

## Revisiting the co-makership concept and its impacts on collaborative buyer-supplier relationships

Plasch, Michael; Winter, Matthias

*Published in:*

29th International EurOMA Conference 2022 - European Operations Management Association EurOMA

Published: 05/07/2022

*Document Version*

Peer reviewed version

[Link to publication in pure](#)

*Citation for published version (APA):*

Plasch, M., & Winter, M. (2022). Revisiting the co-makership concept and its impacts on collaborative buyer-supplier relationships. In *29th International EurOMA Conference 2022 - European Operations Management Association EurOMA*

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# Revisiting the co-makership concept and its impacts on collaborative buyer-supplier relationships

*Michael Plasch (Michael.plasch@fh-steyr.at)*

*University of Applied Sciences Upper Austria, Logistikum Steyr, Austria*

*Matthias Winter*

*University of Applied Sciences Upper Austria, Logistikum Steyr, Austria*

## Abstract

Co-makership is based on the principle that purchasing organizations and suppliers rather collaborate to achieve increased profitability and market share more commonly than pursuing their own interests at all costs. In the SC context, buyers and the partnering firms are engaging in close cooperation to increase economic success for the involved parties. This paper aims to provide the theoretical basis for further investigating collaborative buyer-supplier relationships in the sense of the co-makership concept. The developed conceptual model, the online survey and their evaluation and analysis contribute to the co-makership understanding in discussing respective drivers and performance outcomes.

**Keywords:** Co-makership; Collaboration; Supply chain; Buyer-supplier relationships

## Introduction

The increasing extent of supply chains (SCs) as well as growing supplier network complexity impact various dimensions such as transaction costs, supply risk, supplier responsiveness, and supplier innovation. This, in turn, affects the operational performance of a buying firm. However, not only the structural complexity of supplier networks but also the behavioural and social dynamics as well as their influence on the buying firms' operating activities need to be taken into consideration (Huang et al., 2020). Due to the increasing interconnection and interdependence of buyers and suppliers, information exchange and the need for collaboration become more significant for the competitive advantages of both (Choi and Krause, 2006). Co-makership is based on the principle that purchasing organizations and suppliers rather collaborate to achieve increased profitability and market share more commonly than pursuing their own interests at all costs. In the SC context, buyers and the partnering firms are engaged through shared information along with human, technological or complementary resources to contribute to the sustainable economic success of supply chain partners (Cao & Zhang, 2010). Even though the initial concept was coined in the late 1980s, co-makership builds on the degree of interdependence in a buyer-supplier relationship (BSR) and describes the idea of the extended enterprise (Bevan, 1987; Dyer, 2000). Co-makership is understood as an

approach in buyer-supplier collaboration – applying particular changes in attitudes, strategy and operations that fit the specific purchasing environment – to achieve increased profitability, innovativeness and collaborative advantage together (buyer and supplier(s)) instead of pursuing buyer self-interests at all costs (Bevan, 1987). Buying firms engaging in co-makership strive for performance outcomes that directly affect the bottom line, such as reduced transaction costs or inventory levels, but at the same time are also interested in relational performance metrics including innovativeness, flexibility or process developments (Bevan, 1987; Um & Kim, 2019).

In the context of managing the supply chain network, buyers and the partnering firms are engaging in close cooperation to increase economic success for the involved parties. One important consideration is the long-term viability of competitive advantages based on shared information as well as human, technological, or complementary resources. The primary focus is on collaborative procurement strategies, which have a significant impact on relationships with other companies as well as the structure of the supplier network. Aside from various concepts of buyer-supplier relationships as well as collaborative strategies in SCs discussed today, questions remain about what way the buying firm can influence relationships and cope with challenges for performance aspects.

The underlying research unifies appropriate literature treatment and empirical investigation, particularly using a quantitative methodology and the following research question. RQ – *What factors related to co-makership do significantly impact performance outcomes of collaborative buyer-supplier relationships?*

The remainder of this short paper exemplifies the methodology and model development and presents preliminary findings of the study. It concludes with implications, limitations, and potential future research directions.

## **Methodology and model development**

A comprehensive literature review and analysis provide the theoretical basis for further investigation on close and collaborative buyer-supplier relationships (BSRs), which correspond to the concept of co-makership. Respectively, structural equation modelling (SEM) is utilized to test hypotheses and causal relationships (Sarstedt, 2016; Świerczek, 2014). As such, six constructs are derived and adapted from theoretical findings and corresponding hypotheses are formulated. The conceptual model of co-makership reflects literature in a condensed and aggregated form, the six constructs and their significance are to be described and discussed in the following:

### *Information sharing*

Information sharing, referring to the extent to which tacit and strategic knowledge including demand forecasts, product design, production plans or specific market knowledge, is shared within inter-firm relations, constitutes a critical element of supply chain collaboration in the context of co-makership and supplier integration (Cao & Zhang, 2011; Paulraj et al., 2008). Besides its relevance for the trust-building process in collaborative BSR (Kwon & Suh, 2004), information sharing enables joint process and product/service developments and innovations (Chu & Lee, 2006; Sriram & Stump, 2004). Moreover, information sharing contributes to joint knowledge creation and collective learning to develop a better understanding of and response to the given market conditions and environment (Cao & Zhang, 2011; Fawcett et al., 2008). Because information sharing capabilities and frequent information exchange strongly rely on information technology (Shore & Venkatachalam, 2003), utilized tools and digital linkages (e.g. EDI-interfaces, e-sourcing platforms, vendor managed inventory) facilitate

co-makership and therefore influence both, the relationship quality and operational performance of involved parties (Sriram & Stump, 2004). Thus, the following hypothesis is developed:

**H1:** *Information sharing is positively related to collaborative buyer-supplier relationships corresponding to co-makership.*

#### *Inter-organizational collaboration*

Inter-firm relations are omnipresent concerning today's globally dispersed value chains and supplier networks (Mena et al., 2013). The management of these supplier relationships consists of the definition of procurement strategies, the development of supplier relationship types, supplier selection, collaboration and evaluation as well as continuous supplier development. (Park et al., 2010). Nowadays this inter-organizational collaboration is driven and promoted by web-based platforms like collaborative planning, forecasting and replenishment, enterprise resource planning systems or electronic data interchange which facilitate easier inter-organizational collaboration (Skjoett-Larsen, Thernøe, & Andresen, 2003). The quality of inter-organizational collaboration positively affects the innovativeness of buying firms and their supplier networks, whereby innovativeness refers to the ability to adapt quickly to changing market or customer demands and introduce a new product or process development (Li et al., 2018). The ability to innovate, in addition to the individual and joint improvement of operational performance, is of central importance when it comes to co-makership. Therefore, it is hypothesized that:

**H2:** *Inter-organizational collaboration is positively related to collaborative buyer-supplier relationships corresponding to co-makership.*

#### *Supply Chain Complexity*

Concerning collaborative buyer-supplier relationships, it must be noted that SC and supply base complexity, as well as respective drivers, influence and determine procurement strategies and therefore the strategic partnerships of a buying firm and its suppliers (Choi & Krause, 2006). That brings SC complexity into play which generally comprises two elements, namely structural complexity – related to the number and diversity of operating firms in a focal system – and dynamic complexity – which comprises the interrelated interactions between different parties (Bode & Wagner, 2015). Drivers of SC complexity include demand uncertainty or volatility, product complexity, as well as changing or unstable industry and market requirements (Serdarasan, 2013). Product complexity, in turn, may refer to the product development or manufacturing process, the level of customization, the variety of different parts needed or SC complexity for the specific product itself (Eckstein et al., 2015). However, SC complexity is not only impacted by the strategic importance and supply risk of products and services themselves, but also by the industry and market environment. Due to today's global interconnectedness and sourcing strategies as well as dispersed supplier networks, complexity may also arise from different legal requirements, currency fluctuations or unstable political and economic environments (Bode & Wagner, 2015; Mena et al., 2013). Most recently, the global health crisis, caused by Covid-19, has proven that the global interconnection of SCs increases complexity as well as uncertainty and interdependence of buying firms and suppliers. That leads to the third hypothesis:

**H3:** *Supply chain complexity is positively related to collaborative buyer-supplier relationships corresponding to co-makership.*

### *Co-Makership*

Since co-makership constitutes the integral element of the research question, this form of collaborative BSR represents the central construct for the conceptual model and causal analysis. Collaboration among SC partners may occur in numerous different forms as collaborative behavior in today's complex and globally interconnected business environment may result in greater economic success than traditional or transactional SC relationships (Paulraj et al., 2008). In BSR corresponding to the concept of co-makership or supplier integration, whereby the definition is dependent on the degree of interdependence, the supplier network is considered as the extended enterprise and value-adding network. Besides the improvement of the operational performance of the buying firm and its suppliers, relational aspects such as long-term orientation, trust, social governance, or communication routines are significant success factors for inter-firm relations and therefore create a collaborative advantage. Additionally, shared information, as well as human, technological or complementary resources, contribute to the sustainable economic success of SC partners in an increasingly complex business environment that promotes the focus on core competencies (Cao & Zhang, 2010).

Both elements – relationship and financial – which are relevant for performance measurement of collaborative buyer-supplier relationships, are represented in the conceptual model and are investigated regarding their significance.

### *Relationship Performance*

Relationship performance refers to the collaborative activities of a buying firm and its suppliers and the benefits arising from it such as improved forecast and order processing accuracy as well as increased operational innovativeness (Panahifar et al., 2018; Ramanathan, 2012). Compared to the financial outcomes of co-makership, which are primarily measured in reduced costs, relationship performance affects the operational profitability of a buying firm and its suppliers indirectly. Although measuring relationship performance may be more challenging than assessing financial results, the relational aspects of co-makership are particularly relevant when considering collaborative procurement strategies and the development of long-term buyer-supplier relationships (Cousins et al., 2008; O'Toole & Donaldson, 2002). Respectively, suppliers constitute critical sources of external knowledge and problem-solving capabilities, which may be utilized in BSR corresponding to co-makership to develop and introduce new products or processes and to reduce time to market (Cao & Zhang, 2010; Kaufman et al., 2000). Therefore, the following hypothesis is developed:

**H4:** *Co-makership is positively related to the relationship performance of a buying firm.*

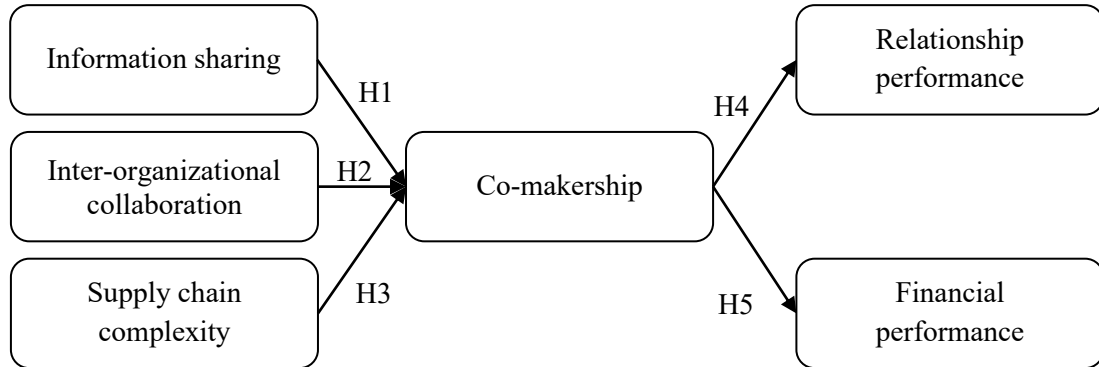
### *Financial performance*

In contrast to the relationship outcomes of co-makership, performance metrics concerning financial results mainly include quantitative and monetary measures, which are of specific interest to management executives. Although the bargaining power may be less exploited in collaborative relationships corresponding to co-makership than in competitive dyads and the risk of opportunism is low, cost efficiency remains a significant and evaluated dimension. Thus, cost efficiency is measured, for instance, in terms of material acquisition costs, inventory levels or delivery costs (Cannon et al., 2010; Cao & Lumineau, 2015; D.-Y. Kim et al., 2010). According to the study by Um and Kim (2019), who analyse the effects of contractual and relational governance on transaction costs and thereby support previous research, both types of governance mechanisms increase the

transaction cost advantage of collaborative buyer-supplier relationships. Hence, it is hypothesized that:

**H5:** *Co-makership is positively related to the financial performance of a buying firm.*

Figure 1 pictures the proposed model.



*Figure 1 – Conceptual model of co-makership*

### **Preliminary Findings**

Although countless diverse buyer-supplier relationships exist and the managerial challenges may vary according to the buying firms’ product and industry environment, close collaboration appears inevitable, regardless of the nature of the business. The developed conceptual model, the online survey and their evaluation and analysis contribute to the understanding of the concept of co-makership in discussing respective drivers and performance outcomes. Proposed hypotheses offer a basis for discussing the influencing factors such as information sharing, SC collaboration and SC complexity as well as social governance or communication methods. The study provides strong evidence that inter-organizational collaboration is positively related to relationship performance. The analysis further implies, that this effect is mediated by co-makership. Thus, co-makership can be seen as the main part of a successful buyer-supplier collaboration. Since the effect on financial performance is not significant, it can be deduced that relationship performance is of greater importance. However, this is only a short-term view, since the benefits of the relationship are expected to outweigh the initial costs of the collaboration. Thus, the model development and empirical results provide guidance regarding the various facets of co-makership to develop collaborative relationships and effectively perform collaborative activities.

### **Conclusion and Implications**

Preliminary results contribute to buyer-supplier relationship literature as it is emphasized that information sharing, and enhanced communication capabilities do not only significantly impact commitment and trust within inter-firm relations in terms of co-makership but also affect operational innovativeness. Thus, the importance of mastering respective abilities within the buying firm and its internal and external partners is inevitable to promote product and process development etc. Results highlight the importance of relationship performance in terms of improved forecast accuracy, product and service quality, on-time deliveries, and delivery quality as well as enhanced adaptability or innovativeness (Ramanathan, 2012; Panahifar et al., 2018). To be able to assess these performance dimensions, practitioners are required to implement appropriate performance measurement systems, which capture not only directly measurable monetary

indicators but also relational factors. Managers are advised to apply particular changes in attitudes, strategy and operations that fit the specific purchasing environment and support the approach in buyer-supplier interaction. Suppliers are fortified as an SC extension aiming at creating a sustainable collaborative advantage and a more reliable environment for collaboration.

## References:

- Bevan, J. (1987), "What is Co-Makership", *International Journal of Quality & Reliability Management*, Vol. 4, No. 3, pp. 47–56.
- Bode, C., & Wagner, S. M. (2015). Structural drivers of upstream supply chain complexity and the frequency of supply chain disruptions. *Journal of Operations Management*, Vol. 36, No. 1, pp. 215–228.
- Cannon, J. P., Doney, P. M., Mullen, M. R., & Petersen, K. J. (2010). Building long-term orientation in buyer-supplier relationships: The moderating role of culture. *Journal of Operations Management*, Vol. 28, No. 6, pp. 506–521.
- Cao, M., & Zhang, Q. (2010). Supply chain collaborative advantage: A firm's perspective. *International Journal of Production Economics*, Vol. 128, No. 1, pp. 358–367.
- Cao, M., & Zhang, Q. (2011). Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of Operations Management*, Vol. 29; No. 3, pp. 163–180.
- Cao, Z., & Lumineau, F. (2015). Revisiting the interplay between contractual and relational governance: A qualitative and meta-analytic investigation. *Journal of Operations Management*, Vol. 33-34, No. 1, pp. 15–42.
- Choi, T. Y., and Krause, D. R. (2006), "The supply base and its complexity: Implications for transaction costs, risks, responsiveness, and innovation", *Journal of Operations Management*, Vol. 24, No. 5, pp. 637–652.
- Chu, W. H. J., & Lee, C. C. (2006). Strategic information sharing in a supply chain. *Euro-pean Journal of Operational Research*, Vol. 174, No. 3, pp. 1567–1579.
- Cousins, P. D., Lawson, B., & Squire, B. (2008). Performance measurement in strategic buyer-supplier relationships. *International Journal of Operations & Production Management*, Vol. 28, No. 3, pp. 238–258.
- Dyer, J. H. (2000). *Collaborative advantage: Winning through extended enterprise supplier networks*. New York: Oxford University Press.
- Eckstein, D., Goellner, M., Blome, C., & Henke, M. (2015). The performance impact of supply chain agility and supply chain adaptability: the moderating effect of product complexity. *International Journal of Production Research*, Vol. 53, No. 10, pp. 3028–3046.
- Fawcett, S. E., Magnan, G., & Mccarter, M. (2008). A three-stage implementation model for supply chain collaboration. *Journal of Business Logistics*, Vol. 29, No. 1, pp. 93–112.
- Huang, Y., Han, W., and Macbeth, D. K. (2020), "The complexity of collaboration in supply chain networks", *Supply Chain Management: An International Journal*, Vol. 25, No. 3, pp. 393–410.
- Kim, D.-Y. [Dong-Young], Kumar, V., & Kumar, U. (2010). Performance assessment framework for supply chain partnership. *Supply Chain Management: An International Journal*, Vol. 15, No. 3, pp. 187–195.
- Kim, K. T., Lee, J. S., & Lee, S.-Y. (2019). Chain reactions of a collaborative buyer-supplier relationship: the mediating role of relationship quality on innovation performance. *Total Quality Management & Business Excellence*, Vol. 30, No. 11-12, pp. 1319–1337.
- Li, S., Zhao, X., & Huo, B. (2018). Supply chain coordination and innovativeness: A social contagion and learning perspective. *International Journal of Production Economics*, Vol. 205, pp. 47–61.
- Mena, C., Humphries, A., & Choi, T. Y. (2013). Toward a Theory of Multi-Tier Supply Chain Management. *Journal of Supply Chain Management*, Vol. 49, No. 2, pp. 58–77.
- Nyaga, G. N., Whipple, J. M., and Lynch, D. F. (2010), "Examining supply chain relationships: Do buyer and supplier perspectives on collaborative relationships differ?", *Journal of Operations Management*, Vol. 28, No. 2, pp. 101–114.
- O'Toole, T., & Donaldson, B. (2002). Relationship performance dimensions of buyer-supplier exchanges. *European Journal of Purchasing and Supply Management*, Vol. 8, No. 4, pp. 197–207.
- Panahifar, F., Byrne, P. J., Salam, M. A., and Heavey, C. (2018), "Supply chain collaboration and firm's performance", *Journal of Enterprise Information Management*, Vol. 31, No. 3, pp. 358–379.



- Park, J. [Jongkyung], Shin, K., Chang, T.-W., & Park, J. [Jinwoo] (2010). An integrative framework for supplier relationship management. *Industrial Management & Data Systems*, Vol. 110, No. 4, pp. 495–515.
- Paulraj, A., Lado, A. A., and Chen, I. J. (2008), “Inter-organizational communication as a relational competency: Antecedents and performance outcomes in collaborative buyer-supplier relationships”, *Journal of Operations Management*, Vol. 26, No. 1, pp. 45–64.
- Ramanathan, U. (2012), “Supply chain collaboration for improved forecast accuracy of promotional sales”, *International Journal of Operations & Production Management*, Vol. 32, No. 6, pp. 676–695.
- Sarstedt, M., Hair, J.F., Ringle, C.M., Thiele, K.O., Gudergan, S.P. (2016), “Estimation issues with PLS and CBSEM: Where the bias lies!”, *Journal of Business Research*, Vol. 69, No. 10, pp. 3998–4010.
- Shore, B., & Venkatachalam, A. R. (2003). Evaluating the information sharing capabilities of supply chain partners. *International Journal of Physical Distribution & Logistics Management*, Vol. 33, No. 9, pp. 804–824.
- Skjoett-Larsen, T., Thernøe, C., & Andresen, C. (2003). Supply chain collaboration: Theoretical perspectives and empirical evidence. *International Journal of Physical Distribution & Logistics Management*, Vol. 33, No. 6, pp. 531–549.
- Sriram, V., & Stump, R. (2004). Information technology investments in purchasing: an empirical investigation of communications, relationship and performance outcomes. *Omega*, Vol. 32, No. 1, pp. 41–55.
- Świerczek, A. (2014), “The impact of supply chain integration on the “snowball effect” in the transmission of disruptions: An empirical evaluation of the model”, *International Journal of Production Economics*, Vol. 157, pp. 89–104.
- Um, K.-H., & Kim, S.-M. [Sang-Man] (2019). The effects of supply chain collaboration on performance and transaction cost advantage: The moderation and nonlinear effects of governance mechanisms. *International Journal of Production Economics*, Vol. 217, pp. 97–111.