

Dyadic Interaction and Organisational Learning.
An empirical examination of the French food industry

Authors:

Karim Machat
Professor
ESC Dijon Bourgogne

29, rue Sambin
21000 Dijon
Tel (33) (0)380 72 59 00
Fax (33) (0)380 725 999
gmachat@aol.com
kmachat@aol.com

Robert Salle
Professor
EM Lyon

23 av Guy de Collongue BP
69132 Ecully
Tel (33) (0)4 78 33 78 00
salle@em-lyon.com

Hervé Fenneteau
Professor
University Montpellier III

Route de Mende
34090 Montpellier
Tel (33) (0)4 67 63 38 57
herve.fenneteau@wanadoo.fr

Please consider this paper to be submitted as a competitive paper.

Dyadic Interaction and Organisational Learning.
An empirical examination of the French food industry

Abstract

This paper reports findings of a study for small French food industries and the way they implement organisational learning during s/c interaction with their main retailer. Our study, which examines organisational learning based on market exchanges, proposes to analyse this process, in a dyad, from the supplier position.

Key words

Dyadic interaction, Organisational learning, marketing channels, SMI, food retailer.

Introduction

The researches carried out by the IMP Group have enabled the emergence of a representation of the 'market as a network' (Håkansson and Snehota, 1989). This representation has been conceptualised in the ARA model (Actors-Resources-Activities) in which all market players are involved in the interaction process (Håkansson and Snehota, 1995). In this interaction process, the parties present bring different kinds of specific adaptations into play in order to work together. These adaptations in this way contribute in creating over time a certain interdependence between the parties. The importance and the reciprocity of these adaptations will determine the extent of this interdependence depending on each case and also determine the durability of the relationship between the parties (Håkansson, 1982). We can therefore have different types of relationships ranging from supplier domination to a balanced relationship through to customer domination. If we consider the sector of mass food distribution, we can see that facing the limited number of large well-known trade names (Wall Mart, Carrefour, etc.) exist large international groups such as Nestlé, Coca Cola, Danone, Whirlpool, ... and the SMI with a local or regional vocation. The power/dependence balance within the supplier/distributor relationships differ from case to case.

In the research work which is used as a basis to this communication, we have studied the strategic behaviour of small and medium suppliers, which are *a priori* dominated by the distributor¹.

Two factors push us to tone down this domination:

i) Theories of social exchange (Thibault and Kelley, 1959; Homans, 1961) and transaction costs (Williamsson 1975, 1985) bring to the fore the fact that the relations of dependence and power are multilateral. The works of the IMP Group have integrated this dimension via the concept of atmosphere from the onset, i.e. from the first developments: "Channel control is a variable possessed by all levels to varying extents, rather than being the monopoly of one" (Ford, 1978, p.418). The explanation of this share of power resides in the dependence of resources: for example, the innovation of a company downstream from the channel (in the case of mass distribution) requires the cooperation of those positioned upstream (whereby the SMI play an important role).

¹ 70 % of suppliers of private labelling are small and medium industries (SMI) according to LSA, n° 1677, 18 May 2000, pp. 26-29.

ii) There is no reason to think that the managers of SMIs, even if they are confronted with asymmetric relations which are not a priori favourable for them, limit their actions to the simple reactive adaptations when faced with a dominating distributor. This assumption would be attributing them with no strategic capacity in the management of their company. As Frazier (1983) highlights, the manager can make use of influence strategies such as communication aimed at modifying behavioural beliefs or offering special exchange conditions.

How can the SMI take advantage of a supposedly asymmetric relationship? What is the strategic behaviour of the owner? The answer to this question is in fact contained in the interaction model itself, but it appears only in an implicit way within the IMP. At the time of the development of the relationship (Ford, 1980), the reduction of the dyadic distance is concomitant to the growth of a common experience, demonstrating an organisational learning by supplier / customer (s/c) interaction. Even in the case of an unbalanced relationship between suppliers and contractors, the domination is not without its counterpart. In the long term, due to this effect of organisational learning, the supplier knows how to analyse, incorporate and play on the competencies of his customer. According to Fassio (2000, p.127): “Through this relationship, learning and exploitation of new know-how can be obtained and used to satisfy other customers”. In the same vein, Håkansson and Snehota (1995, p.11) stated: “the overall performance depends on the performance in the individual relationships, but at the same time it is the performance in the whole set of relationships that affects the capacity of the company to perform in a given relationship”

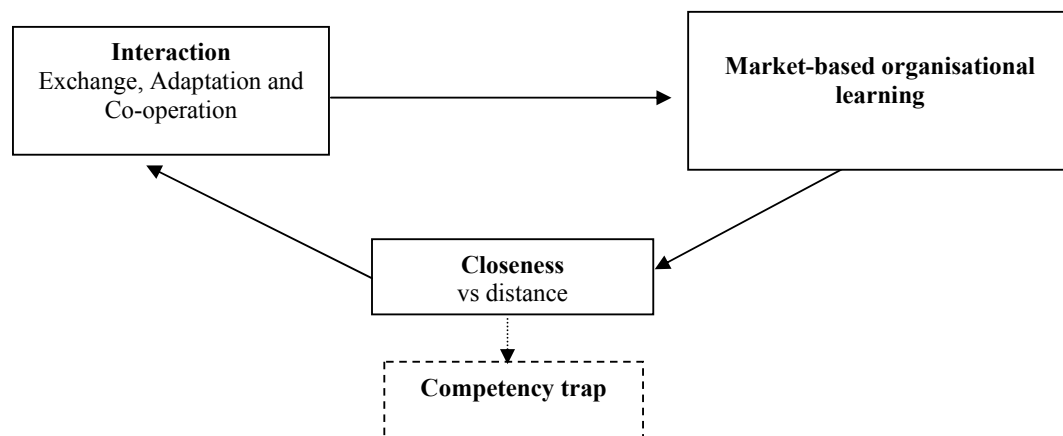
The objective of this article is to analyse the organisational learning from the viewpoint of the SMI incorporated in the supplier – contractor dyad, in relation to its other interorganisational relationships. We have therefore studied the SMI as the central player connected to the dyad, positioned in the network, and beyond this, in the industrial system (food industry).

With this objective in mind, the use of the interaction model as a theoretical framework in our research has enabled us to situate organisational learning in the business relationship (I). We have then validated our argumentation by presenting the empirical results on a study carried out on a sample of 131 French SMIs confronted with the mass food distribution as a customer (II). Finally, we have discussed the results of this research (III).

I. Conceptual background

First of all, in this section, we would like to concentrate on the debate which is currently nourishing research, in particular that of the IMP (Bågens and Araujo, 2002), to introduce three analysis units of organisational learning involved in business relationships (1.1.). We will then illustrate in what way the interaction corresponds to an organisational learning sequence (1.2). Because the IMP does not put forward a satisfactory measurement of organisational learning which is anchored in the corresponding theories (Argyris and Schön 1978 ; Bandura 1981 ; Kolb 1984), we will then move on to the research carried out in relation to market orientation. This research gives an operation measurement of “market-based organisational learning“ (Sinkula *et al.*, 1997). Finally, we will highlight the limits of s/c interaction which can lead to a competency trap, source of rigidity for the supplier (1.3.).

Figure 1. Conceptual background



1.1. Do organisations, dyads or networks learn?

The question of a pertinent organisational learning unit is all the more important in that this organisational learning was very quickly defined as a process of interaction with the environment (Bandura, 1980; Daft and Weick, 1989). Should the analysis of organisational learning be carried out on the level of: i) the organisation, ii) the dyad, or iii) the relation portfolio, which can be extended to the whole group of network players?

i) The choice of learning organisation as a pertinent unit has largely been developed through research in knowledge management (Senge, 1990; Garvin, 1993; Nonaka, 1994). This contributes to the understanding of organisational, cultural, behavioural factors which favour the implementation of learning in the organisation (learning orientation, learning commitment...). The knowledge management stream has the ambition to manage organisational learning, the company thereby considered as a place of closed competencies, which depends on itself to develop its organisational learning. Although we have studied the strategy of a player incorporated in a dyad, we know that the organisation, with no reference to its environment, is not the pertinent unit of analysis for studying organisational learning (Bågens and Araujo, 2002).

ii) The common viewpoint concerning formal alliances and cooperations (Larsson et al., 1998 ; Hamel and Prahalad, 1989) places at the centre of dyadic exchanges, the competence² by showing the existence of interorganisational learning. The content of dyadic learning most commonly concerns the exchange itself and the manner in which two companies learn to work together. The emphasis is moreover on the interest the partner companies have in partitioning their exchanges so as to preserve their core competencies. The competencies developed within a business relationship will moreover appear not to be very pertinent out of its context. “Relationship learning involves, among other things, the common history, frames of reference, and values of the two parties that are different from the respective organization. (...) what is learned is profoundly connected to the relationship” (Selnes and Sallis, 2003, p.83). for the authors, relationship learning cannot be managed directly by the customer or the supplier. It is the collaboration during conjoint learning activities which conditions the development of specific dyadic competencies, developed by a company and comparable to immaterial asset specificities.

iii) The organisation is placed within a network of actors in which it has a given position and more largely within an industrial system which affects its organisational learning processes (Bågens and Araujo, 2002). In fact, the relations between companies are not limited simply to the acquisition of resources but to their development (Håkansson and Snehota, 1995, p 30).

² As it concerns organisational interaction, we have adopted the definition of competency as proposed by Dosi and Marengo (1995). For the authors, competency is a group of procedures, norms and strategies explicitly dedicated to resolving specific problems.

Connections between a dyad and the networks play a crucial role in the organisational learning process (Håkansson et al., 1999). Focusing on suppliers who operate in a sector dominated by a main contractor, the authors conclude that, for managers, potential customers should not be selected. But rather, they should encourage suppliers to work together and learn from each other. Their study confirms the positive impact of network relationships on organisational learning.

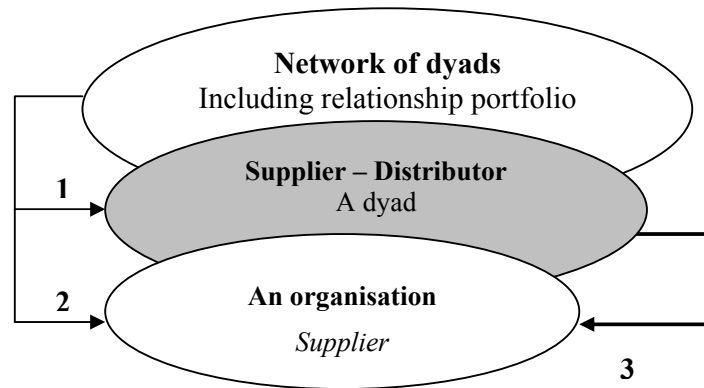
In the field of distribution, Lukas et al., (1996) illustrate a type of network learning where new competencies are created and then shared between the companies who make up the channel. Each customer and supplier therefore integrates the new norms of the channel (food security norms, for example). Although the organisations have no control on these norms, each participate in their evolution, characterising in this way a learning channel.

The following figure illustrates the three areas of competencies that we have brought to light. In reality, each place of competencies cannot be apprehended in an exclusively autonomous manner, organisational learning being a process linked in an intrinsic way to the company environment on at least three levels. Firstly, the portfolio of relations of a company (and generally its network) partly influences the competencies of the dyad (1). Thus suppliers of the French mass distribution have acquired new competencies by integrating certain working methods of the mass distribution (*e.g.* quality³, invitations to tender). Facing the globalisation of distribution (emergence of Wall Mart in Europe), this ensures its suppliers a certain competitive advantage in relation to English or Spanish industrials⁴. Secondly, the network can also explain the level of competencies of the company by influencing its organisational learning (2). Finally, the learning of an organisation is influenced by the configuration of each dyad in which it is incorporated (3). It is on this point, i.e. the impact of s/c interaction on organisational learning, that we have focused our research.

³ On this point, see Jean (1998).

⁴ Ministère de l'économie, des finances et de l'industrie (Minister of Economy, Finance and Industry) (1999), *le marketing outil stratégique des PMI face à la grande distribution (the strategic marketing tool of SMI facing mass distribution)*.

Figure 2. Learning, process of interaction with the environment



1.2. Anticipated effects of dyadic interaction on organisational learning

Little work offers a measurement of organisational learning. It is in the literature on market orientation, recently encompassing market-based learning, that we find the set of variables necessary for the study of this research objective (1.2.1). Next, we present the impact of s/c interaction on the organisational learning so defined (1.2.2).

1.2.1 The Market-based Organisational Learning approach

Market orientation is the origin of the development of numerous operational competencies such as innovation (Day, 1994) or information management (Calantone and Li, 1998). If this consensus has been established, two different approaches of market orientation persist in literature. For the first, market orientation is a group of actions determined in reply to the market and to the information which originates from it (Kohli and Jaworski, 1990). For the second approach, market orientation is a group of values, integral parts of the company culture, based on the market (Narver and Slater, 1990; Deshpahande et al., 1993; Day, 1994). These values place knowledge of customers and competitors in a central position of all company action.

According to Slater and Narver (1995), market orientation appears to be not enough! The authors integrate the two former approaches in considering that “market orientation is only a facet of a more exhaustive theory, the theory of organisational learning” (p.1). The

articulation of organisational learning and market orientation that they propose thus mobilises the development concepts of knowledge and behavioural change. This approach is the origin of numerous works on market-based organisational learning (MOL). Indeed, scholars have rapidly echoed this call for more research on organisational learning in the area of dyadic interaction within distribution channels (Lukas *et al.* 1997) or industrial purchasing behaviour (Hurley and Hult, 1998). As such, market-based organisational learning most probably appears like a renewal perspective for the market orientation researches.

Our understanding of MOL is drawn from Day (1994) as well as from Sinkula *et al.* (1997). On this basis, we propose to define MOL as "the process by which managers experience their market representations and change their market decisions with respect to their customers' knowledge". This process has four dimensions:

- marketing dynamism which captures the extent to which marketing strategies change (positioning; products, etc.) ;
- information production (in-house market research),
- information distribution between organisational members,
- market knowledge investigation (critical reflection on beliefs and market knowledge ; Argyris and Schön, 1978).

1.2.2 Organisational learning in s/c interaction

Organisational learning is developed in the interaction process. For Ford (1980), the supplier-customer relationship develops according to a life cycle. He indicates that the technological, psychological and cultural distance between the parties decreases progressively along with the increase in the various transactions, as the common norms are adopted. However elsewhere, it has been widely established that the organisational knowledge is transported and transmitted by these cultural and technical norms as well as by the whole process of socialisation (Kogut and Zander, 1992). The experience (Ford, 1980; Dwyer *et al.*, 1987) which accumulates throughout the interaction process translates nothing other than an organisational learning.

More specifically, we can isolate two effects of s/c interaction on MOL. Firstly, the reduction of inter-firm distance brings about adaptations. In the case of relations between an SMI - supplier and a mass distribution - customer, it is essentially the SMI-supplier who adapts by

changing the norms, routines and procedures in vigour. Adaptation therefore has a positive impact on MOL. It thus favours the behavioural and marketing dynamism of the supplier. Information obtained and interpreted with the customer is a source of innovation: modification of product ranges, adaptation of strategies to the industrial context, etc.

If the customer-supplier interaction favours the dynamism and makes adaptation possible, this is also thanks to the social exchange and information exchange between the members of the dyad (Håkansson, 1982, Metcal et al., 1990; Kalafatis, 2002). This is the second effect of s/c interaction.

The dyadic relationship is therefore the place of information exchanges and where specific dyadic competencies develop by the combination of different activities (e.g. quality management). On the other hand, the supplier committed in a relationship with a customer partly accesses the network relationships of the latter, which increases the potential of organisational learning. Hence, our first research proposition is as follows :

P1 : S/C interaction has a positive impact on MOL

The table below reviews the justifications of our first research proposition.

Table 1 - Hypothesis summary

Interaction variables	Description	Predicted effect on MOL	
Dyadic exchange (information, social)	Dyadic exchange provides information and favours its critical analysis	Interaction has a positive impact on MOL	Proposition 1
Adaptation	Adaptation between suppliers and customers refers to behavioural marketing dynamism		

S/c interaction is a vector of organisational learning. However, in the long run, we show that this can lead to rigidities which materialise by a competency trap in the learning process (1.3).

1.3. When dyadic interaction goes wrong: leading to a competency trap

The relationship which exists between organisational learning and s/c interaction is ambivalent. At the onset of their relationship, since the partners do not know each other, they favour their interaction. Next, this relationship evolves over time to reach an institutionalised way of operating, characterised by the existence of routines (Ford, 1980).

But in the long run, over a certain limit of interaction, the closeness between the customer and the supplier, although positive in certain respects (confidence, flexibility), can condemn future learning. In fact, the success of a business relationship comforts the two partners in their previous choices in terms of market decisions and product policy. When successful exchange procedures are preferred, without any reference to environmental change, firms may fall into a competency trap (Levitt and March, 1988).

We define the competency trap as "a rupture of the organisational learning process, due to resorting systematically to a procedure which has become obsolete" (norm, performance criteria⁵). The routines in vigour within the dyad are therefore not questioned (choice of product, selection methods, etc.). In the long run the business relationship is at the origin of a certain inertia, in particular that of the supplier in the case of a relationship between a SMI and a contractor. Two variables allow the evaluation of the competency trap induced by the s/c interaction: i) experimentation and ii) the temporal perspective.

i) Learning organisations realise high levels of market experimentation (Hamel and Prahalad, 1991). Experimentation is the outcome of experiential learning (Kolb, 1984) which consists, through a trail-and-error process, in testing the market conditions in order to fine-tune the offer. Experimentation goes through small series of experiments destined to incremental improvements of knowledge (Garvin, 1993). Experimentation also reverts to a much larger process of interpretation of the environment which plays an important role in learning. Daft and Weik (1989) show that it is perfectly adapted to environments perceived as being hostile.

⁵ The principle criteria of performance retained up until now by food industries relies on quality, at the same time taking support from international standards (ISO certification). Today, it is the indication of origin which is more important than quality. Also, a multitude of rural products have been very successful (butter from Normandy...) without making any reference to quality.

The development of a relationship with a customer goes hand in hand with the experimentation of the offer in new conditions (new market, new means of distribution). However, in the long run, this relationship no longer allows market conditions to be regenerated, nor to enrich the perception of the environment. The result is a *cognitive dependence* for the supplier who bases himself, in his anticipation of trends, purely on the markets supplied.

The competency trap illustrates the dilemma of resource ties between two companies. "Resource ties take time to develop [. . .] because of the experimentation and learning that development of the resource ties requires" (Håkansson and Snehota, 1995, p 144). Based on the foregoing, we suppose that:

P2: A high s/c interaction level decreases the positive impact of experimentation on MOL.

ii) Organisational learning depends on the long-term and possibly qualitative objectives that the organisation establishes (Inkpen, 1996). Certainly, the development of a relationship enables investment planning and to anticipate customer demands. However, in the situation of supply with a contractor, a strong interaction mobilises resources which constitute as many unexploited occasions to learn. It is also translated by the preoccupations which are more operational, short term, leaving little room for information redundancy which is necessary for learning (Nonaka and Takeuchi, 1995). Hence, our third proposition, with respect to short-term perspective is as follows:

P3: A high S/C interaction level emphasises the negative impact of short-term perspective on MOL.

At this stage of the s/c relationship, the supplier must consider that he has exhausted the dyadic sources of learning (*cf.* figure 1, arrow 3). But the competency trap does not necessarily condemn the supplier-distributor relationship; it can represent an indicator of its questioning (Turnbull and Valla, 1986). The supplier finds himself confronted with the following choices: either to regenerate his relationship with the distributor in order to pursue learning, either envisage two other sources of learning outside the relationship in which he is already involved: the initiation of a new relationship with a customer or looking for a new position in the network. The objective is therefore to reconsider his position in the distribution

channel or in the industrial system. The durability of learning cycles falls within the framework of complementarity between the three areas of competencies previously designated (figure 2).

The table below offers an overall presentation of our two last research propositions.

Table 2 - Hypothesis summary

Competency trap variables	Description	Effect on MOL	Predicted effect of a high level of interaction	
Experimentation	Enacted environmental sensmaking by means of testing and exploring niches and small markets.	Positive	Decreases	Proposition 2
Short-term perspective	Priority granted to quantitative short-term rather than qualitative long term marketing goals	Negative	Emphasises	Proposition 3

II. Methodology and results

In this section, we test the conceptual framework that we have elaborated by exploiting the data of a national survey carried out on suppliers in the food industry (2.1). The data gathered allow us to test the measurement quality of our scales (2.3). Finally, we have tested the three research propositions through the means of multiple regressions (2.3).

2.1. Sample and Data collected

Using data collected via the key informant method, a telephone pre-survey was conducted for this French national study. This sampling procedure has been extensively used in cases of channel relationships (Heide and John, 1990).

Finally, a total of 149 firms returned a questionnaire among which 131 were useful (63 or 48.1 % small size; 68 or 51.9 % medium size, *cf.* table 3), netting a response rate of 29 %. First of all, these SMI belong to the food industry sector (which excludes services). As shown in the table below, all the enterprises surveyed are involved in dyadic business relationships with food retailers which represent, on average 80% of their sales.

Table 3 - Sales in mass food distribution channel

Sales	< 50 employees	50 < employees < 200	Total	%
< 10 %	5	5	10	7.6%
10 to 25%	6	8	14	10.7%
25 to 50 %	18	11	29	22.1%
50 to 75 %	12	21	33	25.2%
> 75 %	22	23	45	34.4%
Total	63	68	131	100 %
%	48.1%	51.9%		

Moreover, all the SMIs of our sample are financially and legally independent. They were questioned, among other, on the exchanges and adaptations which characterise their relationship with their distributor.

2.2. Measures

To ensure the validity of measurement tools, items were developed on a review of literature as well as on a set of 15 former interviews with SMI owners and managers.

2.2.1. Dependent variables: the MOL measurement tool

There appears to be no existing validated tool for examining the overall market-based organisational learning process. A primary measure of marketing dynamism, information generation and distribution was found in Sinkula *et al.* (1997). Additional items were also developed after the group of exploratory interviews.

Given a total of 26 items related to MOL within SMI, a principal component analysis, using Varimax rotation, was employed to identify a smaller number of dimensions for use in developing analysis. Using guidelines related to eigenvalue, keiser criteria, KMO measure of sampling adequacy indication, Barlett's test of sphericity and interpretability (Benzecri criteria) resulted in a four-factor solution. Items loading no less than .5 and no more than .5 on any other dimension were retained. Items deleted appear to be not relevant to SMI (brand portfolio change, in-house marketing research) or to be reversed (focused market research). The final factor solution adopted, which is presented in the table below, accounted for 58.8 % of the total variance.

Table 4 - MOL and factor loading

Items		Factor			
		1	2	3	4
Marketing Dynamism	Packaging changes	.628			
	Products change technically	.823			
	Product lines change	.715			
	Products portfolio change	.722			
	Industrial brands change	.740			
	Our total offer is renewed	.707			
Market Information distribution	There is an interdepartmental discussion about customers needs		.791		
	Interdepartmental communication is minimal, <i>reversed</i>		.854		
	Market information processed is useful		.779		
Market Information generation	We discuss with people (retailers, dealers) which influence end product users			.859	
	Likely effect of environmental changes on customers are reviewed			.707	
	We grant value to the downstream information channel			.815	
Market knowledge investigation	People in our firm reflect critically on positioning we have adopted				.757
	We question interpretation we have made about customer information				.687
	We reflect critically on the shared assumptions we have about our customers				.859

Interviewees were asked to evaluate their company from "Never like this" to "Always like this" on a 5 points Likert scale. The overall MOL Cronbach's alpha is equal to 0.82. Dimension profile supports our understanding of market-based organisational learning as they capture two cognitive levels of the process (Argyris and Schön 1978 ; Lucas *et al.*, 1996). Indeed marketing dynamism (Cronbach's alpha =.82) associated with market knowledge development (information generation, $\alpha =.85$; information distribution $\alpha =.83$) capture a single loop or adaptive MOL. The fourth dimension appears to capture double loop learning (market knowledge investigation, $\alpha =.79$).

2.2.2. Independent variables: Interaction, experimentation and short-term perspective

We found the principle measurement items of dyadic interaction (adaptation and exchange) in the articles of Metcalf *et al.* (1990) and of Hallen *et al.* (1991). Other items, specific to the supplier-distributor relationship, were incorporated following a qualitative study.

As shown in table 5, the two first dimensions of dyadic exchange construct are consistent with previous research (Metcalf *et al.*, 1990). The third dimension of concept translates market-specific information exchange (Cronbach's alpha is equal to 0.85).

Table 5 - Dyadic exchange and factor loading

Items	Factor		
	1	2	3
Echso1 - We like to do business with this distributor	0.791		
Echso2 - We trust in the information coming from the distributor	0.734		
Echso3 - It is difficult to have social ties with any person in the distributor's company	0.696		
Echso4 - The distributor has a weak understanding of how our company operates	0.841		
Echso5 - The distributor has a good understanding of our problems as supplier	0.631		
Ech1 - The distributor usually provides us a technical information on his request		0.832	
Ech2 - Technical information the distributor provides is not relevant		0.881	
Ech3 - We always provide the distributor a technical information on our products		0.854	
Ech4 - We have, with the distributor, mutual exchanges on the market trends			0.844
Ech5 - We keep the distributor regularly informed about our marketing policy			0.906

Table 6 presents the measure adopted for adaptation (Cronbach's alpha equals 0.82).

Table 6 - Adaptation and factor loading

Items	Factor
	1
Adap1 Our production process has been adapted to respond to the demand of some retailers	0.827
Adap2 We have made great investments in our relationships with key retailers	0.833
Adap3 We adapt our communication to each customer	0.568
Adap4 Our products are similar whoever the retailer*	0.920
Adap5 We adapt our packaging for each retailer	0.663

* *Reversed item*

Experimentation was measured through interviews with the managers of SMI and also on the basis of the article of Daft and Weick (1989). Cronbach's alpha equals 0.89. for these three item scale.

Table 7 - Experimentation and factor loading

Items	Factor
	1
Exp1 - Some customers' enquiries regularly conduct us to integrate new products in our global offer	0.943
Exp2 - Before developing a product, we always try to test it on a few markets	0.883
Exp3 - Some key customers, even when representing small sales series, may allow us to assure future business development	0.903

Finally, the measurement items of short-term perspective come essentially from the qualitative pre-study. A strong interaction with the distributor reduces the temporal horizon of the supplier (*cf.* P3). To translate this proposition, we have chosen to reverse the measurement items of long-term marketing objectives.

Table 8 - Short term perspective and factor loading

Items	Factor	
	1	2
Persp1 - Communicate and value the brand*	0.588	
Persp2 - Reinforce brand awareness*	0.864	
Persp4 - Control the market conditions (delivery, dependence...)*	0.501	
Persp7 - Improve customer satisfaction*	0.787	
Persp6 - Improve customer loyalty*	0.778	
Persp3 - Develop new competencies*		0.862
Persp5 - Acquire technical marketing skills (R&D, certificates...)*		0.802

* *reversed items*

The short term perspective Cronbach's alpha equals 0.82 which allows the acceptance of this construct with 7 items.

2.3. Findings

Our study found two levels of interaction effect on the MOL process: a primary effect which confirms the positive impact of dyadic interaction (2.3.1) and a secondary effect of interaction which reveals a competency trap in the learning process (2.3.2.)

2.3.1. The primary effect: Organisational learning = f(s/c interaction)

We have studied the impact of s/c interaction on learning variables through multiple regressions (P1). The following table shows the main results.

The results support our first proposition. As expected, each dyadic interaction variable has a positive impact on the overall process of MOL. More precisely, we should note that both social and information exchange have a great impact on the learning process (R^2 netting 20%, table9). However, Adaptation explain to a minor extent the level of MOL (low R^2).

Table 9 - Multiple regression, impact of dyadic interaction (beta coefficient)

Market-based organisational learning						
Dyadic Interaction	Market Knowledge Investigation	Market Information (production, distribution)	Market Dynamism	Overall process	R ²	F
Adaptation	-	-	0.160	0.232**	0.047	7.350
Exchange (information, social)	0.271**	0.410**	-	0.452**	0.198	33.078
R ²	0.066	0.162	0.018			
F	10.259	26.095	3.401			

* p < .05 ; ** p < .01

In addition, whereas Adaptation has no direct effect on each dimension of MOL (especially on market dynamism), it plays a great part in the overall process of organisational learning.

The same goes for dyadic exchange. The accumulation of information, through dyadic exchange, is not sufficient for organisational change (apprehended here by marketing dynamism). This result comforts the distinction which has already been shown between knowledge development and organisational change (Fiol and Lyles, 1980; Celuch *et al.*, 2002).

2.3.2. The secondary effect of dyadic interaction

Successful learning exchanges with the channel partner may reinforce past choices and previous procedures. In the long term, in the case of a high degree of interaction, dyadic procedures may become non-relevant and lead to a competency trap. Table 10 illustrates the interaction effect in both cases of high and low levels of interaction.

Table 10 - Multiple regression, secondary effect of Interaction

		Organisational learning				
<i>Trap variables</i>	<i>Interaction</i>	B	Beta	R ²	T test	P
Experimentation	Low exchange (n= 63)	0.181	0.389	0.137		
	High (n= 68)	0.011	0.027	0.015	14.502	< 0.01
	Low adaptation (n= 72)	0.154	0.297	0.072		
	High (n= 59)	0.078	0.141	0.006	4.946	< 0.01
Short term perspective	Low exchange (n= 63)	-0.224	-0.251	0.047		
	High (n= 68)	-0.360	-0.466	0.200	7.084	< 0.01
	Low adaptation (n= 72)	-0.240	-0.280	0.062		
	High (n= 59)	-0.340	-0.418	0.163	4.648	< 0.01

We have to notice at first that even if results are statistically significant, the greater the s/c interaction is, the higher are the level of R squares (according to the short term perspective). This result suggests that s/c interaction plays as a moderator of the learning process. Thus, result should be also improved with a larger sample which could allow us to test a structural model.

In addition, results enhance our understanding of the competency trap, indicating experimentation inefficiency. As dyadic interaction, in terms of exchange and adaptation, increases (from low to high in the table), the positive impact of experimentation on organisational learning becomes minimal. Thus, a strong interaction may mobilise resources and reduce new opportunities to learn (P2).

This result also indicates that interaction raises the negative effect of short-term perspective on organisational learning. This can be explained by the fact that, in the case of a high level of interaction, suppliers of food retailers are becoming more and more operational oriented. They have to focus on delivery for instance or promotion (P3).

The two tables below present the result related to the three research propositions introduced in the article.

Table 11 - Results summary

Interaction variables	Predicted effect on MOL	Conclusion
Dyadic exchange (information, social)	Interaction has a positive impact on MOL	Empirical results confirm Proposition 1.
Adaptation		

Table 12 - Results summary (continued)

Competency trap variables	Predicted Effect	Conclusion
Experimentation	High s/c interaction decreases its positive impact on MOL	Empirical results confirm Proposition 2.
Short-term perspective	High s/c interaction reinforces its negative impact on MOL	Empirical results confirm Proposition 3.

III. Discussion

This research enhances our understanding of dyadic interaction as an organisational learning process. In particular, we provide the first empirical evidence for the existence of a competency trap. We also elaborate a measurement scale for the market-based learning process.

We found that SMIs operating in sectors dominated by large firms (as in the food or automobile industry) have to favour dyadic interaction with their main retailer. Indeed, relationship marketing facilitates their market reactivity. But the nature of this learning process remains adaptive, which can condemn them, in the long term, to a “competency trap”. Managers in the supplier firm should then consider, beyond economic dependence which has extensively been treated in the literature covering channels, a cognitive dependence revealed by this competency trap.

Further research in this area should consider means of coping with this trap or any other inertia phenomenon induced by business relationships. First of all, we propose several issues on that topic.

- i) Be positioned on the networks where resources which can be redeployed exist. This argument is valuable in the automobile sector but also in mass food distribution where norms and selection criteria of suppliers are becoming homogeneous. The trend of European distribution is in fact towards concentration and centralisation, which will put European suppliers in similar situations in the years to come (Ministère de l’industrie, 2000). The SMI will have so much more change to represent a counter-power for distributors, in relation to multinational firms, that they will develop a market-based learning in order to remain competitive facing industrial groups. In France, those who have known rapid growth are in fact specialised in the mass distribution channel (Senoble, Guyarder, Cantalou⁶...).
- ii) Re-questioning of the supplier position in the business networks (*cf.* figure 2). Every change in the relation portfolio in fact modifies the suppliers "resource collection", which can lead to new organisational learning cycles.
- iii) Balance the supplier’s relation portfolio, not only in terms of the volume of activity but also on the relational variety. This supposes the development of a sensitivity to cognitive dependence, often diffuse, but whose effects are significant in a long term perspective.

⁶ French brands essentially present in the food industry market.

iv) Positively influence the distributor results. The adaptive learning depends largely on the specific investments of which the impact is not necessarily negative for the supplier in question. In fact, if he increases the distributor's opportunism risk, he also represents a source of creation of a non-negligible value. Rokkan et al. (2003) demonstrate that specific investment commits the distributor more each time there is a norm of solidarity centred on the existence of a common value. To establish this norm, the SMI must positively influence the result of his partner and create an interdependence (Thibault and Kelley, 1959). With this objective in mind, a majority of French SMIs have recently adopted a top of the range position (rural produce, innovation). The distributor hereby finds a source of intensive growth, based on the improvement of product quality and of his relations upstream from the distribution channel. The SMI must therefore position itself in this configuration, which corresponds to the proposition of a complementary assortment (regional or local) which it is often the only one in a position to bring this to the distributor (too small volumes for industrial groups).

References

- Argyris C. and Schön D. (1978), *Organizationnal Learning : A Theorie of Action Perspective*, San Francisco: Jossey Bass Publisher.
- Bågens L. and Araujo L. (2002), “The Structures and Processes of Learning. A Case Study”, *Journal of Business Research*, 55, 571-581.
- Bandura A. (1980), *L'apprentissage social*, Bruxelles: Pierre Mardaga éditeur.
- Calantone R. and Li T. (1998), “The Impact of Market Knowledge on New Product Advantage: Conceptualization and Empirical Examination”, *Journal of Marketing*, 62 (October), 13-29.
- Celuch K. G., Kasouf C. J. and Peruvemba V. (2002), “The Effects of Perceived Market and Learning Orientation on Assed Organizational Capabilities”, *Industrial Marketing Management*, Vol. 31, 6, 545-554.
- Daft R. L. and Weick K. E. (1989), “Toward a Model of Organizations as Interpretation Systems”, *Academy of Management Review*, 9, April, 284-295.
- Day G. S. (1994), “Continuous Learning About Markets”, *California Management Review*, Vol. 36, 4, 23-32.
- Dosi G. and Marengo L. (1995), “Toward a Theory of Organizational Competencies”, in R.W. England (ed.), *Evolutionary Concepts in Contemporary Economics*, Michigan University Press, 157-178.
- Dwyer F., Schurr H. and Oh S. (1987), “Developing Buyer-Seller Relationships”, *Journal of Marketing*, 51 (April), 11-27.
- Fassio G. (2000), “Partenariats industriels, réalités et fables à travers les relations d'approvisionnement”, *Gestion 2000*, 2, mars-avril, 119 – 131.
- Fiol M. C. and Lyles M. A. (1985), “Organizational Learning”, *Academy of Management Review*, 10, 4, 803-813.
- Ford D. (1978), “Stability Factors in Industrial Marketing Channels”, *Industrial Marketing Management*, Vol. 7, 5, 410-422.
- Ford D. (1980), “The Development of Buyer-Seller Relationships in Industrial Market”, *European Journal of Marketing*, Vol. 14, 5-6, 339-354.
- Ford D. et alii (2002), *The Business Marketing Course: Managing in Complex Networks*, John Wiley & Sons.
- Frazier G. L. (1983), “Interorganizational Exchange Behavior in Marketing Channels: a Broadened Perspective”, *Journal of Marketing*, 47 (4), 68-78.
- Garvin D. (1993), “Building a Learning Organization”, *Harvard Business Review*, 71, July-August, 78-91.
- Håkansson H. (1982), « An Interaction Approach », in Håkansson H., *International Marketing and Purchasing of Industrial Goods*, John Wiley and sons, 10-27.
- Håkansson H. and Snehota I. (1995), *Developing Relationships in Business Networks*, London: Routledge.
- Håkansson H., Avila V. and Pedersen A. C. (1999), “Learning in Networks”, *Industrial Marketing Management*, Vol. 28, 5, 443-452.

- Håkansson, H. and Snehota, I. (1989). "No Business is an Island", *Scandinavian Journal of Management*, Vol. 5, 3, 187-200.
- Hallen L., Johanson J. and Seyed-Mohamed N. S. (1991), "Interfirm Adaptation in Business Relationships », *Journal of Marketing*, 55 (April), 29-37.
- Hamel G. (1991), "Competition for Competence and Inter-Partner Learning within International Strategic Alliances", *Strategic Management Journal*, Vol. 12, 7, 83-104.
- Hamel G., Doz Y. and Prahalad C. K. (1989), "Collaborate with your Competitors - and Win", *Harvard Business Review*, Vol. 67, 1, 133-139.
- Heide J. B. and John G. (1990), "Alliances in Industrial Purchasing: The Determinants of Joint Action in Buyer- Supplier Relationships", *Journal of Marketing Research*, Vol. XXVII, February, 24 –35.
- Homans G. C. (1961), *Social Behaviour: its Elementary Forms*, London: Routledge.
- Hurley R. F. and Hult G. T. (1998), "Innovation, Market Orientation, and Organizational Learning: an Integration and Empirical Examination", *Journal of Marketing*, 62 (3), 42-54.
- Inkpen A. C. (1996), "Creating Knowledge through Collaboration", *California Management Review*, Vol. 39, 1, 123–140.
- Jaworski B. and Kohli A. (1993), "Market Orientation: Antecedents and Consequences", *Journal of Marketing*, 57 (July), 53-73.
- Jean C. (1998), "Les marques de distributeurs: vers de nouvelles relations entre producteurs et distributeurs", *Décisions Marketing*, Vol. 15, Septembre-décembre, 47-57.
- Kalafatis S. P. (2002), "Buyer-Seller Relationships along Channels of Distribution", *Industrial Marketing Management*, Vol. 31, 3, 215-228.
- Kogut B. and Zander U. (1992), "Knowledge of the Firm, Combinative Capabilities and the Replication of Technology", *Organization Science*, 3, 383-396.
- Kohli A. and Jaworski B. (1990), « Market Orientation: The Construct, Research Propositions and Managerial Implications », *Journal of Marketing*, 54, (april), 1-18.
- Kolb D. H. (1984), *Experiential Learning: Experiences as a Source of Learning and Development*, Englewood Cliff: Prentice Hall.
- Larson R., Bengtsson L., Henricksson K. and Sparks J. (1998), "The Interorganizational Learning Dilemma: Collective Knowledge Development in Strategic Alliances", *Organizational Sciences*, Vol. 9, 3, 285-305.
- Levitt B. and March J. (1988), "Organizational Learning", *Annual Review of Sociology*, 14, 31-40.
- Lukas B. A., Hult G. T. M and Ferrell O. C. (1996), "A Theoretical Perspective of the Antecedents and Consequences of Organizational Learning in Marketing Channels", *Journal of Business Research*, 36, 3, 233-244.
- Metcalf L. E., Frear C. R. and Krishnan R. (1990), "Buyer-Seller Relationships: an Application of the IMP Interaction Model", *European Journal Marketing*, Vol. 26, 2, 27-46.
- Ministère de l'économie, des finances et de l'industrie (1999), *le marketing outil stratégique des PMI face à la grande distribution*.
- Narver J.C. and Slater S. F. (1990), "The Effect of a Market Orientation on Business Profitability", *Journal of Marketing*, 54 (4), 20-35.

- Nonaka I. (1994), "A Dynamic Theorie of Organizational Knowledge Creation", *Organization Science*, Vol. 5, 1, 14-37.
- Nonaka I. and Takeuchi H. (1995), *The Knowledge Creating Company*, New York: Oxford University Press.
- Rokkan A. I., Heide J. B. and Wathne K. H.(2003), "Specific Investment in Marketing Relationships : Expropriation and Bonding Effects", *Journal of Marketing Research*, Vol. XL, May, 210-224.
- Selnes F. and J. Sallis (2003), "Promoting Relationship Learning", *Journal of Marketing*, 67 (July), 80-95.
- Senge P. (1990), "The Leader's New Work: Building Learning Organizations", *Sloan Management Review*, Vol. 32, 1, 7-23.
- Sinkula J. M., Baker W. and Noordewier T. (1997), "A Framework for Market-Based Organizational Learning: Linking Values, Knowledge and Behavior", *Journal of the Academy of Marketing Science*, Vol. 25, 4, 305-318.
- Slater S. F. and Narver J. C. (1995), "Market Orientation and the Learning Organization", *Journal of Marketing*, 59 (July), 63-74.
- Thibault J. and Kelley H. (1959), *The Social Psychology of Groups*, London: John Wiley & Sons.
- Turnbull P. W. and Valla J. P. (1986), *Strategies for International Industrial Marketing*, London: Croom Helm.
- Turnbull P. W., Ford D. and Cunningham M. (1996), "Interaction, Relationships and Networks in Business Markets: an Evolving Perspective", *The Journal of Business and Industrial Marketing*, 11, 3-4, 44-62.
- Williamson O. E. (1975), *Markets And Hierarchies: Analysis and Anti-trust Implications. A Study in the Economics of Internal Organization*, New-York: The Free Press.
- Williamson O. E. (1985), *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, New-York: The Free Press.