the scope of production of goods in small companies, while in the case of large enterprises the positive effect of servitization is definitely less noticeable.

### **3. Research methodology**

Empirical research carried out using the monographic approach (Apanowicz, 2003, pp. 79-81) served the realization of the aim of the paper. This approach enables a practical presentation of cases of good and/or poor management as well as the best solutions (i.e. the so-called best management practices), which, according to S. Sudoł (2012, p. 142), should be the basic method and main task of management sciences. The company called Mikomax sp. z o.o. was purposefully chosen for the study. The selection criterion was prior knowledge resulting from cooperation with the company indicating the implementation of the concept of

servitization. The technique of a free interview with the management of the analyzed enterprise was used as a detailed research technique (Matejun, 2013, p. 130). The research was conducted in the framework of the Entrepreneurship and Small Business Research Network established at the Faculty of Management and Production Engineering at Lodz University of Technology, Poland.

Mikomax was established in 2001. It is a family business of medium-size with 25 years of experience in the production and design of office space. The size of the company was determined on the basis of the uniform, formal definition of SMEs applicable in the European Union (Berisha, Pula, 2015, pp. 18-20). The company under study currently employs 115 employees (Berisha, Pula, 2015, pp. 18-20). It is the national leader in the design of modern offices combining knowledge about the manufacturing of furniture with the original concept of its use in the modern workplace. Apart from physical products in the form of office furniture and office equipment, the company provides its customers with a comprehensive design and furnishing of office space, including: consulting in the field of arrangement and design of the work space, support in the process of relocation and rearrangement of the office, transport and assembly, as well as training in the field of e.g.: workplace ergonomics. It provides its services under the Mikomax Smart Office brand.

The senior manager of the analyzed enterprise was the respondent in the study. He is a man in the 40-50 age range with a university degree in humanities who regularly improves his management skills. The respondent is responsible for the development of the company and creating the strategy for its development. Approximately 6 years ago, he initiated the first steps to move away from the classic sales model of office furniture in order focus more on additional values that the company can provide to its customers by selling services.

#### **4. Implementation of the concept of servitization in managing the development of Mikomax - a case study**

The first actions aimed at servitization of the Mikomax offer were taken approximately 6 years ago. The company's owners analyzed the market situation at that time and saw the risks in the form of a persistent trend of competing solely on the basis of the price of goods. They realized that in the long-term perspective it would lead to lower profitability of operations, and ultimately even to problems with ensuring liquidity. At the same time, the company worked closely with the Association of Business Service Leaders in Poland (ABSL) to conduct extensive customer satisfaction surveys in the field of shared services.

The results of those surveys were the inspiration and the key premise for the Mikomax owners to initiate the process of change in the company. Participation in that research made the Mikomax owners aware that the furniture that they had in their offer were actually only a means to provide the end customer with comprehensively designed office space that met the principles of ergonomics and at the same time was comfortable, fashionable and employee-friendly. It was a breakthrough moment that ultimately led to a change in the company's philosophy, which resulted in the change of the Mikomax company's brand into the Mikomax Smart Office.

The process of changing the approach towards what is the current object of service activity was long-term and implemented in stages. Originally, the company offered only material products in the form of office furniture and equipment. The activity was focused on production and sales processes carried out entirely by employees of Mikomax. The process of servitization initiated in the company led to organizational and assortment changes. The company, apart from purely commercial offer, introduced support services in the field of office space design into the scope of its activity. In the first years (about 4-5 years ago) support services were of a very basic nature and most often came down to interior design projects and basic consultancy in this area. Due to the fact that the extended scope of the offer was very well received by customers, the company decided to further develop servitization of its offer. Currently, the main area of the company's activity is the design of modern offices, which in fact comes down to offering diversified services based on the customization and co-design of the office space with the customer. Although analyzing the company's operations and relying solely on financial indicators (revenue and cost streams), one can have the impression that the business is based on the production and sale of office furniture and equipment, yet the sales process itself and the justification for conducting business activity have changed, and without this change the achievement of the current financial results would have been impossible.

The implementation of servitization in the Mikomax company required numerous changes to the company's management systems. The transition from the operating philosophy which can be defined as product-oriented to the customer-oriented one required primarily changes in the business model of the company and conscious management of financial and operational risks. The traditional business model in operation before the change was based on the manufacturing and sale of physical products with the transfer of their ownership to the customer and relied solely on the company's own resources. In the previous model, the provided furniture was in itself value for the customer.

The decision on servitization of services caused changes in the business model which resulted mainly from the redefinition of the Mikomax value offer.

In the new model, comprehensive office space design services are the key value that the company wishes to offer to its customers, and the furniture (material products) has become only a means to provide this value. The change in the model has also meant a change in the approach to the status of resources (internal, external) necessary for the company's operation. The extended scope of activity has forced the company to build relationships with many business partners who as external suppliers for the needs of specific projects provide their knowledge resources in the areas of design and interior architecture, ergonomics, acoustics, lighting, air quality and psychology. As a result, it has become possible to offer a comprehensive catalog of services while minimizing the risk of increased costs of current operations or excessive employment. The new business model has also resulted in changes in the employment structure which have consisted in increasing employment related to the positions of customer advisors and service planners at the expense of designers of physical products and sales staff employed in the furniture stores.

The gradually introduced concept of servitization has also served to revise expectations in relation to employee attitudes. As servitization requires entering into a close relationship with customers and an in-depth understanding of their needs and abilities, the company has introduced a training program in the field of customer service as well as design thinking and has provided specialized training to help professionals working with customers become specialists equipped with the necessary knowledge in areas such as acoustics, ergonomics, lighting, ventilation and air-conditioning systems, etc. providing comfort in the workplace. The employees have been also assessed in terms of having personality traits that will allow them to gain trust and enter into close relationships with customers. Thus, a team of sales persons and advisors as well as designers who are in close contact with customers have been selected. The other employees have retained their positions or been transferred to perform new tasks.

The process of implementing servitization did not meet with classic resistance to change. According to the respondent, this happened for three main reasons. Firstly, the implementation of servitization was carried out without the participation of external advisors, consulting companies, etc. and was rather a natural process of adapting the company to the changing market expectations. Secondly, the change was implemented as a long-term, staged process, thanks to which the employees noticed the organizational and financial benefits derived from the process of implementing the new concept of operation. Thirdly,

the entire Mikomax team was involved in the process of implementing servitization, hence every employee could feel as the co-author of the developed solutions. The organizational structure was also changed, as it was extended to incorporate a new design and sales team, currently operating within the Marketing Department. The major challenge was to ensure close cooperation and efficient communication of the design and service sales team with the Production Department. In the process of implementing servitization, there are often changes introduced in standard and catalog solutions that must be clearly communicated to all who participate in the process of providing the services and products to customers. Servitization has strongly influenced customer relationships. Before starting the implementation, customer relations came down to the traditional standards of handling the purchase and sale process. Currently, the process of providing a comprehensive solution requires close, partner cooperation with the customer who often co-designs the provided solutions. This requires different relationships, based on trust and long-term cooperation as well as loyalty.

From the perspective of the last six years, the respondent assesses the implementation of the concept of servitization as a success that has enabled building a strong market position as well as obtaining and maintaining lasting business contacts with customers. During cooperation, the parties get to know each other better, hence they better understand their mutual needs, which in turn creates stronger bonds, and above all, loyalty which in the future will be a barrier to the customer's departure to competition. The implementation of servitization also means benefits in the form of a more aware and committed team of employees and greater prestige of the Mikomax Smart Office brand, which cooperates with the largest global brands, designing and equipping their workplaces.

The respondent pointed to the possible destabilization of the company's finances as one of the key threats related to the implementation of servitization. Providing additional value in the form of design services in itself is difficult to individually estimate and present as a separate cost item, hence these services are the most often unestimated (not specified in the cost estimate) addition to the offer of the supply of furniture and equipping the office space. On the other hand, the provision of additional value generates measurable costs which should be priced each time, closely monitored and related to the revenue planned from a given project. The cost of design services can be underestimated, which may significantly reduce the profitability of a given project or even cause it to be delivered to the customer at a loss for the company.

The next stage in the development of the servitization concept at Mikomax will be cooperation with customers based on long-term contracts in which Mikomax will offer design and rental services for office space furnishings. Currently, there are no such agreements in which Mikomax provides comfortable and ergonomic office space furnishings while remaining the owner of the office infrastructure provided. However, the first signals are coming from the market that customer expectations can go in this direction, which is why the company is making the first attempts to prepare such a form of delivering its offer. These changes will primarily most likely concern entities managing large office space and office buildings that are signaling that they are receiving inquiries from customers about renting a comprehensively arranged office space. If this trend maintains its momentum, it means for Mikomax changing the target customer and entering the next level of servitization in which material products will remain the property of the company while revenues will be derived mainly from the sale of services related to the provision and maintenance of comfortable and ergonomic office space.

## 5. Conclusions

The literature review and secondary research results indicate that servitization is a promising concept for managing the development of small and medium-sized industrial enterprises. This is also confirmed by the results of our own research which show that this concept has played an important role in the development process of Mikomax. Its implementation was motivated mainly by market demand as well as positive experiences (good practices) of other enterprises. The implementation is of an evolutionary nature, it is possible to distinguish specific stages of this process. The analyzed company is at the 3rd stage of servitization, offering advanced, knowledge-based office space arrangement and design services, as well as consulting and training support in this area. Currently, a product-oriented PSS in which product ownership is still transferred to the customer is used, however, value is created primarily on the basis of service provision activities.

The implementation of servitization requires the introduction of a number of changes in the management systems of the SME sector companies. Both the internal systems (the adopted business model, organizational structure, intra-organizational communication, development of human resources) as well as the external perspective of operation have been modified in the analyzed company. In the exogenous context, customer relationships have been

developed based on trust and long-term partnership cooperation as well as on a strong inter-organizational cooperation network allowing for synergistic use of multidisciplinary partners' competences necessary for effective and efficient provision of services. Mikomax identifies tangible strategic, marketing and financial benefits resulting from the implementation of servitization. Further development of this concept is also anticipated. In terms of product and service integration, it is planned to apply the result-oriented PSS in which the sale of furniture will be replaced with fully comfortable and ergonomic design and furnishing of office space. Due to this fact, in the area of revenue sources, it will be possible to apply the availability-based PSS, in which revenues depend on the period in which the product or service is available to the customer, regardless of how much time it is actually used, or the usage-based PSS, in which revenues are generated only during the actual use of the product or service by the customer.

The limitation of the conducted research is its individual character and basing the results on the subjective opinions of the respondent. An interesting conclusion, however, is the identification of the threat resulting from the use of servitization in the form of valuation difficulties, monitoring and reconciling revenues and costs generated as part of service provision activity. This indicates the need for further research and the attempt to formulate useful recommendations, practices and tools for the implementation of servitization adapted to the specificity of small and medium-sized industrial enterprises.

## Summary

### **Servitization as a concept for managing the development of small and medium-sized enterprises**

The aim of the article is to present the key features, stages, advantages and threats of servitization as a concept for managing the development of small and medium-sized enterprises. A literature review and empirical research carried out in the form of a case study of the medium-sized company Mikomax sp. z o.o. from Poland served to achieve the aim of the article. The obtained results indicate a significant role of servitization in the development of the analyzed company. A phased approach to the implementation of this concept has been identified, requiring a number of changes to be made in the management systems of the enterprise. Servitization is a source of strategic, marketing and financial benefits for the company, and the management plans

to further develop servitization activities aimed at expanding its market offer and building a sustainable competitive advantage.

**Keywords:** *servitization; services; company development management; small business; modern concepts of management.*

### Streszczenie

#### **Serwicyzacja jako koncepcja zarządzania rozwojem małych i średnich przedsiębiorstw**

Jako cel artykułu wyznaczono przedstawienie kluczowych cech, etapów, zalet i zagrożeń serwicyzacji jako koncepcji zarządzania rozwojem małych i średnich przedsiębiorstw. Realizacji celu pracy poświęcono przegląd literatury oraz własne badania empiryczne przeprowadzone w formie studium przypadku firmy średniej wielkości Mikomax sp. z o.o. z Polski. Uzyskane wyniki wykazały istotną rolę serwicyzacji w rozwoju badanej firmy. Zidentyfikowano etapowe podejście do wdrażania tej koncepcji, wymagające przeprowadzenia szeregu zmian w systemach zarządzania przedsiębiorstwem. Serwicyzacja jest źródłem korzyści strategicznych, marketingowych i finansowych dla firmy, a kierownictwo planuje dalszy rozwój działań serwicyzacyjnych nakierowanych na rozbudowę oferty rynkowej i budowanie trwałej przewagi konkurencyjnej.

### Słowa

**kluczowe:** *serwicyzacja, usługi, zarządzanie rozwojem firmy, mały biznes, współczesne koncepcje zarządzania.*

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**Classification:** L26; L22; O14.

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