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THE MATRIX FOR ASSESSING THE INFLUENCE OF SUPPLIER RELATIONSHIPS AND ORGANIZATIONAL POSITIONING ON VALUE CREATION: A CASE STUDY OF SMALL AND MEDIUM-SIZED DAIRY COOPERATIVES IN SOUTHEASTERN POLAND

Introduction

Companies that focus on short-term gains are no longer acceptable to the public as there is a growing preference for organizations that address the extensive needs of people and prioritize the environment. An increasing number of companies are recognizing these shifts and have started to consider sustainability-related profit maximization [Eccles, Miller Perkins, Serafeim, 2012: 43] that can be achieved through organizational value creation. To develop a sustainability-related strategy, companies require leadership commitment, the ability to collaborate with multiple stakeholders across the value chain, extensive employee engagement and disciplined enforcement mechanisms [Eccles, Miller Perkins, Serafeim, 2012: 43]. Suppliers are integral stakeholders in this strategy, and the process of cultivating and overseeing supplier relationships, particularly in the context of sustainability creation, is known as supplier relationship management. Establishing mutually beneficial relationships with specific suppliers generates additional value, consistent with established business principles,

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especially for companies that are or aspire to be sustainable. Successful companies create value, among other things, by developing competencies and skills that allow them to gain a competitive advantage. Value creation occurs within a value network comprising suppliers, customers, competitors, distribution channels, and cooperating companies [Rudny, 2013: 101]. This article focuses on one specific element of the value network, namely suppliers, their relationships, and the organization's position relative to them. Therefore, the aim of the article is to propose a method for evaluating the organization's relations with suppliers and its position in relation to suppliers based on the SP-SR matrix. This matrix enables top managers to determine whether and to what extent their relations with suppliers and their positioning towards them contribute to the organization's value creation. The matrix is of particular value and is a significant source of information when analyzing changes in supplier relationships and positions compared to previous years. It is particularly useful when an organization is seeking to understand if their current supplier relationships are impacting the organization's value creation, or if adjustments to the supplier relationship strategy are necessary to achieve the desired level of these relationships. In addition, the matrix allows to determine the company's position in relation to suppliers and, if necessary, facilitates the implementation of appropriate changes to improve these relations, especially in the process of fostering a sustainable enterprise.

In the current study, the characteristics of a buying company's relationship with sustainable strategic suppliers are examined based on a literature review (Section 2). The matrix of evaluating the impact of the organization's position in relation to the suppliers and relationships with them on value creation is shown in Section 3, followed by the methodology in Section 4. The evaluation of matrix using the example of dairy cooperatives from the voivodeships of south-eastern Poland is presented in Section 5. A discussion of the findings in relation to other buyer-supplier relationships research is included in Section 6. Finally, the conclusion, along with the limitations of the research and suggestions for further study is showed in Section 7.

1. Characteristics of buying company's relationship with suppliers

A supply chain can be defined as a series of interconnected organizations engaged in activities that encompass the entire life cycle of a product, from raw materials to final consumption. These activities include the development, manufacturing, distribution, and sale of products or services to final consumers [Venkataraman, Demirag, 2022: 7–8]. This paper focuses on a specific segment of the supply chain, namely the stage involving the manufacturer/buyer company and its strategic suppliers, i.e., buyer-supplier relationships. It is considered that there are information, money and material flows between these entities. The primary objective of their cooperation is to fulfill the requirements of the manufacturer/buyer company's customers.

According to Sarnowski [2007: 50], suppliers are organizations that provide the company with the necessary goods and services for its ongoing operations and growth. Szałkowski [2008: 43] further defines suppliers as entities from which the organization procures resources to produce products and services. In general, suppliers can be categorized into first and second level suppliers, namely direct and indirect ones. First level suppliers are those who integrate entire logistics systems to deliver directly to the assembly plant or to significantly impact the assembly process for indirect deliveries. Second-level suppliers are those who provide components to first-level suppliers to facilitate integration with specific logistics systems or offer ancillary services [Lysons, 2004: 295].

O'Brien [2014: 52–53] classified suppliers into three categories:

1. Transactional suppliers – the suppliers with whom minimal and immediate interaction is sufficient.
2. Important suppliers – the suppliers that require more communication and management, as their involvement can enhance the value of the supply chain.
3. Strategic suppliers – the suppliers that carry significant business risk, but successful cooperation with them can lead to increased innovation and business value.

It is assumed in the article that any reference to a supplier pertains to a sustainable strategic supplier. This focus underscores the need for companies to prioritize partnerships with sustainable strategic suppliers, as fostering good relationships with them can significantly enhance the organization's value creation for its customers.

The primary responsibility of the supplier is to guarantee that the delivered product meets the established specifications or that its characteristics do not deviate adversely from the expected standards for the quality category it represents [Myszewski, 1998: 71]. It is imperative to note that suppliers of components or assemblies can significantly impact a manufacturer's performance in the areas of quality, delivery, cost containment, and new product development [Szwejczewski, Lemke, Goffin, 2005: 2] as well as on sustainability creation.

Given the significant role the suppliers play in enhancing the performance of companies, it is imperative that they fulfill certain entry criteria, including financial stability, a well-structured business plan, strong and supportive leadership, demonstrated manufacturing capability, and design capability, as stated by Monczka, Handfield, Giunipero, and Pattersson [2011: 250]. Nonetheless, enterprises ought to be cognizant of the strengths of suppliers that may be attributed to factors such as concentration (in the absence of numerous suppliers), the significance of sales volume to a single customer for the supplier, product differentiation, high costs of supplier switching, the possibility of vertical integration (the supplier taking over the distribution channel), and a high level of customer awareness and preferences for a particular supplier [Koźmiski, Jemielniak, 2008: 125]. To reduce purchasing costs, maximize overall value to the purchaser, and develop closeness and long-term relationships between buyers and suppliers, the process of supplier selection is crucial. It involves identifying, evaluating, and contracting with suppliers [Taherdoost, Brard, 2019: 1024]. Considering this factor, companies ought to evaluate suppliers in seven distinct stages: acknowledging the necessity of supplier selection, identifying crucial sourcing requirements, devising a sourcing strategy, identifying potential supply sources, limiting suppliers in a selection pool, establishing a method for supplier evaluation and selection, and ultimately selecting a supplier and concluding an agreement [Monczka, Handfield, Giunipero, Pattersson, 2011: 241]. The selection can be made based on various factors, including their ability to meet quality requirements, ability to deliver on time, technical possibilities, and their price offer, taking into account activities consistent with the idea of sustainable development. The evaluation of selected suppliers can be accomplished through alternative methods such as analyzing the quality of previous deliveries, evaluating the occurrence of complaints, and evaluating timeliness, sending surveys to potential suppliers, conducting process capability testing, and visiting suppliers through their own representatives (quality audit) [Zieliński, 2013: 218]. Afterwards, enterprises ought to devise strategies for collaborating with suppliers that guarantee complete transparency regarding the origins, accessibility, and durations of their essential products and components [Ali, 2021]. At times, there may be discrepancies between tangible and intangible criteria, necessitating a compromise between conflicting criteria [Thiruchelvam, Tookey, 2011: 437]. However, in striving to build a sustainable company, aspects related to meeting the extensive needs of people and taking care of the environment in the supplier's activities must also be taken into account. Choosing sustainable suppliers is a crucial step in the decision-making process. Key occurrences including natural disasters, degradation of the environment, depletion of natural resources, greenhouse effects, and global warming are what drove the creation of sustainability. In order to remain competitive, businesses have incorporated sustainability principles into their policies and operations, including the supply chain's supplier selection process. Selecting a reliable supplier has an impact on the company's reputation and ability to compete. Businesses recognize that selecting the appropriate suppliers can have a significant impact on how sustainable they are as a whole [Karakoç, Memiş, Sennaroglu, 2023: 1]. Consequently, when selecting suppliers (production materials, equipment, office supplies, packaging, logistics services), companies increasingly require them to reduce their negative impact on the natural environment [Urbaniak, 2016b: 43]. Businesses can ensure that their supply chain operations are socially, fiscally, and environmentally responsible by choosing suppliers who share their commitment to sustainability. This strengthens their position as a socially conscious company and increases their competitiveness in the international market. As a result, businesses now depend heavily on sustainability principles when choosing suppliers in order to preserve their competitive advantage and uphold their commitment to sustainable development [Karakoç, Memiş, Sennaroglu, 2023: 1].

Numerous entities are involved in the creation of value and establishing a relationship between suppliers and customers. The implementation of Supplier Relationship Management (SRM) is a proven methodology for aligning the supply chain and key suppliers with the strategic objectives of an organization, thereby enabling the identification and utilization of untapped business opportunities [Deloitte, 2015: 1]. As per Fogg's [2009: 306] assertion, Supply-Related Management (SRM) pertains to the management of the interaction between two entities, wherein one entity is responsible for providing goods, works, or services to the other entity. The process of establishing, enhancing, maintaining, and terminating relationships with internal suppliers, as well as observing external suppliers, is referred to as Supplier Relationship Management (SRM) according to Moeller, Fassnacht, and Klose [2006: 73]. The strategic planning and management of all interactions with suppliers is essential for maximizing its value. The primary management activities of supplier management encompass selection and evaluation of suppliers, monitoring of suppliers, development of suppliers, and integration of suppliers, as stated by Singh et al. [2017: 1]. According to Taherdoost and Brard [2019: 1025], supply chain management presents a significant advantage for firms as it has the potential to enhance customer service, decrease operational expenses, and improve the financial viability of the organization. The fundamental principle of customer value management pertains to the quantification of technical, economic, service, and social advantages accrued by the customer's organization as a result of the supplier's proposition [Anderson, 2010: 51]. Nonetheless, the approach to management varies in the case of diverse suppliers (Table 1).

One of the most important requirements in Supply Chain Management (SCM) implementation is the level of strategic purchasing, which involves reducing the number of essential suppliers and establishing close strategic relationships [Garcia-Buendia, Moyano-Fuentes Maqueira-Marín, Romano, Molinaro, 2023]. Vitasek, Manrodt, and Ledlow [2022] have proposed a tool for evaluating partners' compatibility and trust (C&T) that measures five crucial relational components that contribute to a healthy and trusting relationship. The initial component is referred to as "focus", which is defined as the capability to integrate individual roles into a unified corporate strategy to benefit all stakeholders. The second component pertains to "communication", which refers to the efficient and effective transmission of meaning through words and actions to attain and enhance mutually advantageous outcomes. The third component pertains to "team orientation", which is a skill that enables individuals to concentrate and direct their individual goals and objectives into a cohesive group strategy. The fourth component pertains to innovation, specifically an organization's capacity to adapt to change and its willingness to take risks, as well as to experiment with novel concepts and solutions. The fifth element pertains to "performance trust", which refers to the steadfastness in delivering as promised. Additionally, a sixth component can be introduced called "sustainability relations", in which the company addresses the extensive needs of people and takes care of the environment.

Table 1. The approach to management depending on the type of suppliers involved

Out-suppliers	Suppliers who do not yet possess a relationship with the purchasing organization. The objective of Out-Supplier Management is to maintain relationships with the most dependable suppliers available in the market, as the current status of a relationship should never be considered as a permanent solution.
In-suppliers	Suppliers who have a contractual relationship with the purchasing organization. The primary objective of In-Supplier Management is to establish and sustain relationships with in-suppliers in order to enhance the value creation. It is possible to divide it into the following sub-elements: ▪ Set-Up Management – it is imperative to take into account that partners typically require substantial investment in establishing a relationship. This involves specific investments from both the supplier and the purchasing firm, with mutuality safeguarding them. ▪ Development Management – potential areas for enhancement are identified, assessed, and measures for improvement can be implemented. Similar to the setup stage, specific investments may be made. In contrast to the initial phase of the relationship, these stages are typically safeguarded by relational norms such as solidarity, information ex-change, and participation. ▪ Contract Management – implies a substantial number of contractual agreements and a relatively modest number of specific investments. ▪ Disturbance Management – the purchaser attempts to prevent the dissolution of ongoing relationships. ▪ Sustainability Management – implies joint actions to meet the extensive needs of people and ensure environmental stewardship.

Source: own study on the basis of Moeller, Fassnacht and Klose [2006: 73–75].

As Urbaniak [2016a: 238–239] points out, it can be noticed that companies declaring the implementation of the concept of social responsibility focus on building long-term partnerships with their suppliers based on win-win principles. Building these relationships depends in many cases on the assessment not only of the technical quality of products, but also on the supplier's ability to guarantee stability, flexibility and continuity of supplies, as well as cost reduction, and assessment of the economic and legal situation. Through the implementation of Supplier Relationship Management (SRM), it is feasible not only to effectively manage relationships with suppliers while ensuring compliance with previous agreements, but also to generate additional advantages for both parties involved. Among the various factors that can be cited are the supplementary reduction in total cost of ownership (TCO), enhancement of revenue and profit, improvement of process efficiency, risk management throughout the supply chain, enhancement of innovation, development of competencies, collaborative problem-solving, enhancement of service quality, and the sharing of specialist knowledge [Pokora, 2020], as well as benefits related to building relations based on the sustainable companies creation. Furthermore, the following factors can be distinguished among them [Delloite, 2015: 1]:

- The continuous operational optimization through win-win supplier relationships enables cost savings beyond traditional operations and component management practices across the supply chain.
- The transparent management of strategic suppliers' performance is imperative for achieving business objectives. To execute this, it is essential to maintain a focus on key measures that support business objectives.
- Management of sourcing risks and adherence to ethical and regulatory standards, thereby enhancing the overall transparency and visibility of the relationship.
- Promoting the advancement of business and innovation through collaborative identification and implementation of opportunities that yield long-term benefits for both organizations.

The optimal approach to cultivating resilient relationships with suppliers involves not solely focusing on enhancing flexibility, but also on enhancing adaptability, as stated by Wieteska [2016: 317]. Nonetheless, the relationships with suppliers can exhibit distinct characteristics, including but not limited to confrontational, loose cooperation, acquaintance with the advantages of collaboration, heightened cooperation, and a partnership based on the exchange of both strategic and operational information [Konieczna, 2015: 86]. Confrontational relationships arise when parties each strive to achieve their own business objectives. The aforementioned issues may arise during the extensive interactions necessary for the supplier to accommodate the buyer's specific requirements in the design and production of exchanged goods, as well as during the ongoing interactions as the supplier fulfills the resulting orders [Pulles, Loohuis, 2020: 65]. According to Kotzab et al. [2019: 3], loose cooperation refers to the collaboration of entities as equal partners, who have decided to pursue a common objective to enhance their performance. The realization of the advantages of collaboration arises when both suppliers and buyers comprehend that collaboration can result in cost reduction, higher profit, improved forecast accuracy, and better inventory management, as stated by Mofokeng and Chinomona [2019: 3]. A deeper cooperation is achieved when both the supplier and buyer enter into a long-term agreement. This involves the establishment of mutual trust and commitment to the relationship, the integration of logistics events involving the exchange of demand and supply data, and the potential for a shift in the locus of control of the logistics process [Nagy, Kosma, 2018: 7], as well as the possibilities in creating a sustainable enterprise. The optimal relationship between a buyer and a supplier is established through a partnership that involves the exchange of both strategic and operational information [Ramayah, Omar, 2010: 36] and joint activities in creating and maintaining sustainable enterprises. In this particular scenario, with the availability of pertinent information, firms may be able to anticipate or proactively respond to unanticipated occurrences that may have a detrimental impact on the supply chain performance [Ramayah, Omar, 2010: 36].

When determining the position of suppliers, it is possible to distinguish between the following possibilities: a lack or very weak bargaining power, a weak bargaining power, an average bargaining power, a key partner, or a leader of the supply chain [Konieczna, 2015: 86]. The process of bargaining is a distinct form of decision-making wherein two or more parties, with potentially divergent objectives, collaborate to reach a consensus, as outlined by Prasad, Shankar, and Roy in 2019. The bargaining power refers to the ability of one party to negotiate and influence or overcome the decisions of the other or other parties. It is possible to distinguish several factors that are considered as the most significant components of the bargaining power of negotiating parties, namely impatience, breakdown risk, outside options, commitment tactics, inside options, information asymmetry, reputation, learning curve, and future negotiation opportunities [van Leengoed et al., 2008: 372]. The buyer company has the option to employ conventional strategies for maximizing power in relation to suppliers, as outlined by Światowiec [2006: 32]:

- engagement in joint purchases with other companies;
- focusing on the product itself and assuming that all suppliers offer the same prices for additional services and procedures. This approach aims to eliminate supplier claims for results that differ from delivery expectations;
- solicitation from multiple suppliers (multisourcing) to encourage competitive bids and reduce supplier reported costs.

In addition to the strategies mentioned above, the company can adopt the strategy that prioritizes selecting suppliers that operate as a sustainable enterprise. This is intended to improve or maintain the company's reputation as one that strives to meet customer needs while also taking into account environmental considerations.

The supply chain leader is characterized as the organization that exhibits superior levels of leadership in relation to its fellow members. Namely, the organization that possesses greater influence, is easily identifiable by its actions, is the initiator of the vision, and establishes a relationship with other supply chain organizations [Defee, 2010: 766] and is perceived as a sustainable company.

2. The matrix of evaluating the impact of the organization's position in relation to the suppliers and relationships with them on value creation

In order to evaluate company's assessment of its relationships with suppliers in the process of value creation, it is necessary to examine the organization's position in relation to suppliers and the nature of its relationships with them. In this case the evaluation considers strategic suppliers, who are regarded as key partners in building long-term, mutually beneficial relationships that increase the buyer's competitive advantage, which in turn influences organization's value creation. Profit generation by the organization concerns creating value for the company and for customers, and is achieved through optimal positioning with suppliers and maintaining the best possible relationships with them. It is believed that the position in relation to suppliers and the relations with them have an impact on the customer value creation, leading to an increase in sales and, consequently, an increase in sales revenues. Due to the fact that customers include, among others, consumers, enterprise-users, wholesalers, independent retail stores, retail chains, agents intermediating in the trade of articles, other enterprises within the same industry, and other institutional buyers, the organization's position in relation to suppliers and relationships with suppliers have an impact on the products and services offered. Depending on the industry, these products and services may include, among others [Konieczna, 2015: 258–260]: innovative products, products in line with fashion trends, products that stand out from competitors' offer, ecological products, products with high nutritional value, natural products, products with health properties, products made of high quality ingredients, comprehensive products in terms of varieties and types, products in attractively designed packaging, products in packaging that matches others in terms of design, products in conveniently usable packaging, price-competitive products, products with a competitive warranty, products with a rich set of pre-, near- and after-sales services, application of promotional prices, individualization of the offer, competitive price of pre-, near- and after-sales services, delivery of products in a shorter time than competitors, timely delivery of products, individualization of deliveries in terms of time, size, assortment and method of delivery, ensuring reliability of deliveries in terms of time, quantity and quality of delivered products. Due to the fact that customers include, among others, consumers, enterprise-users, wholesalers, independent retail stores, retail chains, agents intermediating in the trade of articles, other enterprises in the same industry, and other institutional buyers, the position in relation to suppliers and relationships with suppliers have an impact on the products and services offered, and depending on the industry, we can distinguish, among others [Konieczna, 2015: 258–260]: innovative products, products in line with fashion trends, products that stand out from competitors, ecological products, products with high nutritional value, natural products, products with health properties, products made of high quality ingredients, diversity products in terms of varieties and types, products in attractively designed packaging, products in packaging that matches others in terms of design, products in conveniently usable packaging, price-competitive products, products with a competitive warranty, products with a rich set of pre-, near- and after-sales services, application of promotional prices, individualization of the offer, competitive price of pre-, near- and after-sales services, delivery of products in a shorter time than competitors, timely delivery of products, customization of deliveries in terms of time, size, assortment and delivery method, ensuring reliability of deliveries in terms of time, quantity and quality of delivered products.

When determining the position to suppliers, the following categories and their corresponding values are considered [Konieczna, 2018: 78–79]:

- Lack or very weak bargaining power – 0
- Weak bargaining power – 0.25
- Average bargaining power – 0.5
- One of the key partners – 0.75
- Leader of the supply chain – 1

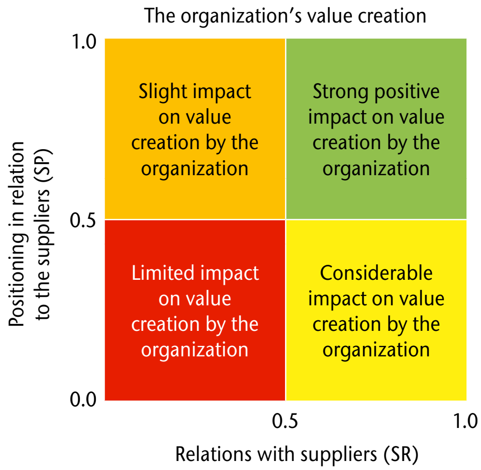
When determining the relationships with suppliers, the following categories and their corresponding values are considered:

- Confrontational – 0
- Loose cooperation – 0.25
- Awareness of the benefits of working together – 0.5
- Deepened cooperation – 0.75
- A partnership based on the exchange of both strategic and operational information – 1

The SP-SR matrix, which evaluates the company's relations with suppliers and its positioning towards them in the process of value creation, can be shown as a table (Figure 1) that is divided into four parts, each representing a particular impact on the organization's value creation:

- The vertical axis represents the company's position in relation to the suppliers (SP) in the opinion of top management.
- The horizontal axis represents the relations with suppliers (SR) in opinion of top management.
- The matrix illustrates the influence of the organization's position in relation to the suppliers and the nature of its relations with them on the organization's value creation. This impact is contingent upon the dependency of the relations with suppliers and the company's positioning in relation to its suppliers.
- These four areas show the significant influence of the organization's position and its relationship with suppliers on the process of value creation. When the company is in the green field, it means that the position in relation to suppliers and relationships with them have a strong positive impact on value creation. Conversely, when the company is on the red field, it means that the position in relation to suppliers and relationships with them have a limited impact on the organization's value creation. The orange field shows that the position in relation to suppliers and relationships with them have a slight impact on value creation. On the opposite side, a yellow field indicates that the position in relation to suppliers and relationships with them have a considerable impact on value creation.

Figure 1. The matrix of the organization's value creation from the perspective of its position in relation to the suppliers and the nature of relationships with them (SP-SR matrix)



Source: own study.

The matrix delineates the organization's value creation into four distinct areas, separated on the basis of the position in relation to the suppliers (SP) and the nature of their relationships with suppliers (SR). These areas are:

1. **Limited impact on value creation by the organization**, which occurs when the indexes *SP* and *SR* reach the values less than or equal to 0.5;
2. **Slight impact on value creation by the organization**, which occurs when the *SP* index reaches value above 0.5, while the *SR* index reaches value lower than or equal to 0.5;
3. **Considerable impact on value creation by the organization** occurs when the *SP* index reaches value lower than or equal to 0.5, while the *SR* index reaches value above 0.5;
4. **Strong positive impact on value creation by the organization**, which occurs when the indexes *SP* and *SR* reach the values higher than 0.5.

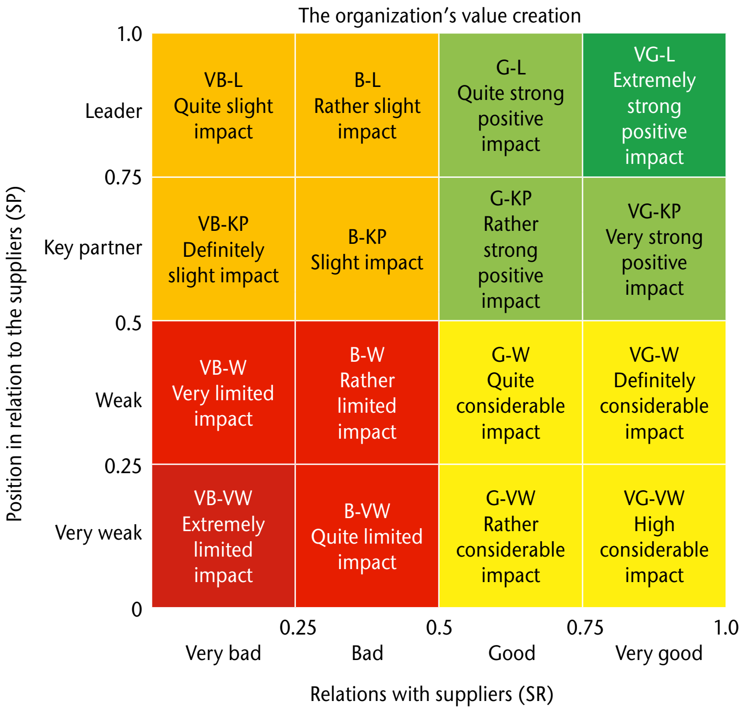
These areas can be divided into sixteen subareas, which more precisely illustrate the impact of the organization's position in relation to the suppliers and the nature of relationships with them on value creation (Figure 2):

1. VB-VW subarea, when there is an extremely limited impact on value creation by the organization, occurs when the *SP* and *SR* indexes reach value less than or equal to 0.25;
2. VB-W subarea, when there is very limited impact on value creation by the organization, occurs when the *SP* index reaches value above 0.25 to 0.5, and the *SR* index reaches value less than or equal to 0.25;

3. B-VW subarea, when there is quite limited impact on value creation by the organization, occurs when the *SP* index reaches value lower than or equal to 0.25, and the *SR* index reaches value above 0.25 to 0.5;
4. B-W subarea impact, when there is rather limited impact on value creation by the organization, occurs when the *SP* and *SR* indexes reach value above 0.25 to 0.5;
5. VB-KP subarea, when there is definitely slight impact on value creation by the organization, occurs when the *SP* index reaches value above 0.5 to 0.75, and the *SR* index reaches value lower than or equal to 0.25;
6. VB-L subarea, when there is quite slight impact on value creation by the organization, occurs when the *SP* index reaches value above 0.75 to 1, and the *SR* index reaches value lower than or equal to 0.25;
7. B-KP subarea, when there is a slight impact on value creation by the organization, occurs when the *SP* index reaches value above 0.5 to 0.75, and the *SR* index reaches value above 0.25 to 0.5;
8. B-L subarea, when there is rather slight impact on value creation by the organization, occurs when the *SP* index reaches value above 0.75 to 1, and the *SR* index reaches value above 0.25 to 0.5;
9. G-VW subarea, when there is rather considerable impact on value creation by the organization, occurs when the *SP* index reaches value less than or equal to 0.25, and the *SR* index reaches value above 0.5 to 0.75;
10. VG-VW subarea, when there is high considerable impact on value creation by the organization, occurs when the *SP* index reaches value less than or equal to 0.25, and the *SR* index reaches value above 0.75 to 1;
11. G-W subarea when there is quite considerable impact on value creation by the organization, occurs when the *SP* index reaches value above 0.25 to 0.5, and the *SR* index reaches value above 0.5 to 0.75;
12. VG-W subarea, when there is definitely considerable impact on value creation by the organization, occurs when the *SP* index reaches value above 0.25 to 0.5, and the *SR* index reaches value above 0.75 to 1;
13. G-KP subarea, when there is rather strong positive impact on value creation by the organization, occurs when the indexes *SP* and *SR* reach the values above 0.5 to 0.75;
14. G-L subarea, when there is quite strong positive impact on value creation by the organization, occurs when the *SP* index reaches value above 0.75 to 1, and the *SR* index reaches value above 0.5 to 0.75;
15. VG-KP subarea, when there is very strong positive impact on value creation by the organization, occurs when the *SP* index reaches value above 0.5 to 0.75, and the *SR* index reaches value above 0.75 to 1;

16. VG-L subarea, when there is an extremely strong positive impact on value creation by the organization, occurs when the indexes *SP* and *SR* reach the values above 0.75 to 1.

Figure 2. The detailed matrix of value creation by the organization from the perspective of its position in relation to the suppliers and the nature of its relationships with them (SP-SR matrix)



Source: own study.

Positioning a given enterprise within the appropriate field on the matrix shows the impact of the organization's position in relation to the suppliers and the consequent effects on value creation. It allows the managing directors to make informed decisions to improve the organization's position and relations with suppliers, in alignment with the adopted business model in order to reach the desired level of its influence on value creation. From the point of view of company, the desired scenario is when it is situated in "strong positive impact on value creation by the organization" field and especially in "extremely strong positive impact" subfield. It means that the company maintains very good relations with its suppliers and is the market leader. This situation is indicative of significant value creation, as it represents the most advantageous position on the matrix. In this case, we are dealing with the company that increases its market value. It is imperative for every company to strive in this direction, as it can lead to substantial value enhancement. Conversely, "limited impact on value creation by the organization" field, and especially its "extremely limited impact" subfield, shows that the company holds very weak position in relation to the suppliers, with poor supplier relationships. This is the sign for managing directors to make strategic improvements in the business model immediately as such a situation can lead to collapse. The company lacking strong relations nor a favorable position cannot develop effectively or generate revenue from sales. The field "considerable impact on value creation by the organization" indicates that the company has good or very good relationships with suppliers and is on the way towards value enhancement. However, further improvements in its position in relation to the suppliers are necessary. The field "slight impact on value creation by the organization" on the matrix suggests that the company is on a promising path to increase its value, but it needs to strive to reach the field "strong positive impact on value creation by the organization" by improving its relations with suppliers, given its current favorable position.

5. Methodology

The aim of this research is to investigate the assessment of the impact of the organizational positioning in relation to suppliers and the nature of relationships with them on value creation based on the adopted matrix. To achieve this objective, a qualitative approach was introduced. Empirical verification of the matrix was developed using an interview questionnaire on the basis of the results of face-to-face interviews conducted with representatives of senior management of dairy cooperatives. Representatives of all cooperatives from section 10.5 of the PKD from voivodeships of south-eastern Poland were invited to participate in the survey. Due to the willingness of the cooperatives to engage in the research, the study was conducted in 20 cooperatives, representing over 33% of the population. These cooperatives are small and medium-sized enterprises. The scope of activity of cooperatives is the production of spreadable fats, drinking milk, drinking cream, natural yoghurts, fermented milk, cheeses, buttermilk, kefir and powdered products. The respondents were asked to indicate the position of the organization in relation to suppliers and the nature of relationships with them. When determining the position of suppliers, they had to choose between the following categories: lack or very weak bargaining power, weak bargaining power, an average bargaining power, a key partner, and a leader of the supply chain. While assessing the relationships with suppliers they had to choose between the following categories: confrontational, loose cooperation, acquaintance with the advantages of collaboration, heightened cooperation, and a partnership based on the exchange of both strategic and operational information.

The following questions were stated:

1. Do the relations with suppliers and position towards them place cooperatives in the optimal possible field of the SP-SR matrix, i.e., “strong positive impact on value creation by the organization”?
2. Are cooperatives inclined to maintain the same relations with suppliers and position towards them over the years?

The hypotheses to be tested in the research are formulated as follows:

H1: The relations with suppliers and position towards them place cooperatives in the optimal possible field of the SP-SR matrix, i.e., “strong positive impact on value creation by the organization”.

H2: Cooperatives are inclined to maintain the same relations with suppliers and position towards them over the years.

6. Evaluation of the impact of the organization’s position in relation to the suppliers and the nature of relationships with them on value creation based on the adopted matrix

After calculating the indexes *SP* and *SR* (Table 2), the obtained results can be shown in the graph (Figure 3).

After having calculated the organization’s position in relation to suppliers (SP) and the nature of relationships with suppliers (SR), the obtained results were placed on the matrix to determine their impact on value creation by the organization (Figure 3).

Upon examining Figure 3, it is evident that in the basic year the majority of cooperatives (18 out of 20 cooperatives) exhibit a rather limited impact on value creation by the organization. Most cooperatives are positioned in the middle of the matrix, occupying the highest position of bad relations with suppliers and their stance ranging from weak to key partner. These cooperatives have the potential to improve their influence on value creation by the organization by enhancing their relations with suppliers and their positioning. They should improve their ability to negotiate and influence or overcome suppliers’ decisions. It is imperative that they enter into a long-term agreement that will lead to the establishment of mutual trust and commitment to the relationship, the integration of logistics events, a partnership that involves the exchange of both strategic and operational information, and ultimately, will have an impact on the creation of value for customers, resulting in higher sales and consequently, an increase in sales revenues. This will result in creating value for the organization. One cooperative is in a relatively better situation as it has a considerable impact on value creation by the organization due to its good relations with suppliers. However, its position in relation to the suppliers is weak and requires improvement to transition into the best field on the matrix, indicating the positive impact on value creation by the organization. Two cooperatives are in the best situation, exhibiting a rather strong positive impact on value creation by the organization because they have good relations with suppliers, and their status as key partners.

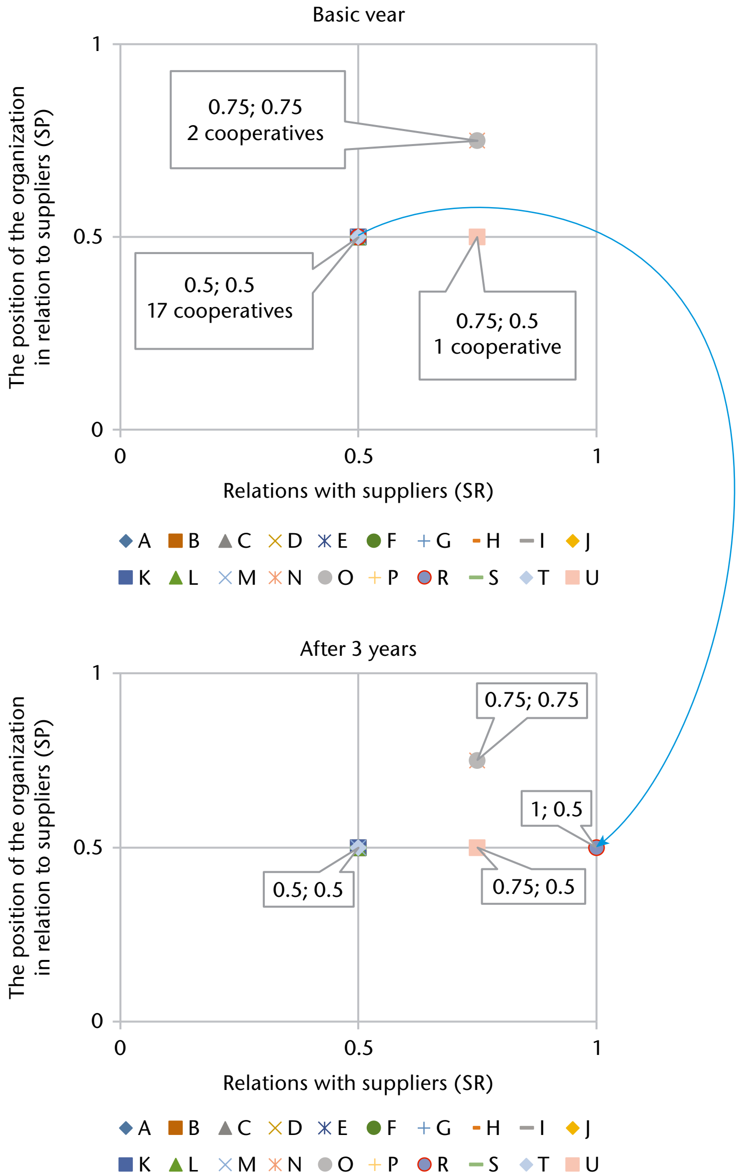
Table 2. Results of calculations of SP and SR indexes

Cooperative	Basic year		3 years later	
	The position of the organization in relation to suppliers (SP)	Relations with suppliers (SR)	The position of the organization in relation to suppliers (SP)	Relations with suppliers (SR)
A	0.5	0.5	0.5	0.5
B	0.5	0.5	0.5	0.5
C	0.5	0.5	0.5	0.5
D	0.5	0.5	0.5	0.5
E	0.5	0.5	0.5	0.5
F	0.5	0.5	0.5	0.5
G	0.5	0.5	0.5	0.5
H	0.5	0.5	0.5	0.5
I	0.5	0.5	0.5	0.5
J	0.5	0.5	0.5	0.5
K	0.5	0.5	0.5	0.5
L	0.5	0.5	0.5	0.5
M	0.5	0.5	0.5	0.5
N	0.75	0.75	0.75	0.75
O	0.75	0.75	0.75	0.75
P	0.5	0.5	0.5	0.5
R	0.5	0.5	0.5	1
S	0.5	0.5	0.5	0.5
T	0.5	0.5	0.5	0.5
U	0.5	0.75	0.5	0.75

Source: own study.

Taking into account the same cooperatives after three years it is seen (Figure 3) that 19 cooperatives remained in the same situation as before, namely 17 cooperatives stayed in the B-W field, 1 in the G-W field, and 2 in the G-KP field. Only 1 cooperative changed its position on the matrix. This cooperative improved its relation with suppliers, establishing a partnership based on the exchange of both strategic and operational information. Consequently, it moved to a more favorable field of matrix showing definitely considerable impact on the company's value creation. As it is seen, most cooperatives rather do not take into account the importance of the position of the organization in relation to the suppliers and their relationships with them as factors influencing the companies' value creation. Only the awareness of the influence of mentioned above aspects on value creation can facilitate the company's development.

Figure 3. The matrix of value creation by the organization from the perspective of organizational positioning in relation to the suppliers and relations with them in dairy cooperatives



Source: own study.

7. Discussion

The paper assumes that the relations with suppliers and the organization's stance towards them significantly influence the value creation, both for the company and its customers. The value creation leads to increased sales revenues by meeting customer requirements and generating value for them. Therefore, a matrix was established to evaluate the impact of supplier relations and organizational stance on value creation. The matrix was empirically tested, and the expected results align with the findings from other literature sources. Kähkönen, Lintukangas and Hallikas [2015] conducted an experimental analysis of the correlations between value-creating activities and buyer's dependence. The findings of the research revealed that the buyer's dependency on its suppliers is strengthened by the value-creating activities of inter-firm learning and early supplier involvement in buyer-supplier interactions. On the other hand, a supplier orientation does not strengthen this dependency. Therefore, the management practices and relationship strategies should be built on the assessment of the advantages (value creation) and drawbacks (dependency).

Other studies focus on different elements of the buyer-supplier relationship. Akamp and Müller [2013] investigated how supplier management metrics might improve both customer satisfaction and supplier performance. They suggested a structural equation model, analyzed using Partial Least Squares (PLS). The independent variables in their conceptual model included supplier selection and evaluation, supplier monitoring, supplier development, and supplier integration, while dependent variables are supplier performance and buyer satisfaction. The results show that mainly cooperative activities such as supplier development and supplier integration are effective, whereas supplier monitoring does not seem to have a positive influence on supplier performance. The findings indicate that while supplier monitoring does not appear to have a beneficial impact on supplier performance, cooperative activities like supplier integration and development are largely successful. A 2X2 relationship quality matrix based on levels of mutual trust and commitment between buyers and suppliers was developed by Liu, Li and Zhang [2010]. They tested the matrix and hypothesis proposed using the cluster, ANCOVA and SEM analysis. The matrix identified levels of trust and commitment such as buddy, relier, arm's-length and initiative.

Woschank, Dallasega, Zunk and Pacher [2022: 1] introduce a cause-effect model that examines the impact of process formality on supplier performance and purchaser satisfaction. Process formality is comprehensively measured through target-, information-, organization-, and heuristics-related process factors within the strategic supplier selection process. The study substantiates a significant relationship between process formality and both supplier performance as well as purchaser satisfaction, utilizing variance-based structural equation modeling in a large-scale field study.

Conclusions

To foster development and enhance its value, a company needs to improve its activities across various domains, one of which is the relations with suppliers. The interactions and positioning towards suppliers influence the value creation by the organization, particularly when sustainability is a key consideration. Therefore, it is important for companies to recognize this impact. To facilitate understanding for top management, a matrix was established to evaluate the influence of supplier relationships and organizational positioning on value creation. The SP-SR matrix positions the company in areas determined by its stance towards suppliers (SP) and its relationships with suppliers (SR). This matrix enables managers to ascertain if suppliers influence the value creation by the organization. They also can identify changes in this influence over time. Placement within specific fields on the matrix gives insights into whether there is a need to improve relations with suppliers or/and company's position towards them. Positive relationships with suppliers and a leading position are essential for influencing positively value creation by the organization, which in consequence leads to development. However, empirical data reveals that most cooperatives are not positioned in the optimal segment of the SP-SR matrix, namely "strong positive impact on value creation by the organization", as only 2 cooperatives' relations with suppliers and their stance towards them situate them in this category. Therefore, the hypothesis 1 cannot be confirmed.

The method presented in the article can serve as an important source of information for top management, aiding their decision-making processes, especially in turbulent environments. By utilizing the matrix, they can implement necessary changes in relations with suppliers and organizational positioning to achieve benefits in the form of value creation by the organization. However, the empirical data indicates that cooperatives are generally reluctant to make changes in relations with suppliers and their stance towards them, as it was seen in most cooperatives. Thus, the hypothesis 2 is confirmed.

Although this study offers several important contributions, its limitations necessitate further research. Firstly, the data utilized in this research is derived from the south-eastern Polish dairy cooperatives, and thus has industry limitations. Future studies could examine the applicability of the matrix across a broader range of industries. Secondly, the matrix in this research focuses primarily on the relations between the buyer company and its strategic suppliers. Subsequent research could investigate relationships with other participants of the supply chain that can influence the value creation by the organization.

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THE MATRIX FOR ASSESSING THE INFLUENCE OF SUPPLIER RELATIONSHIPS AND ORGANIZATIONAL POSITIONING ON VALUE CREATION: A CASE STUDY OF SMALL AND MEDIUM-SIZED DAIRY COOPERATIVES IN SOUTHEASTERN POLAND

Abstract

The article aims to propose a method for evaluating the organization's relations with suppliers and its positioning in relation to suppliers based on the SP-SR matrix.

Research Design & Methods: The study employs a novel method of assessing the organization's relationships with suppliers and its position in relation to suppliers, developed in the SP-SR matrix. An empirical verification of changes in the organization's relations with suppliers, using the SP-SR matrix, was developed on the basis of the results of direct interviews conducted with senior management representatives of dairy cooperatives from the of south-eastern Poland voivodships, using an interview questionnaire.

The analysis of the data utilizing the SP-SR matrix revealed that the position of all analyzed cooperatives remained unchanged after a period of three years, but it was observed that the relationship with suppliers in one cooperative underwent a transformation.

Implications/Recommendations: The SP-SR matrix serves as a valuable tool for top managers to ascertain the extent to which their relations with suppliers and their positioning towards them contribute to the organizational value creation. This matrix is particularly significant as it provides crucial insights into the evolution of strategic supplier relationships and positioning over the years. The matrix can also be instrumental for organizations seeking to evaluate if their current supplier relationships are impacting the value creation, or if adjustments to their supplier relationship strategy are necessary to align with the adopted business model to achieve the desired level of strategic supplier relationships. In addition, the matrix allows to assess the company's positioning in relation to strategic suppliers and, if needed, to implement appropriate changes to improve these relations, particularly in the process of creating a sustainable enterprise.

An author's matrix was established to evaluate the impact of relations with suppliers and organization's position towards them on value creation. The SP-SR matrix locates the company in areas that are the resultant of its stance towards suppliers (SP) and its relations with them (SR). This knowledge is particularly significant for practical applications, as it provides insights into the organization's ability to create value by shaping appropriate relationships with suppliers and positioning itself effectively in relation to them.

Keywords: matrix, relations with suppliers, positioning in relation to suppliers, value creation, business model

JEL Classification Codes: M2, O20, L1, L21

MACIERZ OCENY WPŁYWU RELACJI Z DOSTAWCAMI I POZYCJI WOBEC NICH NA TWORZENIE WARTOŚCI PRZEZ ORGANIZACJE NA PRZYKŁADZIE MAŁYCH I ŚREDNICH SPÓŁDZIELNI MLECZARSKICH Z POLSKI POŁUDNIOWO-WSCHODNIEJ

Streszczenie

Celem artykułu jest zaproponowanie metody oceny relacji organizacji z dostawcami i jej pozycji w stosunku do dostawców w oparciu o macierz SP-SR.

Wykorzystana została autorska metoda oceny relacji organizacji z dostawcami i pozycji względem dostawców opracowana w formie macierzy SP-SR. Empiryczna weryfikacja zmian w relacjach organizacji z dostawcami z wykorzystaniem macierzy SP-SR została opracowana na podstawie wyników wywiadów bezpośrednich przeprowadzonych z przedstawicielami najwyższego kierownictwa spółdzielni mleczarskich z województw z terenu południowo-wschodniej Polski za pomocą kwestionariusza wywiadu.

Analiza danych z wykorzystaniem macierzy SP-SR wykazała, że pozycja wszystkich analizowanych spółdzielni nie zmieniła się po trzech latach, natomiast zmieniły się relacje między partnerami w jednej spółdzielni.

Z macierzy SP-SR menedżerowie najwyższego szczebla mogą dowiedzieć się, czy i w jakim stopniu ich relacje z dostawcami i pozycja względem nich przyczyniają się do tworzenia wartości przez organizacje. Macierz ma szczególną wartość i jest źródłem ważnych informacji w przypadku sprawdzania zmian relacji ze strategicznymi dostawcami i pozycji względem nich w porównaniu do lat ubiegłych. Macierz może być również przydatna w sytuacji, gdy organizacja chce się dowiedzieć, czy relacje z dostawcami, które istnieją, mają wpływ na tworzenie wartości przez organizacje, czy też musi wprowadzić więcej zmian w strategii dotyczącej budowania relacji ze strategicznymi dostawcami wynikającej z przyjętego modelu biznesu, aby osiągnąć pożądany poziom tych relacji. Dodatkowo macierz pozwala określić pozycję przedsiębiorstwa względem strategicznych dostawców i w razie konieczności podejmować działania mające na celu wprowadzenie stosownych zmian, aby te stosunki polepszyć, szczególnie w procesie tworzenia zrównoważonego przedsiębiorstwa.

Opracowano autorską macierz oceny wpływu relacji z dostawcami i pozycji względem nich na tworzenie wartości przez organizacje. Matryca SP-SR sytuuje jednostkę w obszarach będących wypadkową stosunku do dostawców (SP) oraz relacji z dostawcami (SR). Wiedza ta wydaje się być ważna w szczególności dla praktyki z punktu widzenia oceny zdolności tworzenia wartości przez organizacje poprzez kształtowanie odpowiednich relacji ze strategicznymi dostawcami i pozycji względem nich.

Słowa kluczowe: matryca, stosunki z dostawcami, pozycja względem dostawców, tworzenie wartości, model biznesu

Kody klasyfikacji JEL: M2, O20, L1, L21