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NEGOTIATION STRATEGIES WITHIN REVERSE LOGISTICS COOPERATION

The objective of the paper is to present specificity of strategies, as well as styles of collaboration useful for negotiations of cooperation terms in the area of reverse logistics. The content of the article is the result of considerations conducted using desk research and analysis of bibliographic sources, primarily in the field of organization of activities in reverse logistics, conditions of cooperation with specialized service providers and negotiation strategies. Also, the experience of authors in the field of conflict management in logistics systems, both within an individual enterprise, as well as between cooperating enterprises is used in the research. The content of the article presents developed proposals of negotiation strategies in bilateral relations and in relations in which there are more participants. The main guidelines for the implementation of presented proposals of negotiation strategies are also included.

Keywords: reverse logistics, negotiations within reverse logistics, negotiation strategies, strategies of negotiations within reverse logistics.

1. INTRODUCTION

Among key conditions for effective functioning of any reverse logistics activity (regardless of the sector of operation) the efficient cooperation of all companies participating in such activity is highlighted. Meeting this condition is not an easy task, both in theoretical and methodological dimensions, i.e. creating and using effective cooperation tools, and in empirical terms, i.e. giving these tools the character of practical solutions.

Difficulties related to the design and use of such type of solutions result from the requirement of agreement of all parties on the conditions of cooperation, the need to create and implement efficient mechanisms for coordination of activities in time and space, as well as provision of necessary resources. This is particularly difficult in contemporary terms of reverse logistics activity, such as: complexity related first of all to the focus on sustainable development, the pressure to implement green logistics solutions, but also

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intensity of changes in the environment and the associated increase of operational risk. Treating reverse logistics as a part of activity in supply chain also requirement to ensure vulnerability of supply chain to changes in the environment, as well as ensuring resilience to increasing risk should be highlighted as important factors influencing cooperation. It should also be emphasized that restrictions related to implementation of national and international legal regulations regarding the handling of specific types of goods have a significant impact on the negotiation of cooperation terms (Małkus, 2020; Małkus, Kozina, 2022).

When preparing or changing cooperation terms, resolution of conflicts, that arise in cooperation a number of negotiations both bilateral and multilateral must be carried out. Appropriate tools for conducting such negotiations – just like in other areas of business activity – can be divided into general ones, i.e. negotiation strategies and styles, and more specific ones, i.e. negotiation techniques, tactics, tricks, principles, rules, etc. The objective of the paper is to present specificity of strategies, as well as styles of collaboration useful for negotiations of cooperation terms in the area of reverse logistics.

2. LITERATURE REVIEW

According to one of the early comprehensive descriptions of reverse logistics such concept can be defined as a process of planning, implementing, and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or appropriate disposal (Rogers, Tibben-Lembke, 1999). The main activities, which can be distinguished in the area of reverse logistics include: product repair, refurbishing, upgrade, disassembly of a defective or used product to recover parts for reuse, recycling, as well as disposal of products with expired date of use and also disposal of waste (Tombido, Louw, Van Eeden, 2018). The implementation of these activities requires considering selection, separation, transport, storage as well as packaging. More specifically, the characteristics of the tasks related to the flow of goods in reverse logistics include (El Korchi, Milet, 2011; Małkus, 2020):

- collection of goods to be returned to supplier – it concerns identification of incorrectly delivered, redundant, defective products, damaged parts, materials as well as separation of products, parts and materials to be returned,
- collection and sorting of products with expired date of use, as well as damaged products, waste and recyclable materials – it relates to the qualification of mentioned types of goods for further actions (use of product components in re-manufacturing process, recycling, repair of product),
- recovery of parts suitable for remanufacturing by disassembly of products that turned out to be defective during quality control after the end of production or due to defects disclosed in the distribution channel,
- recovery of parts from end-of-life products for remanufacturing, which requires disassembling of these products, inspection and sorting as well as qualifying suitability for reuse,
- repair of damaged product (product value recovery),
- delivery of waste for disposal,
- recycling of materials (recovery of its value) for further use in manufacturing process.

Along with the listed, marked methods of restoring the value it should be added, that similarly to forward logistics activities related particularly to transport are emphasized among the main activities that also significantly affect the effectiveness of value creation in reverse logistics (Dowlatshahi, 2010). Taking into account four main aspects of economic utility, which influence the value of product for recipient (the usefulness of the form, place, time and possession), it should be indicated, that the aforementioned activities related to securing, preparation and processing relate to the utility of the product form, as well as possession in the area of reverse logistics. Transport is about the utility of time and place to use this product. It influences also possession of product.

Taking into consideration the specificity of negotiations within reverse logistics cooperation, the following features can be distinguished (Kozina, Małkus, 2023):

- substantial acceleration of these processes, especially pre-negotiation analysis (specifying, for example, bargaining power of parties resulting from the importance or uniqueness of each party in the process of creating or restoring value in reverse logistic, also obtaining recommendations),
- significant increase of the scope of such analysis in a wider negotiating environment (e.g. considering the influence of interests of other units cooperating with negotiating parties),
- searching for trusted negotiation partners, shaping and maintaining positive relationships with them,
- adopting a broader perspective when looking for possible alternative solutions (e.g. considering other potential partners of the same type, avoiding excessive dependence on the entity with which one is negotiating),
- increased flexibility of performance, particularly when searching for options for solutions,
- looking for new strategies and negotiation techniques aimed at finding a balance between cooperation and competition,
- enriching the tools of multiparty negotiation, more and more dominant in contemporary socio-economic life,
- full acceptance of the multicultural nature of the negotiating environment and its creative use,
- particular attention is related to compliance with limitations resulting from law on environmental protection, treatment of special types of goods, dangerous goods waste and recyclable materials as well as with requirements of permits for transport, storage, securing, etc. resulting from these regulations,
- paying much more attention to information security,
- using modern systems of supporting negotiations via the Internet.

Listed features of negotiations with providers in the area of reverse logistics are only examples, but these are treated as most important when preparing terms cooperation.

It should be added that negotiations carried out in the reverse logistics process are more detailed than in the traditional logistics process, in which they are direct in nature (Jeszka, 2011). Moreover, negotiations with participants in the business environment in the scope of the implementation of flows are much more difficult in reverse logistics than in traditional logistics (Starostka-Patyk, 2016). The bargaining power of the partners in these negotiations is of significant importance in this case (Sheu, Gao, 2014).

When considering parties to the discussed negotiations, these can be distinguished on the basis of previously mentioned types of activities in the area of reverse logistics,

relationships between reverse logistics and the flow of goods in the manufacturing process, as well as the ways of specialization of service providers. The following types of participants can be distinguished:

- product suppliers (manufacturers, trading companies but also firms rendering services),
- recipients (using the delivered goods and services in the further production or distribution),
- end users of products and recipients of services,
- units disassembling worn, damaged, spoiled products,
- units recycling materials for reuse,
- units disposing waste,
- specialized service providers authorized to collect and transfer waste and recyclable materials to the places of their further use.

It should be added, that in practice, there may be enterprises combining the above-mentioned specializations, in accordance with legal restrictions related to the handling of waste and recyclable materials.

In order to describe and analyze negotiation processes conducted within reverse logistics the following key aspects of the description of negotiations can be distinguished, i.e. as a process, methods of conflict management and reaching an agreement, mutual dependence of the parties and processes of: decision making, communication, mutual exchange and value creation (Kozina, 2018).

In the literature on the subject, both in the field of reverse logistics cooperation and negotiations the issue of negotiation strategy is rather rarely considered. It is included for example in (Jayaraman, Guide, Srivastava, 1999; Jayaraman, Patterson, Rolland, 2003; *Negocjacje...*, 2003; Linton, Jayaraman, 2005; Lewicki, Barry, Saunders, 2018) and in literature review conducted in this field (Rogers, Tibben-Lembke, 1999). A common feature of most studies is the focus on bilateral negotiations without sufficient consideration of the influence of other participants on the attitudes of the negotiating parties. Also, insufficient attention is paid to the conditions of negotiations in which more partners participate simultaneously. One of the few examples of a study that considers the company's connections with its supplier and recipient as well as the conditions affecting negotiations between the company in question and each of its partners is (Tombido, Louw, Van Eeden, 2018; Heunis et al., 2024; Anwar, Ekawati, Ramadian 2024). Therefore, an original, author's approach to the discussed strategies is presented in the article, based on classic works, discussing negotiation strategies in general, such as (Levitt, 1980; Lindgreen, Hingley, Grant, Morgan, 2012; Rogers, Tibben-Lembke, 1999; Dowlatshahi, 2000; Johnson, 1998; El Korchi, Milet, 2011; Huscroft, Hazen, Hall, Skipper, Hann, 2013; Senthil, Sridharan, 2014).

3. METHODOLOGY

Research results planned to be presented in the article are mostly of conceptual nature. Such assumption led to decision to use desk research as the main method to conduct such research. This method is considered the basic one to obtain from available bibliographic sources a wide range of main information regarding the specificity of reverse logistics services market, types of service providers, as well as conditions for undertaking cooperation with service providers in this market.

The application of desk research is supported by the analysis of review studies, as well as case studies in which generalizations concerning attitudes and policies to negotiations are presented. Also studies on detailed experiences when conducting cooperation with service providers in the area of reverse logistics as well as the impact of cooperation conditions on value recovery process in reverse logistics are taken into consideration.

The preparation of the content is also supported by authors' individual experience in the area of designing reverse logistics management systems, as well as negotiating and preparing the terms of cooperation with units specializing in provision of services related to handling of used products, goods with expired date of use, recyclable materials, as well as waste. In preparing the article, authors' experience and research results on conflicts in logistics systems, both within an individual enterprise and between enterprises cooperating in supply chains, were also considered.

Based on the information collected during the content analysis of bibliographic sources, generalizations were made, and proposals were presented for types of negotiation strategies that could be useful in negotiating the terms of cooperation with reverse logistics service providers.

Presented approach to use research methods has limitations, which, however may include limited timeliness of data and information in dynamically changing market conditions, fragmentation and incompleteness of data and information, making it difficult to analyze market situation and identify key factors influencing the effectiveness of negotiations, limited reliability of data and information sources, lack of cultural context, as well as the risk of overinterpretation of data.

4. RESULTS OF RESEARCH

Beginning to consider the concept of negotiation strategy it can be described as a "general plan aimed at achieving goals and a sequence of events leading to their implementation" (Lewicki, Barry, Saunders, 2018) or "a planned sequence of actions defining the approach to negotiations" (*Negocjacje...*, 2003). It is also "a certain set of means and methods leading to the achievement of planned goals" (Kałużna-Drewnińska 2006). It should also be assumed that "the negotiation strategy should, in most cases, be consistent with the strategy of the organization for which the negotiators work" (Kowalczyk, 2001).

The above-mentioned general approach to understanding negotiation strategy shows, that such concept can be defined in detail as a program specifying the key goals and principles of implementing the negotiation process as well as assumptions and expectations as to its course. It includes a scenario of expected events, expected actions and behaviors of negotiation participants. It also identifies the conditions (possibilities and limitations) of conducting them, resulting from the influence of their parties, the immediate environment, and the external environment (Kozina, 2018).

Therefore, the negotiation strategy determines the course of action during negotiations, in the form of synthetic rules (indications) for conducting them. It is difficult to clearly define it, it is situational in nature, i.e., it depends on the assumptions and conditions of specific negotiations, and it is also necessary to precisely distinguish between the strategic and operational aspects of action. Unless this is done from the perspective of future relations with the other party or in the context of long-term contracts under which partial transactions are negotiated. By definition, negotiations are closed undertakings (projects).

Creating a negotiation strategy includes the following activities:

- 1) synthesis of previous arrangements (assumptions and conditions of negotiations),
- 2) analysis of the possibilities of selecting a strategy (among model solutions),
- 3) choice of negotiation strategy.

These activities are the culmination of the negotiation planning process, because the right strategy is a means to achieve the assumed goals, the simpler it is, the better it is. Complicated strategies fail after a few moves because the other side has not read our script and has a different plan (Kennedy, 1998). Effective formulation of goals and appropriate recognition of the negotiation situation may be accompanied by an ineffective strategy and vice versa (Schoonmaker, 1989).

Depending on the real possibilities of “programming” considered negotiations, the strategy discussed may be:

- detailed plan for their implementation, constituting a synthesis of planning arrangements, or
- rough scenario, containing only the most important statements, or
- only a general view of the negotiations (sketch), suggesting how they should be conducted.

The negotiation strategy under consideration may therefore be detailed or generalized.

Taking into consideration two-party negotiation strategies within reverse logistics in the literature, there are usually two opposing types of strategies distinguished, adequate to types of negotiations, depending on the way they are perceived, especially the attitude towards the partner, referred to as strategies (Thomas, Eastman, Shepherd, Denton, 2018; Walton, McKersie, 1965; Schoonmaker, 1989; Kennedy 1989; Kamiński, 2003; Lewicki, Barry, Saunders, 2018):

- cooperative – integrative, also called collaboration, based on mutual benefits (win-win), joint search for solutions, bargaining based on interests, etc.,
- competitive – distributive, also referred to as rivalry, individual search for solutions (win-lose), bargaining based on positions, etc.

When considering participants in reverse logistics, representing partially common but also other, individual, separate interest’s negotiation strategies conducted in such a cooperation are the result of searching for a balance between cooperation and competition. As it was noted in (Ury, 1995), the growing dynamics and scope of changes in the environment cause the differentiation of negotiation cases, making their description and analysis difficult. Considering the conditions of cooperation with providers of different types of service within reverse logistics, operating on the basis of appropriate licenses, legal authorizations to deal with specified types of goods, bargaining power of such providers may result with difficulties in achieving a balance between cooperation and competition. In such conditions negotiation strategy between provider and client may be more competitive in nature. It should be emphasized that the path from such competition to cooperation is also negotiation. The two basic types of negotiation strategies are therefore relative in nature.

Based on the two general types of bilateral negotiations presented above and considering the possibility of simultaneous cooperation and competition (coopetition) between partners, third type of strategy has been proposed (Brandenburger, Nalebuff, 1997). All three considered types of strategies for bilateral negotiations are compared in Table 1.

Table 1. The description of three types of two-party negotiations strategy

Features	Types of strategies		
	Competitive	Cooperative	Coopetitive
Participants	Opponents (adversaries).	Partners (or associates).	Opponents and partners (simultaneously)
Objectives and interests	conflicting (divergent, incompatible), priorities, mutually exclusive.	not conflictual (common, compatible), or different (other) with a different hierarchy, mutually dependent and aimed at understanding.	diverse, defined at a level of balance acceptable to all parties.
Resources	limited (fixed), without possibility to divide specific resources.	mostly unlimited (variable), possibility of increasing them by searching for new, creative solutions.	limited to division, but unlimited to increase.
Relationships	lack of trust in the other party, short-lived; trust and long-term, positive relationships are not important.	mutual trust of parties especially to competencies and goodwill of partner, the need and searching for long-term relations based on mutual understanding.	professional, neutral, substantive and not overly emotional.
Motives	striving to achieve one's own benefits at the expense of the partner, demanding benefits, position orientation.	belief that competencies and goodwill of both partners provide them with mutual benefits, aiming at maximizing benefits of both parties, business orientation.	striving to achieve the greatest possible benefits by all parties.
Effects	win/lose (gain/loss), satisfaction of one of parties, implementation does not depend on the goodwill of the other party, agreement is easy to reach, client (principal) strives to use the competences and rights of provider.	win/win (benefit/benefit), satisfaction of both parties, the condition for implementing the solution is mutual agreement of parties, agreement is difficult to reach.	mutual win by seeking additional benefits, the condition for implementation is to achieve the agreed level of effectiveness, perseverance and consistency in striving for an agreement.

Table 1 (cont.). The description of three types of two-party negotiations strategy

Features	Types of strategies		
	Competitive	Cooperative	Coopetitive
Proces	searching for solutions through mutual concessions, within the scope of negotiations, starting from attempts to achieve maximum goals, through taking subsequent positions, formulating offers ensuring benefits, supporting them with arguments, reaching an agreement somewhere in the middle of this area, but not exceeding the minimum requirements.	creative problem solving through identification of interests of parties (informing about their needs), structuring the problem according to the interests of the parties, generating options for solving problems, selection of criteria for their assessment, formulating variants of the agreement, reaching an agreement by selecting a solution and improving it.	identification and ordering of problems according to priorities (criteria) of effectiveness, importance, difficulty and possibly urgency, searching for creative solutions to key, important problems, mutual concessions when solving marginal and less important problems.
Techniques	confrontational and manipulative, offensive and routine actions, based on relative strength and the pursuit of advantage.	Integrative (cooperative), constructive and creative activities, based on trust and exchange of information.	diverse, both routine and creative, efficiency-oriented, and adequate to the above-defined features.

Source: own elaboration.

It is important to emphasize that focusing on only one separate type of strategy may not prove to be an appropriate approach. It is generally recommended to use a cooperation strategy, but an alternative to use competitive strategy should be prepared in case the initial assumptions turn out to be incorrect, i.e., the partner refuses to cooperate and strives for confrontation, feeling its bargaining power resulting from unique assets or legal authorizations. The coopetitive strategy may also prove to be the right one in specific conditions, e.g., between the client (principal) and service providers (when each party is aware of the benefits gained through cooperation), also between providers competing for a larger share of services rendered in the next period of cooperation.

Each of the three types of bilateral negotiation strategies presented in Table 1 can be used in reverse logistics negotiations, as shown in Table 2.

Negotiations can be carried out not only with one partner (bilateral negotiations), as it stated in previous part of article, but simultaneously with more of them (multilateral negotiations). In the current operating conditions of organizations, such negotiations occur more and more often in the field of various, complex, and dynamic projects, such as concluding alliances, implementing joint projects (e.g., development, innovation, etc.), outsourcing, creating network or virtual structures, as well as in reverse logistics.

Up to now, conducted research did not develop effective methodological tools for the implementation of the considered negotiations, adequate to their specificity, and especially their strategy. It is not difficult to find advice on how to conduct negotiations involving two parties, but such simple negotiations in the real world are rare (Watkins, 2005). Modifications to the standard negotiation process or tools for solving selected problems

are usually proposed, mainly in the context of international relations (Zartman, 1994; Dupont, 1994; Crump, 2003).

Table 2. Two-party strategies of negotiations within reverse logistics

Type of strategy	Possibilities of implementation
Competitive	may be useful to resolve conflicts, related to various aspects of cooperation, e.g. necessary changes of procedures used by client (principal) related to preparation of waste and recyclable materials to be transferred to the service provider, division of benefits between parties (resulting from improvements of cooperation), reaction to changes of law regulations concerning treatment of specified types of waste or recyclable materials, etc.; such strategy may also be useful when applying for cooperation, to enter into a new contract with the client.
Cooperative	the most appropriate strategy to take full advantage of benefits of cooperation in reverse logistics; the basis for effective, usually long-term cooperation; used especially when creating terms of cooperation as well as when adapting to changes of conditions of cooperation, because potential participants usually tend to avoid competition with others; cooperation is necessary to agree its terms in such a way as to provide the expected benefits to all cooperating companies in terms of the scope, time, place, etc.
Coopetitive	participants may use such a mixed strategy, while cooperating harmoniously on a daily basis; in accordance with a positively understood routines, adaptation of such routines to changes e.g. of law regulations without unexpected disruptions in cooperation; partners know exactly what they can expect from themselves; parties are aware of their strategies, these strategies as well as strategy of entire reverse logistics are agreed and are well known to all parties; may be used e.g. in conditions of outsourcing activities to many service providers when the share in the total number of orders depends on the degree of meeting the quality requirements of the client in the earlier period.

Source: own elaboration.

As far as the definition and features of multiparty negotiations are concerned, the three fundamental criteria to classify their strategies may be used. Each of the criteria allows distinguishing two, thus all of them six, i.e., three pairs of basic (pure, single-dimensional) negotiation strategies are described below (Kozina, 2007):

- including general attitude towards negotiations (parties, goals, mutual relations, and context), which is reflected in traditional concept of integrative versus distributive bargaining, two basic strategies may be distinguished: cooperative (negotiator focused on finding solutions which satisfy the interests of all parties, to reach common ground, and to look for potential allies) and competitive (negotiator searches for solutions which satisfy only his interests and fights against his opponents),
- considering the negotiator's bargaining power, two pure strategies can be specified: superiority (supremacy – when the position of a negotiator against others is relatively strong, negotiator dominates over others and has many possibilities) and inferiority (subordination – reflecting a weak negotiator's position, subordinated to other parties, and having limited opportunities, which reflects the actual negotiator's

possibility for controlling the negotiation process and scope of determining the activities of the other parties),

- according to the possible ways of performing negotiations in relation to other parties within a group, two basic strategies can be pointed out: individual (the negotiator acts solely on his own but impacting indirectly his partners) and common (the negotiator is involved in teamwork, directly and substantially influencing group structure and processes).

The pure negotiation strategies listed above are not sufficient to reflect the complexity of multiparty negotiations. Therefore, it is necessary to combine the three classification criteria, i.e., look at those strategies from three-dimensional perspective, which leads to elaborating eight potential, resultant strategic options – see Table 3.

Table 3. Three-dimensional classification of multi-party negotiations

Strategies (below: pure, left: resultant)		Individual	Collective
Cooperative	Superiority	Entrepreneurial [Creator]	Integration (forming coalition) [Integrator]
	Inferiority	Encouragement demonstration [Supporter]	Accession to coalition [Nexus]
Competitive	Superiority	Fight [Terminator]	Disintegration (destroying coalition) [Saboteur]
	Inferiority	Opposition manifesto [Don Quixote]	Accession to adverse coalition [Oppositionist]

Source: own elaboration.

To enable the selection of an appropriate strategy in the case of negotiations between participants of cooperation within reverse logistics, it is necessary to determine the conditions of their usefulness – these are presented in Table 4.

Table 4. Conditions of usefulness of multilateral negotiation strategies within reverse logistics

Strategy	Conditions of use in the reverse logistics
Entrepreneurial	an agreement with others within reverse logistics, concluded on one's own terms, even though it is not necessary for immediate purposes; this significantly increases the benefits and/or strengthens the potential of resources or weakens potential competitors; e.g., creation of an "empire" by company authorized to handle waste or materials for recycling, when creating a network with other units operating in the area of waste disposal and recycling.
Encouragement demonstration	in a case of firm not attractive for partners, the fact of "media" support is the only source of potential benefits, i.e. at least improving image, obtaining a possible award, or achieving benefits in the future, in reverse logistics there is little opportunity to use such type of strategy, usually image of partner has to be confirmed by authorizations, licenses, certificates, recommendations related to treatment of certain types of goods, cooperation with an unauthorized company may result in legal consequences.

Table 4 (cont.). Conditions of usefulness of multilateral negotiation strategies within reverse logistics

Strategy	Conditions of use in the reverse logistics
Fight	best method to dominate other companies by imposing own conditions, but this does not entail costs that significantly exceed the possible benefits, an example can be the use of unique legal authorizations of partner to impose its expectations on other parties, when resigning from cooperation and changing this partner to another one is difficult or impossible.
Opposition manifesto	verbal opposition to others is the only way to gain any possible benefits, usually in the future, used in the case of a change in the situation, e.g., as a result of favorable external conditions, e.g. blocking the implementation of its goals – considered unfounded, irrelevant, wicked, etc. - by party to cooperation with greater bargaining power, in reverse logistics, it is easy to use, especially for companies authorized to handle specific types of waste and secondary raw materials on the market.
Integration (forming coalition)	seeking high-quality agreements with other partners by striving to achieve mutual goals as much as possible, solving problems together, achieving objectives efficiently, leading to the best possible results; useful strategy, especially when each party to negotiation has significant potential, strategy that is particularly useful in the context of creating a network of cooperation between companies that transport, store and process waste and secondary raw materials, it can also be used between these partners and clients in reverse logistics.
Accession to coalition	applied particularly when considered organization strives to cooperation with other firm, which is the best, and sometimes the only, way to improve one's own weak bargaining position in order to fully or at least partially achieve high efficiency of the entire chain (treated as coalition); this can contribute remarkably to the achievement of common organizational goals, also useful particularly for negotiations between companies transporting, storing and processing waste and secondary raw materials.
Disintegration (destroying coalition)	competing with partners in order to prevent or limit the implementation of their common, but for us opposing, goals; it is treated as the most advantageous way to achieve one's own goals, e.g. breaking up by manufacturer previously established but currently ineffective coalition with subcontractor, preventing the creation of an alliance between such subcontractor and provider of logistics service that could weaken the position of manufacturer in the likely unfavorable external conditions, in reverse logistics, where there is a need to have permissions to handle certain types of goods (especially waste and secondary raw materials) and where errors in operation may result in negative legal consequences, such a strategy should be avoided.
Accession to adverse coalition	cooperation (e.g., of manufacturer with subcontractor) as the best, and sometimes the only, way to improve own position of manufacturer for the full or at least partial implementation of goals that are common for coalition of manufacturer and subcontractor as well as to prevent the subcontractor from joining another coalition and thus prevent the implementation of the goals of such a coalition, cooperation in reverse logistics may require the integration of activities of customer and logistics service provider, as well as close cooperation with the partner processing waste or secondary raw materials, such integration reduces the risk of opportunism of the parties and changing chain/network partners.

Source: own elaboration.

Considering types of strategies presented in Table 4, the integration strategy based on the construction of a coalition should be considered as the most preferred, i.e. recommended for use. This strategy potentially provides the greatest benefits to all partners as a result of their cooperation in searching for the best solutions. However, taking into account the objective difficulties in implementation of the strategy considered, determined by the complexity of the negotiations under consideration and the often limited possibilities of action, the strategy of accession to a coalition should be considered more realistic, provided, of course, that such a coalition has been concluded. On the other hand, in order to prevent the creation of undesirable enterprise agreements between reverse logistics, which reduce the strength of connections between partners in the chain under consideration, strategies of disintegration and accession to another coalition may also prove to be useful from time to time.

5. DISCUSSION

Presented typology of negotiation strategies, that can be used to establish cooperation or during the adaptation of existing cooperation with partners in the area of reverse logistics is a proposal of the authors of this article. It is a response to the insufficient interest in this issue highlighted in the chapter on the literature review. This issue is becoming increasingly important with the growing interest in cooperation with service providers in reverse logistics, the focus on sustainable development and the associated greater intensity of changes in the operating conditions in the environment of enterprises.

The main advantages of the suggested concept of negotiation strategies within reverse logistics cooperation are as follows:

- it is conducive to effective cooperation between companies,
- moreover, supports the management of relations among them,
- what is more, it influences the effective shaping and maintenance of partnership relations between them,
- stimulates the search for effective solutions to problems arising in cooperation,
- facilitates the resolution of potential and real conflicts within cooperation,
- helps to reach compromises and consensuses while resolving these conflicts,
- supports the search for creative solutions to improve cooperation,
- leads to the conclusion of effective contracts between partners,
- in the end, it increases the efficiency of cooperating parties, as well as entire reverse logistics' performance.

On the other hand, the following disadvantages of the suggested concept may be pointed out:

- its use can sometimes be too laborious,
- it may leave aside the scope of considerations of secondary but important conflict goals for individual parties to the negotiations,
- the choice of proposed strategies may be limited by changes in legal regulations related to the pursuit of the principles of sustainable development, including the implementation of the assumptions of green supply chains,
- companies having strong bargaining power e.g. based on the uniqueness of their competences (confirmed by licenses, certificates) may dominate over other cooperating parties,

- changes in legal regulations related e.g. to management of waste, secondary raw materials, and reduction of carbon footprint may result in changes in strategy during the renegotiation of operating conditions in order to adapt to new conditions.
- sometimes it leads to the conclusion of the so-called sick compromises that do not satisfy any of the participants.

Since the presented proposal of typology of strategies is preliminary in nature, it will be improved during further research in order to reduce the disadvantages listed above.

6. CONCLUSIONS

As it was stated, the proposal of concept to describe negotiation strategies within reverse logistics cooperation presented in the paper is a preliminary approach to the issues under consideration, since they are relatively new, not fully recognized in theory and research, as well as in economic practice. Therefore, authors will strive to enrich and broaden presented concept, mainly by searching for more precise characteristics of the considered features of the negotiations under consideration. It is also planned to conduct comparative empirical research in order to verify the usefulness of this concept.

In addition, it is planned to expand the context of considerations, i.e. to create a broader concept of the conditions of negotiations within reverse logistics cooperation in the current economic reality by proposing the principles of their conduct and thus creating a specific normative model of such negotiations.

Another interesting direction for further research may be to adapt the presented negotiation strategy proposals to the types of relationships between cooperators in reverse logistics. It is necessary to take into account, for example, the expectations of the client and the service provider regarding the effects of cooperation resulting with decisions related to dependence on partner, preferred period of cooperation, partnership, the need for integration, including the adaptation of procedures, tools, and also, for example, the involvement of cooperating parties in the supply chain. Depending on the expectations regarding the organization and effects of cooperation, the usefulness of individual, proposed types of strategies may also change.

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