RELATIONSHIP GOVERNANCE AND LEARNING IN PARTNERSHIPS

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ABSTRACT

Relationship learning is a topic of considerable importance for industrial networks, yet a lack of empirical research on the impact of relationship governance structures on relationship learning remains. This study analyzes the impact of relationship governance structures on learning in partnerships. This article contributes to the closure of the research gap by examining data drawn from 43 interviews on the subject of 199 customer-supplier relationships within the metal and electronics industries. As a method the study applies cluster analysis and anova mean-comparison. The results of this study show that balanced hybrid governance structures explain learning in partnerships, which suggests that certain combinations of relationship governance mechanisms (price, hierarchical and social mechanism) produce the best learning outcomes in partnerships. Results suggest that managers should use hybrid relationship governance structures when governing their supplier partnerships. The results encourage managers to use different governance mechanisms simultaneously when managing their company's supply chain partnerships. The result emphasizes the role of active relationship management.

Keywords: Relationship governance, trust, learning, business relationship

INTRODUCTION

The imperfect nature of industrial markets favors the use of more sophisticated mechanisms of relationship governance than mere competitive bidding to drive learning and innovation, within partnerships and business networks (Ahmadjian & Lincoln 2001; Knight 2002). Competitive bidding cannot foster learning, when supplier switching times are long. Thus, in partnerships, competition, or in particular competitive bidding is inefficient in terms of learning (Krause, Scannell & Calantone 2000). Therefore, the interplay between price, hierarchical and social governance mechanisms is particularly interesting in partnerships (Adler 2001; Ghoshal & Moran 1996). Following on Adler's (2001) model, the present study proposes that relationship learning is best facilitated by the simultaneous use of different relationship governance mechanisms and that certain combinations of these mechanisms increase relationship learning more than others do.

This research contributes to the current knowledge of partnerships by increasing understanding about the impact of relationship governance structures on learning in partnerships, which previous literature contends to be an important research gap (Nooteboom & Gilsing 2004). Indeed, the research on relationship governance (Adler 2001) has neglected the relationship learning view, while the scholars focusing on relationship learning have overlooked the governance viewpoint. This article addresses the research gap by combining these literature streams into a coherent research model that explains how different combinations of relationship governance mechanisms (price, hierarchical and social) have an impact on relationship learning. This study will also contribute by increasing our knowledge as to how supply chain partnerships should be governed in order to facilitate learning. While a vast amount of previous literature contends that learning requires trust (Dodgson 1993; Rousseau, Sitkin, Burt & Camerer 1998), the present paper intends to study whether learning can be enhanced by combining trust (a social mechanism), relationship management (a hierarchical mechanism) and competition between the suppliers (a price mechanism) (Adler 2001).

RELATIONSHIP GOVERNANCE AND LEARNING

Learning in partnerships

This study approaches relationship learning by applying organizational learning theory (Fiol & Lyles 1985). Since learning is context dependent (Holmqvist 2003; Knight 2002), it needs to be studied in both partnerships and networks. The argument is that the level of organizational integration, e.g. trust, between the

organizational members affects learning and thus learning is different in teams than it is in inter-organizational networks or partnerships.

Previous literature provides various definitions of relationship learning. The present study defines the relationship learning according to Selnes and Sallis (2003: 80) as *"…a joint activity between a supplier and a customer in which the two parties share information, which is then jointly interpreted and integrated into a shared relationship-domain–specific memory…"*. This definition of relationship learning underlines knowledge sharing, shared interpretation and the development of activities in a partnership alongside other definitions (see also Håkansson et al. 1999; Dyer & Hatch 2004; Inkpen 1996; Knight 2002).

Relationship governance and learning

Following the previous definitions of partnerships the present study defines partnerships and networks as an intermediate form between markets and hierarchies (Thorelli 1986; see also Ritter 2007; Williamson 1985). In other words, a vertical partnership is a customer–supplier relationship, which is long, integrated, and deeply rooted in the social relationships between the individuals that are active in the relationship (Macaulay 1963; Sako 1992; Ritter 2007).

Recent theory developments in the study of relationship governance argue that the most effective partnership governance structure is a hybrid, in which the customer employs several relationship governance mechanisms simultaneously to govern a single supply relationship (Figure 1) (Adler 2001; Heide 1994; Ritter 2007). The three relationship governance mechanisms that previous studies apply are termed price, hierarchical and social mechanism (Adler 2001; see also Powell 1990; Bradach & Eccles 1989; Hines 1995; Heide 1994).

Previous empirical research has commonly operationalized network governance in terms of sourcing policy; whether the customer applies single, dual or multiple sourcing in their procurement policy (Dyer and Ouchi 1993: 55-58; Hines 1995; 1996). This study adopts a more sophisticated approach and applies multiple indicators to define and measure each governance mechanism. In this study, relationship governance refers to a governance structure of a supplier relationship, which is constructed using a combination of price, hierarchical and social mechanisms. The theory contends that a customer can steer the behavior of its suppliers by applying these mechanisms in different combinations (Adler 2001). The following section describes the individual governance mechanisms in more detail, while the subsequent sections develop on their different combinations and their impact on relationship learning.

Price as a mechanism of relationship governance refers to utilizing the competition between suppliers in the market to steer the relationship. Competition is known as an efficient mechanism, which is utilized not only in markets, but also in hierarchies and networks (Dyer & Hatch 2004; Krause et al. 2000; Powell, 1990; Swedberg 1994). However, when switching to an alternative partner becomes time-consuming and costly due to the unique resources and capabilities of the supplier, the market works imperfectly and other governance mechanisms are required to ensure learning and development in the relationship (XYZ 2008a). Various scholars describe Toyota's successful dual or multiple supplier policy within its supplier network, which utilizes competition without a constant need to change suppliers (Dyer & Hatch 2004; Sako 2004; Dyer & Nobeoka 2000). Dual or multiple sourcing enables a customer to use competition without sacrificing the long-term relationship, which facilitates development and learning in the relationship (Hines 1995). Competition can prove a catalyst for developmental work, while the partners' belief in the continuity of the relationship motivates the development.

Gerlach (1992) defines the hierarchical governance mechanism as the "visible hand" of the manager in the organization. In this study, hierarchical governance refers to mechanisms such as the customer's use of authority in the relationship and the hierarchical structures and processes that apply to the business relationship (Nishiguchi and Beaudet, 1998; Bensaou, 1999; Håkansson & Lind 2004). Thus, when using hierarchical relationship governance, the customer steers, but also forces the development of the business relationship. Researchers have provided examples of customers' use of authority and hierarchical structures. For example Dyer and Hatch (2004) describe three methods, which Toyota applies to support supplier development: supplier association, consulting groups and learning teams. This means that Toyota facilitates supplier learning with conferences and smaller learning forums, e.g. learning teams, but also provides a consulting service to its suppliers (See also Sako 2004; Dyer & Nobeoka 2000). These results suggest that Toyota does not only try to develop trusting relationships with its suppliers, but seeks to actively facilitate

learning in its partnerships and supplier network. Our study follows the view by analyzing the role of hierarchical relationship governance in partnership learning.

A whole stream of literature has examined trust and social governance in business relationships (e.g., Adler 2001; Granovetter 1985; Ouchi 1980). In this context, social governance refers to trust (Zaheer, McEvily & Perrone 1998), open interaction and a feeling of shared destiny (Adler, 2001; Ghoshal and Moran 1996). A number of studies emphasize the significance of these phenomena for learning in relationships (Håkansson et al. 1999; Selnes and Sallis 2003). However, as learning needs to be focused in order to create value for a particular business relationship, trust alone is an inadequate governance mechanism and needs to be supported by other mechanisms (see also Adler 2001; XYZ 2008a).

The role of relationship governance structures on learning

Based on Adler's (2001) model, the present study suggests that learning in relationships is best facilitated by a combination of price, hierarchy and the social relationship governance mechanisms, rather than a sole reliance on any one of these single mechanisms. In the following discussion of the impact of different combinations of governance mechanisms on relationship learning, the degree of each governance mechanism in a particular governance structure is simply regarded as being either high or low. Figure 1 displays eight different combinations of the three governance mechanisms, that is, eight alternative relationship governance structures. This study proposes that they have a varying impact on learning in business relationships. Since the conceptual evidence in previous literature is not clear enough to warrant a formal hypothesis, the following discussion declines to construct formal hypotheses but instead presents preliminary conceptual evidence as a basis for the subsequent exploratory empirical analysis.

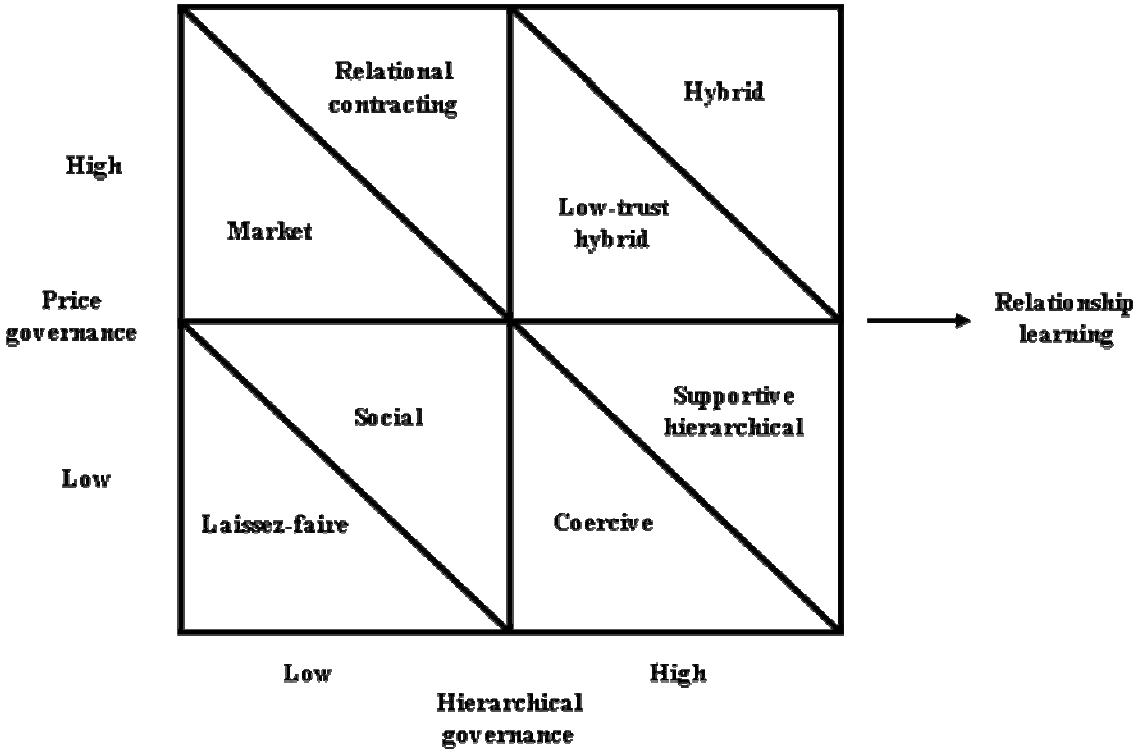

Figure 1. Effects of relationship governance structures on learning in partnerships (low social relationship governance in lower left triangles and high social relationship governance in upper right triangles) (Adler, 2001).

Figure 1 suggests that governance structures are constructed on the basis of price, hierarchical and social mechanisms. Thus, the present study suggests there are basically four different combinations of relationship governance mechanisms, as in the remainder of the eight clusters the customer either applies a single mechanism (price, hierarchical or social) or does not apply any of them (a *laissez-faire* approach). The four clusters, in which a customer uses two or three different mechanisms simultaneously, are here termed

relational governance, supportive hierarchical governance, low-trust hybrid governance and hybrid governance.

By relational governance, the model refers to a combination of price and social mechanism (Macaulay 1963). Theory suggests that just as competitive bidding may force the supplier to develop the customer relationship (Krause et al. 2000); trust could increase its partners' willingness to share knowledge within it (Håkansson et al. 1999). On the other hand, unreasonable use of competitive bidding could lead to a decrease in a supplier's commitment to the relationship, and thus unwillingness to invest in relationship development. The findings of the previous studies recommend dual or multiple supplier policies, which are able to simultaneously produce competition, stability and trust in the relationship (Dyer & Hatch 2004; Hines 1995; Dyer & Ouchi 1993).

Previous studies also suggest that the combination of hierarchical and social mechanisms can be effective in terms of relationship learning (Adler 2001; see also XYZ 2006a). Relationship learning may require an open and trusting atmosphere, but also a little pressure created by the customer. While previous scholars show that mutual learning requires trust between the partners (Takeuchi & Nonaka 1995; Selnes & Sallis 2003), Adler's (2001) model argues that partnerships should be managed and facilitated (Möller, Rajala & Svahn 2005). This suggests that hierarchical governance is fundamental in partnerships (Van der Meer-Kooistra & Vosselman 2000), but its use should be delicate, so that it won't cause distrust (Ghoshal & Moran 1996). Hence a customer should have sufficient competence to apply hierarchical steering without causing distrust.

The paper defines the third combination of governance mechanisms as a low-trust hybrid (Adler 2001). In this alternative, the combination of price and hierarchical mechanism affects learning in partnerships. When talking of this *low trust hybrid* relationship governance structure researcher is referring to a business relationship, which is governed by hierarchical structures and some competition, but not by trust, perhaps due to the loosely coupled organization of the relationship. This particular relationship governance structure might not be efficient in terms of new knowledge creation, because learning requires trust, but could well be efficient in terms of keeping the overall costs of the relationship down.

The fourth alternative relationship governance structure is here termed a *hybrid* (See also Heide 1994; Hines 1995; Håkansson & Lind 2004; Sako 2004). In a hybrid governance structure, the customer applies all three governance mechanisms simultaneously. The present study suspects that the hybrid governance structure facilitates relationship learning and relationship performance, by providing a moderate level of competition and hierarchical direction, as well as an open atmosphere in which to share and develop knowledge and learning within the partnership.

In summary, the present study focuses on the impact of relationship governance structures on relationship learning by applying Adler's (2001) model of relationship governance. The study explores which kinds of relationship governance structures can be discerned within 199 business relationships in order to see how various combinations of governance mechanisms affect relationship learning.

RESEARCH METHODOLOGY AND DATA

Data collection

The study uses cluster analysis to analyze sample data from 199 customer-supplier relationships. The data were collected from 26 (45% medium-sized / 55% large) business units in the metal and electronics industries in Finland. Data were collected in interviews of 42 supply directors (3 respondents), supply managers (26 respondents) or strategic buyers (13 respondents. Most of the respondents (39 of 42), analyzed 5 relationships each, while the rest (3 respondents) analyzed a few individual relationships by using a web-based questionnaire. The researcher controlled for the potential effect of the respondent's role within the organization (director, supply manager, strategic buyer) on their responses, by comparing the responses of directors, managers and buyers on the key study variables by using t-test. However, the test yielded no statistically significant differences between the respondents in different roles. The companies were chosen from western Finland for research economic reasons, as the data was collected in personal interviews and the researcher had to travel to all the respondent companies.

Measures

Previous studies (Selnes & Sallis 2003; Kohtamäki & Kautonen 2008a; Krause et al. 2000) contributed to the development of the items in the questionnaire, which uses Likert-scale measures (1=fully disagree, 5=fully agree) (See Appendix A). The researcher transferred items into four different composite variables (price, hierarchical, social governance mechanisms and relationship learning) for the cluster analysis and mean comparisons. The study tested the items by using partial least squares approach (PLS). Researcher tests the constructs by using Cronbach's alpha, composite reliability and average variance extracted. Researcher also tests both item and construct discriminant validity, inspect skewness and kurtosis values of all constructs as well as checks the data for possible common method bias and multicollinearity.

The main determinants of the price mechanism are internal competition within the network, potential suppliers in the market and the development of a competitive atmosphere among the suppliers (Hines 1996). The four variables measuring the price mechanism were developed on the basis of Kohtamäki et al. (2008a; See also Krause et al. 2000). Items measuring price were*: frequency of bidding; number of potential suppliers in the market; number of suppliers for a given component; and development of a competitive atmosphere in the relationship.*

Previous studies define hierarchical governance as consisting of several different variables, which measure both the customer's use of authority and hierarchical structures in the relationship (Hines 1996; Ellram 2002). Measures of this dimension were modified on the basis of Kohtamäki et al. (2008a; See also Krause et al. 2000). This study measures hierarchical governance by using five variables: *level of quality and management system requirements; urge to affect supplier's procedures; supplier's involvement in customer's production and quality meetings; use of supplier auditing;* and *exactness of instructions given to supplier*.

Previous empirical research has studied social governance extensively and scholars have used various scales to report their findings. This research applies the scale used by Selnes and Sallis (2003; See also Kohtamäki et al. 2008a), which reflects the two dimensions of social governance defined as having a shared purpose and trust. Four variables measure social governance: *development of shared understanding; level of strategic discussions with the supplier; customer's willingness to develop trust in the relationship;* and *willingness to seek a common understanding.*

The present study measures learning with four items based on the conceptualizations of Selnes and Sallis (2003). The variables are: *Development of new ideas in the relationship; economic value of new ideas in the relationship; shared problem solving and knowledge sharing; and explication of the most conflicting problems.*

The reliability of the constructs was measured by deriving values for Cronbach's alpha (threshold value .6), composite reliability (.7) and AVE (.5). Almost all the constructs show fairly satisfactory Cronbach's alpha, composite reliability and AVE values (Chin 1998; Cool, Dierickx & Jemison 1989), although AVE value for price governance were a little low and below the threshold (.5). As all the items, except one measuring price, exceed the typical threshold value set for the item loading (.6) and the loading of each item with their respective construct is statistically significant, researcher can safely conclude satisfactory item discriminant validity. As the price mechanism achieved fairly satisfactory Cronbach's alpha and composite reliability values, researcher decided to keep all the items in order to maintain the construct's theoretical consistency. All constructs showed satisfactory discriminant validity as AVE values exceeded the squared latent variable correlations (Cool *et al.*, 1989) even if the low AVE value of price governance suggest that those measures need development in future studies (Chin, 1998).

Researcher also decided to test the skewness and kurtosis of each construct and found every construct exceeding the typical threshold. The data were also tested for of common method bias using Harman's (1976) one factor test, which the researcher conducted by using principal axis factoring and interpreting the unrotated factor solution (Podsakoff & Organ, 1986). The test showed that common method variance was not present in the data as the items loaded on four factors, which accounted 61% of the total variance of which the first factor accounted only 33%. Finally, researcher analyzed the data due to possible multicollinearity of the constructs, but the correlation matrix (appendix B) and vif-value shows that in this dataset multicollinearity does not create a problem. Vif-value for all the constructs remained well below 2, while the typical threshold is 10 (Tabachnick & Fidell 2007). In summary, based on the statistical tests reported above, the items and constructs appear suitable for further analysis.

Table 1. Skewness, kurtosis, Cronbach's alpha and composite reliability values of all the constructs.

	Skewness	Kurtosis	Cronbach's alpha	Composite reliability	AVE
Price governance	.12	.26	.67	.71	.41
Hierarchical governance	-.34	-.30	.75	.82	.50
Social governance	-.64	.11	.77	.86	.60
Relationship learning	-.42	.17	.80	.87	.62

Methods and data analysis

The present study analyzes the data in two phases. The first phase of the analysis applies cluster analysis in order to find the clusters consisting of business relationships governed by similar relationship governance structures and thus differing from other clusters. In the second phase, these clusters of business relationships are mean compared in terms of learning in order to discover, which kinds of governance structures increase learning in business relationships.

This study applies non-hierarchical cluster analysis and the k-means method. In the k-means method the cases are grouped into homogenous groups (Ketchen & Shook 1996), while the number of clusters is given by the researcher. In this study, cases are clustered by using the composite variables of the three governance mechanisms (price, hierarchy and social). During the analysis, various cluster solutions were tested, but the researchers decided to apply a four-cluster solution, as it was the most informative and clear from the point of view of results.

As the cluster analysis recognizes some groups and ignores some potential ones, it means that the ones being found are interpreted as viable. According to the configurational contingency approach, only those forms which are viable can be identified in the empirical world, (Gerdin & Greve 2004). Thus, if some combination of governance structure is not found in the empirical world, the approach would suggest that such a combination is not viable.

After the cluster analysis, the study compares the resulting groups by using one-way anova mean-comparison. Resulting groups are mean-compared in terms of learning by using both the four individual learning items and the respective composite variable, to study whether relationship learning varies statistically significantly between different clusters. The study uses also post-hoc analysis (Scheffe's test) to test how learning varies between each recognized cluster (Tabachnick & Fidell 2007). This analysis shows which clusters differ from each other in terms of relationship learning. During the analysis, the study applies SPSS (version 15) to conduct the cluster analysis and mean comparisons.

RESULTS

Table 2 reports the results of the cluster analysis. In the analysis, researchers found four clusters, which clearly varied in terms of the relationship governance structures used in the cases. These clusters, which consist of relationships that are governed by various relationship governance structures, are here termed: social, market, supportive hierarchical and hybrid. While clusters are reported in columns, rows present the three governance mechanisms, which were used as criteria when clustering the cases.

Table 2. Average scores of relationship governance mechanisms of different clusters (figures are average scores of respondents' responses on a Likert scale of 1 to 5).

Governance mechanisms	Relationship governance structure (clusters)			
	Social	Market	Supportive hierarchical	Hybrid
Price governance	2.17	**3.68**	2.43	**3.74**

Hierarchical governance	2.40	2.67	**3.89**	**3.79**
Social governance	**2.94**	2.57	**4.15**	**4.09**
Number of cases in a given cluster	31	30	81	54

In the cluster of deep-rooted *social* governance, the relationships are governed only by using an intermediate social mechanism. The results show that in this cluster where the values of all the governance mechanisms stay below three, the value of the social mechanism is only very slightly below. It seems that in these relationships, the customer is either incapable or unwilling to use either price or hierarchical mechanisms to govern the supplier relationship. The second cluster includes *market* -governed supplier relationships. Customers govern these relationships by using a strong price mechanism, but the use of social and hierarchical relationship governance is at a low level. It seems that in these partnerships, the customer intends to use the threat of competition to force the supplier to develop the customer relationship. The third cluster consists of supplier relationships governed by using *supportive hierarchical* governance. By supportive hierarchical governance researcher means that the supplier relationships are governed by using strong hierarchical and social governance mechanisms. In these partnerships, customers seem to be able to use both structures and requirements simultaneously without causing distrust. Governance is two-dimensional, showing that companies use various mechanisms simultaneously. Finally, the fourth cluster consists of *hybrid* governed supplier relationships. In these relationships, customers are willing and able to apply all three mechanisms simultaneously in a balanced manner.

After the cluster analysis, researcher mean-compared the four groups in terms of learning. In the table 3, the last column on the right describes the value of the composite variable of learning formed from the four individual items. This study applies the anova post-hoc test (Scheffe) to analyze the differences between clusters. Scheffe's test enables researchers to compare learning between each cluster in order to interpret, how learning differs between all the different clusters (i.e. between social and market, or hybrid and supportive hierarchical). Analysis based on the composite variable shows that learning does not vary statistically significantly between supportive hierarchical and hybrid governed clusters and between social and market governed clusters. However, learning does vary statistically significantly in all the other combinations, such as hybrid and social, hybrid and market, supportive hierarchical and social, supportive hierarchical and market. These results support the interpretation that learning is highest in hybrid and supportive hierarchically governed clusters of relationships and lowest, in social and market-governed clusters of relationships. Interestingly, learning is actually higher in social than in market-governed relationships. However, this difference is not statistically significant. Observations are by far similar, whether one looks at results of the composite variable or three of the four single items (development of new ideas, shared problem solving and knowledge sharing and explication of the most conflicting problems). However, results slightly differ when looking at one of the learning items (economic value of new ideas). With this particular item the results differ slightly from the other items, as the differences between social and hybrid and market and supportive hierarchically governed relationships are not statistically significant, while they are with the rest of the items. However, also with this item the differences between social and supportive hierarchically governed relationships and between hybrid and market-governed relationships are statistically significant, which supports researcher's interpretation of the results. Table 3 reports all the results of the mean-comparisons.

Table 3. Average scores of different groups in terms of learning (scores are averages of the respondents' responses measured on a Likert scale from 1 to 5).

Learning Cluster	Development of new ideas	Economic value of new ideas	Shared problem solving and knowledge sharing	Explication of the most conflicting problems	Learning
1. Social	2.23	2.13	2.42	3.06	2.46
2. Hybrid	3.26	2.70	3.54	4.35	3.46
3. Market	2.03	1.93	2.27	3.20	2.36
4. Supportive hierarchical	2.92	2.77	3.71	4.17	3.39
Average	2.77	2.53	3.25	3.90	3.11
Scheffe's test	a)	b)	a)	a)	a)

a) All the differences between relationships governed by social, market, hybrid and supportive hierarchical relationship governance structures are statistically significant at a significance level of <0.05, except the difference between social and market-governed relationships and hybrid and supportive hierarchically governed relationships.
b) The difference between relationships governed by social and supportive hierarchical governance structures and between hybrid and market-type relationship governance structures are statistically significant at a significance level of <0.05, but the difference between social and market-governed, social and hybrid-governed, market and supportive hierarchically governed relationships is not.

Finally, the analysis shows that in partnerships, companies often use various relationship governance structures to govern a partnership. The results provide evidence that supportive hierarchical and hybrid forms of governance are more effective in terms of learning than social or market governance. The results suggest that in order to support learning in the partnership, customers need to develop hierarchical structures, require developmental efforts from the suppliers and to maintain strong social relationships. In summary, Figure 2 shows the empirically found clusters (in bold) with the average scores of relationship learning.

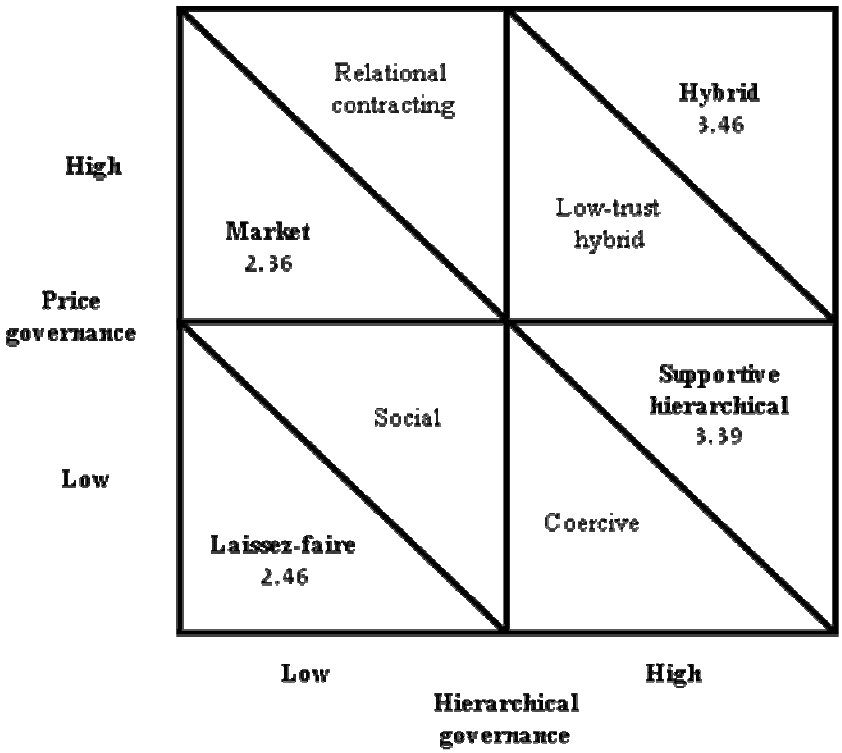

Figure 2. Effects of relationship governance structures on learning in partnerships (Empirically found clusters in bold, with the average scores of learning; low social relationship governance in lower left triangles and high social relationship governance in upper right triangles).

CONCLUSIONS AND DISCUSSION

The effect of governance structures on learning in partnerships

The present study stresses the impact of relationship governance on learning in partnerships. As, according to prior studies, learning is important for business performance, and as industrial networks cannot often be governed only by using competitive bidding due to long partner switching times, learning needs to be facilitated but using other forms of relationship governance, such as social and hierarchical governance (Adler 2001). As some of the prior studies have emphasized the role of trust on learning (Håkansson et al. 1999), the present study argues that trust needs to be complemented by the use of at least a hierarchical mechanism. The results emphasize the role of both relationship management and trust.

The empirical analysis shows that relationship governance structures have an impact on learning in the partnership. Learning is highest in partnerships governed by supportive hierarchical or hybrid governance structures in comparison to market and socially governed ones. Again, supportive hierarchical governance refers to supply relationships, in which the customer applies both hierarchical and social governance mechanisms, while hybrid governance structures signify a relationship utilizing the three mechanisms (namely price, hierarchical and social). In contrast, in market-governed relationships, the customer only uses the price mechanism, while in the socially governed relationships, the customer applies only a social mechanism at an intermediate level. This result parallels those of previous empirical studies. Firstly, the result supports Adler's (2001) model of organization of an economic system indicating that parties often apply the various mechanisms simultaneously and thus gain learning in their supply partnerships. This particularly contributive empirical result suggests that customers need competencies to apply various mechanisms simultaneously. Customers need to be able to balance different mechanisms in order to utilize them simultaneously (Gustafsson 2002; XYZ 2006a); according to Barringer and Harrison (2000), managing partnerships is like "walking a tightrope".

The results seem to suggest placing emphasis on hierarchical and social governance. However, the results do not preclude the advantages of the market mechanism, when it is used in a balanced way, as in hybrid-governed relationships, which were found to be the most efficient in terms of learning. However, these results do question the efficacy of an extreme market mechanism in partnerships (See also Krause et al. 2000). In partnerships, the threat of competition on its own is apparently not sufficiently credible to increase development effort, but an unfair, unsystematic and implicit use of competitive bidding can cause distrust, which in turn can discourage information sharing and even prohibit learning.

These results seem to highlight the significance of social governance. Due to the high instance of social governance in all the groups of high partnership learning, trust and the feeling of shared purpose seem to play a significant role in supporting learning. According to the results, an increase in the level of social governance leads to an increase in partnership learning. These results demonstrate support for the previous research results of, for example, Zaheer, McEvily and Perrone (1998; See also Håkansson et al. 1999) who emphasized the significance of trust in business relationships.

The results place emphasis on network management by suggesting that social mechanisms should be complemented by the use of hierarchical mechanisms in order to gain learning. These results provide support for some prior studies (Krause et al. 2000; Liker & Choi 2004; Sako 2004) that have also suggested a few practical tools to assist suppliers in their development (Dyer & Hatch 2004; Sako 2004). According to those studies, various methods, such as supplier associations, consulting groups and learning teams can help to realize the development potential of suppliers.

The result of this study is particularly contributive to management and organizational learning theory, as it suggests that in the unique context of partnership, ability to manage relationship by applying various mechanisms simultaneously results in increased learning. Thus, learning should be facilitated by using various governance mechanisms simultaneously. This is one of the first studies that demonstrate this result by using empirical data in the context of partnership.

How to govern partnerships?

The present study suggests that the partnership governance structure should be balanced - utilizing at least the hierarchical and social governance mechanisms. The customer should be able to put pressure upon the supplier to develop relationship processes; without the suppliers feeling that the customer is only doing it for opportunistic reasons, in other words, a win-win outcome is available to both the customer and supplier.

These results mean that industrial customers need a management system which defines the goals, implementation and follow-up processes of relationship development. This system needs to be built up together with the supplier. This shared planning and implementation of relationship management systems will support the development of trust and a feeling of shared purpose. These ideas seem to integrate the relationship governance approach that has been applied in this study and the ideas of the IMP group (Ford & Håkansson 2006), which suggest that reciprocal interaction is the key to learning and development in a business relationship. Since this study suggests that a customer should be able to simultaneously manage the relationship and develop trust, and as the study suggests that this could be done by engaging the suppliers in a

shared planning and development process, it seems that there is a call for theory that emphasizes shared relationship management and joint value co-creation.

Limitations and research implications

Although the results of this study are important, this research does have some limitations. Firstly, the dataset is a sample from Finnish companies from metal and electronic industry that operate in the west-coast in Finland. Larger and perhaps comparative international research data is needed to test the research model and the generalizability of these results. Secondly, the data is cross-sectional, which suggests that the results of this study should be tested with longitudinal data in order to capture the development of the relationships over time – and, indeed, the actual learning *process*. Thirdly, as the measurement of these phenomena is difficult, qualitative research is needed to verify the findings, but also to create knowledge concerning the mechanisms of learning in partnerships. However, despite the limitations, the present study gives an interesting and theoretically contributive viewpoint and provides a basis for future studies of the relationship between partnership governance structures and learning.

REFERENCES

Adler, P. S. (2001) "Market, hierarchy, and trust: The knowledge economy and the future of capitalism", Organization Science, Vol 1 No 2, pp. 215-234.

Ahmadjian, C. L. and Lincoln, J. R. (2001), "Keiretsu, governance, and learning: case studies in change from the Japanese automotive industry", Organization Science, Vol 12 No 6, pp. 683-701.

Barringer, B, R. and Harrison, J. S. (2000), "Walking a tightrope: creating value through interorganizational relationship", Journal of Management, Vol 26 No 3, pp. 367-403.

Bensaou, M. (1999), "Portfolios of buyer–supplier relationships", Sloan Management Review, Vol 40 No 4, pp. 35-44.

Bradach, J. L. and Eccles, R. G. (1989), "Markets versus hierarchies: From ideal types to plural forms", Annual Review of Sociology, Vol 15 No 1, pp. 97-118.

Chin, W.W. (1998), "The partial least squares approach to structural equation modelling", In Marcoulides, G.A. (ed.), Modern Methods in Business Research, Earlbaum, Hillsdale, pp. 295-336.

Cool, K., Dierickx, I., and Jemison, D. (1989), "Business Strategy, Market Structure and Risk-Return Relationships: A Structural Approach", Strategic Management Journal, Vol 10 No 6, pp. 507-522.

Dyer, J.H. and Hatch, N.W. (2004), "Using supplier networks to learn faster", Sloan Management Review, Vol 45 No 3, pp. 57-63.

Dyer, J. F. and Nobeoka, K. (2000), "Creating and managing a high-performance knowledge-sharing network: The Toyota case", Strategic Management Journal, Vol 21 No 3, pp. 345-367.

Dyer, J. F. and Ouchi, W. G. (1993), "Japanese–style partnerships: giving companies a competitive edge", Sloan Management Review, Vol 35 No 1, pp. 51-63.

Ellram, L. M. (2002), "Supply management's involvement in the target costing process", European Journal of Purchasing and Supply Management, Vol 8 No 4, pp. 235-244.

Fiol, C. M. and Lyles, M. A. (1985), "Organizational learning", The Academy of Management Review, Vol 10 No 4, pp. 803-804.

Ford, D. and Hakansson, H. (2006), "The Idea of Business Interaction", The IMP Journal, Vol 1 No 1, pp. 4-27.

Gerdin, J. and Greve, J. (2004), "Forms of contingency fit in management accounting research–a critical review", Accounting, Organizations and Society, Vol 29 No 3-4, pp. 303-326.

Gerlach, M.L. (1992), Alliance Capitalism: The Social Organization of Japanese Business, University of California Press, Berkeley.

Ghoshal, S. and P. Moran (1996), "Bad for practice: A Critique of the transaction cost theory", Academy of Management Review Vol 21 No 1, pp. 13-47.

Granovetter, M. (1985), "Economic action and social structure: The problem of embeddedness", American Journal of Sociology, Vol 91, No 3, pp. 481-510.

Heide, J. B. (1994), "Interorganizational governance in marketing channels", Journal of Marketing, Vol 58 No 1, pp. 71-85.

Hines, P. (1995), "Network sourcing: a hybrid approach", International Journal of Purchasing and Materials Management, Vol 24 No 5, pp. 18-24.

Hines, P. (1996), "Purchasing for lean production: the new strategic agenda", International Journal of Purchasing and Materials Management, Vol 32 No 1, pp. 2-10.

Holmqvist, M. (2003), "A Dynamic model of intra- and interorganizational learning" Organization Studies, Vol 24 No 1, pp. 95-123.

Håkansson, H. and Lind, J. (2004), "Accounting and network coordination", Accounting, Organizations and Society, Vol 29, No 1, pp. 51-72.

Håkansson, H., V. Havila and A–C. Pedersen (1999), "Learning in Networks", Industrial Marketing Management, Vol 28 No 5, pp. 443-452.

Inkpen, A. C. (1996), "Creating knowledge through collaboration", California Management Review, Vol 39 No 1, pp. 123-140.

Ketchen, D. J. and Shook, C. L. (1996), "The application of cluster analysis in strategic management research: an analysis and critique", Strategic Management Journal, Vol 17 No 6, pp. 441-458.

Knight, L. (2002), "Network learning: exploring learning by interorganizational networks", Human Relations, Vol 55 No 4, pp. 427-454.

Kohtamäki, M. and Kautonen, T. (2008), "Conceptualising the dimensions of sourcing strategy: A governance-based approach", International Journal of Value Chain Management, Vol 2 No 2.

Kohtamäki, M., Vuorinen, T., Varamäki, E. and Vesalainen, J. (2008), "Analyzing partnerships and strategic network governance", International Journal of Networking and Virtual Organizations, Vol 5 No 2, pp. 135-154.

Kohtamäki, M., Vesalainen, J., Varamäki, E. and Vuorinen, T. (2006), "The governance of a strategic network: Supplier actors' experiences in the governance by the customer", Management Decision, Vol 44 No 8, pp. 1031-1051.

Liker, J. K. and Choi, T. Y. (2004), "Building deep supplier relationships", Harvard Business Review, Vol 82 No 12, pp. 104-113.

MaCaulay, S. (1963), "Non–contractual relations in business: A preliminary study", American Sociological Review, Vol 28 No 1, pp. 55-67.

Möller, K., Rajala, A. and Svahn, S. (2005), "Strategic business nets–their type and management", Journal of Business Research, Vol 58 No 9, pp. 1274-1284.

Nishiguchi, T. and Beaudet, A. (1998), "Case Study: the Toyota Group and the Aisin Fire", Sloan Management Review, Vol 40 No 1, pp. 49-59.

Nooteboom, B. and Gilsing, V. A. (2004), "Density and strength of ties in innovation networks: a competence and governance view", Eindhoven Centre for Innovation Studies, The Netherlands.

Ouchi, W. G. (1980), "Markets, bureaucracies and clans", Administrative Science Quarterly, Vol 25 No 1, pp. 129-141.

Powell, W. W. (1990), "Neither market nor hierarchy: Network forms of organization", Research in Organizational Behavior, Vol 12, No 3, pp. 295-336.

Ritter, T. (2007), "A framework for analyzing relationship governance", Journal of Business & Industrial Marketing, Vol 22 No 3, pp. 196-201.

Rousseau, D. M., Sitkin, S. B., Burt, R. S. and Camerer, C. (1998), "Not so different after all: a cross-discipline view of trust", Academy of Management Review, Vol 23 No 3, pp. 393-404.

Sako, M. (Ed.) (1992), "Prices, Quality and trust", Cambridge University Press, Cambridge.

Sako, M. (2004), "Supplier development at Honda, Nissan and Toyota: Comparative case studies of organizational capability enhancement", Industrial and Corporate Change, Vol 13 No 2, pp. 281-308.

Selnes, F. and Sallis, J. (2003), "Promoting Relationship Learning", Journal of Marketing, Vol 67 No 3, pp. 80-95.

Swedberg, R. (1994), "Markets as Social Structures", In N.J. Smelser & R. Swedberg (Ed.), Handbook of Economic Sociology, Princeton University Press, Princeton, pp. 255-284.

Tabachnick, B. G. and Fidell, L. S. (2007), "Using Multivariate Statistics", Pearson, Boston.

Takeuchi, H. and Nonaka, I. (1995), "The knowledge–Creating Company", Oxford University Press, Oxford.

Thorelli, H. B. (1986), "Networks between markets and hierarchies", Strategic Management Journal, Vol 7 No 1, pp. 37-51.

Van der Meer-Kooistra, J. and G. J. Vosselman (2000), "Management control of interfirm transactional relationships: the case of industrial renovation and maintenance", Accounting, organizations and society, Vol 25, No 1, pp. 51-77.

Williamson, O. E. (1985), "The Economic Institutions of Capitalism", The Free Press, New York.

Zaheer, A., B. McEvily and V. Perrone (1998), "Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance", Organization Science, Vol 9 No 2, pp. 141-159.

APPENDIX

Appendix A. List of variables used in the study (All the variables were measure on a Likert scale from 1 to 5 (1=fully disagree, 5=fully agree).

Items and Variables	Mean	SD	Loading
Price mechanism			
Bids from competitors of this supplier are frequently requested.	2.58	.98	.67
There are numerous potentially substitutive suppliers.	3.21	1.19	.81
Similar or closely comparable components have several suppliers for	2.78	1.37	.33

us (Multiple source).			
Supplier is reminded of the highly competitive situation constantly, which is done in order to have a highly competitive atmosphere.	3.16	1.16	.72
Hierarchical mechanism			
We present very specific requirements for the supplier's quality and management systems.	3.92	1.15	.64
We intend to influence the supplier in a very active manner.	3.88	.99	.64
Supplier's representatives actively participate in production or development meetings.	3.20	1.26	.79
We audit supplier's processes using a specific method.	2.80	1.50	.71
Supplier has been given very specific written instructions on how to react to delivery problems.	3.43	1.22	.68
Social mechanism			
Customer tries to develop trust and a feeling of community by systematically organising different shared meetings and training in which the participants are urged to develop a shared understanding.	3.12	1.19	.77
Customer discusses all the relevant issues related to supplier's operations and strategies with the supplier.	3.52	1.27	.86
Customer attempts to develop trust by acting in a trustworthy manner themselves.	4.18	.86	.69
Problems in the relationship are dealt with constructively, because the customer wants to seek a shared understanding.	4.02	1.07	.77
Learning			
In this relationship new ideas for development are often born.	2.77	1.03	.85
Some of these ideas have major economic significance for the customer's and/or supplier's business.	2.53	1.06	.78
In this relationship, we solve problems together and share knowledge actively.	3.25	1.10	.85
In this relationship we dare to discuss even the most contentious problems so that they can be solved.	3.90	1.06	.78

Appendix B. Correlations between composite variables.

	Price governance	Hierarchical governance	Social governance	Relationship learning
Price governance	1			
Hierarchical governance	.02	1		
Social governance	-.10	.67**	1	
Relationship learning	.06	.54**	.64**	1

**. Correlation is significant at the 0,01 level (2-tailed)