Discovering isomorphism in supply management: institutional fit and organizational performance

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Abstract

The goal of the study is to analyse isomorphic practices in the context of supply management, evaluating how the level of isomorphism with leading organizations affect performance. We consider three key business variables: structure, culture and technology. We used a sample with data from 200 Spanish companies, in the high technology sector. Hierarchical regression analysis is used to test the hypotheses. The results show that the impact of institutional fit on performance depends on the type of variable used, which suggests the possibility of stratification of isomorphism. We discuss the implications of these findings for institutional theory and supply management.

Keywords: Isomorphism, Institutional fit, Supply management

Main subject text.

Theoretical background.

Organizations that share the same organizational field face similar conditions from their environment causing organizational homogeneity (Dacin, 1997). This phenomenon is known as isomorphism (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). Traditionally, the studies on isomorphism have used this concept as both an outcome state (Deephouse, 1996; Liu et al., 2010; Wu and Salomon, 2016) and a process (DiMaggio and Powell, 1983; Barreto and Baden-Fuller, 2006). However, we conceptualize

isomorphism here as a process. That is, isomorphism is a "constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (DiMaggio and Powell, 1983:149). Through this isomorphic process, organizations incorporate the norms of organizational field, in their structures and practices, coming to resemble their environment and each other over time (Dacin, 1997; DiMaggio & Powell, 1983; Meyer & Rowan. 1977). The final result of this isomorphic process is institutional fit (Deephouse, 1996). Institutional fit is defined as "the degree of compliance by an organization with the organizational form of structures, routines, and systems prescribed by institutional norms" (Kondra and Hinings, 1998:750). In this paper, therefore, we conceptualize institutional fit as an outcome state -at a given point in time- derived from isomorphic process.

From imperative institutional, the primary goal of organizations in their organizational fields is to achieve the fit with their environment (Dacin, 1997). Institutional fit allows organizations to achieve legitimacy –or social justification- in their organizational fields (DiMaggio y Powell, 1983; Meyer y Rowan, 1977; Heugens y Lander, 2009) which generates positive evaluations towards them and increases their probability of survival (Deephouse y Suchman, 2008).

Despite the extensive body of work examining the antecedents and consequences of institutional fit (Wu and Salomon, 2016), their effects on performance remain a topic of debate not only in the institutional literature (Volberda et al., 2012; Heugens and Lander, 2009) but also in the operations management (OM) (Wu et al., 2012; Rogers et al., 2007; Wu et al., 2013). The theory suggests managers can exercise discretion as to why, when, and how to adopt isomorphism (Oliver, 1991, 1997; Wu and Salomon, 2016) obtaining a greater or lesser institutional fit. However, when organizations are subject to isomorphic pressures in the interest of achieving greater institutional fit, what happens to their performance?

Institutional theory considers the effects of isomorphic behaviour on performance an essential topic for the development of the field (Kondra and Hinnings, 1998). Various studies have thus attempted to evaluate whether or not institutional fit really improves performance (Heugens and Lander, 2009; Volberda et al., 2012; Wu and Salomon, 2016; Miller and Eden, 2006). Nevertheless, the results obtained have been as contradictory as they are few.

At the same time, although the isomorphism-performance debate has not been as explicit in OM as in the institutional theory literature, some studies hint at contradictory findings among the isomorphic pressures (whose final result is the isomorphism and institutional fit) and efficiency (Rogers et al., 2007; Choi and Eboch, 1998; Miemczyk, 2008; Westphal et al., 1997; Wu et al., 2012; Zhu and Sarkis, 2007). In the OM literature, scholars in general agree with the importance of institutional issues in the area (Miemczyk, 2008; Huang et al., 2010; Kauppi, 2013; Liu et al., 2010). Frequently, operations managers have to address "substantive operational activities" (Rogers et al., 2007:570) and to comply with the norms governing in their organizational fields (Kauppi, 2013). Accordingly, the institutional environment plays a determining role in the adoption of certain operating practices (Choi and Eboch, 1998; Ketokivi and Schroeder, 2004; Kauppi, 2013). However, explicit, direct studies of isomorphism and institutional fit are nearly nonexistent in OM (Ketokivi and Schroeder, 2004; Miemczyk, 2008; Huang et al., 2010; Kauppi, 2013; Liu et al., 2010). Based on the arguments above, the literature suggests arguments for a positive, negative and mixed relationship between institutional fit and performance:

I. Positive relationship argument. Some institutional theoreticians consider institutional fit and performance are closely related concepts with a positive correlation (Heugens and Lander, 2009; Volberda et al., 2012; Miller and Chen, 1995; Deephouse, 1999; Zaheer, 1995). That is, they affirm that institutional fit improves performance. Table 1 summarizes the proposed arguments for this positive relationship.

Studies	*Argument*	*Explanation*
Deephouse (1999) *Heugens and Lander (2009)* *Volberda et al. (2012)* *DiMaggio and Powell (1983)*	Acquisition of resources on better terms than their non-legitimate counterparts	Institutionally confirming firms have greater capability to acquire resources from their potential exchange partners, such as customers, suppliers, and regulators (DiMaggio and Powell, 1983). These potential exchange partners prefer to interact with other similar organizations that do not threaten their reputation or pose unforeseen risks (Heugens and Lander, 2009; Deephouse, 1999).
Westphal et al. (1997) *Heugens and Lander (2009)* *Deephouse (1999)*	Use of efficient institutional business models	Institutionalized models present a better way of doing business than other possible alternatives (Heugens and Lander, 2009). Pioneering firms usually adopt a new practice because they believe it will increase efficiency, quality (Westphal et al., 1997), and performance (Wu et al., 2013). Over time, these practices are institutionalized, or approved and accepted by other organizations in their environment (Williams et al., 2009). Late adopters thus probably not only become more legitimate but enjoy efficient institutional practices (Heugens and Lander, 2009). When an institutionalized practice does not improve performance, this practice will most likely be deinstitutionalized due to lack of consensus in the organizational field (Deephouse, 1999).
Volberda et al. (2012) *Zhu and Sarkis (2007)* *Wu et al. (2012)*	Collective learning	Companies learn not only from their own research and experience but also from other companies whose practices they imitate (Tolbert and Zucker, 1983). Learning from others, not only on their own, makes them more efficient (Volberda et al., 2012). For example, organizations can achieve legitimacy by imitating the practices or behavior of a successfully benchmarked organization (Liu et al., 2016).
Heugens and Lander (2009) *Deephouse (1999)* *Westphal et al. (1997)* *Zbaracki (1998)*	Potential for differentiation	As Deephouse (1999:152) argues, the "range of acceptability" enables firms to differentiate themselves from their competitors. Members of an organizational field are usually indifferent to some amount of differentiation (Deephouse, 1999; Heugens and Lander, 2009), which involves variations in implementing a specific practice, personalizing it to increase quality and efficiency (Westphal et al., 1997; Zbaracki, 1998).
Westphal et al. (1997) *Rogers et al. (2007)*	Possibility of coupling	It is possible to comply with the institutional norm and in turn to satisfy the technical criteria, as long as an effective external evaluating agent exists (Bhakoo and Choi, 2013). In fact, the prior literature has claimed that symbolic adoption is facilitated by the weaknesses of external audits due to their lack of rigor (Ferrón-Vilchez, 2016).

Source: Developed by the authors.
It should be noted that not all previous studies explicitly express the concept of institutional fit. However, the interpretation is made through the operationalization of the concept of isomorphism used by the authors.

Table 1 – Institutional fit and performance. Positive relationship arguments.

Based on the arguments explained above, empirical research suggests a positive linear relationship between institutional fit and performance. This relationship is theoretically attractive and can be held statistically for more complex relationships. Thus:

Proposition 1: Greater institutional fit increases performance.

II. Negative relationship argument. Although the arguments of institutional theoreticians supporting the view that institutional fit improves performance are theoretically persuasive, these arguments' universality has not been proven (Heugens and Lander, 2009). Some researchers have indicated that legitimacy-driven forces may lead firms to inappropriate resource decisions (Oliver, 1997). In the words of Meyer and Rowan (1977): "conformity to institutionalized rules often conflicts sharply with efficiency criteria." (Meyer and Rowan, 1977, 340–341). Table 2 summarizes the proposed arguments for this negative relationship.

Studies	*Argument*	*Explanation*
Barreto and Baden-Fuller (2006) *Heugens and Lander (2009)*	Opportunity cost	Conformance to institutional norms requires an outlay of resources, resources that could be dedicated to other investments with greater profitability (Barreto and Baden-Fuller, 2006; Heugens and Lander, 2009; Volberda et al., 2012).
Heugens and Lander (2009) *Volberda et al. (2012)* *Miemczyk (2008)*	Generation of tensions between formal and informal routines	When tension in the organization's routine arises, inefficiencies appear (Volberda et al., 2012). Isomorphism often requires changes in the structure and formal work structure, and these can interfere with informal routines on which the organization relies (Heugens and Lander, 2009).
Heugens and Lander (2009) *Volberda et al. (2012)* *Westphal et al. (1997)*	Difficulty of differentiation	Isomorphism eliminates the possibilities for the company to be different from its competitors (Heugens and Lander, 2009; Volberda et al., 2012; Araceli et al., 2016), reducing its ability to obtain competitive advantages (Heugens and Lander, 2009; Volberda et al., 2012; Araceli et al., 2016).
Choi and Eboch (1998) *Ferrón-Vílchez (2016)*	Possibility of decoupling	The organization's internal goal for performance and external demands for conformity may conflict initially (Choi and Eboch, 1998). One example of such conflict is adoption of the ISO 14001 standard. Despite periodic external audits, the standard's results for performance depend on the motivation for adopting the standard (Ferrón-Vílchez, 2016).

Source: Developed by the authors.

It should be noted that not all previous studies explicitly express the concept of institutional fit. However, the interpretation is made through the operationalization of the concept of isomorphism used by the authors.

Table 2 – Institutional fit and performance. Negative relationship arguments.

Based on the arguments explained above, empirical research suggests a negative linear relationship between institutional fit and performance. This relationship is theoretically attractive and can be held statistically for more complex relationships. Thus:

Proposition 2: Greater institutional fit decreases performance.

III. The mixed relationship argument. In attempting to reconcile these contradictory stances (positive versus negative relationship), other authors have indicated that the relationship of institutional fit to performance depends on variables moderate in this relationship, such as experience effect (Wu and Salomon, 2016) or local density (Miller and Eden, 2006). Table 3 summarizes the moderating variables and the arguments used to explain the controversy existing in the institutional fit-performance debate.

Studies	*Argument*	*Explanation*
Wu and Salomon (2016)	**Experience effect**	Moderating effect of experience on the relationship between performance and isomorphism. They argue that experience moderates the impact of isomorphism on performance. The greatest benefits to isomorphism are likely to accrue to inexperienced firms in the markets that they operate. However, when companies have experience in these markets, differentiation could be a better option.
Miller and Eden (2006)	**Local density**	Moderating effect of local density –or the number of firms vying for similar resources in a local environment- on the relationship between performance and isomorphism. Isomorphism enhancement performance in low-density environments but adversely affect performance in high-density environments. Therefore, differentiating themselves from the rest of competitors is a more appropriate strategy.

Source: Developed by the authors.

It should be noted that not all previous studies explicitly express the concept of institutional fit. However, the interpretation is made through the operationalization of the concept of isomorphism used by the authors.

Table 3 – Institutional fit and performance. Mixed relationship arguments.

Based on the arguments explained above, empirical research suggests the possibility that the institutional fit has different effects on performance. This relationship is theoretically attractive and can be held statistically for more complex relationships. Thus:

Proposition 3: Institutional fit has mixed effects on performance.

In sum, based on the arguments explained above, the relationship between institutional fit and performance is the subject of great controversy. In general, studies of the topic have analysed institutional fit as a global concept (Heugens and Lander, 2009; Deephouse, 1996; Miller and Eden, 2006; Wu and Salomon, 2016). This approach has

focused the debate surrounding institutional fit on a single question: Does institutional fit improve performance? We believe, however, institutional fit could have different effects on performance, depending on the type of variable analysed. Some studies about institutional fit have referred vaguely this idea. For example, Barreto and Baden-Fuller (2006), indicated the possibility that not all variables are equally important for institutional conformity. Not all institutional norms have a significant impact on organizations (Dacin, 1997). Therefore, it is probable that for some variables, the institutional fit had positive effects on performance while for other variables the opposite would occur. Deephouse (1999) already pointed out this idea arguing that in markets with strong institutional forces, both the differentiation and conformity with institutional norms were important.

Research objective/Problem and questions.
Based on the previous theoretical review, the main objective of this research is to answer the following question: when organizations are subject to isomorphic pressures in the interest of achieving greater institutional fit, what happens to their organizational performance? We suggest that isomorphism could not be a simple, unidimensional construct. Therefore, there could be different dimensions of isomorphism that would have different effect on performance. To answer this question, we evaluate three different dimensions of institutional fit: structure, culture and technology and analyse their impact on organizational performance.

Ketoviky and Schroeder (2004) indicated the importance of obtaining empirical evidence of the possible effects of institutionalized practice on performance. For example, many innovative manufacturing practices in Japan evolved around isomorphism and the search for efficiency and performance improvement. However, imitation did not have the expected results for the imitating firms which imitate an institutionalized practice without understanding its effects on performance. Thus, different studies have thus attempted to evaluate whether or not isomorphic behaviour really improves performance. The results obtained have been as contradictory as they are few. We suggest that these contradictory results could be due to stratification of isomorphism. If stratification does not exist, we will see no variability in the way the three dimensions of institutional fit relate to performance.

Methodology.

I. Survey Design and Sample. We used a combination of primary survey data and secondary archival data. In the first case, a pilot survey was designed and developed from a thorough literature review. The result was a final sample with data from 200 Spanish companies, in the high technology sector. In the second case, the secondary data came from the SABI database, which compiles information from the annual reports filed by Spanish firms.

II. Dependent variable: organizational performance. The data for this variable were extracted from the balance sheet of the firms from the SABI database.

III. Independent variables: structural institutional fit, cultural institutional fit and technological institutional fit.

Institutional fit. This is the focal construct of this research. We operationalize it using the notion of fit as congruence, used in the institutional literature (Pennings, 1987). According to this definition, organizations achieve greater performance when organizational response variables match environmental variables (Volberda et al., 2012).

Therefore, we define the institutional fit as "the alignment between three organizational design variables (structure, culture and technology) and the institutional environment" (Volberda et al., 2012:1041). We chose to study these three variables primarily for two reasons. First, some institutional norms affect organizations only minimally or not at all and other norms have direct influence on organizational activity (Dacin, 1997). In this sense, the organizational literature has indicated that structure, culture and technology play a crucial role in organizational performance (Rhodes et al, 2008), as they constitute a primary source of business growth and improved competitiveness (Chuang et al., 2004). Second, when firms face exogenous pressures from their institutional environment, they are required to undertake strategic actions to respond to these pressures. We know that higher degrees of environmental turbulence usually require higher levels of organizational structural, cultural and technological responsiveness (Volberda, 1996; 2012). We can thus expect the sector studied here -the high technology sector- characterized by an intensely competitive and dynamic market environment (Wang et al., 2013) to lead firms to undertake strategic actions around these three variables.

Measurement development and assessment. The measures used in this study were adapted from published scales. For structural variable we used structural integration construct. Based on the work developed by Kim (2014). For cultural variable we used culture of competitiveness construct. This is a particular type of culture focused on three specific orientations: entrepreneurial orientation, innovative orientation and orientation to learning. (Hult et al., 2007). For technological variable we used information technology (IT) construct. We examine the reliability and validity of the measurement scales following the procedure developed by Kaynak and Hartley (2006).

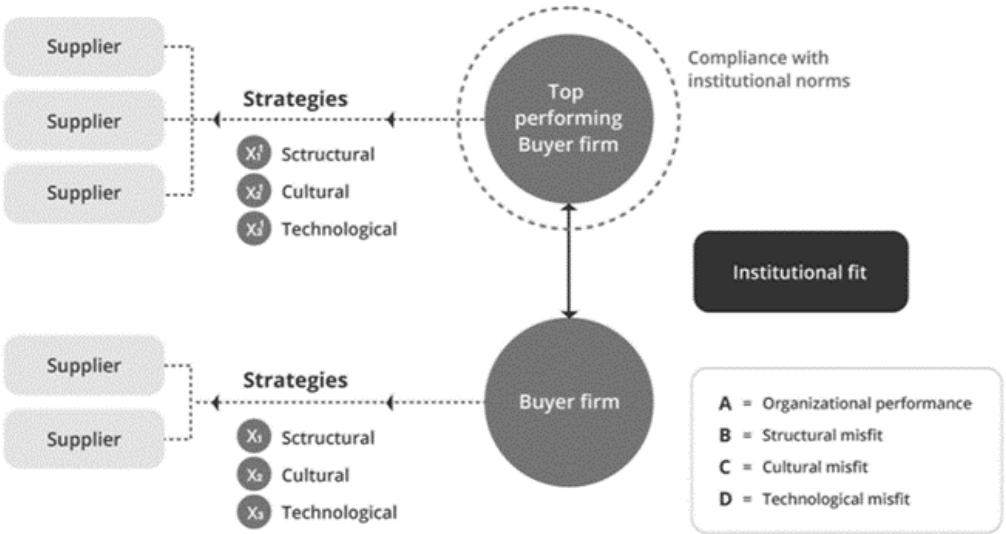

Figure 1 - Theoretical model methodology

Misfit measure. From the imperative of institutional fit, organizations tend to follow the behaviour of firms that are perceived "more legitimate or successful" (DiMaggio and Powell, 1983:152) because those firms are assumed to have reached fit with their environment (Kondra and Hinings, 1998; Volberda et al., 2012). These successful organizations have high visibility and prestige in their organizational field and, therefore, influence the actions of other companies (Haveman, 1993). In the for profit sector, extremely profitable organizations are, viewed as more successful than less profitable organizations. Thus, the most profitable organizations serve as models for the rest (Haveman, 1993). In this sense, following the methodology used by Volberda et al.

(2012), we assume that top-performing organizations cope effectively with the institutional requirements of the environment. Therefore, in our area of the study the impact of a buyer firm's organizational design variables on organizational performance depends on their similarity to the organizational design variables of top performing buyer firms in their organizational field. Table 4 indicates this measurement.

Institutional misfit for each of the variables is measured as the absolute differential score of a buyer firm with respect to the top-performing buyer firms. Therefore, to test the hypothesis on the performance consequences of institutional misfit, we calculated the average values of the organizational design variables (technology, structure, and culture) for a subsample of high-performing firms (Z-score for firm performance, ≥ 1.05).

X_1^h	Institutional norm for the structural relationship between buyer firms and their suppliers in this organizational field. Measured as the average value in structural variable of the top-performing buyer firms.
X_1	Structural relationship between a buyer firm and their suppliers. Measured as the average value in structural variable of a buyer firm.
Y_1	Structural misfit (X1h – X1)
X_2^h	Institutional norm for the cultural relationship between buyer firms and their suppliers in this organizational field. Measured as the average value in cultural variable of the top-performing buyer firms.
X_2	Cultural relationship between a buyer firm and their suppliers. Measured as the average value in cultural variable of a buyer firm.
Y_2	Cultural misfit (X2h – X2)
X_3^h	Institutional norm for the technological relationship between buyer firms and their suppliers in this organizational field. Measured as the average value in technological variable of the top-performing buyer firms.
X_3	Technological relationship between a buyer firm and their suppliers. Measured as the average value in technological variable of a buyer firm.
Y_3	Technological misfit (X3h – X3)
Y	Total misfit: Y = f [abs (X1h – X1) + abs (X2h – X2) + abs (X3h – X3)]

Table 4 - Measurement of institutional fit: description of the variables.

IV. Hypothesis. The hypotheses to be tested are the following:

Hypothesis 1. There is a positive relationship between structural institutional fit and organizational performance.

Hypothesis 2. There is a positive relationship between cultural institutional fit and organizational performance.

Hypothesis 3. There is a positive relationship between technological institutional fit and organizational performance.

V. Control variables: firm size, firm age and firm past performance.

VI. Analysis. The data were analysed using hierarchical regression. Model 1 tested the control variables: firm size, firm age and firm past performance. Model 2 added the structural misfit, testing Hypothesis 1. Model 2 added the cultural misfit, testing hypothesis 2. Finally, model 4 added the technological misfit, testing hypothesis 3.

Results.
Our study reveals that there is no correlation between institutional fit and performance in the structural supply management practices. There is negative correlation between institutional fit and performance in the cultural supply management practices. There is positive correlation between institutional fit and performance in the technological supply management practices. Therefore, it appears institutional isomorphism is stratified within a given industry. Only one of the three supply management dimensions behaves in the way we theorized. The type of structural embeddedness that the institutional environment promotes may not be easily visible or imitable to the organizations. For instance, there is evidence the close buyer-supplier relationship that Toyota and Honda practice is not easily transferred to other organizations because it is socially complex and often context specific. The cultural dimension behaves in the opposite direction from what we had theorized. It correlates negatively with performance. This indicates that the organizations are really lagging behind the institutional norms in this area. After all, culture has been identified in the literature as one of the most difficult areas to instil change. The technological dimension shows positive correlation. This may be due to the fact that among the three dimensions, the technological supply management practices may provide the least path of resistance in terms of conforming to the institutional norms.

In this paper, we contribute to the development of institutional theory in a field still largely unexplored as supply management. In the operations management literature, the institutional environment is considered a determining factor in the adoption of certain operating practices (Choi and Eboch, 1998; Ketokivi and Schroeder, 2004; Kauppi, 2013). From our knowledge, this is the first study that proposes the stratification of isomorphism as a possible explanation for the existence of contradictory results (in the relationship between isomorphism and performance) extracted from previous research. Our study also has important implications for managers. Operations managers are in a unique position to cope with both the efficiency concerns at the technical core and the institutional pressures that impinge on them from external sources. For instance, they have to be concerned about the actual quality requirements on the production floor and also the quality certification requirements by external agencies such as ISO. For this reason, operations managers should know that not all isomorphic practices lead to the optimization of business results.

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References

Barreto, I. & Baden-Fuller, C. (2006), "To conform or to perform? Mimetic behaviour, legitimacy-based groups and performance consequences", *Journal of Management Studies*, vol. 43, no. 7, pp. 1559-1581.

Bonner, J.M., Kim, D. & Cavusgil, S.T. (2005), "Self-perceived strategic network identity and its effects on market performance in alliance relationships", *Journal of Business Research*, vol. 58, no. 10, pp. 1371-1380.

Chen, I.J. & Paulraj, A. (2004), "Towards a theory of supply chain management: the constructs and measurements", *Journal of Operations Management*, vol. 22, no. 2, pp. 119-150.

Choi, T. Y. and Eboch, K. (1998), "The TQM Paradox: Relations among TQM practices, plant performance, and customer satisfaction.", *Journal of Operations Management*, vol. 17(1), 59-75.

Chuang, S. (2004), “A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation”, *Expert Systems with Applications,* vol. 27, no. 3, pp. 459-465

Dacin, M. 1997, "Isomorphism in context: The power and prescription of institutional norms", *Academy of Management Journal*, vol. 40, no. 1, pp. 46-81.

Deephouse, D.L. (1996), "Does isomorphism legitimate?", *Academy of Management Journal*, vol. 39, no. 4, pp. 1024.

Deephouse, D.L. (1999), "To be different, or to be the same? It's a question (and theory) of strategic balance.", *Strategic Management Journal*, vol. 20, no. 2, pp. 147.

Deephouse, D.L. & Suchman, M. (2008), *"Legitimacy in organizational institutionalism"*, The Sage handbook of organizational institutionalism, vol. 49, pp. 77.

DiMaggio, P. & Powell, W. (1983), "The Iron Cage Revisited - Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review*, vol. 48, no. 2, pp. 147-160.

Fornell, C. & Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, pp. 39-50.

Hair, J., Black, W., Babin, J. and Anderson, R. (2010), *Multivariate Data Analysis*. A Global Perspective, Prentice Hall, Upper Saddle River NJ

Haveman, H.A. (1993), "Follow the leader: Mimetic isomorphism and entry into new markets", *Administrative Science Quarterly*, pp. 593-627.

Heugens, P.P.M.A.R. & Lander, M.W. (2009), "Structure! Agency! (And Other Quarrels): A Meta-Analysis of Institutional Theories of Organization", *Academy of Management Journal*, vol. 52, no. 1, pp. 61-85.

Huang, X., Gattiker, T.F. & Schroeder, R.G. (2010), "Do competitive priorities drive adoption of electronic commerce applications? Testing the contingency and institutional views", *Journal of Supply Chain Management*, vol. 46, no. 3, pp. 57-69.

Hult, G.T.M., Ketchen, D.J. & Arrfelt, M. (2007), "Strategic supply chain management: Improving performance through a culture of competitiveness and knowledge development", *Strategic Management Journal*, vol. 28, no. 10, pp. 1035-1052.

Kauppi, K. (2013), "Extending the use of institutional theory in operations and supply chain management research Review and research suggestions*", International Journal of Operations & Production Management*, vol. 33, no. 10, pp. 1318-1345.

Kaynak, H. & Hartley, J.L. (2006), "Using replication research for just-in-time purchasing construct development", *Journal of Operations Management*, vol. 24, no. 6, pp. 868-892.

Ketokivi, M. & Schroeder, R. (2004), "Manufacturing practices, strategic fit and performance - A routine-based view", *International Journal of Operations & Production Management*, vol. 24, no. 1-2, pp. 171-191.

Kim, D. (2014), "Understanding supplier structural embeddedness: A social network perspective", *Journal of Operations Management*, vol. 32, no. 5, pp. 219-231.

Kondra, A. & Hinings, C. (1998), "Organizational diversity and change in institutional theory", *Organization Studies*, vol. 19, no. 5, pp. 743-767.

Liu, H., Ke, W., Wei, K.K., Gu, J. & Chen, H. (2010), "The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems", *Journal of Operations Management*, vol. 28, no. 5, pp. 372-384.

Liu, Z., Prajogo, D. & Oke, A. (2016), "Supply chain technologies: Linking adoption, utilization, and performance", *Journal of Supply Chain Management*, vol. 52, no. 4, pp. 22-41.

McEvily, B. & Zaheer, A. (1999), "Bridging ties: A source of firm heterogeneity in competitive capabilities", *Strategic Management Journal*, pp. 1133-1156.

Meyer, J. & Rowan, B. (1977), "Institutionalized Organizations - Formal-Structure as Myth and Ceremony", *American Journal of Sociology*, vol. 83, no. 2, pp. 340-363.

Miemczyk, J. (2008), "An exploration of institutional constraints on developing end-of-life product recovery capabilities", *International Journal of Production Economics*, vol. 115, no. 2, pp. 272-282.

Miller, D. (1995), "Nonconformity in competitive repertoires.", *Academy of Management Proceedings* Academy of Management Briarcliff Manor, NY 10510, pp. 256.

Miller, S. & Eden, L. (2006), "Local density and foreign subsidiary performance", *Academy of Management Journal*, vol. 49, no. 2, pp. 341-355.

Naman, J.L. & Slevin, D.P. (1993), "Entrepreneurship and the concept of fit: A model and empirical tests", *Strategic Management Journal*, vol. 14, no. 2, pp. 137-153.

Oliver, C. (1997), "Sustainable competitive advantage: Combining institutional and resource-based views", *Strategic Management Journal*, pp. 697-713.

Oliver, C. (1991), "Strategic responses to institutional processes", *Academy of management review*, vol. 16, no. 1, pp. 145-179.

Pennings, J.M. (1987), "Structural contingency theory: A multivariate test", *Organization Studies*, vol. 8, no. 3, pp. 223-240.

Polidoro Jr, F., Ahuja, G. & Mitchell, W. (2011), "When the social structure overshadows competitive incentives: The effects of network embeddedness on joint venture dissolution", *Academy of Management Journal*, vol. 54, no. 1, pp. 203-223.

Prajogo, D. & Olhager, J. (2012), "Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration", *International Journal of Production Economics*, vol. 135, no. 1, pp. 514-522.

Rhodes, J., Hung, R., Lok, P. & Lien, B.Y. and Wu, C.M. (2008), "Factors influencing organizational knowledge transfer: implications for corporate performance", *Journal of Knowledge Management*, vol. Vol. 12 No. 3, pp. 84- 100.

Rogers, K.W., Purdy, L., Safayeni, F. & Duimering, P.R. (2007), "A supplier development program: Rational process or institutional image construction?", *Journal of Operations Management*, vol. 25, no. 2, pp. 556-572.

Volberda, H.W. (1996), "Toward the Flexible Form: How to Remain Vital in Hypercompetitive Environments.", *Organization Science*, vol. 7, no. 4, pp. 359.

Volberda, H.W., van der Weerdt, N., Verwaal, E., Stienstra, M. & Verdu, A.J. (2012), "Contingency Fit, Institutional Fit, and Firm Performance: A Metafit Approach to Organization-Environment Relationships", *Organization Science*, vol. 23, no. 4, pp. 1040-1054.

Wang, C., Lu, Y., Huang, C. & Lee, J. (2013), "R&D, productivity, and market value: An empirical study from high-technology firms", *Omega*, vol. 41, no. 1, pp. 143-155.

Westphal, J.D., Gulati, R. & Shortell, S.M. (1997), "Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption", *Administrative Science Quarterly*, pp. 366-394.

Wu, T., Daniel, E.M., Hinton, M. & Quintas, P. (2013), "Isomorphic mechanisms in manufacturing supply chains: a comparison of indigenous Chinese firms and foreign-owned MNCs", *Supply Chain Management: An International Journal*, vol. 18, no. 2, pp. 161-177.

Wu, G., Ding, J. & Chen, P. (2012), "The effects of GSCM drivers and institutional pressures on GSCM practices in Taiwan's textile and apparel industry", *International Journal of Production Economics*, vol. 135, no. 2, pp. 618-636.

Wu, Z. & Salomon, R. (2016), "Does Imitation Reduce the Liability of Foreignness? Linking Distance, Isomorphism, and Performance", *Strategic Management Journal*, vol. 37, no. 12, pp. 2441-2462.

Zaheer, S. (1995), "Overcoming the liability of foreignness", *Academy of Management Journal*, vol. 38, no. 2, pp. 341-363.

Zhu, Q. & Sarkis, J. (2007), "The moderating effects of institutional pressures on emergent green supply chain practices and performance", *International Journal of Production Research*, vol. 45, no. 18-19, pp. 4333-4355.