

The Impact of Trust on the Choice of Knowledge Transfer Mechanisms in Clusters

Marijana Srećković and Josef Windsperger

Abstract This study examines the impact of trust on the use of knowledge transfer mechanisms of cluster firms by deriving hypotheses from a relational governance perspective. Specifically, we analyse the influence of trust on the use of face-to-face knowledge transfer mechanisms in cluster relationships. Based on the relational view of governance, it is argued that trust may influence the choice of knowledge transfer mechanisms of the cluster companies in the following way: first, if trust reduces relational risk, an increase in trust will reduce the firms' use of face-to-face knowledge transfer mechanisms. Second, if trust increases knowledge sharing between the cluster partners, it will increase the firms' use of face-to-face knowledge transfer mechanisms. The hypotheses are tested by using data from 118 companies in the Italian textile and fashion sectors. Our data from the Italian textile and fashion sector supports the hypothesis that experience-based trust increases knowledge sharing between the cluster partners by increasing the use of face-to-face knowledge transfer mechanisms. It also supports the knowledge-based hypothesis that tacitness influences the choice of knowledge transfer mechanisms. The paper extends the knowledge-based view of the choice of knowledge transfer mechanisms by showing that trust is an additional determinant of the knowledge transfer strategy.

Keywords Cluster relationships • Knowledge transfer mechanisms • Relational view of governance • Trust

M. Srećković (✉)

Department of Real Estate Development and Project Management, Faculty of Architecture and Planning, Vienna University of Technology, Gusshausstrasse 30, A-1040 Vienna, Austria
e-mail: marijana.sreckovic@tuwien.ac.at

J. Windsperger

Center for Business Studies, University of Vienna, Brünner Str. 72, A-1210 Vienna, Austria
e-mail: josef.windsperger@univie.ac.at

1 Introduction

Knowledge transfer between network partners, such as joint venture, license, franchise and cluster partners, is a key to gaining and sustaining a competitive advantage (e.g. Maskell and Malmberg 1999; Driffield and Munday 2000; Maskell 2001; Levin et al. 2002; Hult et al. 2004; Li 2004; Tallman et al. 2004; Bahlmann and Huysman 2008; Mu et al. 2008; Arikan 2009; Niu 2010; Windsperger and Gorovaia 2011; Lee et al. 2012). The success of cluster relationships depends on the effectiveness of the transfer of the know-how between cluster partners. Trust therefore plays a critical role for the performance of affiliated firms (Liao 2010). This study examines the impact of trust on the choice of knowledge transfer mechanisms of cluster firms by developing hypotheses based on the information richness theory and the relational view of governance.

Information richness theory offers information richness as a criterion to evaluate the transfer capacity of the communication media as knowledge transfer mechanisms (Daft and Lengel 1986; Büchel and Raub 2001; Sexton et al. 2003; Sheer and Chen 2004; Vickery et al. 2004). Information richness increases with the following attributes of a knowledge transfer mechanism: feedback capability, availability of multiple cues (voice, body, gestures, words), language variety, and personal focus (emotions, feelings). In cluster relationships, knowledge transfer mechanisms with a relatively higher degree of information richness (HIR) include seminars, workshops, committees, conference meetings, and visits. Knowledge transfer mechanisms with a relatively lower degree of information richness include written documents, fax, email, intra- and internet and other electronic media.

According to the relational view of governance (e.g. Gulati 1995; Dyer and Singh 1998; Zaheer et al. 1998; Poppo and Zenger 2002; Gulati and Nickerson 2008), trust reduces relational risk and increases information sharing, therefore influencing the use of knowledge transfer mechanisms. We hypothesize two trust effects: if trust reduces relational risk, it will reduce the cluster partners' need to use more HIR-knowledge transfer mechanisms. On the other hand, if trust increases knowledge sharing, it will increase the cluster partners' use of HIR-knowledge transfer mechanisms.

Although many researchers have examined the problem of knowledge transfer in network relationships in the last two decades (e.g. Nonaka 1994; Simonin 1999a, b; Albino et al. 1999; Bresman et al. 1999; Argote and Ingram 2000; Altinay and Wang 2006; Jensen and Szulanski 2007; Szulanski and Jensen 2006; Haas and Hansen 2007; Becerra et al. 2008; van Wijk et al. 2008; Minguela-Rata et al. 2010; Winter et al. 2011), this literature does not investigate the determinants of the choice of knowledge transfer mechanisms in inter-organizational networks. To the best of our knowledge, the works of Inkpen and Dinur (1998), Murray and Peyrefitte 2007; Windsperger and Gorovaia (2011), as well as Srečković and Windsperger (2011) are exemptions. They develop and test a knowledge-based view by analyzing the relationship between knowledge characteristics and knowledge transfer mechanisms used in joint ventures, franchising and cluster relationships. According to the knowledge-based theory, the tacitness of the partner knowledge determines the degree of information richness of

the knowledge transfer mechanisms. In this study, we extend the knowledge-based view of the choice of knowledge transfer mechanisms of Srećković and Windsperger (2011) by considering trust as an additional explanatory variable of the cluster firm's knowledge transfer strategy. Our empirical study tests the hypotheses by utilizing primary data from the Italian textile and fashion cluster that enables us to estimate the influence of trust on the knowledge transfer strategy of the cluster firms.

The paper proceeds as follows: Section 2 gives an overview of the relevant literature and derives the hypotheses from the relational view of governance. Section 3 tests the hypotheses with the data from the Italian cluster. Section 4 discusses the results and derives some conclusions.

2 Trust and Choice of Knowledge Transfer Mechanism in Clusters

If the know-how of the cluster partners is codifiable, trust has either a weak influence on the impact of knowledge attributes on the use of knowledge transfer mechanisms or none at all. This is shown because exchange hazards are very low and the cluster firms can explicitly specify the relevant knowledge in the contract (Levin and Cross 2004; Gulati and Nickerson 2008). If the know-how of the cluster partners is tacit, the contracts between the cluster partners are very incomplete and the cluster firms have difficulties in successfully applying partner-specific knowledge. Consequently, under highly tacit knowledge, trust has a major impact on knowledge transfer (Levin et al. 2002). Based on the relational view of governance (e.g. Zaheer and Venkatraman 1995; Dyer and Singh 1998; Lazzarini et al. 2008), we can differentiate two perspectives regarding the impact of trust on the use of knowledge transfer mechanisms:

Reduction of relational risk: Trust reduces the knowledge transfer hazards by decreasing relational risk (Gulati 1995; Yu et al. 2006). When the cluster partners trust each other, their tolerance level of perceived risk will be higher, and the cluster firms will more likely select knowledge transfer mechanisms with a lower degree of information richness (Lo and Lie 2008). Hence, under high trust, the cluster firms are likely to use less HIR-knowledge transfer mechanisms, as in this low relational risk situation low information-rich knowledge transfer mechanisms facilitate sufficient knowledge sharing. Conversely, when distrust exists between the cluster partners, their tolerance level of perceived risk will be lower, and the cluster firms will be more likely to select knowledge transfer mechanisms with a higher degree of information richness that transfer more knowledge in order to reduce the degree of relational uncertainty. We derive the following hypothesis:

Hypothesis 1 (H1). The higher trust, the less likely the use of HIR-knowledge transfer mechanisms becomes.

Increase in knowledge sharing: Trust overcomes communication barriers and facilitates knowledge sharing and increases therefore the use of all modes of knowledge transfer (Blomqvist et al. 2005; Yeh et al. 2006; Seppänen et al. 2007; Bohnet and Baytelman 2007; Lazzarini et al. 2008). In addition, greater communication due

to the use of more HIR-knowledge sharing mechanisms may lead to more trust between the cluster partners (Anderson and Narus 1990; Dyer and Chu 2000; Blomqvist et al. 2005; Fink and Kraus 2007; Ben-Ner and Putterman 2009). Consequently, under high trust, the cluster firms use more HIR-knowledge transfer mechanisms, because trust creates an incentive for intense and open communication. As a result, we can derive the following hypotheses:

Hypothesis 2 (H2). The more trust exists, the more likely the use of HIR-knowledge transfer mechanisms becomes.

2.1 Inter-organizational Experience as Moderator

According to Reagans and McEvily (2003), the frequency of communication through inter-organizational experience influences the knowledge transfer process. We hypothesize that inter-organizational experience moderates the relationship between trust and the use of knowledge transfer mechanisms. We distinguish two effects: (A) If trust reduces relational risk, more experience with the network partner will result in a stronger decrease in the use of HIR-knowledge transfer mechanisms when inter-organizational experience increases. (B) If trust overcomes communication barriers and facilitates knowledge sharing, inter-organizational experience will increase the positive impact of trust on the use of HIR-knowledge transfer mechanisms. Therefore, depending on the role of trust as a relational risk reduction or a knowledge sharing mechanism, we can derive the following hypotheses:

Hypothesis 1A (H1A). The negative impact of trust on the use of HIR-knowledge transfer mechanisms increases with inter-organizational experience.

Hypothesis 2A (H2A). The positive impact of trust on the use of HIR-knowledge transfer mechanisms increases with inter-organizational experience.

3 Empirical Analysis

3.1 Sample and Data Collection

The empirical study uses data from the Italian textile and fashion industry. Italian industrial districts are a very important contributor to the Italian Economy, and considering the fashion and textile industry, Italy is one of the leading exporting countries in this field.¹ In 2011, textile and fashion districts have accounted for 28.8 % of the working population in Italy.²

¹ See <http://mefite.ice.it/settori/Tessile.aspx?idSettore=02000000> [retrieved 20.11.2011].

² See <http://www.istat.it/en/> [retrieved 20.11.2011].

The empirical setting for testing these hypotheses is the Italian textile and fashion cluster situated in the Province of Prato in Tuscany. In 2009, the textile and clothing sector in the Prato district had an estimated workforce of 30,200 people and 7,582 business firms, which accounted for a turnover of 3,872 million Euros in that sector. “Prato is one of the areas in Central and Northeast Italy (the so-called “Third Italy”) where centuries-old craft skills have successfully merged with modern industrial growth. Originating between the nineteenth and twentieth centuries, the industrialization process underwent a rapid acceleration after World War II and was fully established by the 1970s. During this period of development, Prato grew to become Europe’s most important textiles and fashion centre, and the most advanced example—or prototype—of that particular form of organization of production that is the industrial district. One feature of industrial districts, and of the Prato district as well, is the specialization and distribution of work among small business firms; this segmentation finds its recomposition in a “culturally and socially constituted” local market whose competitiveness is based more on the economical aspects of the area itself than on those of the single undertakings.”³

We started our empirical work by analyzing textile and fashion companies working in Italian industrial districts. First, we contacted exclusively companies from the fashion cluster situated in the Prato district. The identification of cluster firms was based on two sources: (1) the online data bases (e.g., “Unione Industriale Pratese”)⁴ and (2) the Italian Chamber of Commerce. In total, 426 residential cluster firms were contacted by mail. 144 companies accessed the online questionnaire, but only 34 firms responded to most of the questions. Despite several attempts, ranging from multiple reminders to non-respondents and personal contacts via telephone, the response rate remained low. In order to increase the response rate and enlarge the sample, it was necessary to contact firms from other clusters as well. For this purpose, the so-called “snowball technique” (Churchill and Iacobucci 2005) was used. A leading multinational fashion corporate group which is in cooperation with retailers and producers in the Italian industrial districts was contacted. General managers of the single affiliates were asked to contact exclusively with executive directors of target cluster firms, and to spread the questionnaire among cluster partners who might be interested in cooperating. General managers and executive directors were judged to be the most suitable respondents, or key informants, as they are the top decision makers in the company regarding the organization of the knowledge transfer between the partner firms. Key informants should occupy roles that make them knowledgeable regarding the issues being researched (John and Reve 1982). This procedure led to an additional 131 questionnaires, i.e., questionnaires in which the majority of questions apart from the general company description have been answered. Unfortunately, the online questionnaire tool allowed skipping single questions or question batteries, thus the problem occurred

³ See <http://www.ui.prato.it/unionedigitale/v2/english/presentazione%20distretto%20inglese.pdf> [retrieved 20.11.2011].

⁴ See <http://www.ui.prato.it/unionedigitale/v2/default.asp> [retrieved 20.11.2011].

that some respondents answered the questionnaire only in parts. However, the extension of the sample led to a satisfying sample size for all analyses. The questionnaire took approximately 10 min to complete on the average. We received 118 completed responses—a response rate of 27.70 %. We examined the non-response bias by investigating whether the results obtained from the analysis were driven by differences between the group of respondents and the group of non-respondents. Non-response bias was estimated by comparing early versus late respondents (Armstrong and Overton 1977), where late respondents serve as proxies for non-respondents. No significant differences emerged between the two groups of respondents. In addition, based on Podsakoff et al. (2003), we used Harman's single-factor test to examine whether a significant amount of common method variance exists in the data. After we conducted factor analysis on all items and extracted more than one factor with eigenvalues greater than one, we felt confident that common method variance is not a serious problem in our study.

3.2 *Measurement*

To test the hypotheses, the following variables are important: knowledge transfer mechanisms, trust, and control variables (see Appendix).

Knowledge Transfer Mechanisms: Our study conceptualizes information richness of knowledge transfer mechanisms in accordance with the Daft and Lengel's approach (Daft and Lengel 1984). We measure high information richness (HIR) by the extent to which the partner firms use face-to-face knowledge transfer mechanisms, such as committees and other formal meetings. The general managers were asked to rate the use of these knowledge transfer mechanisms on a five-point scale. The higher the score, the higher is the company's use of these HIR-knowledge transfer mechanisms (HIR) (see Appendix).

Trust (TRUST): According to the relational view of governance, trust may influence the use of knowledge transfer mechanisms in two ways: under the substitutability view, trust is a substitute for the use of formal knowledge transfer mechanisms (Gulati 1995; Yu et al. 2006). Therefore, it mitigates the knowledge transfer hazards and reduces the extent of formal knowledge transfer mechanisms (Lo and Lie 2008). Consequently, cluster companies are likely to use less HIR-knowledge transfer mechanisms when trust exists between the cluster partners, and use more HIR-knowledge transfer mechanisms when mistrust exists. Under the complementarity view, trust facilitates knowledge sharing and increases the use of all knowledge transfer modes (Seppänen et al. 2007; Liao 2010). Therefore, under a high level of trust, cluster partners use more HIR-knowledge transfer mechanisms, because trust creates an incentive for intense communication. Adapted from the relevant literature (e.g. Seppänen et al. 2007), TRUST was measured with a five-items scale (see Appendix) (Cronbach alpha = 0.89).

Table 1 Descriptive statistics

| | Mean | Std. deviation | N |
|---------------|-------|----------------|-----|
| COMPLEX | 2.79 | 0.8158 | 116 |
| TRUST | 3.05 | 0.9074 | 118 |
| AGE | 32.10 | 35.3157 | 118 |
| NUM_EMPLOYEES | 80.28 | 19.5147 | 115 |

3.2.1 Control Variables

Complexity (COMPLEX): Kogut and Zander (1993, p. 633) define complexity “as the number of critical and interacting elements embraced by an entity or activity”. Similarly, Sorenson et al. (2006) define complexity in terms of the level of interdependence inherent in the subcomponents of a piece of knowledge (see Simonin 1999a, b). When the system knowledge is more complex, it is considered more tacit. Applied to the cluster relationships, complexity is high when the application of the partner knowledge requires a large number of heterogeneous, complicated and interdependent tasks. Likewise, it is also high when cluster partners have to master diverse techniques in order to successfully apply the partner knowledge. To summarize, when the knowledge of the cluster firms is more complex, it is considered more tacit. Adapted from Zander and Kogut (1995), we use a battery of four items to measure complexity of system-specific knowledge. Reliability passes the threshold of 0.7 (see Appendix).

Age of the Cluster Company (AGE): Age is a proxy for inter-organizational learning and experience (Gulati and Sytch 2008). Inter-organizational experience moderates the impact of trust on the choice of knowledge transfer mechanisms.

Size (SIZE): The number of employees is a proxy for the size of the firm. The larger the firm size, the more face-to-face knowledge transfer mechanisms are used.

3.3 Results

Table 1 presents the descriptive statistics for the sample in the Italian textile and fashion cluster. To test the hypotheses we carry out a regression analysis. We conduct an ordinary least squares regression analysis (OLS) with HIR as the dependent variable. HIR refers to the use of committee meetings and other formal meetings of the cluster members (top-managers, cluster managers). We conduct an OLS regression analysis (a) with the control variables and (b) with the complete model. The explanatory variables refer to TRUST and TRUST*AGE. Control variables refer to the age of the cluster companies (AGE), the size of the company (SIZE) and complexity of knowledge (COMPLEX). Table 2 presents the correlations of the variables we use in the regression analysis. In addition, the variance inflation factors are well below the rule-of-thumb cut-off of 10 (Netter et al. 1985). In summary, we do not find any collinearity indication.

Table 2 Correlations

| | COMPLEX | TRUST | AGE | NUM_EMPLOYEES |
|---------------|---------|--------|---------|---------------|
| COMPLEX | 1 | | | |
| TRUST | 0.445** | 1 | | |
| AGE | 0.003 | -0.136 | 1 | |
| NUM_EMPLOYEES | -0.047 | 0.054 | 0.308** | 1 |

***p < 0.01; **p < 0.05; *p < 0.1

Table 3 Regression results for HIR

| HIR | Model 1 |
|-----------|----------------------|
| Intercept | -3.075*** (0.118) |
| AGE | 0.293*** (0.003) |
| SIZE | 0.206** (0.000) |
| COMPLEX | 0.199** (0.088) |
| | F = 8.854 |
| | R Square = 0.202 |
| | Adj.R Square = 0.179 |
| | N = 113 |

***p < 0.01; **p < 0.05; *p < 0.1; values in parentheses are standard errors

We estimate the following regression equation:

$$\text{HIR} = \alpha + \beta_1 \text{AGE} + \beta_2 \text{SIZE} + \beta_3 \text{COMPLEX} + \beta_4 \text{TRUST} + \beta_5 \text{TRUST} * \text{AGE}$$

In the first step, we conduct the regression analysis with the control variables (see Table 3). HIR varies positively with age (AGE), size (SIZE) and with complexity (COMPLEX). The positive and significant coefficient of size (SIZE) confirms that larger firms use more HIR-knowledge transfer mechanisms. The highly significant and positive coefficient of age (AGE) confirms that inter-organizational learning and experience (Gulati and Sytch 2008) have a strong influence on the use of HIR. Complexity (COMPLEX) varies positively and significantly with HIR. This is consistent with the knowledge-based hypothesis that an increase in tacitness of knowledge results in the use of more HIR-knowledge transfer mechanisms (Srećković and Windsperger 2011).

In the second step, we include TRUST and TRUST*AGE and all control variables (see Model 2 in Table 4). Specifically, the interaction effect TRUST*AGE considers the impact of inter-organizational experience on the relationship between trust and the use of HIR-knowledge transfer mechanisms (Lazzarini et al. 2008; Gulati and Sytch 2008). The coefficient of TRUST*AGE is positive and significant. This is consistent with our hypothesis H2A. If trust overcomes communication barriers and facilitates knowledge sharing, inter-organizational experiences increases the positive impact of trust on the cluster partners' use of HIR-knowledge transfer mechanisms (Seppänen et al. 2007). This means that experience-based trust plays an important role in the knowledge transfer process by strengthening face-to-face communication. In addition, consistent with the knowledge-based view, the use of HIR-knowledge transfer mechanisms varies positively with complexity (COMPLEX).

Table 4 Regression results for HIR

| HIR | Model 2 |
|-----------|----------------------|
| Intercept | 0.570*** (0.280) |
| AGE | -0.310 (0.009) |
| SIZE | 0.159* (0.000) |
| COMPLEX | 0.199** (0.099) |
| TRUST | -0.208 (0.158) |
| TRUST*AGE | 0.649** (0.003) |
| | F = 6.228 |
| | R Square = 0.232 |
| | Adj.R Square = 0.195 |
| | N = 113 |

***p < 0.01; **p < 0.05; *p < 0.1; values in parentheses are standard errors

4 Discussion and Implications

This study examines the impact of trust on the use of HIR-knowledge transfer mechanisms in cluster relationships. Based on the relational view of governance, trust influences the choice of knowledge transfer mechanisms of the cluster firms. Our data from the Italian textile and fashion sector supports the hypothesis that experience-based trust increases knowledge sharing between the cluster partners by increasing the use of face-to-face knowledge transfer mechanisms. Consistent with Srećković and Windsperger (2011), our data also supports the knowledge-based view of the choice of knowledge transfer mechanisms. Overall, we can conclude that trust and knowledge attributes (tacitness) are important determinants of the choice of knowledge transfer mechanism in cluster relationships.

What is the contribution of this study to the relevant literature? Although many researchers in the field of the knowledge-based view of the firm have examined the problem of internal and inter-organizational knowledge transfer (Nonaka 1994; Albino et al. 1999; Ancori et al. 2000; Argote et al. 2003; Bresnen et al. 2003; Jensen and Szulanski 2007; Szulanski and Jensen 2006; Haas and Hansen et al. 2007; van Wijk et al. 2008; Paswan and Wittmann 2009), most of these studies do not investigate the determinants of the choice of knowledge transfer mechanisms. In the context of cluster relationships, Srećković and Windsperger (2011) developed a knowledge-based perspective by analyzing the impact of tacitness on the use of knowledge transfer mechanisms. This study investigates the impact of trust on the cluster firm's choice of knowledge transfer mechanisms from a relational governance perspective. We extend the results of Srećković and Windsperger (2011) by considering trust as an additional determinant of the cluster firm's knowledge transfer strategy.

This study has also managerial implications: first, for successful knowledge transfer, cluster firms have to consider both *tacitness* of knowledge and *trust* as important determinants of the choice of the knowledge transfer mechanisms. If the partner-specific knowledge is characterized by a high degree of tacitness, more HIR-knowledge transfer mechanisms should be used to successfully transfer the

partner-specific knowledge to the other network partner. Furthermore, the cluster firms' choice of knowledge transfer mechanisms depends on the degree of *trust* between the cluster partners. Therefore, interorganizational experience strengthens the role of trust as a facilitator of face-to-face knowledge sharing between the cluster firms. Consequently, cluster relationships characterized by experience-based trust are better able to use face-to-face knowledge transfer mechanisms to increase the knowledge exchange between the network partners.

Appendix: Measures of Variables

| | |
|--|---|
| Higher-IR-knowledge transfer mechanisms (HIR) | To what extent does the cluster company use the following knowledge transfer mechanisms: committee meetings, other formal meetings of cluster members (top-managers, district managers) (1, no use at all; ... 5, very frequent use) |
| Trust (TRUST) Coefficient alpha: 0.893 | Please specify in which extent the following statements correspond to the relationships between your company and the cluster partners: (1, strongly disagree; ... 5, strongly agree) Trust 1: There is a distinct relationship of trust between your company and your cluster partners. Trust 2: There prevails an atmosphere of openness and honesty between your company and your cluster partners. Trust 3: The exchange of information inside the cluster goes beyond the stipulated extent. Trust 4: The collaboration between your company and cluster partners relies on a cooperative basis. Trust 5: We comply with verbal agreements, even if these could be at our disadvantage. Trust 6: The recommendations of your cluster partners with the goal to enhance collaboration are usually heard and discussed Trust 7: The recommendations of your partners in terms of alteration/innovation are heard and discussed inside the cluster. |
| Complexity (COMPLEX) Coefficient alpha: 0.710 | Please specify to which extent you agree with the following statements (1, strongly disagree; ... 5, strongly agree) Complex 1: Cluster partners must learn a vast amount of activities, in order to be able to adopt successfully the transmitted know-how. Complex 2: The techniques and methods used to adopt transmitted know-how are heterogeneous. Complex 3: The techniques and methods used to adopt transmitted know-how are very difficult. Complex 4: The techniques and methods used to adopt transmitted know-how are highly interdependent. |
| Age (AGE) | Age of the cluster firm |
| Size (SIZE) | Number of employees |

References

- Albino V, Garavelli AC, Schiuma G (1999) Knowledge transfer and inter-firm relationships in industrial districts: the role of the leader firm. *Technovation* 19(1):53–63
- Altinay L, Wang CL (2006) The role of prior knowledge in international franchise partner recruitment. *Int J Serv Ind Manage* 17(5):430–443
- Ancori B, Bureth A, Cohendet P (2000) The economics of knowledge: the debate about codification and tacit knowledge. *Ind Corp Change* 9(2):255–287
- Anderson E, Narus J (1990) A model of the distributor firm and manufacturer firm working relationships. *J Mark* 54(1):42–58
- Argote L, Ingram P (2000) Knowledge transfer: a basis for competitive advantage in firms. *Organ Behav Hum Decis Process* 82(1):150–169
- Argote L, McEvily B, Reagans R (2003) Managing knowledge in organizations: an integrative framework and review of emerging themes. *Manage Sci* 49(4):571–582
- Arikan AT (2009) Inter-firm knowledge exchanges and the knowledge creation capability of clusters. *Acad Manage Rev* 34:658–677
- Armstrong JS, Overton TS (1977) Estimating non-response bias in mail surveys. *J Mark Res* 14(3):396–402
- Bahlmann MD, Huysman MH (2008) The emergence of a knowledge-based view of clusters and its implications for cluster governance. *Inf Soc* 24:304–318
- Becerra M, Lunnan R, Huemer L (2008) Trustworthiness, risk, and the transfer of tacit and explicit knowledge between alliance partners. *J Manage Stud* 45:691–713
- Ben-Ner A, Putterman L (2009) Trust, communication and contracts: an experiment. *J Econ Behav Organ* 70:106–121
- Blomqvist K, Hurmelinna P, Seppänen R (2005) Playing the collaboration game right – balancing trust and contracting. *Technovation* 25:497–504
- Bohnet I, Baytelman Y (2007) Institutions and trust: implications for preferences, beliefs and behaviour. *Rationality Soc* 19:99–135
- Bresman H, Birkinshaw J, Nobel R (1999) Knowledge transfer in international acquisitions. *J Int Bus Stud* 30(3):439–462
- Bresnen M, Edelman L, Newell S, Scarbrough H, Swan J (2003) Social practices and the management of knowledge in project environments. *Int J Proj Manage* 21:157–166
- Büchel B, Raub S (2001) Media choice and organizational learning. In: Antal AB, Dierkes M, Child J, Nonaka I (eds) *Handbook of organizational learning and knowledge*. Oxford University Press, Oxford
- Churchill G, Iacobucci D (2005) *Marketing research*. South-Western, Thomson
- Daft RL, Lengel RH (1984) Information richness: a new approach to managerial behavior and organizational design. In: Cummings LL, Staw BM (eds) *Research in organizational behavior*. JAI Press, Homewood, pp 191–233
- Daft RL, Lengel RH (1986) Organizational information requirements, media richness and structural design. *Manage Sci* 32(5):554–571
- Driffield N, Munday M (2000) Industrial performance, agglomeration, and foreign manufacturing investment in the UK. *J Int Bus Stud* 31(1):21–37
- Dyer J, Chu W (2000) The Determinants of trust in supplier-automaker relationships in the U.S., Japan, and Korea. *J Int Bus Stud* 31(2):259–285
- Dyer JH, Singh H (1998) The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Acad Manage Rev* 23(4):660–679
- Fink M, Kraus S (2007) Mutual trust as a key to internationalization of SMEs. *Manage Res News* 30(9):674–688
- Gulati R (1995) Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Acad Manage J* 38(1):85–112
- Gulati R, Nickerson JA (2008) Interorganizational trust, governance choice, and exchange performance. *Organ Sci* 19:688–708

- Gulati R, Sytch M (2008) Does familiarity breed trust? Revisiting the antecedents of trust. *Manag Decis Econ* 29:165–190
- Haas MR, Hansen MT (2007) Different knowledge, different benefits: toward a productivity perspective on knowledge sharing in organizations. *Strateg Manage J* 28(11):1133–1153
- Hult GTM, Ketchen DJ, Cavusgil ST, Calatone RJ (2004) Knowledge as a strategic resource in supply chains. *J Oper Manage* 24(4):458–475
- Inkpen AC, Dinur A (1998) Knowledge management processes and international joint ventures. *Organ Sci* 9(4):454–468
- Jensen RJ, Szulanski G (2007) Template use and the effectiveness of knowledge transfer. *Manage Sci* 53(11):1716–1730
- John G, Reve T (1982) The reliability and validity of key informant data from dyadic relationships in marketing channels. *J Mark Res* 19(4):517–524
- Kogut B, Zander U (1993) Knowledge of the firm and the evolutionary theory of the multinational corporation. *J Int Bus Stud* 24(4):625–645
- Lazzarini SG, Miller GJ, Zenger TR (2008) Dealing with the paradox of embeddedness: the role of contracts and trust in facilitating movement of committed relationships. *Organ Sci* 19(5):709–728
- Lee S, Kim BG, Kim H (2012) An integrated view of knowledge management for performance. *J Knowl Manage* 16:183–203
- Levin DZ, Cross R, Abrams LC, Lesser EL (2002) Trust and knowledge sharing: a critical combination. Retrieved 09/10/2011 from <http://www-935.ibm.com/services/in/igs/pdf/g510-1693-00-cpov-trust-and-knowledgesharing.pdf>
- Levin DZ, Cross R (2004) The strength of weak ties you can trust: the mediating role of trust in effective knowledge transfer. *Manage Sci* 50:1477–1490
- Li S (2004) Location and performance of foreign firm in China. *Manage Int Rev* 44(2):151–169
- Liao TJ (2010) Cluster and performance in foreign firms: the role of resources, knowledge, and trust. *Ind Mark Manage* 39:161–169
- Lo S, Lie T (2008) Selection of communication technologies – a perspective based on information richness theory and trust. *Technovation* 28:146–153
- Maskell P, Malmberg A (1999) Localised learning and industrial competitiveness. *Cambridge J Econ* 23(2):167–185
- Maskell P (2001) Towards a knowledge-based theory of the geographical cluster. *Ind Corp Change* 10:921–943
- Minguela-Rata B, Lopez-Sanchez JI, Rodriguez-Benavides MC (2010) Knowledge transfer mechanisms and the performance of franchise systems: an empirical study. *Afr J Bus Manage* 4:396–405
- Mu J, Peng G, Love E (2008) Interfirm networks, social capital, and knowledge flow. *J Knowl Manage* 12:86–100
- Murray SR, Peyrefitte J (2007) Knowledge type and communication media choice in the knowledge transfer process. *J Manag Issues* 19(1):111–133
- Netter J, Wasserman W, Kutner MH (1985) *Applied linear statistical models*. Irwin, Homewood
- Niu KH (2010) Organizational trust and knowledge obtaining in industrial clusters. *J Knowl Manage* 14:141–155
- Nonaka I (1994) A dynamic theory of organizational knowledge creation. *Organ Sci* 5(1):14–37
- Paswan AK, Wittmann MC (2009) Knowledge management and franchise system. *Ind Mark Manage* 38:173–180
- Podsakoff PM, MacKenzie SB, Lee JY, Podsakoff NP (2003) Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol* 88:879–903
- Poppo L, Zenger TR (2002) Do formal contracts and relational governance function as substitutes or complements? *Strateg Manage J* 23:90–118
- Reagans R, McEvily B (2003) Network structure and knowledge transfer: the effects of cohesion and range. *Adm Sci Q* 48:240–267

- Seppänen R, Blomqvist K, Sundqvist S (2007) Measuring inter-organizational trust – a critical review of the empirical research in 1990–2003. *Ind Mark Manage* 36:249–265
- Sexton M, Ingirige B, Betts M (2003) Information technology-enabled knowledge sharing in multinational strategic alliances: media richness – task relevance fit. Working Paper, Research Institute of the Built and Human Environment. University of Salford, England
- Sheer VC, Chen L (2004) Improving media richness theory: a study of interaction goals, message valence, and task complexity in manager-subordinate communication. *Manage Commun Q* 11(1):76–93
- Simonin BL (1999a) Ambiguity and the process of knowledge transfer in strategic alliances. *Strateg Manage J* 20(7):595–623
- Simonin BL (1999b) Transfer of marketing know-how in international strategic alliances: an empirical investigation of the role and antecedents of knowledge ambiguity. *J Int Bus Stud* 30(3):463–490
- Sorenson O, Rivkin JW, Fleming L (2006) Complexity, networks and knowledge flow. *Res Policy* 35:994–1017
- Srećković M, Windsperger J (2011) Organization of knowledge transfer in clusters: a knowledge-based view. In: Tuunanen M, Windsperger J, Cliquet G, Hendrikse G (eds) *New developments in the theory of networks. Franchising, alliances and cooperatives*. Springer, Berlin, pp 318–334
- Szulanski G, Jensen RJ (2006) Presumptive adaptation and the effectiveness of knowledge transfer. *Strateg Manage J* 27(10):937–957
- Tallman W, Jenkins M, Henry N, Pinch S (2004) Knowledge clusters and competitive advantage. *Acad Manage Rev* 29:258–271
- Van Wijk R, Jansen JP, Lyles MA (2008) Inter- and intra-organizational knowledge transfer: a meta-analytic review and assessment of its antecedents and consequences. *J Manage Stud* 45:830–853
- Vickery SK, Droge C, Stank TP, Goldsby TJ, Markland RE (2004) The performance implications of media richness in a business-to-business service environment: direct versus indirect effects. *Manage Sci* 50(8):1106–1119
- Windsperger J, Gorovaia N (2011) Knowledge attributes and the choice of knowledge transfer mechanisms in networks: the case of franchising. *J Manage Gov* 15:617–640
- Winter SG, Szulanski G, Ringov D, Jensen RJ (2011) Reproducing knowledge: inaccurate replication and failure in franchise organizations. *Organ Sci* 23(3):672–685
- Yeh Y-J, Lai S-Q, Ho C-T (2006) Knowledge management enablers: a Case study. *Ind Manage Data Syst* 106:793–810
- Yu C-MJ, Liao TJ, Lin ZD (2006) Formal governance mechanisms, relational governance mechanisms, and transaction-specific investments in supplier-manufacturer relationships. *Ind Mark Manage* 35:128–139
- Zaheer A, McEvily B, Perrone V (1998) Does trust matter? Exploring the effects of inter-organizational and interpersonal trust on performance. *Organ Sci* 19(2):141–159
- Zaheer A, Venkatraman N (1995) Relational governance as an inter-organizational strategy: an empirical test of the role of trust in economic exchange. *Strateg Manage J* 16:373–392
- Zander U, Kogut B (1995) Knowledge and the speed of transfer and imitation of organizational capabilities: an empirical test. *Organ Sci* 6(1):76–92