

# **Dedicated relationships between automotive suppliers and car constructors – Testing the Flagship / 5 Partners model**

**Dr. Bartholomeus P.G. Kamp**

Resource Analysis  
Wilrijkstraat 37, box 1  
B – 2140 Antwerpen  
Belgium  
Tel: 00 32 3 – 270 00 30  
Fax: 00 32 3 – 270 00 31  
e-mail: bka@resource.be

## **Abstract**

The Flagship / 5 Partners model (hereafter: F/5P model) claims that key suppliers are dedicated exclusively to flagship firms and that flagship firms work on an exclusive basis with key suppliers tied into their flagship-specific networks. As the F/5P model as a conceptual framework is partly rooted in empirical analyses of the automotive industry, it is an interesting challenge to test its external validity i.e. on the European car industry. At the same time, it seems relevant to test its claim of exclusive buyer-supplier relationships as there are also scholars that refer to the existence of industry-wide suppliers and the fact that buyer firms strive to avoid lock-ins into and dependence upon specific supplier relationships. Confronted with these antitheses, this paper presents a test of the exclusivity presumptions of the F/5P model based on a survey of buyer-supplier relationships in the automotive sector.

Based on a sample of 32 car models the buyer-supplier relationships for a specific set of automotive components are analyzed.

Results show that industry-wide client bases on behalf of suppliers and multiple sourcing relationships on behalf of car constructors are a stronger empirical reality than exclusive flagship firm-key supplier relationships. Outcomes also indicate that previously in-house parts of car constructors that came to stand on their own feet have successfully succeeded in establishing client relationships with third party car constructors.

**Key words:** buyer-supplier relationships, outsourcing, automotive industry.

## Introduction

With the studying of and attempts to learn from the Japanese (car) manufacturers (Cusumano, 1985; Dore, 1987; Womack, Jones and Roos, 1990), it not only became fashionable for Western companies to follow the logistical and lean enterprise principals of the Japanese companies (Monden, 1981a, 1981b, 1992), but also to take the supplier relationship management practices of the Japanese as a benchmark for own functioning (Asanuma, 1988; Cusumano and Takeishi, 1991). In that respect, the conclusion was drawn that among others Western car constructors would have to reduce the enormous amounts of direct supply relationships they maintained with parts and component manufacturers (Nishiguchi, 1993; Boston Consulting Group, 1993; Shimokawa, 1999; Veloso, 2000). In operational terms, what was believed necessary to update the antiquate Western car manufacturer-supplier relationships was to come to a tiering of all supply relationships (with only the first tier suppliers maintaining a direct relationship with the car manufacturer) and to adopt single sourcing policies with regard to the delivery of automotive components for the assembly of car models, instead of having multiple suppliers for the same component.

In general, the single sourcing policy is conceived on the level of a single car model or assembly plant. The Flagship / 5 Partner model goes one step beyond. It conceives single and exclusive supplier relationships for the entire global operations of car constructors as multinational corporations.

The Flagship / 5 Partners model (Rugman, 1999; Rugman and D'Cruz, 2000) claims that key suppliers are dedicated exclusively to flagship firms and that flagship firms work on an exclusive basis with key suppliers tied into their flagship-specific network. As the Flagship / 5 Partners model (hereafter: F/5P model) is partly rooted in empirical analyses of the North-American automotive industry, it is an interesting challenge to test its external validity i.e. on the European car industry. At the same time, it seems relevant to test its claim of exclusive buyer-supplier relationships as there are also scholars that refer to the existence of industry-wide suppliers and the fact that buyer firms strive to avoid lock-ins into and dependence upon specific supplier relationships (Lieberman and Montgomery, 1988; Grabher, 1993; Wells and Rawlinson, 1994; Uzzi, 1997).

Confronted with these antitheses, this paper tests the exclusivity presumptions of the F/5P model via a survey on buyer-supplier relationships in the automotive sector. It investigates to which extent single sourcing policies and exclusive buyer-supplier relationships are (still) in play today in the car industry beyond the level of individual car models or assembly plants. Based on a sample of 32 European car models, the buyer-supplier relationships for a specific set of automotive components are analyzed.

The survey allows to screen both the validity of the exclusivity claim regarding buyer-supplier relationships and to assess the existence of industry-wide suppliers. It also enables to comment upon the client trajectories several component manufacturers have "travelled" since gaining independence from their former owners i.e. Delphi from GM, Visteon from Ford and Faurecia from PSA.

Results show that industry-wide client bases on behalf of suppliers and multiple sourcing relationships on behalf of car constructors are a stronger empirical reality than exclusive flagship firm-key supplier relationships. Outcomes also indicate that previously in-house parts of car constructors that became independent have succeeded in establishing client relationships with multiple third party car constructors.

## The Flagship / 5 Partners model

Rugman and D'Cruz' (2000) F/5P model can be seen as a conceptual framework for understanding the formation and evolution of business networks.

The term "flagship firm" refers to a company operating at the core of an extensive business network. Usually the flagship has long-term relational contracts with a set of five partners. The five partners consist of the flagship firm itself, key suppliers, key customers, competitors, and non-business infrastructure. In this paper we focus on the relationships between the flagship firm and the key suppliers.

The F/5P model is based on the assumption that sustainable competitiveness can best be achieved through co-operative relationships in a business network structure. It argues that inter-organizational cooperation makes firms depend less on internalization as the sole means to leverage their firm-specific advantages and gain competitive advantage. Instead of depending on internalization, the F/5P model posits that a flagship firm focuses on sharing knowledge among partners in order to facilitate inter-organizational learning.

Rugman and D'Cruz (2000) compare their F/5P model with Lorenzoni and Baden-Fuller's strategic network framework (1993, 1995). Lorenzoni and Baden-Fuller speak of a central firm instead of a flagship firm. Like Rugman and D'Cruz, they also stress asymmetrical dependence between the central firm and the partners.

The F/5P model argues that the behaviour of key suppliers can be explained through their asymmetrical dependence on the flagship firm's strategy and their exclusive dedication to a certain flagship from a single industry perspective. This implies that the flagship firm is able to provide a strategic perspective for all five partners pertaining to their networks and that each true partner does not need a separate strategy except to be a "key" partner of a specific flagship firm.

In the F/5P model, the actors involved are supposed to share a common global strategy and purpose, with the flagship firm having the resources and perspective to lead the network and strategically manage its activities. The partners yield the strategic leadership to the flagship because it is the flagship's product and global strategy that made the partners join the network in the first place. Key suppliers are expected to give near or total exclusivity to the flagship firm (Rugman and D'Cruz, 2000, p. 2). The reason for flagship firms to work on an exclusive basis with key suppliers is to harness their own global strategy. Global competition in industries is supposed to take place increasingly between F/5P-like business networks.

To conclude with, Rugman and D'Cruz (2000, p. 56) state that "... partners may compete in business systems not related to that of the business network, [and therefore] it should be emphasized that the flagship firm's asymmetric strategic control extends only to those aspects of its partners' business systems committed to the network." This would mean that a versatile component company active in e.g. the automotive industry and the defence industry, could at the same time be a key supplier to one flagship firm from the automotive business and to another from the defence industry. However, it also implies that a specific supplier of key inputs to a certain flagship firm of a business network does not operate as key supplier to another flagship firm operating in the same business system, like the automobile industry.

## **Propositions**

In this paper we want to test the validity of one of the basic logics behind the F/5P model i.e. the assumption that key suppliers are exclusive dedicated to a flagship firm and vice versa.

The chosen research setting to test this basic logic is the automotive industry. First of all as the automotive industry is a prominent example of a sector where one encounters buyer-supplier networks on a large scale (Castells, 1996; Dyer, 1996; Fine and Whitney, 1996). Secondly as the conceivers of the F/5P model also apply their concepts on the North American car industry or source from practices in the car industry of that part of the world, it also follows that the car industry is a good test case for testing the validity of the ground rationales underneath the F/5P theory. Thirdly, with regard to automotive industry, the phenomenon of single sourcing can be/is related to the exclusivity point raised by the F/5P model. In fact, whereas the practicing of single sourcing is widely reported on single plant and or model level, the F/5P model goes one step beyond and predicts single sourcing on

corporate level. Finally, the fact that the present research focuses on flagship firm-key supplier practices in Europe means it may also allow drawing up certain comparisons between North American and European flagship firm-key supplier practices.

We will test this basic logic in a two-fold way, by examining separately the tenability of the following propositions regarding supplier and car constructor exclusivity:

- Flagship firms work with single key suppliers for components that are considered as key inputs, instead of sourcing specific components from multiple suppliers (car constructor exclusivity thesis)
- Key suppliers are devoted to single flagship firms instead of operating as industry-wide suppliers to multiple flagship firms (supplier exclusivity thesis)

The rationales behind these propositions are in line with general trends among car constructors to reduce the amount of suppliers from which they source (Pallarès-Barbera, 1996; Lamming, 1993; Womack, Jones and Roos, 1990; Nishiguchi, 1993; Sako and Warburton, 1999; Veloso, 2000). In this respect, the following figures from Renault and VW are very illustrative. Between 1984 and 2001 Renault reduced the amount of suppliers of automotive parts from which it sourced from 1800 to 507 (Gorgeu and Mathieu, 1995; Renault, 1986-2002RA; Renault, 1991-2002AE). From 1983 to 2001, VW reduced its worldwide supplier sample from 30,000 to 4,532 (Volkswagen, 1984, p. 37; Grohn, 2002). Identical trends can be observed for other car constructors, like PSA: from 900 direct suppliers in 1986 to approximately 500 in the year 2000, BMW: from 1400 to 600 in the same period, Ford: from 2400 to 1200 in the same period, and Chrysler: from 3000 to 600 in the same period: (the Economist Intelligence Unit, various years; Ward's, various years). Ford may have served as an empirical point of reference for the F/5P as it reportedly followed a "single firm per module supply across the world" strategy (Veloso, 2000).

It is also in line with tendencies towards global instead of local-for-local sourcing (Volkswagen, 1985, p. 33; Volkswagen, 1989, p. 13; Volkswagen, 1992, p. 10; Volkswagen, 1996, p. 37; Volkswagen, 1998, p. 35; Volkswagen, 2002, p. 38; Grohn, 2002; FASA-Renault, 1988, 1989; Renault, 1991RA; Renault, 1999RA, p. 28; Boston Consulting Group, 1993; Shimokawa, 1999) and single and module-based sourcing in detriment of multiple and fragmented sourcing (Volkswagen, 1994, p. 14; Volkswagen, 1997, p. 29; Renault, 1987RA, p. 21, Renault, 1987F, p. 34; Renault, 1988RA, p. 30; Renault, 1989RA, p. 27; Renault, 1991RA, p. 19, 30; Gilodi, 2001; Lamming, 1993; Dyer, Sung Cho and Chu, 1998). It can also be underpinned by empirical observations that indicate that many overseas supplier establishments follow from corporate negotiations with car constructors for whom they already work and to which they want to keep committed (Volpato, 1997; Carillo and Gonzalez Lopez, 1999; Shimokawa, 1999; Gonzalez Lopez, 2000; Frigant and Lung, 2000).

At the same time, however, one can also find indices of opposite practices. Empirical evidence demonstrates that car constructors encourage suppliers to work for multiple clients (Florence, 1996; Pries, 1999), and suppliers may effectively follow a multiple client strategy or an industry-wide car constructor servicing policy (O'Hallachain and Wasserman, 1999; Rutherford, 2000, p. 743; Rhys, 2000; Valeo, 2000). Similarly, conceptual thinking from the network and interaction approach to b2b relationships emphasizes multiple inter-firm ties (Håkansson and Shehota, 1989; Laage-Hellman, 1997, p. 16). Finally, recent times also witnessed a selective return of car constructors to multiple sourcing for one and the same component in order to spread risks and not to place all eggs in one basket. See e.g. front-end production and assembly activities for the Renault Clio (Renault, Global Magazine 2, Marzo 2001, p. 42; Kamp, 2003, p. 159) as an exponent of a more general practice of working with multiple suppliers per component (Torricco, 2002). In a similar vein, one observes how VW strengthens the policy of splitting its parts contracts among multiple suppliers e.g. for the new-generation Golf (Automotive News, September 22, 2003, p. 22T). Also Veloso (2000) argues that VW and Renault tend to relate with more than one partner for the development and supply of a specific component. All these observations are at odds with the exclusivity principles, embraced by the F/5P model.

Consequently, the previously formulated propositions are far from certain and merit a thorough and systematic examination.

## Research Methodology

As the previous propositions will be tested on the automotive industry, they can be rephrased as follows:

- First tier suppliers are devoted to single car constructor instead of operating as industry-wide suppliers.
- Car constructors work with single first tier suppliers for components that are considered as key inputs, instead of sourcing these from multiple suppliers.

By flagship firms and car constructors we refer to the companies that assemble or integrate the various components and systems obtained from suppliers into a final product for the end consumers market. They are the hub or central buyer firm of the automotive buyer-supplier networks under consideration.

By key or first tier suppliers we refer to those suppliers whose components and systems are a vital input to the final product and which already form an integrated product or module in itself (“system integration”). In this respect, we focus on examples like complete cockpit systems instead identifying who are possibly the suppliers of clockwork instruments, rubber panels and panel support items behind the system integrator of the cockpit as a whole.

The adopted research technique was a rather large-scale survey on the first tier suppliers that OEMs work with for their car models. In total, with regard to 32 car models assembled in Great Britain and on the European continent, coming from 5 car groups, the first tier supplier relationships for a specific set of automotive components were analyzed. All car models are from the smaller and middle class segment. Moreover, most car models stemming from the same car groups are platform interrelated. This contributes to basing the analyses upon an internally coherent set of research units.

Data came from own field work with regard to the suppliers to the the development and production of the VW Polo and the Renault Clio, supplemented by breakdowns of the supplier networks around the car models in question obtained via specialized automotive journals. Finally, data came from annual reports from several first tier suppliers to final assembly plants throughout Europe. The car models that were screened are presented in the following tables. To highlight the interrelatedness of models and brands, they are grouped platform-wise as well as based on shared group ownership.

Volkswagen	Audi	SEAT	Skoda
Volkswagen Aktien Gesellschaft			
“Supermini” Platform PQ 25:  <ul style="list-style-type: none"> <li>• VW Polo</li> <li>• SEAT Cordoba</li> </ul>	Platform PQ 35:  <ul style="list-style-type: none"> <li>• VW Golf</li> <li>• VW Touran</li> <li>• Audi A3</li> <li>• Skoda Octavia</li> <li>• SEAT Altea</li> </ul>	Platform PL 45:  <ul style="list-style-type: none"> <li>• Audi A6</li> </ul>	“Super Passat” Platform PL 62:  <ul style="list-style-type: none"> <li>• Audi A8</li> <li>• VW Phaeton</li> </ul>

Peugeot		Citroën	
PSA			
Platform PF1:	Platform PF2:	Platform PF3:	Platform PF4:
<ul style="list-style-type: none"> <li>• Citroën C2</li> <li>• Citroën C3</li> <li>• Peugeot 1007</li> </ul>	<ul style="list-style-type: none"> <li>• Citroën C4</li> <li>• Peugeot 307</li> </ul>	<ul style="list-style-type: none"> <li>• Peugeot 407</li> </ul>	<ul style="list-style-type: none"> <li>• Peugeot 807</li> </ul>

Renault	Dacia	Nissan
Renault-Nissan Alliance		
Platform B :	Platform C :	Platform M2:
<ul style="list-style-type: none"> <li>• Dacia Logan</li> <li>• Renault Modus</li> <li>• Renault Clio</li> <li>• Nissan Micra</li> </ul>	<ul style="list-style-type: none"> <li>• Renault Scenic</li> </ul>	<ul style="list-style-type: none"> <li>• Renault Espace</li> </ul>

Opel / Vauxhall		Saab
General Motors		
Platform Gamma:	Platform GM 2700 / 3000:	Platform EPSILON:
<ul style="list-style-type: none"> <li>• Opel / Vauxhall Meriva</li> </ul>	<ul style="list-style-type: none"> <li>• Opel/Vauxhall Astra</li> </ul>	<ul style="list-style-type: none"> <li>• Opel/Vauxhall Signum</li> <li>• Saab 9-3</li> </ul>

Ford	Volvo	Jaguar
Ford Motor Company		
Platform B 2:	Platform BE 91:	Platform C 170:
<ul style="list-style-type: none"> <li>• Ford Fusion</li> </ul>	<ul style="list-style-type: none"> <li>• Ford Streetka</li> </ul>	<ul style="list-style-type: none"> <li>• Ford Focus</li> <li>• Ford Focus C-Max</li> <li>• Volvo S40</li> </ul>

As operational tests to the two propositions formulated previously, the following analyses were carried out.

One, with regard to the following components we traced whether a single car concern used one or more suppliers for the car models screened, both across platforms and on the level of a single platform:<sup>1</sup>

- Exhaust system
- Suspension
- Steering direction
- Coil springs)
- Front-end carrier
- Wing mirrors
- Fuel system
- Cockpit
- Seats
- Head lamps

Two, for each of the identified first tier suppliers active in the delivery of the aforementioned components, it was established whether it maintained supply relationships with one or more car constructors.

Finally, we dwell on the penetration of former in-house suppliers or internal “departments” of certain car constructors i.e. Visteon (ex-Ford), Delphi (ex-GM) and Faurecia (ex-PSA) into the supply chains of previously unrelated car constructors for these suppliers.

## Results

In the coming three tables, subsequently the following issues are illustrated. Table 1 presents the number of component-specific suppliers per car constructor as a whole and for specific platforms. This serves as an indicator for measuring the degree with which a car constructor practices single sourcing per component and maintains exclusive supply relationships with regard to individual components. Table 2 presents the number of clients to which component-specific suppliers service. This serves as an indicator for the degree of oligo-/monopolization per component “segment” and degree of existence of industry-wide suppliers per component “segment”. Table 3 shows the amount of components that formerly in-house departments of specific car constructor sell to the car constructors that formed our sample. This serves as an indicator for the degree of penetration of such formerly internalized supply activities into third party client relations.

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<sup>1</sup> The components whose suppliers’ we have examined form a representative sample of automotive parts that are commonly outsourced by car manufacturers today. Moreover, only those components were withheld for analysis for which the subsequent suppliers of most of the screened 32 car models could be traced back. In other words, we focused on those components for which most supplier identity indicators were available.

Table 1: Number of component-specific suppliers per car constructor as a whole and for specific platforms:

Component	Exhaust system	Suspension	Steering direction	Coil springs	Front-end carrier	Wing mirrors	Fuel system	Cockpit	Seats	Head lamps
No. of suppliers involved										
VAG as a whole	6	5	2	3	6	6	3	6	4	5
VAG PQ 35 Platform sample	4	2	1	3	4	4	2	4	3	4
PSA as a whole	3	4	4	2	3	2	1	3	2	2
PSA PF 1 Platform sample	2	2	2	2	2	1	1	2	1	2
Renault as a whole	4	4	2	2	3	2	2	4	2	2
Renault B Platform sample	3	3	2	2	3	2	2	4	1	1
GM as a whole	3	3	3	2	4	N.a. (only for one model reported: Donelly)	N.a. (only separate items reported)	2	3	2
GM EPSILON Platform sample	Not applicable: too thin sample									
Ford as a whole	3	1	3	2	3	1	1	3	3	3
Ford C 170 Platform sample	2	1	3	2	1	1	1	2	3	3

Source: own elaboration.

Table 2: Number of clients to which component-specific suppliers service:

Component	Exhaust system	Suspension	Steering direction	Coil springs	Front-end carrier	Wing mirrors	Fuel tank	Cockpit	Seats	Head lamps
Supplier-specific no. of clients										
Suppliers delivering to 1 OEM only	2	5	1	0	4	3	1	6	1	1
Suppliers delivering to 2 OEMs	1	1	2	0	2	1	0	1	0	1
Suppliers delivering to 3 OEMs	1	2	0	1	3	1	2	2	1	1
Suppliers delivering to 4 OEMs	1	1	1	2	0	1	0	0	2	2
Suppliers delivering to all 5 OEMs	1	0	1	0	0	0	0	1	0	0

Source: own elaboration.

Table 3: Number of supplied components by formerly in-house departments of specific car constructor to the car constructors of our sample:

Clients	Visteon (interior and exterior trim parts, lighting, climate systems, powertrain systems, steering systems, chassis components, cooling systems)	Delphi (engine management systems, climate control, cockpit and interior products, cabling, cooling systems, steering systems)	Faurecia (exhaust systems, seats, acoustic package, cockpit, door panels, front-end module)
VW	1	4	6
Ford	5	1	4
GM	1	4	3
PSA	5	2	6
Renault	2	1	6

Source: own elaboration.

## Discussion and (managerial) implications

Results show that industry-wide suppliers are a stronger empirical reality than exclusive buyer-supplier relationships. More than single sourcing practices per component on behalf of car constructors, what one observes is sourcing from multiple supply relationships. In fact, with regard to several of the analyzed car constructors it is commonly expressed that this is a policy they follow. E.g. with the introduction of the new Golf, Volkswagen continued its policy of splitting its parts contracts among multiple suppliers (Automotive News Europe, September 22, 2003). In fact, it uses two or more suppliers on several key components for the Golf. And this is just on the level of a single model of the Volkswagen Aktien Gesellschaft (VAG). As we saw from our sample, when looking at the level of platform-related models or on corporate level, the amount of component-specific suppliers with which relationships are maintained even increases. And this holds true for all analyzed car constructors.

The practice of sourcing specific components from multiple suppliers is understandable. It forms a way to regulate lock-in effects and becoming dependent upon certain external relationships. In addition, we also observed that several car constructors maintained certain component development and manufacturing activities in-house as a countervailing power to dependence on external suppliers. For instance Renault maintains certain front-end production and development activities in-house and VW has created joint ventures with third parties for the conceiving and production of for instance cabling, seats and cockpits, while it also maintains in-house capacity for e.g. door modules and exhaust systems production.

While multiple sourcing points at car constructors' attempt to not depend entirely and exclusively on a single supply relation, the maintenance of in-house component capacity may indicate that car constructors intent to not rely completely on outside companies in itself. As such, this may be a sign that car constructors sense that they (can) loose too much control over the forth bringing of vital car components. In fact, multi-faceted supplier companies like Visteon, Delphi and Bosch possess knowledge and capabilities that many car constructors do not possess anymore (Grohn, 2002). This would add to the point that certainly not all suppliers depend asymmetrically on their car constructor clients. In general terms, the ongoing specialization of (certain) suppliers in their respective fields means that asymmetry in buyer-supplier relationships is contained. Moreover, as several of the suppliers in our sample service multiple buyers, their dependence on single car constructors should not be overestimated. Analysis of our sample results provides little support for this viewpoint and for the thesis that this should lead to exclusive relationships.

Another observation that results from our survey is that not all car constructors engage to the same extent in sourcing of "mega-modules" or of contracting suppliers for far-reaching "system integration". This may also be a way for constructors to avoid a too strong a reliance on suppliers. I.e. by keeping the integration of automotive conjoints below a certain (system or modular) level, car constructors avoid losing too much grip on their conceptual and technological development and on their composition in parts and technologies. Through less aggregated conjoints, the purchasing management is then able to maintain a stronger hold on the overall design and cost of a conjoint and exercise more control over supplier relationships.

In this regard, the following comment could be registered: "... few suppliers really know all the technologies involved in more complex modules such as cockpits or front ends. As a result suppliers are not able to manage all the sub-systems and having them integrate them does not always offer benefits" (SupplierBusiness, 2003, p. 20). This comment not only shows why car constructors may be more interested in less integrated modules, it also offers an additional explanation for a purchasing policy to not rely on single supplier relationships for complex and vital components.

Assuming that our results are representative for the automotive industry in Europe whereas the F/5P model's conceptions were valid for North America at the time of conceiving the model, one could argue that the extent with which buyer-supplier relations are characterized by exclusivity may differ as well. We believe, however, that this argument is at least questionable for the following reason. Exclusive buyer-supplier relationships can certainly

exist, especially on the level of single supply plants or final assembly plants (see Kamp, 2003, as well as the survey results reported in the present paper), but it would be illogical to assume it should be generally the case for (buyer or supplier) companies as a whole. On the part of suppliers, it is hard to conceive how they would render themselves completely at the mercy of one client (cfr. lock-in dangers and dependence on one client). On the part of buyer firms, it would mean that they miss out on suppliers working for multiple car constructors that bring in experiences from elsewhere. This holds true on both sides of the Atlantic Ocean. At best, one can argue that the exclusivity thesis has been valid for business networks around U.S. or Canadian hub companies during a certain period in time, as they coincide with the way North-American buyer-supplier relationships and production systems, notably in the automobile industry, have been characterized in the recent past, see e.g. Lamming (1993) and Nishiguchi (1993). We believe, however, that in the mean time the archetypical way the North-American production model has often been characterized has also evolved and must have witnessed disruptions of dedicated b2b relationships and a rise of industry-wide suppliers. The fact that our sample analyzed the relationships of both American and Canadian car constructors (GM, Ford) and suppliers (e.g. Magna, TRW, Visteon, Delphi) and witnessed that all of them relate with different suppliers or buyers respectively, insinuates that also in North America sourcing from multiple suppliers and supplying to multiple clients ought to be a common practice as well.

Outcomes from our sample also indicate that previously in-house parts of car constructors that came to stand on their own feet (Delphi, Visteon and Faurecia) have successfully succeeded in establishing client relationships with third party car constructors. Therefore, even organizations that formerly pertained to direct competitors appear able to establish business relationships with “arms-length” clients. This also adds up to the impression that exclusive buyer-supplier relationships are not representative for the way flagship firms and first tier suppliers relate to each other in automotive business networks.

### **Bibliography:**

Asanuma, B., Japanese manufacturer-supplier relationships in international perspective: the automobile case, Working paper no. 8, Faculty of Economics, Kyoto University, 1988

Automotive News Europe, Car cutaways, 2002-2004

Boston Consulting Group, The evolving challenge for the European automotive components industry, Brussels, 1993

Carillo, J. and S. Gonzalez Lopez, Relaciones cliente-proveedor de empresas automotrices alemanas en Mexico, In: Actes du GERPISA, Division internationale du travail et relations constructeurs-fournisseurs, pp. 65-76, Février 1999

Castells, M., The rise of the network society, Oxford, 1996

Cusumano, M.A., The Japanese automobile industry: Technology management at Nissan and Toyota, Harvard University Press, Cambridge, Mass., 1985

Cusumano, M.A. and A. Takeishi, Supplier relations and management: A survey of Japanese, Japanese-transplant, and US auto plants, In: Strategic Management Journal, 1991, Vol. 12, pp. 563-588

Dore, R., Taking Japan seriously, The Athlone Press, London, 1987

Dyer, J.H., Specialized supplier networks as a source of competitive advantage: evidence from the auto industry, In: Strategic Management Journal, Vol. 17, 1996, pp. 271-291

Dyer, J.H., Sung Cho, D. and W. Chu, Strategic supplier segmentation: The next “Best Practice” in supply chain management, IMVP Paper, 1998

the Economist Intelligence Unit, Motor business international and components business international, various editions/issues, several years

FASA-Renault, Informes Anuales 1965-2001, Madrid, 1966-2002

- Fine, Ch. H. and D.E. Whitney, Is the make-buy decision process a core competence?, MIT, 1996
- Florence, A. Supply chain interactions and supplier relationships, Paper presented at «Colloquium on Regional strategies for innovation and competitiveness in the automotive industry», Cardiff, 25-26 January 1996
- Frigant, V. and Y. Lung, Geographical proximity and supplying relationships in modular production, Paper presented at 8th International colloquium GERPISA, Paris, 2000
- Gilodi, 2001: Interview with Mr. A. Gilodi, Member of Renault's Corporate Purchasing Management, 7th of June 2001, Technocentre Renault Guyancourt
- Gonzalez Lopez, S., Estrategias corporativas y espacios locales: las empresas automotrices en la zona de Toluca, Mexico, In: Actes du GERPISA, Avril 2000, no 29, pp. 67-90
- Gorgeu, A. and R. Mathieu, Les liens de Renault avec ses fournisseurs: équipementiers et sous-traitants, Actes du GERPISA, Nr. 14, 1995, pp. 41-58
- Grabher, G., The embedded firm: on the socio-economics of industrial networks, London, 1993
- Grohn, 2002: Interview with Mr. F. Grohn, Member of Volkswagen's corporate management for global and forward sourcing, 21<sup>st</sup> of March 2002, Wolfsburg
- Håkansson, H. and Snehota, I., No business is an island: The network concept of business strategy, In: Scandinavian Journal of Management, 1989, 5 (3), pp. 187-200
- O'Hallachain, B. and D. Wasserman, Vertical integration in a lean supply chain: Brazilian automobile components parts, In: Economic Geography, Vol. 75, Nr. 1, 1999, pp. 21-43
- Kamp, B.P.G., Formation and evolution of international business networks: Kaleidoscopic organization sets, Thesis, Tilburg University, 2003
- Laage-Hellman, J., Business networks in Japan: supplier-customer interaction in product development, London, 1997
- Lamming, R., Beyond partnership: strategies for innovation and lean supply, London, 1993
- Lieberman, M.B. and D.B. Montgomery, First-mover advantages, In: Strategic Management Journal, 9 (1), 1988, pp. 41-58
- Lorenzoni, G. and C. Baden-Fuller, Creating a Strategic Center to Manage a Web of partners, Working paper, June, University of Bath, School of Management, Bath BA2 7AY, 1993
- Lorenzoni, G. and C. Baden-Fuller, Creating a strategic center to manage a web of partners, In: California management review, 37 (3), 1995
- Monden, Y., What makes the Toyota production system really tick?, In: Industrial Engineering, January 1981a, pp. 36-46
- Monden, Y., How Toyota shortened supply lot production time, waiting time and conveyance time, In: Industrial Engineering, September 1981b, pp. 22-30
- Monden, Y., Cost management of the new manufacturing age: innovations in the Japanese automotive industry, Productivity Press, Cambridge, Mass., 1992
- Nishiguchi, T., Governing competitive supplier relations: new auto-industry evidence, MIT/IMVP Annual sponsors' briefing meeting, Cape Cod (Mass.), 1993
- Pallarès-Barbera, M., Changing production systems and spatial reaction: the automobile industry in Spain, Bellaterra, 1996
- Pries, L., The dialectics of automobile assemblers and suppliers restructuring and globalization of the German «big three», In: Actes du GERPISA, Division internationale du travail et relations constructeurs-fournisseurs, Février 1999, pp. 77-92
- Renault, Atlas économique 1990-2001, Paris, 1991AE- 2002AE
- Régie Nationale des Usines Renault, Financial Report 1985-2001, Paris, 1986F-2002F
- Renault, Global Magazine, Nrs. 1-11 (Febrero 2001 – Marzo 2002), Madrid, 2001-2002

- Renault, Rapport Annuel 1985-2001, Paris, 1986RA-2002RA
- Rhys, G., 2000, In: Financial Times Survey – Industry briefs, «Supplier parks: Economies of scale play a vital role», FT Auto 0200/Outsourcing
- Rugman, A., Multinational enterprises and the end of global strategy, Oxford University working paper, Oxford, 1999
- Rugman, A. and J. D'Cruz, Multinationals as flagship firms, New York, 2000
- Rutherford, T.D., Japanese investment and buyer-supplier relations in the Canadian automotive industry, In: Regional Studies, Vol. 34 (8), 2000, pp. 739-751
- Sako, M. and M. Warburton, Preliminary report of European research team Modularization and outsourcing project, MIT/IMVP Annual forum, Boston, 1999
- Shimokawa, K., Reorganization of automobile industry and structural change of the automobile component industry, MIT/IMVP Publications, Boston, 1999
- SupplierBusiness, Volkswagen changes purchasing strategy, Issue 1, August 2003
- Uzzi, B., Social structure and competition in interfirm networks: the paradox of embeddedness, In: Administrative Science Quarterly, 1997, 42 (1), pp. 35-67
- Valeo, 2000, In: Financial Times Survey – Industry briefs, «Supplier parks: Economies of scale play a vital role», FT Auto 0200/Outsourcing
- Veloso, F., The automotive supply chain organization: Global trends and perspectives, Working Paper, MIT, Cambridge, September 8, 2000
- Volkswagen, Geschäftsbericht 1980-2001, Wolfsburg, 1981-2002
- Volpato, G., Fiat Auto and Magnetti Marelli: toward globalization, In: Actes du GERPISA, Février 1997, Nr. 22, pp. 69-98
- Ward's, Automotive yearbook, several years
- Wells, P. and M. Rawlinson, The new European automobile industry, New York, 1994
- Womack, J.P., Jones, D.T. and D. Roos, The machine that changed the world, New York, 1990