

Formal Network Governance and knowledge Sharing: Tunisian Networks Study

Houda HAKIM GUERMAZI^{#1}, Habiba ALMIA^{#2}

[#] *LIGUE, GEMAS, ISDS Department, ENSI Manouba University*
Tunisia

¹houda.hakim.guermazi@ensi-um.tn

²habiba.almia@yahoo.fr

Abstract— knowledge sharing is a crucial lever enhancing capacity and improving value creation in inter-organizational relationships. Literature review and international practices on this subject state the existence of certain factors to ensure a suitable transfer of knowledge. This research studies the effect of formal network governance on knowledge sharing. To answer the research issue, we conducted a survey of 93 companies belonging to national and international network. The results show a positive effect of centralized control on implicit and explicit knowledge sharing.

Keywords— Knowledge Sharing; Formal Network Governance; Network Contracts; Control; Networks.

I. INTRODUCTION

With globalization, the business world has experienced several mutations leading to the opening of markets and increasingly harsh competition, the acquisition of a sustainable competitive advantage and value creation are placed at the center of the managers' concerns [1]. For companies that do not have enough individual resources and skills to meet the challenges posed by these developments, networking strategies not only allow firms to achieve scale economies, access to valuable resources, get key technologies and share risks [2, 3], but also optimize the process of value creation and develop a capacity of competitive response through the creation and consolidation of a competitive advantage [2, 4]. Several researchers represent knowledge sharing as crucial lever creating value in inter-organizational relationships [4, 5]. Despite the significant importance of sharing knowledge [6-8], it can't take place randomly. Indeed, a company may lose its competitive advantage due to an excessive sharing of its knowledge or even transferring some of its key knowledge [9]. The firm could also suffer from a poor management of its intellectual property by its partners [9], as it might suffer as a result of an opportunistic behaviour [10]. Seen in this light, some authors argue that the governance of the relationship in the network supports reciprocity and knowledge sharing by reducing the opportunism and unpredictability of the business partners. It also overcomes the feeling of distrust and boosts them to share their know-how [11, 12]. The purpose of this

research is to study the relationship between formal governance and knowledge sharing within Tunisian networks.

II. THEORETICAL BACKGROUND

A. knowledge Sharing

“Why focus on knowledge sharing? We contend that it is essential for the functioning of any business network as it influences the interaction between the network companies and the outcomes they are able to achieve” [13, p 219]. This quote sheds light on the crucial role of knowledge sharing in enhancing the capacity of network firms [8], generating a relational rent [4] and improving its competitiveness [13, 14].

Lee (2001) defines “knowledge sharing as activities of transferring or disseminating knowledge from one person, group or organization to another” [8, p 324]. Trkman and Desouza (2012) emphasize the importance of knowledge transfer between firms in the network to ensure a suitable combination and, synthesis and enable better use beyond the boundaries of a sole company. To this end, Christopher & Gaudenzi (2009) and Connell & Voola (2007) state that knowledge sharing implies the sharing of experience, know-how and learning between organizations integrating the network [9]. It also refers to the sharing of expertise and technologies to help others, jointly organizing a job training and teaming-up to find better solutions, develop new ideas and implement effective strategies [6, 13, 15, 16]. However, geographical barriers may hinder the effectiveness of the coordination and the exchange of tacit knowledge in particular [17]. To solve this problem, the use of collaborative technologies can not only promote virtual teamwork but also it facilitates and enables business partners to exchange valuable knowledge [16-19].

As noted by Dyer and Nobeoka (2000) [20], most researchers distinguish between two complementary types of knowledge: explicit knowledge and tacit knowledge. The first type is systemic, as codified as easy to share between business partners, assuming it decryption is known [8, 13]. The second type, being inarticulate and very intuitive, is difficult to codify and share [8, 21].

In the perspective of inter-organizational knowledge transfer, the context, the partners and their activities will

affect the potential learning process [22, 23]. Other factors may influence this process. Indeed, the literature is abundant in this regard, focusing on the relational capital [5, 7, 24, 25] whose trust is an essential component [4, 6, 9], the mutual intention of learning [6, 26], and absorptive capacity [6, 27] as factors having a significant impact on the nature and extent of inter-organizational learning. However, Simonin (1999) advocates that the ambiguity and its antecedents, the opportunism of partners and the organizational defensive routines may obstruct knowledge sharing and therefore can moderate its contribution the performance enhancing of companies participating in the network [25, 28, 29], hence the importance of governance as a solution to reduce the risk of sharing knowledge [3,9].

B. Formal Network Governance

Several researchers present the opportunistic behaviour of partners as a serious management problem, even if it is 'individually rational'; its consequences are common and overwhelm all actors in inter-organizational relationships [30]. According to Williamson (1985) and Adler (2001), every company would like to maximize profits and serve its own interests, therefore it is necessary to find mechanisms that allow regulating the behaviour of partners in networks to make it predictable and stable [11]. Governance research differentiates between two mechanisms [10, 11, 31, 32, 33, 34]: the informal mechanisms and the formal mechanisms. Relational perspectives are cradles of the informal governance mechanisms such as trust, shared values, ethics and convergence of philosophies to business dealing [10, 11, 16, 31, 35], while the formal governance mechanisms are related several theories including the agency theory [31] and the theory of transaction costs [35, 36, 37].

Previous researches discuss the formal governance as a solution to master transactional opportunism to maintain a sustainable collaboration and achieve the expected objectives [11, 31, 37]. In fact, as noted by Lee and Cavusgil (2006), "By providing mutually agreed standards of behaviour, formal governance obviates private incentive seeking, promotes partnership confidence, and thus engenders greater commitment in inter-firm exchange" [11, p784].

Studies distinguish between two formal mechanisms: ex ante governance and ex post governance, focusing in particular on contracts and control [3, 11, 34].

1) Network Contracts:

As formal governance mechanism, contracts generally indicate details on the rights, roles and responsibilities of each party, set desired objectives and outcomes, clarify actions to be taken in the event of unforeseen circumstances, the monitoring procedures and penalties for overruns or abuse and the procedures for resolving disputes [3, 11, 38]. The complexity of the contracts depends on the transactional risks in the network [3]. This complexity is reflected proportionally

by a large number of clauses and accented details specification to address and monitor these risks, avoid distractions and ensure suitable coordination [3, 11, 39].

2) Control:

As a mechanism of formal governance, control reflects a regulatory process through which a party may follow the allocation of scarce resources, operations, achievement of the objectives and respect for contracts through a standardization of process evaluation via setting rules and standards and a periodic collection of information [11, 31, 34, 40, 41]. Control mechanisms are legitimate, objective and institutionalized. In the agreements, the partners set processes of mutual control by specifying clear limits [11, 40, 41]. Control within the network can be shared or centralized [42]. In the first case, the companies forming the network should interact with each other in the exercise of control. In the second case, the control will be done through a network organization regarding the performance and maintenance of the relation [42].

C. Formal Governance and knowledge sharing

Formal governance mitigates uncertainty and reduces transactional risks such as opportunism, information asymmetry, loss of control of a valuable resource, while improving coordination, interest relief, thereby facilitating inter-organizational knowledge transfer in a "preferred direction" [10,11, 15, 16, 25, 41]. In addition, it discourages the abuse of shared knowledge and helps to master the flow of unwanted information by governing the distribution, acquisition and use [10, 33]. Indeed, the review of the literature discussing the impact of the formal governance of a network on knowledge sharing leads to the following assumptions:

H1: *Formal Network Governance has a positive effect on knowledge sharing.*

This effect is positive whatever the nature of the knowledge [11], which leads to the following sub-hypotheses:

H1.1: *Formal Network Governance has a positive effect on implicit knowledge sharing.*

H1.2: *Formal Network governance has a positive effect on explicit knowledge sharing.*

III. RESEARCH METHODOLOGY

To respond to the issues raised, we conducted a survey in the sectors of industry and service from a sample consisting of 45 networks within 93 companies. Due to reasons of availability of budget and time, the sampling method used in this survey is the non-probabilistic method and more precisely by convenience sampling. The data collection was ensured through a questionnaire.

A. Measures

For this research, we adopted a 5 points Likert scale to receive the respondents' answers on each item [43]. In order to study the effect of Network Governance on Knowledge Sharing, we identify lists of the different items in theory and international practice presented in the table below:

TABLE I.
 MEASURES OF CONSTRUCTS

Constructs		Items Description
KS: Knowledge Sharing (5 items)	Explicit Knowledge Adapted from [8,16-19]	Three items that reflect: Exchanging relevant information (EKS1), transferring technologies to each other (EKS2) and using collaborative technologies that facilitate the flow of information (EKS3).
	Implicit Knowledge Adapted from [6, 8,9, 13, 15, 16]	Two items that reflect: teaming up and sharing successful experiences to enhance inter-firm learning (IKS1), jointly organizing job training to enhance each other's knowledge (IKS2),
FNG: Formal Network Governance (7 items)	Centralized Control Adapted from [40, 41]	Three items that reflect: Exerting many controls through the relationship (CC1), assessing the business partner's performance through a formal evaluation process (CC2), Monitoring what the business partner are doing for the others in the market (CC3)
	Shared Control Adapted from [42]	Two items that reflect: jointly managing network relationships and operations (SC1) and collectively developing new products or attracting new business in ways that could not be otherwise accomplished individually (SC2).
	Network Contracts Adapted from [3,11]	Two items that reflect: adapting the agreements that detail the obligations of both parties (NCTra1) and detailing contractual agreements specially designed between business partners (NCTra2)

B. Data Analysis

Data analysis is performed using the software SPSS.17.0. We began by testing reliability. We note that all items are tested to ensure a higher alpha Cronbach (≥ 0.6) (to ensure that the items following the normal distribution). At factor analysis we used KMO index (≥ 0.5) with Bartlett test (0.000) to ensure the accuracy of the sample and the Varimax rotation to ensure the orthogonality of the axes (if more than one axe) [46]. Then, we applied the canonical analysis to identify the relationship between the Network governance (FNG) and the Knowledge sharing (KS).

C. Results

1) Reliability and Factor Analysis .

The results of the reliability and factor analysis of the governance are presented in the following table:

TABLE II.
 RELIABILITY AND FACTOR ANALYSIS OF NETWORK GOVERNANCE

FEC ^a	FNG						
SOC ^b	C.Cont.			S.Cont.		N.Ctra.	
Independent variables ($\alpha=0.675$)	CC.1	CC.2	CC.3	SC.1	SC.2	NCTra. 1	NCTra. 2
KMO	0.665			0.500		0.500	
Component Matrix	0.778	0.778	0.834	0.765	0.765	0.842	0.842
%cumulated	63.544 %			58.581 %		70.921 %	

^a. FEC: The First endogenous construct.
^b. SOC: the second-order constructs.

Factor analysis allows extracting three components (centralized control, shared control, network contract) with respective cumulative effects of 63.544%, 58.581% and 70.921%. The first endogenous construct (Formal Network governance: FNG), has three second order constructs (C.Cont., S.Cont., N.contra.).The results of the factor analysis of knowledge Sharing are presented in the following table:

TABLE III.
 RELIABILITY AND FACTOR ANALYSIS OF KNOWLEDGE SHARING

FEC ^a	KS ($\alpha=0.882$)				
SOC ^b	IKS		EKS		
Variables	IKS1	IKS2	EKS1	EKS2	EKS3
Component Matrix	0.928	0.928	0.864	0.880	0.877
KMO	0.500		0.729		
%cumulated	86.127		76.331		

^c. FEC: The First endogenous construct.
^d. SOC: the second-order constructs.

Factor analysis allows extracting two components implicit and explicit knowledge sharing, with respective cumulative effects of 86.127% and 76.331%. The implicit knowledge sharing presents tow components: skills association and competence development with respective cumulative effects of 92.8%. The explicit knowledge sharing presents three components: Information flow, Technology transfer, and use of communication and information technology with respective cumulative effects of 86.4%; 88 % and 87,7 %.

2) Relationship between Knowledge Sharing and Formal Network Governance

Canonical analysis can outline the following results as shown in the following table:

TABLE IV.
 WILKS VALUE: FIRST AND SECOND LEVELS ANALYSIS

Relation type	Wilks Value	Sig. of F	Root No.	Eigen - value	Cano n. Corr.	Sq. Corre .
<i>FLA^a</i>	57.97 %	0.091*	1	0.46003	0.56132	0.31508
<i>A.D.R.^b</i>	57.97 %	0.091*	1 to 5			
<i>SLA^c</i>	77.225%	0.001***	1	0,27246	,46273	,21412
<i>A.D.R.^b</i>	77.225%	0.001***	1 to 2			

^a FLA: First level Analysis.: endogenous construct: FNG –KS

^b ADR: Analysis dimension reduction

^c SLA: Second level Analysis: the second-order constructs (C.Cont., S.Cont., N.Ctra.) - second-order constructs (IKS, EKS. ***p < 0.01 ; * p < 0.1

The Wilks's Lambda result shows a significant effect throughout the study of the relationships: Formal network governance–Knowledge sharing (FNG-KS). In the first level analysis, the effect of the independent variables, taken separately without construct conception, presents 57.97 %; in the second level analysis, the effect is 77.225 % (at respectively p < 0.1 and 0.01). These results confirm a priori H1. We can dig deeper by consulting «Univariate F tests » table and the « Square.Mul. Correlation ».

This influence can be explained by the significant role played by the formal network governance of a network identifying the incentives and customizing behaviours of partners to maximize the benefits from the process of inter-organizational learning [41].

TABLE V.
 SQUARE.MUL. CORRELATION AND UNIVARIATE F TESTS TABLE:
 SECOND-ORDER CONSTRUCTS

	SOC : C.Cont., S.Cont., N.Ctra. - IKS	SOC : C.Cont., S.Cont., N.Ctra. - EKS
SMC a	17.464%	19.248
Sig. of F	0.001***	0.000****

SMC: Square.mul. correlation. ***p < 0.01 ; **** p < 0.001

The results show significant and positive effect (at 5% significant level) throughout the study of the relationships between the second level constructs (C.Cont. , S.Cont. , N.Ctra.) and implicit knowledge sharing (IKS) supporting H1.1. In fact, focusing the collective interest, governance strengthens the interaction between network organizations by mitigating the risk of knowledge sharing, opportunistic behaviour of actors and the instability of the relationship [31, 37]. This interaction is necessary as well to stimulate the association of skills and sharing of know-how [44].

In addition, the results show significant and positive effect (at 1% significant level) throughout the study of the relationships: C.Cont., S.Cont., N.Ctra. –EKS. The results support H1.2. As explained by Li and al. (2010), the formal governance occurs through formal business processes that

require the communication of explicit knowledge. It can regulate the flow of information, require via ex ante governance relevant data or even the right to monitor the use of a particular technology as it may require in an ex post governance the exchange of periodic reports and a variety of information which increases the level of explicit knowledge exchange [45].

We can deepen the analysis by consulting the relationship between the Third- order constructs of FNG and the second-order constructs of the KS.

TABLE VI.
 REGRESSION ANALYSIS: THIRD ORDER CONSTRUCTS

	Third- order constructs C.Cont. - IKS	Third- order constructs C.Cont. - EKS
<i>B</i>	41.586	38.9810
<i>t-Value</i>	3.98003	3.77163
<i>Sig of t</i>	0.000****	0.000****

**** p < 0.001

The Regression analysis shows significant paths (β) throughout the study for the relationships: all significant paths have positive values supporting H1.1 and H1.2.

The results show that the centralized control has a positive effect on implicit and explicit knowledge sharing (at 1% significant level. The other relationships could not be generalized (not significant).

Indeed, Zhang and Zhou (2013) focus on the differential impact of contracts and control over knowledge sharing [11]. As Heide (2003) points out, the control is more flexible than contracts in the treatment of unforeseen problems and guarantees a better achievement of objectives [11]. Through centralized control, controlled partners feel less oppressed and more sustained, since the controller partner assume more responsibility and the risks associated with the obtained control. At the same time, increasing the power of the controller partner increases its confidence and motivates it to conduct a suitable control, which allows a better adaptation and management of uncertainties [11]. Seen from this angle, the partners will be more willing to cooperate with each other through a frequently knowledge sharing [11, 44].

Besides, we can dig deeper by estimating the effect of the independent variables of the formal network governance (FNG) on the dependent variables of the knowledge sharing (KS) through the regression technique.

TABLE VII.
 REGRESSION ANALYSIS: C.CONT.I-DEPENDANT VARIABLES

I. V. ^a D. V. ^b		IKS 1	IKS 2	EKS 1	EKS 2	EKS 3
CC.1	B	44.53	34.46	21.03	35.08	35.65
	t-Value	3.85951	2.85246	1.71095	3.02089	2.99953
	Sig of t	0.000****	0.005***	0.091*	0.003***	0.004***
CC.3	B				21,22	
	t-Value				1.71401	
	Sig of t				0.090*	

^h. Independent Variables

ⁱ Dependent Variables

* p < 0.1; ***p < 0.01 ; **** p < 0.001

The Regression analysis shows significant paths (β) throughout the study of the relationships: Independent variable, direct supervision of the partner (CC1), with the five dependent variables: Skills association and competence development, Information flow, Technology transfer, and use of communication and information technology (at $p < 0.001$, at $p < 0.1$, at $p < 0.01$). The observation of path coefficients (β), shows that all significant paths have positive values greater than 0.2 [47]. Relationships, not mentioned in the table, are non-significant.

The regression analysis shows significant paths (β) throughout the study for the relationships: the control of the partner product (CC3) with Technology transfer (EKS2). Relationships, not mentioned in the table, are non-significant and cannot be generalized.

This result emphasizes the importance of exerting many controls through the relationship and monitoring what the business partner are doing for the others in the market which increases the exchange of both explicit and tacit knowledge [45].

IV. CONCLUSION

The aim of this research is to study the impact of formal network governance on knowledge sharing in Tunisian networks. The literature review shows that the studied concepts are rich and presents several criteria. We identified a non-exhaustive list of criteria which can be grouped into implicit and explicit knowledge sharing. List on formal governance network was grouped into three constructs: centralized control, shared control and formal contract. Subsequently, we conducted a survey of 93 companies. The research led to the identification of the debates and controversy on this subject in previous works. The empirical investigation showed a significant and positive effect of the formal governance on knowledge sharing (explicit and implicit). It also helped to project light on the importance of ex post governance (the control) for the transfer of knowledge.

This article also contributes to an empirical enhancement that it can help business owner to know the mechanisms of formal governance which promotes more knowledge sharing. However, regardless to the governance mechanism, the success of the knowledge sharing is based on sociological reference founded on informal mechanism in network such as trust and reciprocity.

REFERENCES

- [1] R. Rajaguru and M. J. Matanda (2012), "Effects of inter-organizational compatibility on supply chain capabilities: Exploring the mediating role of inter-organizational information systems (IOIS) integration", *Industrial Marketing Management*, article in press.
- [2] Hallikas, I. Karvonen, U. Pulkkinen, V.-M. Virolainen, and M. Tuominen (2004), "Risk management processes in supplier networks", *International Journal of Production Economics* 90, pp 47–58.
- [3] R. Ding, H.C. Dekker and T. Groot (2013), "Risk, partner selection and contractual control in interfirm relationships", *Management Accounting Research* 24, pp 140– 155.
- [4] M.-S. Cheung, M.B. Myers and J.T. Mentzer (2010), "Does relationship learning lead to relationship value? A cross-national supply chain investigation", *Journal of Operations Management*, n° 28, pp. 472–487.
- [5] L. C.-L. Eunice, P. N. Ghauri and R.R. Sinkovics (2010), « Understanding the impact of relational capital and organizational learning on alliance outcomes », *Journal of World Business* n°45, pp 237–249.
- [6] L. C.-L. Eunice (2012), "An investigation of relationship learning in cross-border buyer–supplier relationships: The role of trust", *International Business Review* n° 21, pp. 311–327.
- [7] K.-H. Chang and D. F. Gotcher (2007), "Safeguarding investments and creation of transaction value in asymmetric international subcontracting relationships: The role of relationship learning and relational capital", *Journal of World Business* 42, pp. 477–488.
- [8] J. Lee (2001), "The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success", *Information & Management*, Vol. 38, pp. 323–335.
- [9] P. Trkman and K. C. Desouza (2012), "Knowledge risks in organizational networks: An exploratory framework", *Journal of Strategic Information Systems* 21, pp 1–17.
- [10] K. K. Kim, N. S. Umanath, J. Y. Kim, F. Ahrens and B. Kim (2012), "Knowledge complementarity and knowledge exchange in supply channel relationships", *International Journal of Information Management* 32, pp 35– 49.
- [11] Q. Zhang and K. Z. Zhou (2013), "Governing interfirm knowledge transfer in the Chinese market: The interplay of formal and informal mechanisms", *Industrial Marketing Management* 42, pp.783–791.
- [12] V. D. Corte and M. Aria (2014), "Why strategic networks often fail: Some empirical evidence from the area of Naples", *Tourism Management* 45, pp. 3–15.
- [13] K. Möller and S. Svahn (2004), "Crossing East-West boundaries: Knowledge sharing in intercultural business networks", *Industrial Marketing Management* 33, pp. 219– 228.
- [14] R. S. Bhagat , P. D Harveston, and H. C. Triandis (2002), "Cultural variations in the cross-border transfer of organizational knowledge: an integrative framework", *Academy of Management Review*, 27 (2), 204–221.
- [15] S. Wang and R. A. Noe (2010), "Knowledge sharing: A review and directions for future research", *Human Resource Management Review* 20, pp. 115–131.

- [16] Y.-H. Chen, T.-P. Lin and D.C. Yen (2014), "How to facilitate inter-organizational knowledge sharing: The impact of trust", *Information & Management* 51, pp. 568–578.
- [17] A. Gupta, E. Mattarelli, S. Seshasai and J. Broschak (2009), "Use of collaborative technologies and knowledge sharing in co-located and distributed teams: Towards the 24-h knowledge factory", *Journal of Strategic Information Systems* 18, pp. 147–161.
- [18] A.C. Sodero, E. Rabinovich and R.K. Sinha (2013), "Drivers and outcomes of open-standard inter-organizational information systems assimilation in high-technology supply chains", *Journal of Operations Management* 31, pp. 330–344.
- [19] C.-Y. Wang, H.-Y. Yang and S.-c. T. Chou (2008), "Using peer-to-peer technology for knowledge sharing in communities of practices", *Decision Support Systems* 45, pp. 528–540.
- [20] Dyer, J. H. & K. Nobeoka, K. (2000), "Creating and Managing a High-Performance Knowledge-Sharing Network: The Toyota Case", *Strategic Management Journal* 21, pp. 345–367.
- [21] X. Martin and R. Salomon (2003), "Knowledge transfer capacity and its implications for the theory of the multinational corporation", *Journal of International Business Studies* 34, pp. 356–373.
- [22] O. Jones and A. Macpherson (2006), "Inter-Organizational Learning and Strategic Renewal in SMEs - Extending the 4I Framework", *Long Range Planning*, Vol. 39, No. 2, pp.155-175.
- [23] Panayides Photis M. (2007), "The impact of organizational learning on relationship orientation, logistics service effectiveness and performance", *Industrial Marketing Management*, n° 36, pp 68 – 80.
- [24] Muthusamy Senthil K. & White Margaret A. (2005), "Learning and Knowledge Transfer in Strategic Alliances: A Social Exchange View", *Organization Studies* 26(3), pp. 415–441.
- [25] S.-M. Yang, S.-C. Fang, S.-R. Fang and C.-H. Chou (2013), "Knowledge exchange and knowledge protection in interorganizational learning: The ambidexterity perspective" *Industrial Marketing Management*, article in press.
- [26] S.-R. Fang, & al. (2011), "Relationship learning and innovation: The role of relationship-specific memory", *Industrial Marketing Management*, n° 40, pp 743–753.
- [27] Camison César & Forés Beatriz (2011), «Knowledge creation and absorptive capacity: The effect of intra-district shared competences », *Scandinavian Journal of Management* N°27, pp. 66-86.
- [28] B.L. Simonin (1999), "Transfer of Marketing Know-How in International Strategic Alliances: An Empirical Investigation of the Role and Antecedents of Knowledge Ambiguity", *Journal of International Business Studies*, n° 35, pp.463–490.
- [29] B.L. Simonin (2004), "Empirical investigation of the process of knowledge transfer in international strategic alliances", *Journal of International Business Studies*, n° 35, pp.407–427.
- [30] K.Neumann (2010), "Ex ante governance decisions in inter-organizational relationships: A case study in the airline industry", *Management Accounting Research* 21, pp. 220–237.
- [31] C. Storey and C. Kocabasoglu-Hillmer (2013), "Making partner relationship management systems work: The role of partnership governance mechanisms", *Industrial Marketing Management* 42, pp 862–871.
- [32] D. I. Gilliland, D. C. Bello and G. T. Gundlach (2010), "Control-based channel governance and relative dependence", *Journal of the Academy of Marketing Science*, 38 (4), pp. 441–455.
- [33] Y. Li, E. Xie, H. Teo and M. W. Peng, (2010), "Formal control and social control in domestic and international buyer–supplier relationships", *Journal of Operations Management*, 28(4), 333–344.
- [34] H.-M. Lin, H.-C. Huang, C.-P. Lin and W.-C. Hsu (2012), How to manage strategic alliances in OEM-based industrial clusters: Network embeddedness and formal governance mechanisms, *Industrial Marketing Management* 41, pp. 449–459.
- [35] M. Griessmair, D. Hussain and J. Windsperger (2014), "Trust and the tendency towards multi-unit franchising: A relational governance view", *Journal of Business Research*, article in press.
- [36] M. O'Dwyer and E. O'Flynn (2005), "MNC–SME strategic alliances — A model framing knowledge value as the primary predictor of governance modal choice", *Journal of International Management* 11, pp. 397–416.
- [37] C.-M. J. Yu, T.-J. Liao and Z.-D. Lin (2006), "Formal governance mechanisms, relational governance mechanisms, and transaction-specific investments in supplier–manufacturer relationships", *Industrial Marketing Management* 35, pp. 128–139.
- [38] L. Poppo and T. Zenger (2002), "Do formal contracts and relational governance function as substitutes or complements?", *Strategic Management Journal* 23, pp. 707–725.
- [39] F. Lumineau and D. K.Malhotra (2011), "Shadow of the contract: how contract structure shape inter-firm dispute resolution", *Strategic Management Journal* 32, pp. 532–555.
- [40] H. J. Sachdev and D. C. Bello (2013), "The effect of transaction cost antecedents on control mechanisms: Exporters' psychic distance and economic knowledge as moderators", *International Business Review*, article in press.
- [41] D. Yang (2011), "How does Knowledge Sharing and Governance Mechanism Affect Innovation Capabilities? –From the Coevolution Perspective", *International Business Research* Vol. 4, No. 1, pp. 154–157.
- [42] K. G. Provan and P. Kenis (2008), "Modes of Network Governance: Structure, Management, and Effectiveness", *the Journal of Public Administration Research* 18 (2), pp. 229-252.
- [43] R.-A. Thietart (2007), « Méthodes de Recherche en Management », (ed.), 3ème Ed., Paris: Dunod.
- [44] K. Z. Zhou, Q. Zhang, S. Sheng, E. Xie and Y. Bao (2014), "Are relational ties always good for knowledge acquisition? Buyer–supplier exchanges in China", *Journal of Operations Management* 32, pp. 88–98.
- [45] J.J. Li, L. Poppo, K.Z Zhou (2010), "Relational mechanisms, formal contracts, and local knowledge acquisition by international subsidiaries", *Strategic Management Journal* 31 (4), pp. 349–370.
- [46] M.E. Kuwaiti, and J M. Kay (2000), The role of performance measurement in business process re-engineering. *International Journal of Operations & Production Management*. Vol. 20, Iss. 12; p. 1411.
- [47] W. W. Chin (1998), Issues and opinion on structural equation modeling. *Management Information Systems Quarterly*, 22(1), pp. 7-16.