

THE CONCEPTUAL FRAMEWORK FOR RESEARCH ON SERVICITIZATION STRATEGY IN MANUFACTURING COMPANIES

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Abstract

As a strategic commitment of manufacturers to enrich their offer by including services, servitization is becoming an increasingly important phenomenon both in practice and in the research community. Considering that this is a young research field spanning different research communities, the aim of this paper is to systematise the existing research results and knowledge and, thus, to offer a unique conceptual framework to cover the phenomenon of servitization. The paper is of a theoretical nature and its main audience are researchers for whom the offered framework should facilitate the identification of research questions and the positioning of their own research within this complex, multidisciplinary phenomenon.

Key words: strategy, production, services, research framework.

КОНЦЕПТУАЛНИ ОКВИР ЗА ИСТРАЖИВАЊЕ СТРАТЕГИЈЕ СЕРВИТИЗАЦИЈЕ У ПРОИЗВОДНИМ ПРЕДУЗЕЋИМА

Апстракт

Сврха ове студије је да испита однос између директних страних инвестиција и конкурентности привреда земаља Западног Балкана (Албаније, Босне и Херцеговине, Македоније, Црне Горе и Србије) у периоду између 2008. и 2017. године. Земље региона Западног Балкана су узете у анализу јер је у последње две деценије приметан тренд пораста интересовања иностраних инвеститора за улагања у земље региона, како због њиховог доброг географског положаја, тако и због предности које пружају у смислу остваривања основне, профитне мотивације страних инвеститора. Истраживање је спроведено коришћењем базе података UNCTAD-а, која представља међународну упоредиву базу података. Најпре је извршена анализа динамике токова страних директних инвестиција у земљама региона Западног Балкана. Да би се

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испитао однос између страних директних инвестиција и националне конкурентности примењени су Пирсонов коефицијент линеарне корелације и Спирманов коефицијент корелације ранга. За процену степена утицаја директних страних инвестиција на конкурентност привреда посматраних земаља коришћен је Грејндеров тест узрочности. Добијени резултати истраживања не само да доприносе развоју постојеће литературе о страним директним инвестицијама и националној конкурентности, већ и дају драгоцену сазнања креаторима економске политике о могућностима коришћења потенцијала страних директних инвестиција за унапређење конкурентских и развојних перформанси националне економије.

Кључне речи: стране директне инвестиције, национална конкурентност, земље Западног Балкана, Република Србија.

INTRODUCTION

Services are gaining more and more importance in national economies, as well as in the offers of manufacturing companies (Kowalkowski, Gebauer, & Oliva, 2017a; Kharlamov & Parry, 2020; Martín-Peña, Pinillos, & Reyes, 2017; Mičić, Savić, & Bošković, 2020; Raddats, Baines, Burton, Story, & Zolkiewski, 2016). When consumers look for a bundle of products and services as a unique solution to their needs, the company's response is to take a holistic view of customers' needs and their own offering through servitization. Servitization blurs the line between producers and service providers, and it changes competitive dynamics (Vandermerwe & Rada, 1988). It is an innovation of producers' capabilities and processes which leads to a shift from the sale of products to the sale of an integrated product-service offering that delivers value (Martinez, Bastl, Kingston, & Evans, 2010). Services generate more stable revenues, they have a longer life-cycle, and are less susceptible to commoditization, which makes it possible to maintain a competitive advantage in mature industries (Bustinza, Bigdeli, Baines, & Elliot, 2015; Opresnik & Taisch, 2015; Vandermerwe et al., 1988). Also, some services are necessary for the efficient use of the product, which is why they are the basis for retaining consumers (Benedettini, Neely, & Swink, 2015).

There is a general agreement among both theorists and practitioners that services are essential for the growth and competitiveness of manufacturing firms (Kowalkowski, Windahl, Kindström, & Gebauer, 2015). Servitization strategy represents an important competitive tool for manufacturing companies, as it gives them the opportunity to create new values by introducing services into their offer and increase consumer loyalty on that basis (Kastalli & Van Looy, 2013; Kowalkowski, Gebauer, Kamp, & Parry, 2017b). As a result, the number of manufacturing companies which servitize their offer is increasing (Neely, 2008). In parallel with this increasing practical importance of servitization for manufacturers, the research interest in servitization strategy is growing. The servitization research field is developing by increasing the number of papers (in total,

and by year), the number of researchers involved, as well as the interest of scientific journals in publishing papers on the topic (Kohtamäki, Parida, Oghazi, Gebauer, & Baines 2019; Zhou & Song, 2021). Moreover, servitization is a complex phenomenon researched from different aspects, including business management, engineering, environmental science, and technology (Pinillos, Díaz-Garrido, & Martín-Peña, 2022; Rabetino, Harmsen, Kohtamäki, & Sihvonen, 2018). Moreover, the research field of servitization is a growing, but still immature field, as indicated by the terminological variety and the number of different definitions of the concept (Kowalkowski et al., 2017a; Pinillos et al., 2022; Rabetino et al., 2018). The existing empirical research efforts are still dominantly focused on the exploration of the phenomenon, which is based on qualitative, case study research (Kowalkowski et al., 2017b; Rabetino et al., 2018).

Bearing in mind the obvious importance of servitization on the one hand, and the fragmented nature of the research on this phenomenon on the other, the main aim of this paper is to define an integral conceptual framework for designing studies on servitization strategy in manufacturing companies. In doing so, the paper will contribute to theory by systematically connecting various aspects that have been investigated into a whole, thus defining a framework for researching the topic. Moreover, as the field is dominated by research from Western developed economies and China (Zhou et al., 2021), this paper will draw the attention of the domestic academic public to the importance and development of this research field, in order to provoke studies on the topic. The expansion of the geographical coverage of servitization research is necessary in order to understand the phenomenon in all its complexity.

The remainder of the paper is structured as follows. After presenting the background which has motivated this study, the paper offers the conceptual framework for researching servitization strategy by elaborating on each of its elements as they have so far been researched. The paper ends with conclusions, limitation of the study and directions for further research.

BACKGROUND

There is no doubt that servitization is important for the competitiveness of manufacturing companies (Feng, Jiang, Ma, & Bai, 2021; Opresnik et al., 2015). However, there is a terminological motley in the field itself. For example, although the term servitization is often used, there are other terms used to denote this specific business orientation of manufacturing companies, including terms such as: integrated solution, functional product, extended product, service infusion, service transition, service expansion, product service system, service-based manufacturing, and service dominant logic (Annarelli, Battistella, Costantino, Di Gravio, Nonino, & Patriarca, 2021; Feng et al., 2021; Rabetino et al., 2018).

Regardless of which term is used, this movement of manufacturing companies on the product-service continuum is initiated by different motives (Kowalkowski et al., 2015; Gebauer, Fleisch, & Friedli, 2005; Raddats et al., 2016), it results in different outcomes (Abou-Foul, Ruiz-Alba, & Soares, 2021; Feng et al., 2021; Opresnik et al., 2015; Kastalli et al., 2013; Kohtamäki et al., 2019; Suarez, Cusumano, & Kahl, 2013), some of which are not desirable (Benedittini et al., 2015; Neely, 2008; Gebauer et al., 2005), and it causes changes of both the value chain and the servitizer's business model (Bustinza et al., 2015; Gölgeci, Gligor, Lacka, & Raja, 2021; Kindström & Kowalkowski, 2014), and in the structure and the dynamics of the supply chains and the respective industries (Vendrell-Herrero, Bustinza, Parry, & Georgantzis 2017; Wise & Baumgartner, 1999). Scientific papers dealing with the subject of servitization are partially focused, exploring some of the above-mentioned aspects. Nevertheless, this is expected and understandable, bearing in mind the complexity of the servitization phenomenon and the physical limitations for presenting research results in journals.

There is a growing number of both qualitative and quantitative review papers in this field. These papers systematise the generated knowledge by identifying certain thematic units and important periods in the development of the field. For example, bibliometric studies on servitization research (Annarelli et al., 2021; Díaz-Garrido, Pinillos, Soriano-Pinar, & García-Magro, 2018; Khanra, Dhir, Parida, & Kohtamäki, 2021; Martín-Peña et al., 2017; Rabetino et al., 2018) indicate that some of the key thematic clusters that make up the intellectual structure of the field refer to: the theoretical and conceptual basis of servitization; marketing perspective of servitization; servitization as a strategy and servitization business models; the role and importance of technology for designing services; and the environmental role of servitization. Because servitization affects business in different ways, the field is multidisciplinary with strategic management, operations management, and marketing perspectives and research communities *occupying* the largest part of the servitization research field (Díaz-Garrido et al., 2018; Martín-Peña et al., 2017; Pinillos et al., 2022; Rabetino et al., 2018).

Dynamically, the intellectual structure of the field was developed in certain stages, including: the preparatory stage (2000-2005), the development phase (2006-2014) and the fast-growing phase (since 2015) (Zhou et al., 2021). The first phase is characterised by a small volume of papers on an annual level (up to five papers), and its beginning is linked to the emergence of the concept of product-service systems. Within this phase, preparations were made for the development of this research field by defining the concept of servitization and determining its importance for the company, society and the environment. Within the development phase, servitization is investigated from different aspects, not exclusively as a strategic commitment of the manufacturer. The process of implementing the concept of product-service systems and its impact on the ser-

vitizer's performance is explored in more detail. The fast-growing phase is characterised by the largest number of papers on an annual basis. During this phase, the knowledge on servitization is enriched by researching the process of integration of digitalisation and servitization (digital servitization), the paradox of servitization, and different nature of relationships between servitization and firm performance.

Nevertheless, despite the evident effort to systematise the knowledge generated so far, a unique framework for researching servitization strategy has not yet been offered. Therefore, through an extensive content analysis of the relevant research in the field, this paper will meaningfully connect the researched pieces of the servitization puzzle and offer an integral conceptual framework in which researchers can place themselves and position their research.

A FRAMEWORK FOR DESIGNING STUDIES ON SERVITIZATION STRATEGY IN MANUFACTURING COMPANIES

After analysing the content of the relevant research in the field, we offer a conceptual framework for researching servitization strategy, which is shown in Figure 1. The elements of the proposed framework will be elaborated in the following text.

Foundations of the Research

Since the term servitization first appeared (Vandermerwe et al., 1988), there have been a number of approaches to describe and to investigate the phenomenon in different business domains (Pinillos et al., 2022). Generally, it is seen as a business strategy, that is, as a way to achieve the profitability, economic stability and growth of a company (Vandermerwe et al., 1988; Feng et al., 2021). Servitization is a term which marks a firm's behaviour that changes its business orientation, leading it to a transition from the sale of only products to the sale of production-service systems. In a word, servitization is a synonym for the growth of services in manufacturing companies' offering (Annarelli et al., 2021; Rabetino et al., 2018). Researchers from different research communities adopt different perspectives to define the concept of servitization. Despite the obvious proliferation of terms and definitions, a bibliometric analysis of words used to describe servitization shows that it should be understood as a strategic orientation of manufacturing companies toward offering an integrated offer of both products and services in an attempt to improve their competitive position (Pinillos et al., 2022).

Most of the previous research on servitization is not based on any relevant management or organisation theory. In an attempt to change this, Feng et al. (2021) propose certain theoretical perspectives for researching servitization, including: the Resource-based view, Contingency theory, Innovation theory, Dynamic Capabilities theory, and Marketing Service theory. Moreo-

ver, it is recommended to use well-established theories from complementary and close (mature) fields, to borrow ideas from other fields in order to accumulate knowledge, reduce the level of description and increase the volume of quantitative and longitudinal research.

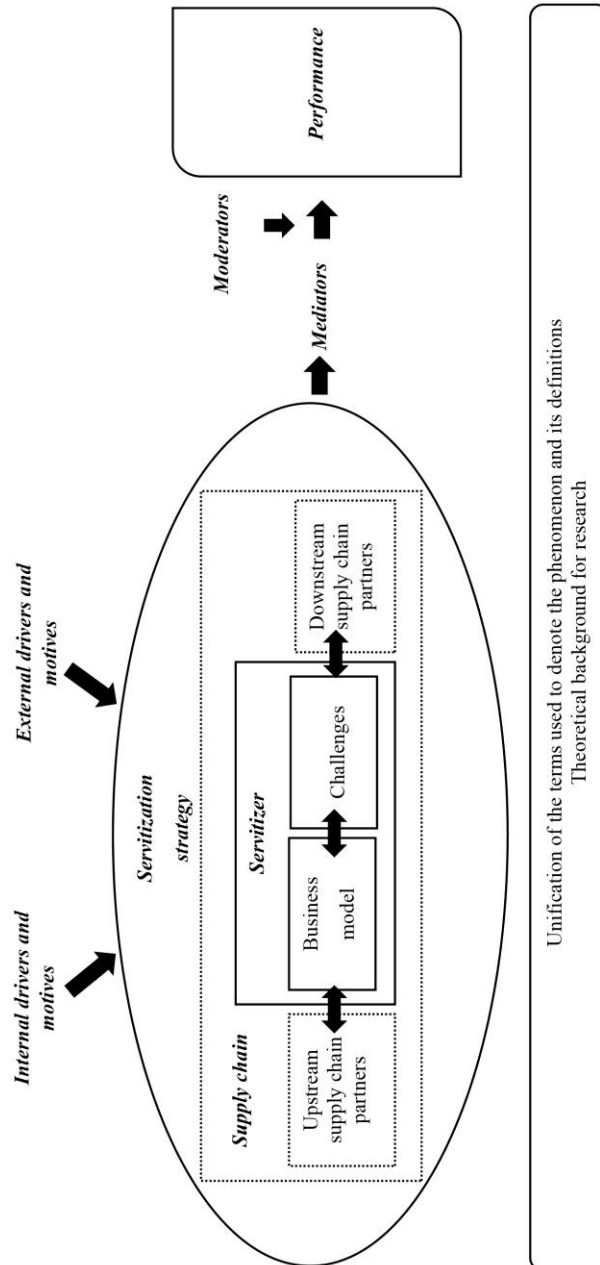


Figure 1. Conceptual framework for researching the servitization strategy
Source: Authors

Table 1.

Qualitative research		
Author(s)	Research method	Research focus
Annarelli et al., 2021	Bibliometric analysis	Academic significance of servitization
Abou-Foul et al., 2021	Multiple case study	Servitization and performance
Baines et al., 2009	Single case study	Challenges during the servitization implementation
Baines & Lightfoot, 2014	Multiple case study	Challenges during the servitization implementation
Ciasullo et al., 2021	Multiple case study, cross-case analysis	Servitization and digitalization
Coreynen et al., 2017	Multiple case study	Business model's change
Cusumano et al., 2015	Conceptual paper	Servitization and performance
Díaz-Garrido et al., 2018	Bibliometric analysis	Academic significance of servitization
Gebauer et al., 2005	Multiple case study	Challenges during the servitization implementation
Gölgeci et al., 2021	Conceptual paper	Servitization and global value chains
Gomes et al., 2021	Conceptual paper	Servitization and de-servitization
Khanra et al., 2021	Bibliometric analysis	Conceptual foundations of servitization
Kindström & Kowalkowski, 2014	Multiple case study	Servitization and business models
Kohtamäki et al., 2019b	Conceptual paper	Servitization and digitalization
Kowalkowski et al., 2017b	Conceptual paper	Challenges during the servitization and de-servitization implementation
Kowalkowski et al., 2015	Multiple case study	Servitization and business models
Martinez et al., 2010	Single case study	Challenges during the servitization implementation
Martín-Peña et al., 2017	Bibliometric analysis	Conceptual foundations of servitization
Oliva & Kallenberg, 2003	Multiple case study	Defining the conditions for the adoption of servitization
Opresnik & Taisch, 2015	Conceptual simulation	Challenges during the servitization implementation
Pinillos et al., 2022	Content analysis and consensus analysis	Conceptual foundations of servitization
Rabetino et al., 2018	Bibliometric analysis	Structure of servitization research and future development
Raddats et al., 2016	Multiple case study	Motivations for servitization
Sklyar et al., 2019	Multiple case study	Servitization and digitalization
Tao & Qi, 2019	Conceptual paper	Servitization and information technologies
Teece, 1986	Multiple case study	The success of innovative firms
Ulaga & Reinartz, 2011	Multiple case study	Defining the conditions for the adoption of servitization
Vandermerwe & Rada, 1988	Multiple case study	Conceptual foundations of servitization
Vendrell-Herrero et al., 2017	Single case study	Servitization and digitalization
Wise et al., 1999	Multiple case study	Production and information technology
Zhou et al., 2021	Bibliometric analysis	Conceptual foundations of servitization

Quantitative empirical research		
Author(s)	Research method	Research focus
Benedettini et al., 2015	Empirical study using various statistical techniques	Servitization and bankruptcy risk
Bustinza et al., 2015	Regression analysis	Impact of servitization on performance and organizational structure
Fang et al., 2008	Regression analysis	Servitization and firm value
Feng et al., 2021	Bibliometric analysis	Servitization and performance
Karatzas et al., 2020	Descriptive statistics and Data Panel Regression	Servitization, business practices and operational decisions
Kastalli & Van Looy, 2013	Longitudinal econometric study	Challenges during the servitization implementation
Kharlamov & Parry, 2020	Econometric analysis	Servitization and digitalisation
Kohtamäki et al., 2020	Regression analysis	Servitization and digitalisation
Kohtamäki et al., 2013	Correlation analysis	Servitization and financial performance
Kowalkowski et al., 2017a	Meta-analysis and descriptive statistics	Conceptual foundations of servitization
Mićić et al., 2020	Shift-share analysis (Comparative method)	Structural and technological changes in the processing industry
Neely 2008	Descriptive statistics and regression analysis	Servitization and financial performance
Simonsson & Agarwal, 2021	Linear regression	Servitization and digitalisation
Suarez et al., 2013	Dynamic panel estimation	Servitization and financial performance

Source: Authors

This lack of an adequate theoretical grounding can be justified by the fact that servitization is still a young research domain, as indicated by the absence of a single definition and a theoretical framework for research, inconsistent terminology, and an insufficient volume of quantitative empirical research and data (Zhou et al., 2021). Table 1 systematises the main focus of the studies upon which the proposed conceptual framework is developed, classifying them into groups of qualitative and quantitative research.

Drivers and Motives for Servitization

Servitization can be triggered by various drivers and motives. Generally, the motives for servitization are investigated as internal and external motives. Internally, servitization can be initiated in order to improve

operational performance and revenues, to achieve higher profit margins and to stabilise business growth (Gebauer et al., 2005; Kowalkowski et al., 2015). In the short run, the motive can be to increase productivity based on improved cost structure and increased utilisation of resources by realising synergies between products and services. In the long run, servitization should contribute to business growth by exploiting new growth opportunities and by increasing the value offered to consumers (Rabetino et al., 2018). By introducing services to their offer, manufacturing companies generate new revenue streams from the service market, which is often worth many times more than the product market (Gebauer et al., 2005; Raddats et al., 2016). The previous is all related to the motive to improve the competitive position of a company. Servitization can improve competitiveness by setting barriers for competitors, creating dependencies (by offering an integrated package of products and services in a more efficient way), developing closer relationships with partners, differentiating the offer, and creating added value for consumers (Feng et al., 2021; Gebauer et al., 2005; Kowalkowski et al., 2015; Vandermerwe et al., 1988).

Making the decision to introduce services is a rational process, although it is sometimes reactive to the external changes such as digitalisation, consumer demands, or environmental changes (Kindström et al., 2014; Neely, 2008; Vendrell-Herrero et al., 2017). Digitalisation facilitates the process of servitization in manufacturing companies by creating new opportunities for providing services, smart products and new business models (Kohtamäki et al., 2019). The dematerialisation of physical products combines trends such as digitalisation and servitization, and influences the creation of new offers in manufacturing companies (Simonsson & Agarwal, 2021; Vendrell-Herrero et al., 2017). Impulses for servitization also come from consumers. Consumers are becoming more informed, more demanding and have greater bargaining power. Also, they use technology to a greater extent, which opens up space for new services to be offered (Raddats et al., 2016; Vandermerwe et al., 1988). From the environmental point of view, it is argued that environmental pollution can be reduced if the manufacturing firms change their business models by introducing services, and if customers revise their concepts of ownership (Neely, 2008). Anticipating and following digital trends and customers' demands can bring a manufacturing company to a new level of competitiveness. By adequately responding to external changes, manufacturers create greater opportunities to design, produce and deliver new, smart, and integrated offerings, and improve their competitiveness by doing so.

Researchers generally agree with the statement that the importance of services increases as the industry matures (Teece, 1986; Suarez et al., 2013). This strategy often arises in response to a product (or industry) entering the mature stage of its life-cycle, when revenue growth is declin-

ing. Adequate implementation of servitization enables an increase in revenues and profit from the sale of services, customer satisfaction and loyalty, and thus supports the growth of the company (Kowalkowski et al., 2017b; Oliva & Kallenberg, 2003; Tao & Qi, 2019). On the other hand, there are researchers who believe that this may not be the case, that is, that different types of services have different importance in relation to the stages of the product life-cycle (Cusumano, Kahl, & Suarez, 2015; Rabetino et al., 2018; Ulaga & Reinartz, 2011). Servitization can also be seen as a way to differentiate the offer from the offer of competitors (Kowalkowski et al., 2015; Martinez et al., 2010; Opresnik et al., 2015). In this sense, it strengthens the competitive advantage and raises barriers for new competitors to enter the market.

The Business Model of the Servitizer

Enriching the offer with services and implementing a servitization strategy requires certain changes in the manufacturing business models (Baines, Lightfoot, & Kay, 2009; Rabetino et al., 2018; Vendrell-Herrero et al., 2017). Research results show that in order to successfully implement a servitization strategy, a manufacturing firm more often than not has to change its business model (Benedittini et al., 2015; Khanra et al., 2021; Kindström et al., 2014). Servitization strategy often requires a manufacturer to change its resource and competence bases. Although there are some general resources and capabilities important for the success of servitization (Ulaga et al., 2011), there is no one complete generic solution as different servitization pathways require additional specific resource and capabilities support (Coreynen, Matthyssens, & Van Bockhaven, 2017).

Then, the entire process underlining the manufacturer's business model and referring to the creation, delivery, and appropriation of the value is a promising field of research on servitization. For example, Baines and Lightfoot (2014) show: that successful servitization asks for personnel who are flexible, oriented toward relationship-building, service-centric, and technically adept; that servitizers' business processes should be designed in a way that they are integrated into their customer's operations, and supported by the ICT; and that servitization triggers the changes of the performance measurement system by introducing new indicators aimed at measuring product performance, specifically for each customer. Service markets are consumer-centric and require the service design process to follow this (Benedittini et al., 2015). On the other hand, manufacturing companies develop services based on their existing manufacturing mind-set, which is oriented toward efficiency, economies of scale, and standardisation, rather than flexibility, variety, and customisation. Also, service innovation in manufacturing companies is often driven by technology rather than market demands, which is another difference pointing towards the need to modify the servitization business model's processes.

The Challenges of Servitization Strategy

Despite examples of the successful implementation of servitization strategy, it is also evident that this process is far from simply achieving business goals by introducing services to the offer, and that it is burdened with many challenges (Kowalkowski et al., 2015). Therefore, it is not surprising that a significant number of researchers are engaged in researching the challenges of servitization strategy and possible ways to address them.

Although they may be complementary, services are still different from products. Therefore, one of the key challenges for the implementation of this strategy is the lack of adequate resource and competence bases to support the processes of creation, communication, delivery, and appropriation of value through services (Khanra et al., 2021). Because servitization happens in a certain organisational context, the challenges imposed by both the organisational structure and the organisational culture are worth researching. An inadequate organisational structure, and an organisational mind-set that is focused on material outputs may be a challenge for the implementation of servitization or for realising its full potential (Benedittini et al., 2015; Gebauer et al., 2005; Khanra et al., 2021; Kohtamäki et al., 2019; Kowalkowski et al., 2015; Kowalkowski et al., 2017a; Martinez et al., 2010; Oliva et al., 2003). For example, one subject of discussion is whether servitization requires a formation of a new organisational unit which will be devoted only to the services part of a manufacturer's offer (Benedittini et al., 2015; Bustinza et al., 2015; Gebauer et al., 2005; Kindström et al., 2014; Oliva et al., 2003). Gebauer et al. (2005) argue that there is a need for the formation of a decentralised organisational unit in a manufacturing firm that will be focused only on services. On the other hand, Baines et al. (2009) indicate that the primary and fundamental organisational changes are those referring to the changes of the language, values, design and delivery of products and services, and not those related to the formation of a new organisational unit. Sklyar, Kowalkowski, Tronvoll, and Sörhammar (2019) argue that the company's ability to organise its organisational structure and operations in accordance with the requirements of the servitization strategy depends on the history of its operations and available capacity, as well as on the level of the development of relations in the internal and external environment.

Resistance to servitization can occur among servitizers' employees (Khanra et al., 2021). There are researchers investigating to what extent employees agree with the implementation of servitization strategy, how they react to changes, and whether they are sufficiently familiar with the potential benefits of servitization (Gebauer et al., 2005). This resistance may be caused by the lack of employee competencies to establish the more intensive relationships with consumers that servitization requires (Baines et al., 2014; Karatzas, Papadopoulos, & Godsell, 2020). Also, the dominant material mind-set of employees makes it impossible to see the

full importance and potential of services in a manufacturing company (Annarelli et al., 2021; Ciasullo, Polese, Montera, & Carrubbo, 2021; Gebauer et al., 2005). Sometimes, manufacturers view services as a necessary evil, as something that is of secondary importance, and as something that must be offered to customers only in order to sell a product (Kindström et al., 2014; Wise et al., 1999). Therefore, it is argued that this mind-set should be changed by 180 degrees in order to look at the sale of products as creating the basis (opening the door) to offering services in the future. Moreover, there are studies showing that sometimes an adequate motivation for services on the management side can be a challenge. Thus, for example, Gebauer et al. (2005) argue that managers often emphasise the importance of tangible products and prefer to invest in them, and that they do not believe in the potential of services to generate significant income (especially those selling expensive manufactured goods). Additionally, investing in products is seen as less risky, because investing in services requires new capabilities and it changes the nature of the relationship with customers. All of the aforementioned points lower the managers' motivation to invest in the service part of the business, and this needs to be resolved in order for servitization to be successfully implemented.

Supply Chain Relationships

Servitization may cause a misalignment of the interests between stakeholders in the supply chain, which raises the need for greater coordination (Baines et al., 2014; Benedittini et al., 2015; Bustinza et al., 2015; Khanra et al., 2021; Martinez et al., 2010; Vendrell-Herrero et al., 2017). Researchers are focused on changes which occur in relation to the traditional supply chain's structure and relationships, which are triggered by servitization. In the currently available literature on servitization, researchers have investigated various changes that happen in supply chains both upstream and downstream. Looking upstream, research is focused on the direction in which relations should change, how intensive and close communication should be, and what changes have taken place when it comes to the resources and values that suppliers deliver in order to back up the servitization strategy of a manufacturer (Martinez et al., 2010). The downstream of the supply chain is even more explored through the lens of servitization. It is shown that intensifying relations with consumers through richer and more intensive communication, and involving consumers in value creation are the most prominent changes with downstream partners in a servitizer's supply chain (Benedittini et al., 2015; Khanra et al., 2021).

In addition to the cooperative relations, the potential changes in power relations between supply chain participants are also researched. For example, Vendrell-Herrero et al. (2017) investigated how digital servitization changes the supply chain's power structure by increasing the

power of the downstream partners. Nevertheless, they also conclude that the upstream participants can turn this to their own advantage if they manage to obtain unique resources that are important for their customers.

The Relationship between Servitization and Performance

This is probably the most complex aspect of servitization research, but then again, it will probably be the main stream of future research on servitization strategy. Previous research has not provided unique results on the impact of servitization on the performance of manufacturing companies. The studies differ methodologically from each other, and research is partial and does not include all factors that can influence this relationship. According to Feng et al. (2021), the early stage in researching servitization's effects on performance is characterised by promoting servitization strategy as a way to improve performance, the impact being recognised as positive and linear. Then came the turnaround stage, when the so-called service paradox phenomenon was identified. During this stage, authors started to question the unquestionable positive influence of servitization on firms' performances by revealing the potential for increased risk, and the negative impact of servitization on revenues and profit. The empirical phase started with empirical proof that servitization leads to a decrease in income and profits of the servitizer.

Most of the research is focused on assessing the impact of servitization on sales revenue and the overall profit of the servitizer (Cusumano et al., 2015; Kohtamäki, Partanen, Parida, & Wincent, 2013; Kohtamäki et al., 2019; Kowalkowski et al., 2017b; Suarez et al., 2013). Generally, the results show that the nature of this relationship can be linear (positive or negative), non-linear or non-existent. For example, Abou-Foul et al. (2021), Kastalli et al. (2013) and Kohtamäki, Parida, Patel, and Gebauer (2020) argue that there is a positive and direct impact of servitization on financial performance (income and profit growth). Others find that servitization can have a negative impact on the performance of manufacturing companies (Fang, Palmatier, & Steenkamp, 2008; Neely, 2008). There is also evidence that the relationship is not linear, but rather convex or U-shaped (Gomes, Lehman, Vendrell-Herrero, & Bustinza, 2021; Khanra et al., 2021; Kohtamäki et al., 2013; Kohtamäki et al., 2020). Apart from the methodological differences, the inconsistency in the results regarding the relationship between servitization strategy and servitizers' performance is the result of the fact that this relationship is influenced by numerous mediators and moderators, which are not fully acknowledged and which, for example, can include variables such as environmental changes, organisational features, specific management practices, and the like (Feng et al., 2021). Therefore, despite numerous studies on the relationship between servitization and performance, this relationship is still not clearly and fully understood.

CONCLUSIONS

Servitization represents a form of innovating the capabilities and processes of producers in order to enrich their offer with services, and it is seen as one of the ways to face the modern challenges of competitiveness. Empirical data shows that the number of manufacturers applying servitization strategy is increasing. Along with the rising importance of this strategy in practice, the interest of the academic public in researching this phenomenon is increasing as well.

The outcome of these trends is the growth of the servitization research field. Nevertheless, despite the fact that it is growing, this field is still young, which is primarily indicated by the terminological inconsistency, the methodological focus on qualitative explorative research, and the fragmented research practice. Therefore, the main contribution of this paper is of a theoretical nature, and refers to the systematisation of the previous research results and knowledge in the form of a proposed conceptual framework for further research in this field. As with other review studies, the key limitation of the paper is the possibility that certain important papers and research results in this field have been overlooked.

After the review of literature relevant for the research field of servitization, the conclusion is that the focus of researchers in the future should be, first of all, on unifying servitization-related terminology. Also, studies in this area should be designed with respect to the certain management and organisational theories. Then, because the qualitative research of the phenomenon of servitization, primarily through case studies, dominates the field, quantitative research on larger samples of companies should be intensified. As for the research questions, they can be positioned in any part of the offered research framework. However, it seems that the research with the most perspective is research into the impact of servitization on company performance, with the inclusion of all the relevant variables (moderators and mediators), and with respect to the organisational and wider business context of the servitizer. In other words, the evolution of the research interest in servitization implies that future research effort will be directed towards uncovering the relationship between servitization strategy and the firm's performance, taking all the other factors mentioned as part of the context in which said relationship is realised. Nevertheless, the aim of the paper is not to single out variables related to servitization as more or less important. Instead, based on an extensive literature review, this paper aims to group together all those variables that were investigated in a so far predominantly fragmented approach. In this way, the paper should help future researchers on this topic in setting up their study design by directing their attention to the possible variables and relationships that can be investigated.

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КОНЦЕПТУАЛНИ ОКВИР ЗА ИСТРАЖИВАЊЕ СТРАТЕГИЈЕ СЕРВИТИЗАЦИЈЕ У ПРОИЗВОДНИМ ПРЕДУЗЕЋИМА

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Резиме

Сервитизација представља стратегијско опредељење производних предузећа ка употпуњавању сопствене понуде и испоруци интегрисаног производно-услужног пакета решења потрошачима. Међу теоретичарима и практичарима постоји општа сагласност да услуге добијају на значају за раст и конкурентност фирми. Стратегија сервитизације представља важан конкурентски алат за производне компаније, будући да им омогућава стварање нове вредности увођењем услуга у своју понуду и повећава лојалност потрошача. Као резултат, повећава се број производних компанија које укључују услуге у своју понуду.

Паралелно са овим све већим практичним значајем сервитизације за произвођаче расте и истраживачки интерес за стратегију сервитизације. Област истраживања сервитизације се развија повећањем броја радова (укупно и по годинама) и броја укључених истраживача, као и све већим интересовањем научних часописа за објављивање радова на тему сервитизације. Штавише, сервитизација је комплексан феномен који се истражује са различитих аспеката, укључујући области као што су пословни менаџмент, инжењеринг, животна средина и технологија. Истраживачка област сервитизације је растућа, али још увек незрела, на шта, пре свега, указује термилошка неконзистентност области. Такође, постојећи истраживачки напори су и даље доминантно усмерени на описивање феномена, које се заснива на квалитативном истраживању путем студија случаја, а не на идентификовању узрочно-последичних односа у њему.

Имајући у виду очигледан значај сервитизације с једне стране, и фрагментацију истраживања овог феномена с друге стране, основни циљ овог рада је дефинисање интегралног концептуалног оквира за дизајнирање студија о стратегији сервитизације у производним предузећима. Систематском анализом садржаја релевантне литературе у овој области, идентификоване су тематске целине које чине компоненте понуђеног концептуалног оквира, а које се односе на теоријске основе истраживачке области, покретаче и мотиве за сервитизацију, пословне моделе и изазове за имплементацију стратегије сервитизације, односе у ланцима снабдевања и утицај стратегије сервитизације на перформансе.

Испуњењем постављеног циља, рад доприноси теорији систематским повезивањем различитих истражених аспеката у целину дефинисањем оквира за истраживање стратегије сервитизације. Након прегледа литературе релевантне за област истраживања сервитизације, намеће се закључак да будући напор истраживача треба да буде, пре свега, усмерен ка унифицирању коришћене терминологије. Такође, студије у овој области треба дизајнирати полазећи од одређених менаџмент теорија и теорија организације. Затим, имајући у виду чињеницу да облашћу доминира квалитативно истраживање феномена сервитизације, један од закључака је да треба интензивирати квантитативна истраживања на већим узорцима предузећа. Што се тиче истраживачких питања, она се могу позиционирати у било ком делу понуђеног истраживачког оквира. Ипак, чини се да је најперспективније истраживање утицаја сервитизације на перформансе предузећа, уз укључивање свих релевантних варијабли (модератора и медијатора) и уважавање организационог и ширег пословног контекста предузећа које имплементира стратегију сервитизације. Као и код других студија овог типа, кључно ограничење овог рада је могућност да поједини важни радови и резултати истраживања у овој области нису обухваћени анализом.