

RELATIONSHIP FACTORS BETWEEN SUPPLY CHAIN ACTORS

TÍMEA KOZMA,¹ KATALIN FARAGÓNÉ LEPP,¹

RITA SZABÓ-GELETÓCZKI²

¹ Budapest Business School, Budapest, Hungary
kozma.timea@uni-bge.hu, faragonelepp.katalin@uni-bge.hu

² Hungarian University of Agricultural and Life Sciences, Gödöllő, Hungary
rita.geletoczki@gmail.com

Abstract The competition between companies is now in fact competition between value chains and supply chains. Nowadays, companies that participate in an efficiently managed supply chain based on partnerships are leading the increasingly competitive market. The companies must have recognising that the development of close strategic relationships and network cooperation between chain members is an essential part of market competition. The problem is that few company realise this yet. In the framework of the Budapest Business School Supply Chain and Value Chain Research Group, we are trying to explore the supply chain and logistics practices of Hungarian companies and institutions. Our research aims to identify the most important factors for successful business relationships. Our results show that long-term strategie business connections lead to success. Based on our research, we can say, a business point of view, trust, communication and cooperation become competitive factors.

Keywords:
supply chain,
relationship,
trust,
long-term
cooperation,
network

JEL:
D21, M21

1 Introduction

In the current globalised and increasingly networked world economy, a whole new social and economic challenges for the businesses that drive the economy. Confronted with a rapidly changing environment, companies must seek ways to survive, grow and compete (Michna, et al., 2020). All this is supported by well-functioning inter-business relationships. In the supply chain, companies need to be both upstream and downstream focused, collaborating with their chain members (Pulcini et al., 2018). Many companies are able to prosper through effective coordination first of all, and collaboration with supply chain partners (Yang et al., 2008; Surachman et al., 2019). Collaborations between supply chain partners provide members with the benefits and competitive advantages of the relationship, thereby enhancing the performance of supply chain partners (Shin et al., 2019). The aim of our research is to understand the corporate value chains and the supply chain link networks chains, and to see to what extent partnership and the techniques based on it are present in domestic corporate practice principles formulated in the research. The practical application of the principles developed in the research can contribute to the adaptation of companies to international trends to international markets, and to the maintenance of competitiveness.

2 Literature Review

The aim of supply chain management is to increase competitiveness and improve cooperation between partners (Hattayer & Gál, 2022). The relationship between partners facilitates the delivery of the best products and services to the market and the efficient and effective creation of value for the end user of the supply chain (Oluyomi et al., 2021). The supply chain is a cross-company series of value-creating processes that can create products and services suitable for satisfying customer needs, the characteristics of which include cooperation, a strategic approach and customer focus (Kozma et al., 2021). Efforts should be made to develop effective partner relationships with suppliers and buyers (Kumar et al., 2017). Nowadays, companies that participate in an efficiently managed supply chain based on partnerships are leading the increasingly competitive market (Szegegi et al., 2019). More and more companies are recognising that the development of close strategic relationships and network cooperation between chain members is an essential part of market competition (Wheelen et al., 2017). Trust is very important for strategic

cooperation (Haakansson, 2009; Mandják et al., 2010). Without trust none of the partners will take the risk of committing to the relationship (Barroso et al., 2016). Trust also has a positive impact on collaboration between supply chain members and positively affects company performance (Dubey et al., 2017; 2018; Uca et al., 2017) Research by Cullen et al.'s (2000) and Nyaga et al.'s (2010), also report on the positive impact of trust on firm performance and commitment to the partner relationship.

The economic environment has a significant impact on supply chains, where uncertainty and unpredictability are a threat. In the event of demand uncertainty, which is currently a characteristic of the markets, supply chain partners may face overproduction or stock shortages. It is difficult in this situation to predict what is likely to happen. In order to improve this situation, supply chain partners tend to integrate with suppliers and buyers, and a good long-term information sharing between the two parties can help to obtain more useful information that will help them to make the right decisions (Yeh et al., 2020). In an uncertain economic environment, close and long-term cooperation between chain members is of paramount importance and can lead to success. The longer the duration of a relationship and the more flexible it is, the closer the degree of cooperation will be. Resilience is an important element of relationships (Zomorodi & Sajad, 2010). Resilience is important in the relationship with its supply chain partners (Stevenson & Spring, 2007).

3 Methodology

The subjects of the research are mainly businesses operating in Hungary. The following criteria are taken into account when selecting a company: 1. the selected company must be based in Hungary (in the case of a subsidiary, the parent company the parent company may be foreign) 2. have at least 5 years of operation. The research is primarily based on primary research, using a questionnaire survey and structured in-depth interviews to investigate the role and activities of domestic enterprises in the supply chain. Data was collected using the snowball method. Our survey was conducted in the 2021/2022 school year period. In the course of the research, we aim to achieve representativeness in the classical sense, but not as a goal, because we are trying to find correlations and explain causal relationships. The data will be analysed and simple and deeper statistical correlations will be explored,

using the SPSS mathematical-statistical software package software package. The demographic profile of the sample is presented in Table 1.

Table 1: The demographic profile of the sample (N = 329)

Variables	Sample	Number of samples	%
company size by employees	micro-enterprise	78	23.7
	small business	110	33.4
	medium enterprise	72	21.9
the place of the company in the supply chain	supplier	34	10.3
	manufacturer	131	39.8
	wholesaler	72	21.9
	retailer	92	28

The population includes small, medium and large companies operating in Hungary, in terms of proportions, micro-enterprise 23.7%, small business 33.4 %, medium enterprise 21.9%. The proportion of manufacturers in the sample was close to 40%. Suppliers accounted for the smallest share, 10.3 %. The share of retailers was 28% and the wholesaler accounted for 21.9%.

4 Results

The starting point for the analysis of business relationships between companies and their partners was to ask which factors are strategically important to the members of the chain in terms of their business relationships. The results are illustrated in the following figure (Figure 1).

The results of the Fiedman test ($p < 0.001$) (Figure 1) show that there is a significant difference in the factors that are considered important in the business relationship between the company and its partners. The average ranks show that long-term sales relationships (9.34) and long-term supplier relationship (9.32) are the most important in business terms. Strategic alliance with suppliers (8.51) and customers (8) ranks second.

We looked at whether we found significant differences between the views of suppliers, manufacturers, wholesalers and retailers on what they consider important in their business relationships (Table 2).

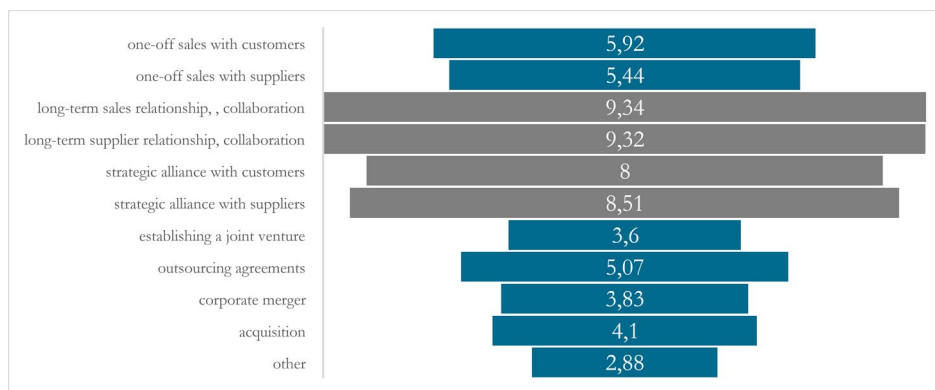


Figure 1: Key factors in business relationships

Source: Authors' research.

Note: Friedman Test: Chi2=2028.655; p=<0.001

Table 2: Partnership factors

	One-off sales with customers	Long-term sales relationship	Strategic alliance with customers	Strategic alliance with suppliers	Outsourcing
Kruskal-Wallis H	21.957	8.805	12.733	8.716	8.025
df	3	3	3	3	3
Asymp. Sig.	0.000*	0.032*	0.005*	0.033*	0.045*

*p < 0,05

Source: Authors' research.

There is a significant difference of opinion between the different groups on the following: One-off sales with customers, Long-term sales relationship, Strategic alliance with customers, Strategic alliance with suppliers, Outsourcing.

Kendall's rank order correlation was used to rank the success factors of the companies' business relationships. The result of the test is highly significant, *p<0.001. (W=0.459) agreement is found (Table 3).

Table 3: Success factors of business relationships

Kendall's		Relationship success factors	Mean Rank
N	329	An open, committed relationship	7.33
Kendall's W ^a	0.459	Smooth cooperation, fast, flexible response	<u>8.63</u>
Chi-Square	1660	Interdependence	4.31
df	11	Winner-winner, mutually beneficial relationship	7.45
Asymp. Sig.	0.000*	Trust	<u>8.65</u>
		Activity sharing	4.01
		The agreement provides a framework for cooperation	6.76
		Information sharing	6.81
		Quality of communication	<u>8.26</u>
		Joint problem solving	7.28
		Meeting their own strategic objectives	6.93
		Other	1.6

Source: Author's research.

The most important success factors are trust (8.65), smooth cooperation, fast, flexible response (8.63) and quality of communication (8.26).

Redondo and Fierro's research has shown that trust is stronger and plays a bigger role in micro enterprises than in small and medium enterprises. (Redondo & Fierro, 2007) We sought to answer the question of whether there is a difference between the perceptions of different sizes of companies on the importance of trust as a relationship success factor.

Table 4: The role of trust in certain corporate groups

group	N	Mean Rank	Kruskal-Wallis H	Asymp. Sig.
micro-enterprise	78	177.64	6.203	0.102*
small business	110	152.40		
medium enterprise	72	173.73		
large company	69	161.68		

*p=0.102 >0.05 agreement is not found

Source: Author's research.

In terms of ranks, micro enterprises show the highest scores (177.64), but no significant difference was found between the different groups of enterprises.

In addition to the success factors, we examined the failure factors and looked for correlations.

Table 5: Factors of partnership failures

Kendall's		Relationship failure factors	Mean Rank
N	329	Lack of commitment from the partner	<u>6.25</u>
Kendall's Wa	0.260	Lack of their own commitment	5.40
Chi-Square df	769.4 9	Lack of compliance with strategic objectives	5.74
Asymp. Sig.	0.000*	Lack of smooth cooperation	<u>6.15</u>
		Winner-loser attitude in the relationship. excessive subordination	5.74
		Lack of trust	<u>6.23</u>
		Lack of activity sharing	4.48
		Poor information sharing, inadequate communication	<u>6.89</u>
		Lack of joint problem solving	5.91
		Other	2.2

* $p < 0.001$, the result is highly significant. ($W = 0.260$)

Source: Authors' research

A parallel can be drawn between the success and failure factors. Factors of partnership failures: lack of commitment from the partner (6.24), lack of smooth cooperation (6.15), poor information sharing (6.89), lack of trust (6.23).

5 Discussion and Conclusion

The added value of the supply chain is generated by the efficient functioning of the supply chain (Kozma & Tóth, 2017). The main objective of this study was to investigate What types of relationships (one-off sales, long-term collaboration, strategic alliances, etc.) are of high strategic importance in the life of a company in relation to its business partners? What are the factors behind the success or failure of a company's business partner relationships? What role does trust play? Long-term collaboration with both customers and suppliers stands out as one of the most important factors in supply chain relationships. The suppliers, manufacturers and wholesalers they emphasise long-term cooperation most. We found that trust is a success factor in business relationships. If there is no trust between partners, it will lead to the failure of the business. Cooperation between chain members is important for the efficiency of supply chains. Communication and its quality can move the success of a business in a positive or negative direction. In conclusion, companies

need to recognise the importance of building and maintaining good business relationships. It is important to formulate that it is impossible to operate alone in a market without relationships. Companies need to take a long-term view of their partnerships and then they will be able to succeed. Trust is important as a foundation stone. It is worth developing communication skills to work more effectively. It is advisable to work with business partners who have a similar mentality. Companies can learn from each other in these processes. Companies have individual corporate cultures, it is not possible to generalise, but our study can give a good starting point. By expanding the sample, we can address the limitations of the study by including more firms of different sizes, cultures and ownership.

References

- Barroso, M.M.J., Galera C.C., Seitanidi M.M., & Amaro V.V (2016). Cross-sector social partnership success: A process perspective on the role of relational factors. *European Management Journal*, Volume 34, Issue 6, 674-685, DOI: 10.1016/j.emj.2016.07.004
- Cullen, J. B., Johnson, J. L. & Sakano, T. (2000). Success Through Commitment and Trust: The Soft Side of Strategic Alliance Management. *Journal of World Business*, 35/3, 223–240. [https://doi.org/10.1016/S1090-9516\(00\)00036-5](https://doi.org/10.1016/S1090-9516(00)00036-5)
- Dubey, R., Altay, N., Gunasekaran, A., Blome, C., Papadopoulos, T. & Childe, S.J (2018). Supply chain agility, adaptability and alignment: Empirical evidence from the Indian auto components industry. *International Journal of Operations & Production Management*, Vol. 38 No. 1, 129-148, doi:10.1108/IJOPM-04-2016-0173
- Dubey R., Gunasekaran, A., Papadopoulos, T., Childe, S.J., Shibin. K.T. & Wamba S. F. (2017). Sustainable supply chain management: framework and further research directions. *Journal of Cleaner Production* 142, 1119-1130, DOI: 10.1016/j.jclepro.2016.03.117
- Haakansson S. (2009). The Changing Governance Structures of the Global Pharmaceutical Value Chain. *Competition & Change*, 13(1), 75–95., DOI:10.1179/102452909X390574
- Hattayer, M. & Gál, J. (2022). Az ellátási lánc menedzsment gyógyszeripari aspektusai, Jelenkori társadalmi és gazdasági folyamatok, 2022 XVII. évfolyam, 1–2. szám, 51–58. <https://doi.org/10.14232/jtgf.2022.1-2.51-58>.
- Kozma, T., Nagy, V. Á., Pónusz, M., & Gyenge, B. (2021). *Green Logistics Development Plans of Hungarian Companies*. Scientific Papers of Silesian University of Technology – Organization and Management Series. DOI 10.29119/1641-3466.2021.151.17
- Kozma, T. & Tóth, R. (2017). Az ellátási lánc-menedzsment, mint hatékony vezetői eszköz, Vállalkozásfejlesztés a XXI. században Budapest, 2017.
- Kumar, G., Banerjee, R.N., Meena, P.L & Kunal, K.G. (2017). Joint planning and problem-solving roles in supply chain collaboration. *IIMB Management Review*, Volume 29, Issue 1, 45-57., DOI 10.1016/j.iimb.2017.03.001
- Mandják, T., Piricz, N. & Kővágó, GY. (2010). *Do Hungarian supply chain members trust in each other?* IMP Conference, Budapest.
- Michna, A., Kmiecik R. & Czerwinska-Lubszczyk, A. (2020). Dimensions of Intercompany Cooperation in the Construction Industry and their Relations to Performance of SMEs. *Inżynieria i Gospodarka Budowlana-Engineering Economics*, 31, 221–232., DOI:10.5755/j01.ee.31.2.21212

- Nyaga, N.olu G., Whipple, M. J. & Lynch, F. D. (2010). Examining supply chain relationships: Do buyer and supplier perspectives on collaborative relationships differ? *Journal of Operations Management*, 28, 101–114, DOI: 10.1016/J.JOM.2009.07.005
- Oluayomi, A.O., Ioannis K., & Heather M. (2021). Making sense of maritime supply chain: a relationship marketing approach. *Journal of Shipping and Trade*, 6,14. <https://doi.org/10.1186/s41072-020-00081-z>
- Pulcini, C., Beovic, B., Béraud G., Carlet, J., Cars, O., Howard, P.,Levi-Hara, G., Li, G.,Nathwani D., Roblot F., & Sharlan M. (2018). Ensuring universal access to old antibiotics: a critical but neglected priority. *Clin. Microbiol. Infect.*, 23, 590–592. DOI: 10.1016/j.cmi.2017.04.026
- Shin, N.; Park, S.H., & Park, S. (2019). Partnership-Based Supply Chain Collaboration: Impact on Commitment, Innovation, and Firm Performance. *Sustainability* 2019, 11, 449. <https://doi.org/10.3390/su11020449>
- Stevenson, M., & Spring, M. (2007). Flexibility from a supply chain perspective: Definition and review. *International Journal of Operations & Production Management*, 27(7), <https://doi.org/10.1108/01443570710756956>
- Surachman, A., Santoso, B., & Santoso, I. (2019). Influence of Information Sharing, Partnership, and Collaboration in Supply Chain Performance: Study on Apples Agroindustry. *Adn. Syst. Sci. Appl.* 2019, 3, 80–92. <https://doi.org/10.25728/assa.2019.19.3.689>
- Szegedi Z., Reicher R. ZS., & Kozma T. (2019). Hazai vállalkozások ellátási láncon belüli együttműködései, Logisztika Trendek és Legjobb Gyakorlatok, V. évfolyam 2. szám 2019. December, <https://www.doi.org/10.21405/logtrend.2019.5.2.4>
- Uca N., Cemberci, M., Cicilek M.E, & Yilmaz H. (2017). The Effect of Trust in Supply Chain on the Firm Performance through Supply Chain Collaboration and Collaborative Advantage. *Journal of Administrative Sciences*, 15, 30, 215-230. DOI: 0000-0002-2847-5126
- Yang, J., Wang, J., Wong, C.W.Y., & Lai, K.H. (2008). Relational Stability and Alliance Performance in Supply Chain. *Omega*, 36, 600–608., DOI: 10.1016/J.OMEGA.2007.01.008
- Yeh. T. M., Pai F.-Y., & Wu L.C. (2020). Relationship Stability and Supply Chain Performance for SMEs: From Internal, Supplier, and Customer Integration Perspectives. *Mathematics*, 8(11), 1902. <https://doi.org/10.3390/math8111902>
- Zomorodi, M., & Sajad F. (2010). Understanding the Concept of Elasticity in Supply Chain Relationships: An Agency Theory Perspective. *Asian Journal of Management Research*, 26(8), 1126-1157. <https://doi.org/10.1108/JMTM-11-2014-0123>

