

Value in buyer-supplier relationships: the impact of relational purchasing practices

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Abstract

This study investigates the role of relational purchasing practices and supplier capabilities in the creation of relationship value. A survey study receiving 662 responses is conducted. The survey respondents are suppliers' contact persons in the key supplier relationships of four large buyer companies. The results add to the earlier literature by giving support to and clarifying the importance of supplier's integration with customer in relationship value creation. The study also contributes by identifying that a supplier's provision of measurement information on its products and their delivery has a positive impact on relationship value.

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Keywords: supplier capability, PSM practice, relationship value

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Introduction

Increasing attention has been paid on the relationship-oriented viewpoint to purchasing and supply management (PSM) highlighting the strategic significance of PSM as a contributor to the competitive advantage and performance of companies (Hallikas et al., 2014; Yeung, 2008). In buyer-supplier relationships both parties can impact on the relationship value.

There is a lot of research on the impact of PSM on the operational (e.g. quality, delivery speed) (González-Benito, 2007; Shao et al., 2012) and financial performance (e.g. ROI, profit increase) (Baier et al., 2008; Ellram et al., 2002) of the buying company. However, the viewpoint of suppliers has gained less attention. In this study, the emphasis is on the supplier perceptions on the PSM practices of buying companies and on suppliers' own capabilities. Many existing studies stress the benefits of close supplier collaboration (González-Benito, 2007) in value-creation but the content of actual practices (e.g. interaction) has been less addressed (Terpend et al., 2008). It is notable that value co-creation in buyer-supplier relationships is multi-dimensional and complex in nature (Möller and Törrönen, 2003).

A specific point of interest in this study relates to performance management supporting the collaboration. There has been only little research explaining how performance measurement supports collaboration and performance improvements in relationships (Cousins et al., 2008; Maestrini et al., 2017) and further empirical research on the consequences and use of performance measurement in the supply chain context has been called for (Akyuz and Erkan, 2010; Franco-Santos et al., 2012). This can also add to the limited literature dealing with the content of information shared between supply chain parties (Kembro and Näslund, 2014). Several viewpoints to performance measurement in supply chain can be taken (Maestrini et al., 2017). One approach is to examine supplier evaluation relating to how buying companies perceive the performance and capabilities of a supplier (Prahinski and Fan, 2007). Another, less studied viewpoint to the topic is the sales function of the supplier using performance measurement information in customer relationship management (Maestrini et al., 2017).

This study investigates the relationship between supplier capabilities, PSM practices and relationship value between buyer and supplier companies. The emphasis is on relational PSM practices (Day and Lichtenstein, 2006) such as personal interaction supported by performance measurement. This study considers the impact of studied practices from the viewpoint of relationship value consisting of both financial and non-financial elements (Ulaga and Eggert, 2006). It examines both the PSM practices of the buyer company evaluated by suppliers and supplier practices, i.e. provision of performance measurement information and perceptions of suppliers on the relationship characteristics which are incorporated in the analysis.

Review of literature and hypothesis formulation

Table 1 summarizes the reviewed literature supporting the hypothesis of this study. The studied topics relate to 1) supplier evaluation and buyer-supplier performance measurement, 2) trust, equality and personal interaction, 3) long-term orientation and integration with customer. In addition, to studying the relationships presented in the hypotheses, the study has two control variables size of a supplier company and key supplier status. The first control variable of this study is company size measured as the 2015 annual revenue. Larger company size of supplier may affect the relationship characteristics and the sophistication of the practices in buyer-supplier relationship (Li et al., 2005). The second control variable is the key supplier status as defined by the buyer company. Similarly to the company size key supplier status is assumed to potentially impact the characteristics of the relationship and applied PSM practices (Dorsch et al., 1998; Ulaga and Eggert, 2006). For example, key suppliers or large suppliers may receive more attention from the buyer or more formal relationship practices.

Table 1 Summary of the literature and the research hypotheses

Finding in the literature	Reference
Supplier evaluation has a positive impact on the quality of buyer-supplier relationship	Carr and Pearson, 1999; Cousins et al., 2008
Supplier evaluation has a positive impact on the performance of a supplier (1) and buyer (2)	Hald and Ellegaard, 2010; Prahinski and Benton, 2004 (1) Carr and Pearson, 1999 (2)
Lack of supplier performance measurement may lead to opportunistic behavior and deviation from collaboration	Danese and Romano, 2012
Transparency of supplier evaluation criteria and results increases the supplier's understanding of customer expectations	Prahinski and Fan, 2007
H1: Functional supplier evaluation practices have a positive impact on the buyer-supplier relationship value	

Limited research exists on the measurement by suppliers affecting buyer- supplier relationships	Maestrini et al., 2017
Total Cost of Ownership (TCO) calculations provided by suppliers can unveil benefits not visible in customer transaction	Caniato et al., 2015
H2: A supplier's provision of financial and non-financial performance information has a positive impact on the buyer-supplier relationship value.	
Trust is a key success factors in the customer-supplier relationship	Ali et al., 1997; Goffin et al., 2006
Trust can successfully improve supply chain integration (1), inhibit opportunism and increase relational performance (2)	Fynes et al., 2005 (1) Liu et al., 2009 (2)
Lack of trust limit the integration of practices such as performance measurement (1) and information sharing (2)	Forslund and Jonsson, 2009 (1) Kembro et al., 2014 (2)
H3: Trust and equality in buyer-supplier relationship as perceived by a supplier has a positive impact on the buyer-supplier relationship value.	
Information sharing is a significant factor in predicting success of a partnership (1) and performance of a supply chain (2)	Mohr and Spekman, 1994 (1) Kembro et al., 2014 (2)
Information sharing can create value through problem solving (1), enhancing planning and decision making (2)	Stuart et al., 1998 (1) Kembro and Näslund, 2014 (2)
Frequency of communication is one aspect impacting positively on coordination and commitment in inter-firm relationships	Mohr et al., 1996
H4: Frequent personal interaction between suppliers and buyers has a positive impact on the relationship value.	
Long-term orientation has a positive effect on customer responsiveness	Chen et al., 2004
Long-term relationships partners can have greater commitment and trust (1) as well as willingness to share risks and benefits (2)	Chen et al. 2004 (1) Ziggers and Henseler, 2009 (2)
Greater expectations of continuity can increase the level of joint action	Heide and John, 1990
H5: Long-term orientation of a supplier has a positive impact on the relationship value.	
Joint product development between buyer and supplier can leverage supplier knowledge to reduce costs (1) and increase innovation outcomes due to resource pooling and complementary capabilities (2)	Handfield and Bechtel, 2002 (1) Yeniyurt et al., 2014 (2)
Supplier's knowledge on production and product/service delivery can be valuable in improving processes of a customer and between the two parties	Corsten and Felde, 2005
Outcome-based contracting may shift the unit of analysis from organizations to collaborative value-creating system	Ng et al., 2013
H6: Integration with customer has a positive impact on the relationship value.	

The figure 1 presents the research framework of this study. The paper studies the direct relationships between the identified factors with the incorporation of two control variables.

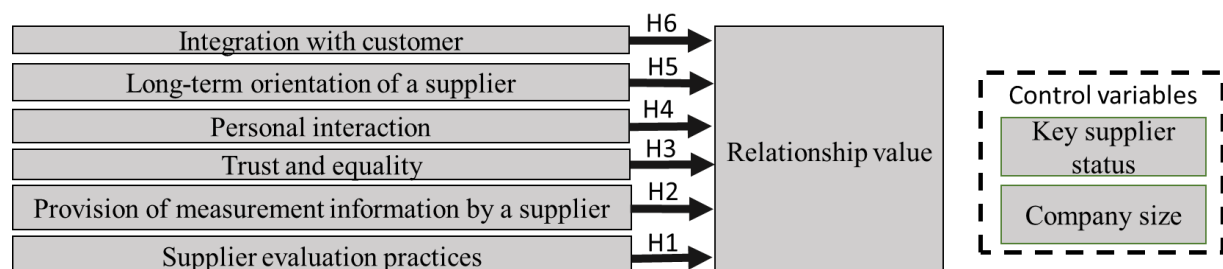


Figure 1 Research framework with hypotheses

Methodology

Survey implementation and sample

A survey was used to collect the data. The survey was directed to the key suppliers of four customer companies which are large Finnish companies operating in business-to-business markets. Two companies represent manufacturing and the two others service industries. Hence, the unit of analysis of this study is the specific supplier-customer relationship between the respondent's company and one of the customer companies, from the perspective of the supplier.

The questionnaire had four main themes: collaboration in the relationship, characteristics of the relationship, performance management and value creation in the relationship. These main sections of the questionnaire included 33 statements measured in 7-point Likert scale from 'strongly disagree' to 'strongly agree'. The survey structure was piloted and tested with the intended population and fellow scholars. The questionnaire was executed as a web-based survey administered by the authors. The survey was open for 3 weeks in May-June 2016. Two reminder messages were sent to the respondents. The test for non-response bias indicated that non-response bias is not an issue to consider. The questionnaire was sent to 1,630 suppliers. 662 usable responses were received resulting in a response rate of 40.6%. Table 2 gives an overview of the respondents and their employer companies.

Table 2 Demographic information of the respondents' companies

<i>Sample size</i>	662
<i>Company size in annual revenue 2015</i>	Less than 2 million Euros 19.0%; 2 million - less than 10 million Euros 22.5%; 10 million - less than 50 million Euros 23.0%; 50 million - less than 100 million Euros 7.3%; 100 million - 500 million Euros 10.3%; Over 500 million Euros 16.0%;
<i>Respondent's area of responsibility</i>	CEO/Senior management 41.5%, Key Account Management 29.3%; Sales 21.3%; Other 7.9%
<i>Key supplier status</i>	Key suppliers 28.7%; Other suppliers 71.3%

Measurement of research variables

The survey instrument developed was based on an extensive review of the literature on purchasing and supply management, industrial marketing and performance management. Existing survey statements were utilized when available. *Personal interaction* was measured from the perspective of communication frequency (Modi and Mabert, 2007) and key person contact at the customer company (Ulaga and Eggert, 2006). Communication frequency was measured both generally and from the viewpoint of face-to-face communication in meetings between company representatives (Chen et al., 2004). Personal interaction was investigated through the ease of collaborating with customer company's contact persons (Korpela, 2015).

Trust was measured by statements reflecting the belief on the helpfulness of the customer company's activities (Mohr and Spekman, 1994), i.e. competence trust, and on the support and keeping of promises by the customer company (Kumar et al., 1995), i.e. contractual trust. In turn, *equality* was measured by mutuality in decision making and responsibility distribution (Brinkerhoff, 2002) and the customer's use of power over the supplier in the relationship (Johnston et al., 2004). *Integration with customer* was measured by the complementation of expertise (Yeniyurt et al., 2014), more specifically involvement of supplier in both process (Walter et al., 2003) and product innovations (Handfield and Bechtel, 2002). In addition,

provision of outcome/performance-based contracts (Ng et al., 2013), and involvement in customer's investments were included in this dimension.

Long-term orientation of a supplier was studied through expectation of continuity in the relationship (Kumar et al., 1995) and consideration of aspects facilitating the continuation of the relationship (Heide and John, 1990). In addition, perceptions of long-term partnership (Chen et al., 2004) and trust in the future of the relationship (Kumar et al., 1995) were included in this dimension. *Provision of measurement information* was measured by the provision of total cost of ownership (TCO) calculations by the supplier concerning its products or services (Caniato et al., 2015). Measurement information on the key success factors of supplier's production and delivery (Zhou and Benton, 2007) supportive to the operations of a customer company was also studied in this dimension. *Supplier evaluation* was studied from the information sharing perspective by highlighting supplier's knowledge of evaluation criteria and evaluation results (Whipple and Frankel, 2000). The perceived benefits of supplier evaluation were also included (Prahinski and Benton, 2004). *Relationship value* was studied by the perceptions of joint performance improvements in the following three items: cost-efficiency, delivery performance, and fulfillment of quality standards (Ulaga and Eggert, 2006). Responsiveness to requests for changes representing a mean to improve time to market of new products/services (Ulaga and Eggert, 2006), joint efforts in product/service development and the level of technological knowledge were also included (Ylimäki, 2014).

Factor analysis and research framework construction

The survey data was analyzed using the statistical software SPSS. The studied variables were validated for unidimensionality by using exploratory factor analysis (EFA) and internal consistency by using Cronbach's alpha. The EFA was performed by using principal axis factoring in extracting and promax in rotation. The missing values were excluded listwise which dropped the number of responses to 402. The initial solution produced six factors with Eigenvalues greater than 1, seventh factor having Eigenvalue of 0.992. Due to the closeness of seventh factor's Eigenvalue to the limit of 1, also the alternative of seven factors was investigated. The seven factor solution was chosen because it made the model more consistent which also corresponded to the theoretical model. The seven factor model explained 71.56% of the total variance in the model. The measure of sampling adequacy (KMO) was 0.929 which is a very good result (Kaiser, 1974). Table 3 illustrates the results of the EFA.

Table 3 Results of exploratory factor analysis.

Factors (Cronbach's alpha before and after removing poor items)	Loadings
Relationship value ($\alpha = 0.924$)	
Our joint performance with <Customer> is better than 3 years ago in terms of:	
1) Responsiveness to requests for changes.	.933
2) Fulfilment of quality standards.	.926
3) Delivery performance.	.831
4) Cost-efficiency.	.774
5) Technological knowledge.	.691
6) Joint product or service development.	.669
Long-term orientation of a supplier ($\alpha = 0.902 \rightarrow 0.909$)	
1) There are many positive reasons for maintaining this relationship.	.856
2) We consider not only individual deliveries but also the continuation of the relationship.	.855
3) We expect our relationship with <Customer> to continue for a long time.	.847
4) We see our relationship with <Customer> as a long-term partnership.	.824
5) We believe that <Customer>'s activities will be helpful to our business.	.498*
Provision of measurement information by a supplier ($\alpha = 0.890 \rightarrow 0.932$)	
We can support the operations of <Customer> by providing quantitative information concerning:	
1) Production capacity.	.951

2) Lead time for production.	.936
3) Delivery schedules of products or services.	.883
4) The quality of products or services.	.712
5) We can provide <Customer> with credible Total Cost of Ownership calculations of our products or services.	.261*
Personal interaction ($\alpha = 0.888 \rightarrow 0.865$)	
1) We have meetings frequently enough with <Customer>'s personnel.	.903
2) We communicate frequently enough with <Customer>'s personnel.	.901
3) It is easy to identify the right contact persons at <Customer>.	.695
4) It is easy to collaborate with <Customer>'s personnel.	.567**
Trust and equality ($\alpha = 0.886 \rightarrow 0.886$)	
1) In our relationship with <Customer>, important decisions are taken jointly.	.901
2) In our relationship with <Customer>, distribution of responsibilities is jointly negotiated.	.860
3) When it comes to things that are important to us, we can depend on <Customer>'s support.	.650
4) <Customer> keeps its promises to our company.	.628
5) In the future, we can count on <Customer> to consider how its actions will affect us.	.403*
Integration with customer ($\alpha = 0.536 \rightarrow 0.763$)	
1) We prefer to offer performance-based contracts (e.g. solutions to problems) than to sell resources (e.g. working hours or goods) to <Customer>.	.754
2) We are active in proposing improvements to <Customer>'s operations.	.616
3) We offer products or services which relate to <Customer>'s investments having long-term impacts.	.610
4) We have major influence on <Customer>'s design of new products or services.	.557
5) In our relationship with <Customer>, <Customer> exerts influence over our company. (Reverse scored)	-.339*
Supplier evaluation ($\alpha = 0.883$)	
1) We know <Customer>'s supplier evaluation criteria.	.869
2) <Customer> shares supplier evaluation results with our company.	.841
3) <Customer>'s supplier evaluation results support us in improving our operations.	.805

* Loading under 0.50; ** Cross-loaded to more than one factor with loading difference less than 0.30
The notation <Customer> was changed to the customer companies' names in the actual questionnaires.

In the exploratory factor analysis, five items were removed due to cross-loading to more than one factor or loadings of less than 0.50, which is the limit for practical significance (Hair et al., 2010). The remaining 28 items comprise seven factors whose internal validity is good, over the limit of 0.70 for Cronbach's alpha as proposed by Hair et al. (2010). Common-method bias was tested by Harman's single factor test (Podsakoff et al., 2003). No single factor was accountable for the majority of variance in the data and therefore common-method bias is not an issue in the study. Table 4 summarizes the descriptive statistics of the data used. In addition to the main research variables, dummy control variables related to company size and length of a supplier-customer relationship were used in the study.

Table 4 Means, standard deviations and correlations for the variables (N=402).

Variable	Mean (std. dev.)	1	2	3	4	5	6	7
1. Relationship value	5.62 (0.94)	1.00						
2. Long-term orientation	6.54 (0.64)	0.500	1.00					
3. Provision of measurement information	5.94 (0.94)	0.498	0.505	1.00				
4. Personal interaction	5.51 (1.15)	0.454	0.470	0.368	1.00			
5. Trust and equality	5.53 (1.08)	0.566	0.603	0.416	0.638	1.00		
6. Integration with customer	4.97 (1.06)	0.475	0.429	0.462	0.328	0.450	1.00	
7. Supplier evaluation	4.93 (1.31)	0.379	0.382	0.388	0.440	0.434	0.292	1.00

All correlations are significant at the 0.01 level (2-tailed).

Results

Linear regression analysis was used to test the six hypotheses. The first model examined the relationship between the control variables and relationship value (dependent variable). In the second model, the relationship between control variables, the main research variables and relationship value was studied. The variable inflation factor (VIF) values were well below the cut-off level of ten which is often considered as indicator of serious multicollinearity (Duzann and Shariff, 2015). Table 5 summarizes the main results and indicate that hypotheses 1, 2, 4 and 5 were supported whereas hypotheses 3 and 6 were rejected.

Table 5 Results of hierarchical linear regression (N=402).

	Model 1 Std. Coef. Beta	Model 2 Std. Coef. Beta	Hypothesis Support/reject
<i>Control variables</i>			
Key supplier status	.130*	.023	
Dummy 1 (revenue <2M)	-.161*	-.010	
Dummy 2 (revenue 2-10M)	-.041	.029	
Dummy 3 (revenue 10-50M)	-.017	.010	
Dummy 4 (revenue 50-100M)	.050	.024	
Dummy 5 (revenue 100-500M)	.012	-.020	
<i>Independent variables</i>			
Long-term orientation		.101*	H1 support
Provision of measurement information		.199**	H2 support
Personal interaction		.083	H3 reject
Trust and equality		.262**	H4 support
Integration with customer		.174**	H5 support
Supplier evaluation		.056	H6 reject
<i>R²</i>	0.058	0.446	
<i>Adjusted R²</i>	0.043	0.429	
<i>F statistics</i>	4.029**	26.120**	
<i>F change</i>	4.029**	45.488**	
<i>No. of observations</i>	402	402	

* p-value <0.05; **p-value <0.01

Model 1 included only the control variables. Key supplier status (standardized beta 0.130, $p < 0.05$) and dummy variable 1 (supplier's revenue less than 2 million; standardized beta -.0161, $p < 0.05$) have significant associations to the relationship value. However, the model has very low explanation of variance (4.3%) indicating that the control variables might not have a major influence in the main research model 2. Model 2 added the independent variables (Long-term orientation, Provision of measurement information, Personal interaction, Trust and equality, Integration with customer, Supplier evaluation) to the model. The explanatory power was high (42.9%) and the control variables were not statistically related to relationship value. Hence, the results are not affected by key supplier status nor the size variance of the supplier companies.

The results reveal that personal interaction and supplier evaluation are not related to relationship value, rejecting Hypotheses 3 and 6. Long-term orientation has a significant positive relationship with relationship value (standardized beta 0.101, $p < 0.05$), which supports Hypothesis 1. Also, Provision of measurement information has a significant positive association with relationship value (standardized beta 0.199, $p < 0.01$), supporting Hypothesis 2. Furthermore, Trust and equality were positively associated with relationship value at a significant level (standardized beta 0.262, $p < 0.01$), supporting Hypothesis 4. Finally, Supplier's integration with customer has a significant positive association with relationship value (standardized beta 0.174, $p < 0.01$), giving support to Hypothesis 5.

Discussion and conclusions

According to the results, the long-term orientation of a supplier and supplier's integration with the customer are beneficial to the relationship value creation. Similarly, supplier's trust on customer and perceived equality in the relationship appear as antecedents to value creation. However, as a contradicting finding to some earlier studies (Ulaga and Eggert, 2006), personal interaction was not found to have a relationship to value creation. Furthermore, supplier evaluation was not found to be beneficial as such.

The importance of trust and equality in the buyer-supplier value creation is well in line with the established stream of literature (Fynes et al., 2005). Earlier research has given some indication that long-term orientation of a supplier can be beneficial to the relationship value creation. For example, greater expectations of continuity can increase the level of joint action (Heide and John, 1990). This study gives support to these observations. Further, this study finds that close integration between supplier and customer is beneficial to value co-creation. This observation adds to the somewhat ambiguous empirical evidence on the topic (Luzzini et al., 2015). In this study, the integration related to the involvement of suppliers in process and product development of a customer and utilization of outcome-based contracting.

The hypothesis regarding the importance of personal interaction in relationship value creation was not supported. A possible reason might be that this factor highlighted communication requiring investments of personal time. Technology supporting personal interaction was not included since the aspect was seen to be captured by factors related to performance measurement practices. Earlier research has identified that richer communication means can deliver more complex information whereas operative tasks benefit from electronic communication (Daft and Lengel, 1984). In the relationships studied, it appears that other means of communication than personal interaction are seen more important of supporting the joint tasks between supplier and buyer.

While there is some research on the role of TCO provided by a supplier, this study takes non-financial performance measurement under scrutiny. This study gives indication on the importance of performance measurement information provided by the supplier regarding its offerings to the customer. However, the results of this study indicate that supplier performance evaluation does not directly relate to relationship value. Hence, this study is in line with some of the earlier studies (Cousins et al., 2008; Purdy and Safayeni, 2000) that it is not the supplier performance measurement as such which support value creation but it needs to be utilized in an appropriate way, e.g. by complementing it with functional communicational practices. In addition, it has been presented that supplier evaluation is of increased importance in close collaborative relationships (Cousins et al., 2008). Another explanation may be that supplier evaluation affects more on supplier performance (Hald and Ellegaard, 2010) than on the relationship value.

This study investigated the direct relationships between the factors studied. Future research should study the mediating and moderating effects in the relationships, such as personal interaction mediating the use of supplier evaluations. Further research could also incorporate the relationships between key supplier status or close supplier-customer integration and personal interaction and supplier evaluation (rejected hypotheses in this study). More attention is also needed to study the capabilities of suppliers in the relationship value creation.

References

Akyuz, A., Erkan, E., 2010. Supply chain performance measurement: a literature review. *International Journal of Production Research* 48 (17), 5137–5155.

- Ali, F., Smith, G., Saker, J., 1997. Developing buyer-supplier relationships in the automobile industry. *European Journal of Purchasing & Supply Management* 3 (1), 33–42.
- Baier, C., Hartmann, E., Moser, R., 2008. Strategic alignment and purchasing efficacy: an exploratory analysis of their impact on financial performance. *Journal of Supply Chain Management* 44 (4), 36–52.
- Brinkerhoff, J., 2002. Assessing and improving partnership relationships and outcomes: a proposed framework. *Evaluation & Program Planning* 25 (3), 215–231.
- Caniato, F., Ronchi, S., Luzzini, D., Brivio, O., 2015. Total cost of ownership along the supply chain: A model applied to the tinting industry. *Production Planning & Control* 26 (6), 427–437.
- Carr, A., Pearson, J., 1999. Strategically managed buyer–supplier relationships and performance outcomes. *Journal of Operations Management* 17 (5), 497–519.
- Chen, I., Paulraj, A., Lado, A., 2004. Strategic purchasing, supply management, and firm performance. *Journal of Operations Management* 22 (5), 505–523.
- Corsten, D., Felde, J., 2005. Exploring the performance effects of key-supplier collaboration: An empirical investigation into Swiss buyer-supplier relationships. *International Journal of Physical Distribution & Logistics Management* 35 (6), 445–461.
- Cousins, P., Lawson, B., Squire, B., 2008. Performance measurement in strategic buyer-supplier relationships – The mediating role of socialization mechanisms. *International Journal of Operations & Production Management* 28 (3), 238–258.
- Daft, R., Lengel, R., 1984. Information richness: a new approach to manager information processing and organisational design. *Research in Organisational Behaviour* 73 (6).
- Danese, P., Romano, P., 2012. Relationship between downstream integration, performance measurement systems and supply network efficiency. *International Journal of Production Research* 50 (7), 2002–2013.
- Day, M., Lichtenstein, S., 2006. Strategic supply management: The relationship between supply management practices, strategic orientation and their impact on organisational performance. *Journal of Purchasing & Supply Management* 12 (6), 313–321.
- Dorsch, M., Swanson, S., Kelley, S., 1998. The Role of Relationship Quality in the Stratification of Vendors as Perceived by Customers. *Journal of the Academy of Marketing Science* 26 (2), 128–142.
- Duzan, H., Shariff, N., 2015. Ridge Regression for Solving the Multicollinearity Problem: Review of Methods and Models. *Journal of Applied Sciences* 15 (3), 392–404.
- Ellram, L., Zsidisin, G., Siferd, S., Stanly, M., 2002. The impact of purchasing and supply management activities on corporate success. *Journal of Supply Chain Management* 38 (4), 4–17.
- Forslund, H., Jonsson, P., 2009. Obstacles to supply chain integration of the performance management process in buyer-supplier dyads. *International Journal of Operations & Production Management* 29 (1), 77–95.
- Franco-Santos, M., Lucianetti, L., Bourne, M., 2012. Contemporary performance measurement systems: A review of their consequences and a framework for research. *Management Accounting Research* 23, 79–119.
- Fynes, B., Voss, C., de Burca, S., 2005. The impact of supply chain relationship dynamics on manufacturing performance. *International Journal of Operations & Production Management* 25 (1), 6–19.
- Goffin, K., Lemke, F., Szejczewski, M., 2006. An exploratory study of ‘close’ supplier–manufacturer relationships. *Journal of Operations Management* 24 (2), 189–209.
- González-Benito, J., 2007. A theory of purchasing’s contribution to business performance. *Journal of Operations Management* 25 (4), 901–917.
- Hair, J., Anderson, R., Babin, B., Black, W., 2010. *Multivariate data analysis: A global perspective*. Pearson, Upper Saddle River, NJ.
- Hald, K., Ellegaard, C., 2010. Supplier evaluation processes: the shaping and reshaping of supplier performance. *International Journal of Operations & Production Management* 31 (8), 888–910.
- Hallikas, J., Immonen, M., Pynnönen, M., Mikkonen, K., 2014. Service purchasing and value creation: Towards systemic purchases. *International Journal of Production Economics* 147 (Part A), 53–61.
- Handfield, R., Bechtel, C., 2002. The role of trust and relationship structure in improving supply chain responsiveness. *Industrial Marketing Management* 31 (4), 367–382.
- Heide, J., John, G., 1990. Alliances in industrial purchasing: the determinants of joint action in buyer-supplier relationships. *Journal of Marketing Research* 27 (1), 24–36.
- Johnston, D., McCutcheon, D., Stuart, F., Kerwood, H., 2004. Effects of supplier trust on performance of cooperative supplier relationships. *Journal of Operations Management* 22 (1), 23–38.
- Kaiser, H., 1974. An index of factorial simplicity. *Psychometrika* 39 (1), 31–36.
- Kembro, J., Näslund, D., 2014. Information sharing in supply chains, myth or reality? A critical analysis of empirical literature. *International Journal of Physical Distribution & Logistics Management* 44(3), 179–200.
- Kembro, J., Selviaridis, K., Näslund, D., 2014. Theoretical perspectives on information sharing in supply chains: a systematic literature review and conceptual framework. *Supply Chain Management: An International Journal* 19 (5/6), 609–625.

- Korpela, T., 2015. Dyadic relations between the main contractor and its suppliers: a case study to clarify critical factors in Metso Paper Ltd. Dissertation, University of Jyväskylä.
- Kumar, N., Scheer, L., Steenkamp, J., 1995. The effects of perceived interdependence on dealer attitudes. *Journal of Marketing Research* 32 (3), 348–356.
- Li, S., Rao, S., Ragu-Nathan, T., Ragu-Nathan, B., 2005. Development and validation of a measurement instrument for studying supply chain management practices. *Journal of Operations Management* 23 (6), 618–641.
- Liu, Y., Luo, Y., Liu, T., 2009. Governing buyer–supplier relationships through transactional and relational mechanisms: Evidence from China. *Journal of Operations Management* 27 (4), 294–309.
- Luzzini, D., Amann, M., Caniato, F., Essig, M., Ronchi, S., 2015. The path of innovation: purchasing and supplier involvement into new product development. *Industrial Marketing Management* 47, 109–120.
- Maestrini, V., Luzzini, D., Maccarrone, P., Caniato, F., 2017. Supply Chain Performance Measurement Systems: A Systematic Review and Research Agenda. *International Journal of Production Economics* 183 (Part A), 299–315.
- Modi, S., Mabert, V., 2007. Supplier development: Improving supplier performance through knowledge transfer. *Journal of Operations Management* 25 (1), 42–64.
- Mohr, J., Fisher, R., Nevin, J., 1996. Collaborative Communication in Interfirm Relationships: Moderating Effects on Integration and Control. *Journal of Marketing* 60 (3), 103–115.
- Mohr, J., Spekman, R., 1994. Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal* 15 (2), 135–152.
- Möller, K., Törrönen, P., 2003. Business suppliers' value creation potential: A capability based analysis. *Industrial Marketing Management* 32 (2), 109–118.
- Ng, I., Ding, D., Yip, N., 2013. Outcome-based contracts as new business model: The role of partnership and value-driven relational assets. *Industrial Marketing Management* 42 (5), 730–743.
- Podsakoff, P., MacKenzie, S., Lee, J., Podsakoff, N., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5), 879–903.
- Prahinski, C., Benton, W., 2004. Supplier evaluations: communication strategies to improve supplier performance. *Journal of Operations Management* 22 (1), 39–62.
- Prahinski, C., Fan, Y., 2007. Supplier evaluations: the role of communication quality. *Journal of Supply Chain Management* 43 (3), 16–28.
- Purdy, L., Safayeni, F., 2000. Strategies for supplier evaluation: A framework for potential advantages and limitations. *IEEE Transactions on Engineering Management* 47 (4), 435–443.
- Shao, J., Moser, R., Henke, M., 2012. Multidimensional supply performance framework: A conceptual development and empirical analysis. *International Journal of Production Economics* 138 (1), 26–34.
- Stuart, F., Deckert, P., McCutcheon, D., Kunst, R., 1998. A leveraged learning network. *Sloan Management Review* 39 (4), 81–94.
- Terpend, R., Tyler, B., Krause, D., Handfield, R., 2008. Buyer–supplier relationships: Derived value over two decades. *Journal of Supply Chain Management* 44 (2), 28–55.
- Uлага, W., Eggert, A., 2006. Value-based differentiation in business relationships: gaining and sustaining key supplier status. *Journal of Marketing* 70 (3/4), 119–136.
- Walter, A., Müller, T., Helfert, G., Ritter, T., 2003. Functions of industrial supplier relationships and their impact on relationship quality. *Industrial Marketing Management* 32, 159–169.
- Whipple, J., Frankel, R., 2000. Strategic alliance success factors. *Journal of Supply Chain Management* 36 (2), 21–28.
- Yeniyurt, S., Henke Jr J.W., Yalcinkaya, G., 2014. A longitudinal analysis of supplier involvement in buyers' new product development: working relations, inter-dependence, co-innovation, and performance outcomes. *Journal of the Academy of Marketing Science* 42 (3), 291–308.
- Yeung, A., 2008. Strategic supply management, quality initiatives, and organizational performance. *Journal of Operations Management* 26 (4), 490–502.
- Ylimäki, J., 2014. A dynamic model of supplier–customer product development collaboration strategies. *Industrial Marketing Management* 43, 996–1004.
- Zhou, H., Benton, W., 2007. Supply chain practice and information sharing. *Journal of Operations Management* 25 (6), 1348–1365.
- Ziggers, G., Henseler, J., 2009. Inter-firm network capability: how it affects buyer–supplier performance. *British Food Journal* 111 (8), 794–810.