

# **The stability of the focal firm in the business network: the effect of competence shifts**

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## **ABSTRACT**

In this paper, we explore the role of competence transfer at the actors' level as driver of change in strategic networks. We use categories deriving from two different ways to see networks: strategy and IMP. Intrigued by the phenomenon that an increasing number of cases emerged in which companies from traditional industrialized countries that have been holders of major brands, have been acquired by former suppliers based in new industrial countries, we question the implicit assumption of the stability of the position of the focal firm in its strategic network. Through a longitudinal case study analysis of the sports shoe industry, we develop theoretical propositions as to how competence transfer leads to changes both at the network challenging the position of the focal firm.

## INTRODUCTION

The aim of this paper is to examine the role of competence transfer as drivers of change in a firm as actor within a business network.

The paper explores the link between change in networks and change at the actor level. To do this, we use categories deriving from two different ways to see network: strategy and IMP (Baraldi et al. 2007). Over the last few years, an increasing number of cases emerged in which companies from traditional industrialized countries that have been holders of major brands, have been acquired by former suppliers based in new industrial countries. In a slow and lengthy process, companies that owned leading brands in their respective industries had increasingly externalized activities of the industries business system and thus renounced (in an extreme case), first to control manufacturing activities, then the design and finally R & D. These processes have allowed many firms to focus their competences on branding and retailing. Their role within the business network has changed, leaving room for learning processes of the suppliers.

The literature has described the passage of a number of these providers from the state of original equipment manufacturer (OEM) to original design manufacturer (ODM) to that of original branded manufacturer (OBM). The process of competence development at the supplier site, often based in newly industrialized countries, can increase in general the suppliers power because of the difficulties that business customers may have in substituting or reintegrating capabilities. This process of competence shift appears to be paradoxically driven by the success of the focal firm, which drives the increase in production and R&D capabilities of the suppliers.

In the strategic network perspective, we understand the organization of the entire business activities from raw material to after-sales services, i.e. the activities necessary to make, market, sell and service a product in an industry, which is distributed among different firms as a strategic network with the focal firm (also called strategic center) as the firm that directs strategically the activities of the business system. The changing role of actors in the network can be seen as a source of opportunities and risks for individual actors and for the stability of the business network. From the strategic network perspective, how can we understand the replacement of a focal firm by one of its suppliers?

We suggest, that business network dynamics can be related to "competence shifts" in the network and to "cognitive limits" of individual actors. We see "competence shifts" as the long-term outcome of focal firms ceding (voluntarily) the control of competencies, they previously had controlled and enabling learning processes of suppliers. We see "cognitive limits" as network stabilizing if cognitive limits are exhibited on the supplier side and as network destabilizing when

exhibited at the focal firm's side. In this paper we focalize on competence shift and we examine the relationship between this driver and the stability of the business network.

With reference to the "competence shift", the purpose of this paper is to describe the hypothesis that the change in the position of the focal in the business network can be the effect of the learning capacity of actors in the periphery of the network through a externalization strategy of the focal firm. This hypothesis assumes the following elements: (1) the learning ability of the company is the basis of competitive success, (2) manufacturing processes are a fundamental learning field for a brand producer. The dynamics of buyer-supplier interactions can lead to a change in the role of each actor in the business network. The firm which moved manufacturing processes to the suppliers risks in the long run to lose their central role in the business network.

Methodologically, the aim of the paper is pursued through a literature review and a longitudinal case analysis of the sports footwear industry. The literature review includes contributions from the IMP Group and from the strategic management scholars.

## **COMPETENCE TRANSFER IN INTERACTION AND BUSINESS NETWORKS: POWER SOURCES AND LEARNING PROCESSES**

The role of "competence transfer" as a driver of change of the firm's position in its business network is an important issue but, traditionally, has not been a direct focus of studies of the Industrial Marketing and Purchasing (IMP) group (Håkansson 1982): The primary focus has traditionally been the dyadic interaction. As a consequence, the study of the position of each organization (rather than the individual interaction between businesses) has been largely neglected. This paper considers as central object of interest the position of the individual firm in its network, which is seen as a strategic space for the perspective of the individual actor, while the IMP tradition puts the emphasis mainly on the interaction "between firms" and the business network. At the same time it is certainly important to analyze competence transfer in relation to "learning" and "power" in the processes of interaction and networking within the business network.

It seems that Bismarck said that to have a good alliance would needed a "horse" and a "rider. " It appears that he did not specify anything about the stability of the alliance itself, or about the fact that horse and rider maintaining their roles, or whether those roles could change over time but not to come under the covenant itself. Roles are not just a matter of choice but first and foremost a question of competence and resources, on the basis of which individual actors can participate in an activity jointly realized.

The research question in this paper is: what impact has the competence shift on the firm's position within its business network? This question can be addressed by considering the two following objects: (1) competence shift, (2) position in the business network. In this section we examine these two objects trying to interpret them reviewing the literature about the process of interaction and co-evolution of actors in the business network that is at the heart of interest in studies of industrial marketing and purchasing (Håkansson and Snehota 1995). This literature offers a reading of the concept of "competence shift" in terms of processes of "teaching" and "learning" as part of the more general process of interaction between the firms. It then proposes a view of the stability of the role of business in the network in terms of changes in power relations (Pfeffer and Salancik 1978, Ghoshal and Bartlett 1990).

In that context, and also taking into account the importance in any case taken by the actor's role in the processes of interaction, the role of competence transfer and its implications on the firm's position in the business network can be analyzed from a perspective dynamic interaction.

In his article on "The organization of industry" as Richardson pointed out that "the simplest form of interfirm cooperation is that of a trading relationship between two or more parties which is stable enough to make demand expectations more reliable and thereby to facilitate production planning" (Richardson 1972, 884). The same author examines the case of Marks & Spencer's relationships with its suppliers. Marks & Spencer realized even then a form of cooperation at the same time "inter-organizational" (between the retailer and its supplier) and "inter-functional" (between the activities of design and the marketing organization focused on buyers and especially those in manufacturing but also design concentrated in selling organizations). The acquiring company could not give a formal assurance that it would continue over time to be customer of the supplier's products, but the continuity of such relations in fact created a relationship in which the subcontractors assumed to count on more orders in the future from the same buyers, leading to a cooperation. This cooperation led to significant investments in general and the coevolution of specific, complementary competences (Richardson 1972, 886).

With the advent of globalization in recent decades, many traditionally cooperative relations developed between industrial buyers and suppliers are in crisis or at least have been put under tension. Very often the business buyer, which has competences mainly in marketing and design, took the initiative to seek out new players with whom to relate as a new supplier. This process may have been associated with a trend towards commoditization of products offered by the retailer's supply chain. This commoditization trend can be seen as functional for the power of the buyer by making suppliers more substitutable by relying on less specialized suppliers. Other processes are observable. First, the buyer has asked its supplier, traditional or new, to jointly carry out activities

that previously were performed under the direction of the individual enterprise customer; second, the buyer decided to transfer many activities that have been or under the direction of the buyer or have been co-developed between the buyer and a supplier, to a new constellation where the activities are mainly carried out in the supplier organization.

The process of competence transfer can take advantage of the position of structural power of buyers, then adjusting the position of power based on the resources of the supplier (Pfeffer and Salancik 1976, Ghoshal and Bartlett 1990). But the supplier can also upgrade the position of structural power through competence evolution.

The interaction process can lead to an evolution of the major activities within the buyer-seller relationship under which the learning processes accompanying the process of competence transfer take place. This process is the focus of our study. Finally, the process of competence transfer can involve different change processes of the coordinating efforts between the buyer and the supplier. Considering the actors, the activities and the resources in the time (Håkansson and Johansson 1992), the change in the interaction of activities may include at least one of the following steps:

- (a) from activities under the direction of the buyer to activities carried out in cooperation with a supplier or at the direction of a supplier;
- (b) from activities carried out in cooperation between buyer and supplier to the activities carried out under the direction of the supplier;
- (c) from activities carried out under the direction of an old supplier or in cooperation between buyer and supplier to activities supplier carried out under the direction of a new supplier or in cooperation between buyers and a new supplier.

These paths are illustrated in Figure 1. The changing interaction process is the field in which the learning processes emerge for the involved actors but in particular for the supplier (the original in cases (a) and (b), new supplier in (c)).

In fact the supplier has to carry out activities that it previously had not been carrying out or that it had been carrying out to a minor extent. In this paper we exam how this learning process affects the conditions of power in the business network. In fact, "business interaction can be interpreted as a confrontation process that occurs between companies and which changes and transforms aspects of the resources and activities of the involved companies and of the companies themselves (Ford et al. 2002, 1).

Under this perspective, the interaction between two actors evolves through "experience " and "learning " and through different interaction processes. The learning process is connected to the power relationship between the parties according to a model shown in Figure 2.

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As the process of interaction can involve complementary activities, the learning process may be associated with changing forms of coordination (Richardson 1972, 890). Cooperation between organizations is often affected by the transfer, exchange, and sharing of technology. This can be true in general for the competence even of a different nature than technological in the strict sense. On the other hand, the transfer of competences arises through processes of interaction. In fact, power is not the direct result of the transfer of rights of use of a process or product idea, as these can hardly be reduced to the transfer of coded information, but needs to account for experiences and competences. Therefore, when an actor decides to transfer authority to another, rather than simply pass media (software, drawings) or rights (patents, licenses), the actor can also give technical assistance, supervision and quality control (Richardson 1972, 895) .

In particular, in the form of competence transfer that will result in a change of coordination arrangements as highlighted in case c in figure 1, the process of transfer of knowledge may relate to competences previously developed together with other actors, and transfer of knowledge may be in a context of such networks. This process can be realized thanks to the position of the buyer, who can give access to transferable competences, or at least in part to induce the competence transfer to the new supplier. As pointed out "the licensee of today may become ... the competitor of tomorrow. Firms form partner for the dance but, when the music stops, they can change them. In this circumstances competition is still at work even if it has changed its mode of operation" (Richardson 1972, 896).

The interaction in this area is very important for knowledge creation. In general, the interaction processes are an important source of knowledge for each actor. The process of "learning" and "teaching " deliver much of the content of the process of interaction (Ford et al. 2008: 33). These

processes of teaching and learning take place anyway. In fact, they are made, however, emerging as a phenomenon that generates also experienced in carrying out "normal" or who are simply continuing "such as a normal flow of orders, normal terms of payment, normal product etc." (Ford et al. 2008, 18).

When there is a change in the coordination mode (as illustrated in the three cases), we are definitely in a situation that goes beyond that of "continuous and normal interaction". In this case, change that can be associated with a "critical incident" and therefore lead to more intense processes of teaching. The potential effects result from interaction processes over time. Interaction "plays a key role in the construction of value and thereby economy. The interactive substance has a key role in affection activities and resources and will directly influence their economic outcome. Thus, interaction can be a means for the actors to co-create the physical as well as the economic context. Of course, this development might lead to negative as well as positive outcomes for companies by leading them into uneconomic activities or to unproductive investments" (Ford et al. 2002, 33). In other words, the effects of the process of teaching and learning associated with the interaction process can produce different effects over time, resulting in long-term outcomes which can be dangerous in the perspective of the single actor (the focal firm) because these effects can go in a different sense from the ones obtained in the short term.

## **METHODOLOGY: CASE STUDY RESEARCH**

The complex phenomenon of changing strategic networks, the shortcomings in existing research and our wish to gain a fine-grained understanding of how the position of the focal firm in the business may be challenged and change over time made us to pursue a qualitative methodology as suggested by other researchers (Blackburn et al. 1991, Pihkala et al. 1999, Huggins 2000). Given the exploratory stage of research, formal hypotheses were not developed (Kelley 1991). This research deals with a phenomenon which has been largely neglected in research about networks and out-sourcing. As a consequence, we opted for a case study approach. More specifically, we decided that an embedded case study design would be most appropriate. The analysis is based on a methodological approach which we define as an "industry case study", where the object is not a specific firm but an empirical setting on which data were collected over time through a process based mainly on secondary research. We therefore aim at drawing theoretical conclusions from the cases to the theory and at extending the existing theory (Eisenhardt 1989, Yin 1984). More

particularly, we decided to pursue a historical analysis of the development of the sports shoe industry, in which the unit of analysis are different business networks comprising an industry's business system (Jarillo 1993). Most of the material used is public available material that was enriched through interviews with firm managers.

## **THE CASE OF SPORT SHOE INDUSTRY**

In the following, we will present the relevant information of a very rich case material. As stated, we adopted an embedded design by focusing on the sports shoe industry. In this sense, we had been tracing the industry over time but also used firms as embedded cases.

### **The case setting**

The development of the sports article market since the 1970's has created an important global industry. Global brands had been created such as Nike, Adidas, Puma and Reebok. The strategies of the major brands have led to a market that is basically divided into two industries: the branded sport shoe market, i.e. the marketing and selling of sport shoes on one hand (this market had estimated sales of € 30 billion in 2007), the manufacturing of sport shoes on the other hand (this market had estimated sales of € 12 billion in 2007). By 2010, the global brands have basically no manufacturing facilities. The decision to externalize the production of sport shoes pioneered by Nike in the 1970's and followed by the other brands has created an entire and separate industry of sport shoe manufacturing. The two industries are obviously linked, the shoe manufacturers (called Original Equipment Manufacturers, i.e. OEM) are the suppliers for the brands, and the brands are the clients of the manufacturers. Dynamics in the two markets are, however, important to analyze since they might change the equilibrium of the two markets. The strong competence development of OEMs in Design, R&D and their privileged geographical position in the growing brand market in Asia was going to change the rules of the game: many of the OEM have become brand licensees, selling the brands of their clients in Asia; other have created their own brands, which they sell mainly in China. Many have moved into distribution and retail by operating sport shops in Asia. Therefore, the market boundaries have become more and more blurring between what has been the OEM - market and what has been the brand market. This process has led to different strategic groups in the supplier market but also to the emergence of large players: Yue Yuen is the worlds largest producer of sports shoes. If the reader wears a pair of sport shoes, chances are high that you wear a pair of "Yue Yuen's" even if you think to wear a pair



of Adidas or Nike's. Yue Yuen is producing more than 200 million pairs of sports shoes annually for the big global brands making it the largest sport shoe producer in world. Yue Yuen produces 17% of all sports shoes world-wide if all segments are considered but it is estimated that it produces about 80% of the sport shoes in the top segment.

In the case study, we studied the development of the industry globally and specifically by using an embedded approach with case firms. On the brand side, we studied Adidas, Nike, Puma, Reebok, Fila, New Balance, LiNing, Diadora, Lotto, Tacchini, Airness, Le Coq Sportif and Veja to cover the major players and basically all strategic groups in the brand market. On the supplier side, we focused on Chinese suppliers or suppliers owned by Chinese firms and studied companies such as Yue Yuen, Feng Tai, 361°, Hembly Group, Win Hanverky, i.e. a variety of major and mid-size companies and a few confidential minor players.

### **Sport shoe design and production**

One key of understanding the interplay between brands and suppliers and thus potential competence shifts is the production of a sport shoe, which we will illustrate in the following.

In 1900, the first sneaker, or all-purpose athletic shoe, was designed. Made primarily of canvas, this sneaker featured a rubber rim made possible by Charles Goodyear's 1839 discovery of vulcanized rubber. A few companies claim to have invented the modern running shoe: the Dassler brothers in Germany (later founders of Adidas and Puma), Asics Tiger in Japan, New Balance and Reebok between the 1950's and 60's even if Nike's waffle sole created in the early 70's is seen by most observers as the beginning of modern times.

In any case, it was by including medical institutions and laboratories in the design process, followed by the research for new materials that led to the development of modern sport shoes starting in the 1970's. Eventually, six criteria are important for quality athletic shoes: cushioning, stability, comfort, durability, light weight and the appropriate support for the individual foot and thus running type (pronators, supinators and neutrals).

#### *Design*

Since the 1990's great changes in the design of the running shoe happened in terms of styles and colors. Contemporary shoe designers focus on the anatomy and the movement of the foot. Designers next test and develop prototypes based on their studies of joggers and professional runners, readying a final design for mass production.

### *The Key Components Of Athletic Shoes*

As all shoes, athletic shoes are constructed from a last. The three main components of a running shoe are the upper, the insole, the midsole and the outer sole.

The upper materials are mostly comprised of lightweight synthetic materials with a focus on breathability (airmesh is the mostly used). The rest of the covering is usually a synthetic material such as artificial suede or a nylon weave with plastic slabs or boards supporting the shape. While the structure of the upper may vary from shoe to shoe, there is very little difference among different brands.

The outsole are usually made of different types of rubber. The heel part is normally made of hard rubber such as carbon rubber to reduce abrasion and thus increase durability while the front part is often made of blown rubber for cushioning, flexibility, and reduced weight. Many brands have developed their own rubber mixtures, often patent-protected or trade-marked.

It is mainly through the midsole construction that firms try to differentiate themselves in terms of functionality: it provides most of the cushioning and is important for the foot support. The midsole of a shoe is the portion between the outsole and the upper of the shoe. The material of the midsole traditionally consists of either ethylene vinyl acetate (EVA) - a substance made up of millions of tiny air bubbles that provides cushioning and absorbs shock or polyurethane foam. EVA has the advantage of being lightweight, soft and flexible, and one can meld this material to different densities within the same midsole. Polyurethane provides excellent impact protection but it is firmer, heavier and stiffer. Generally, most brands use dual density, molded EVA foams, a mix of EVA and polyurethane. The midsole is also the section of the shoe where manufacturers add adjunctive components for cushioning, stabilizing and supporting the foot. Mid-foot components such as bridges, plastic components or others are used to ensure proper mid-foot rigidity and proper forefoot flexion.

Each brand has developed its own additional cushioning system: components that are implemented in parts of the mid-sole (usually one component in the heel area and one in the fore-front): air-cushioning, gel cushioning, silicon cushioning, etc.

The insole is usually a thin layer of EVA with some anti-bacterial treatment. More and more smaller cushioning components are also added to the insole.

### *Manufacturing Process*

Shoemaking is a labor-intensive process linked to the production of many components. Each phase of production requires precision and skills, and taking shortcuts to reduce costs

can result in an inferior shoe. The production of sport shoes combines elements of high-tech with elements of low-tech (such as the stitching and large part of the assembly process) with an tendency to be more and more automated. Most of the materials used can be considered high-tech, even if basic EVA can now be easily manufactured. Company secrets comprise special rubber, EVA and polyurethane mixtures that are developed and manufactured by the brands, chemical companies or shoe manufacturing companies. Some of the materials derive thus from Dupont or from Nike or others. Research endeavor consider new materials (often through strategic alliances with chemical companies or research laboratories) as well as shoe design (from a medical perspective) and fashion design.

### *Equipment and machinery*

The necessary equipment and machinery to produce components and the entire shoe varies a lot in terms of price, quality, automation and services. Key machines or tools are EVA injection machines to make EVA and inject the EVA in moulds, moulds (the form in which the soles are made) and lasts or last making machines. Eva injection machines can be very simple or be part of an robotics automated machine that produces pre-finished shoes ready for stitching. Prices for the most simple machines produced in China start around € 20.000 and around € 40.000 if produced in Europe. However, the machines ranges from very simply to highly integrated robotics machines: highly integrated machines can cost up to € 10.000.000. Most EVA injection machine producers also make moulds. Depending on the quality of the moulds, a mould can cost between € 6.000 and 20.000 (mid-to-top price segment) if made in Europe; produced in China, moulds can be found under € 1000 (low price segment). A standard, high-capacity machine including EVA foam injection and moulds (with 18 molds on one machine) that can produce up to 2.000.000 soles per year costs on average € 1.000.000.

The world leading companies for eva injection machines and moulds are Main Group from Italy and DESMA from Germany that offer machines in the mid to top price segment. These companies work in straight collaboration with the large chemical groups such as Dow, Bayer or BASF as well as with the big brands such as Adidas and Nike. A part from developing machinery and tools, services include rapid prototyping for new shoes but mainly soles: basically if Nike wants a new sole, e.g. DESMA fabricates a prototype of the sole; if accepted by Nike, DESMA will produce, the mould and the last and sell them in sufficient quantity to the producer of this type of Nike shoes. There is a range of small to mid-size

German and Italian companies that are also leading in injection machine and mould production even if they feel the pressure of Chinese manufacturers. In addition, there is a growing market in Asia for used European machines. Investment in machinery is therefore a major cost for shoe producers. Yue Yuen invested in 2007 more than \$ 135 million in new machinery.

In general, companies tend to integrate sole production by producing EVA and having their own moulds. Companies with large output volume tend to have sophisticated machinery while smaller producers might have simple machines increasing the volume of direct labor. The less advanced firms can buy EVA-sole sheets and cut them into the form or source complete soles from sole producers, which some times are shoe producing companies that partially produce soles for others.

### **Competence requirements for contract manufacturers**

The above described process led to a series of requirements and thus competence development for the suppliers. The footwear manufacturing supply chain is a long and complex chain of exchanges which began with the collection of raw materials, continued through component construction, assembly, and product manufacture, then on to a progression of storage facilities, each one smaller and further away than the last, until the product finally reached the consumer. To enjoy maximum gain, the manufacturer needed to integrate the key business processes from original suppliers through to the end user, fulfilling customer demands through the most efficient use of resources, including distribution capacity, inventory and labor. When outsourcing their manufacturing, the global footwear brands needed to be confident that the manufacturer's supply chain was fast enough and flexible enough to satisfy the quick delivery and shorter product cycle of the fashionable designs demanded by the consumer. To this end, a manufacturer whose IT system could be matched with that of the brand it served, ensured a synchronized information flow across the supply chain, including the areas of design, production, forecasting, ordering, manufacturing, transportation, sales and distribution.

The successful contract manufacturer offered a top-notch full package supply system, enabling it to efficiently carry out and co-ordinate all activities in the production chain for the branded buyer, releasing the buyer from any concerns or pressures related to supply chain management.

An OEM manufacturer worked according to the very detailed specifications of the brands: assuring the appropriate quality, which was often controlled by the brand's personnel on-site was a minimum requirement for an OEM. An OEM requirement in the form of a spot contract meant that the OEM could focus on making a quality product and delivering it to the buyer quickly, efficiently and cheaply. The advantage was that the OEM basically did not need have its own inventory. The disadvantage was that while prices for the shoes remained stable, the OEM was subject to the high volatility in the price of raw materials, the rising costs of labor, electricity and transportation and fluctuations in foreign currency. Moreover, there was always the risk of export trade disputes. Since the global brands had theoretically a large choice of OEMs, changes in costs could hardly be passed on to the brands.

Uncertainty about future costs had led increasingly to an upgrading of the facilities: in order to deal with at least some elements of the cost variation, a manufacturer could implement just-in-time inventory systems, automate to a large degree the production. Paradoxically, the latter eliminated largely labor costs, which was one of the prime reasons why production took place in certain countries (e.g. brands let produce in China because of low labor costs). Chinese OEMs might focus on capital-intensive production in China and could out-source labor-intensive activities to Vietnam were labor costs were cheaper than in China. However, to gain repeat orders a manufacturer had to be more than cost-efficient.

Excellent business relationships were key for the growth of OEMs, especially since they worked usually only with a handful of brands: often one brand held already a significant share of the production volume. Orders had to be completed on time, precise quality standards had to be met, competitive pricing was fundamental, advanced production techniques had to be followed, excellent technical competence had to be displayed and flexible production schedules to accommodate changing buyer demands had to be evident.

OEM's were evaluated in addition according to different criteria: capacity utilization to ensure production and logistics efficiency, defect rates, breadth of production capabilities (i.e. how many different products could be manufactured) in order to support the wide range of products offered by the big brands.

In an attempt to differentiate themselves from other manufacturers, larger volume producers tried to become ODM by investing into R&D facilities, R&D staff in order to create R&D capabilities. Being capable of offering services such as prototyping but also designing the complete product (especially for the mid-price range) could be important differentiators even if in general design (outlook) of the shoe was buyer-led (especially for the

high price segment). However, smaller brands tended to buy complete solutions from ODM (“D” for “Design”).

The downsides to remaining an OEM or ODM included the fact that the manufacturer could extract no brand premium and was dangerously dependent on the fortunes of the brands it served. To own the brand definitely added value. However, any attempt by a contract manufacturer to move further up the value chain to original brand manufacturing (“OBM”) not only presented it with a whole new set of challenges relating to branding, marketing and inventory control, but by launching its own brand it was possibly competing with its own clients, potentially threatening the crucial supplier-customer relationships. While building a global brand, seemed to be difficult given the brand market, creating brands focused on Asia could be considered an option ofr OEMs/ODMs. To remain an OEM or ODM and yet achieve sustainable competitive advantage, a manufacturer had to pursue a differentiation strategy, providing value-creating processes and displaying core competencies that would lock it in tighter with its clients. In deed, the increase of competencies over time on the ODM’s side had reinforced the dependence of the brands on particular suppliers.

### **The business system in the global sports shoe business**

The business system of the sport shoe business is illustrated in figure 1 and represents largely the stages of the production process. In addition, there are the following activities: branding, distribution and brand-retail or retail-brand shops, the first meaning that sports shoes of a given brand are sold in shops of the same brand, the latter meaning that the shoes of a given brand are sold in branded retail shops (such as Footlocker).

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In the 1960’s, at the beginning of the sports shoe industry, brands usually covered a large part of the business system linked to production activities being basically OBM covering stages 1 to 5 and leaving the distributions and selling of sport shoes to independent distributors and resellers. As the following time line illustrated, outsourcing practices were adopted more and more by the major players in the industry becoming standard practice in the industry.

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However, other important developments happened over time. When the brands were still producing, they were highly integrated mastering thus large parts of the business system. After a first wave of outsourcing, the business system was highly distributed with firms specialized in single activities. However, over time some firms developed faster their business then other augmenting thus their production volume and production base. These firms finally started to integrate more activities of the business system leading to different strategic groups.

Footwear production was heavily concentrated in four countries China, Vietnam, Indonesia and Taiwan. In these countries some 20.000 companies were active in shoe production. E.g., Nike made produce 36% of all shoes in China, 33% in Vietnam, 21% in Indonesia and 9% in Thailand.

There were four groups of contractors: small, mid-size, large and extra-large producers. Extra-large producer were only a handful. The installed production capacity of Asian manufacturers in 2007 lead to an actual over-capacity of about 200 million pairs of sport shoes. Medium and Large OEMs continued, however, to invest in production capacity (through take-overs but mostly through setting up new factories).

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Insert Table 1 about here

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It should be noted that these firms usually produced all kinds of shoes and not only sport shoes. Smaller producers usually bought components but often had EVA machines and were capable of producing sport soles by acquiring the necessary moulds. Production was normally carried out in one or very few factories in the same country. Only the smallest producers bought the soles from specialized manufacturers or from larger sport shoe contractors (see Table 2) and carried out large part of the production in hand-made style. Medium producers had several factories, usually with headquarters and factories in China and already with at least some subsidiaries with factories in Vietnam. Those with more than 10

employees in R&D were trying to transform themselves into ODM. The material of the upper-shoe was usually acquired from the out-side; the shoes were produced with more sophisticated machines but not always automatized.

Large producers with headquarters in China had factories in the four major producing countries (China, Vietnam, Indonesia, Thailand). Main reasons for factories outside China were increasing labor costs. These producers were ODM, with heavily automatized production and capabilities to produce the shoe and all of its components in-house.

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### **Development patterns of sport shoe producers**

There were several development patterns for becoming a sport shoe producer. The most obvious one was to start as a single factory producer assembling shoes, to continue upgrading competencies and thus integrating activities to become an OEM. Initial growth was often driven by the increasing demand of a single customer (this applies even to large groups, e.g. Win Hanverky realized still 60% of its revenues with only Adidas in 2007).

Some companies started as an apparel manufacturing company. Having satisfied a particular customer (sports brand), the firms tried to add supply chain services in sports shoe manufacturing, thus coordinating the shoe manufacturing for the brand. As a final step, these firms could also decide to acquire factories or set-up own facilities. An example of this development pattern is the Hembly group.

A third way of getting into shoe-manufacturing was by starting out as a trading company (often in the apparel business first), i.e. a firm worked as a buying agency for a sports brand by overseeing production facilities and taking charge of delivering the final product made to order to the sports brand. These firms usually added complete supply chain services both for apparel and shoe production before integrating partially the production of apparel and sport shoes focusing the in-house production on the upper segment. This is e.g. the case of Win Hanverky.

The machinery for shoe production was dominated by German and Italian firms with Chinese specialists firms moving into the market; the machinery industry marked the line where the business system for shoe production started.



Successful OEM had quickly integrated components and raw material production (1,2,3); the more advanced became ODM (1,2,3,4). Some ODM finally launched their own brands (1-5), added distribution and opened their own brand-shops (1-7a): this was the case of 361° that covered the whole business system.

Trading companies took initially care of supply chain services and distribution services for brands (6). The more successful ones moved into OEM (4&6) and finally opened shops under their own retail brand (7b) and/or for the client's brand (7a). For example the Hembly group, covered all activities including distribution and operated mono-brand stores in Asia for its manufacturing clients (1-7a). Others went even further, Win Hanverky covered thus the whole business system (1-7a&b): WH sold both through their own retail shops (e.g. the "supertrend football" stores) and operated mono-brand shops in Asia for manufacturing clients (umbro, diadora, ...).

### **The New Balance "Made in the USA - project"**

New Balance is the fifth ranking company in sales of sports equipment and the third for sports shoes alone. The product range focuses on running. We can estimate that New Balance outsources 75% of its production abroad (Asian countries) where most competitors outsource 100%. The final assembly of shoes can be carried out in one of New Balance's 5 factories in the U.S. or its factory in England. It was during the 80s that New Balance began to outsource to Asian countries (Vietnam, Indonesia, Taiwan, Bangladesh and China in the 90s). In the 90s the Federal Trade Commission refused to allow New Balance to use the "Made in the USA" label, as a large portion of the footwear components came from abroad. Through the support of various lobbies, New Balance has continued to use the label (given the fact that at least 70% of the added value is American). Large part of the value added in US is linked to the higher labor cost in assembly. New Balance initial idea had been to reconstruct a complete business system in the USA. However, New Balance found itself incapable of finding or developing the knowledge in the USA for certain components (especially shoe soles) making it impossible to produce a modern top-line shoes in the USA. Most of the high end sports segment is actually produced by Yue Yuen. Most of the lines that are produced at a high proportion of value added in the US are in terms of technology and quality rather mid-segment, in terms of prices about \$ 50 more expensive than the top-line shoes. Out of 993 different shoes offered by New Balance, 27 are made in the USA and 16 assembled in the US, i.e.

less than for 4 percent. Of the 219 models offered for boys and girls, not a single model is made or assembled in the US. If one takes a closer look at the US-label shoes, the 41 models offered are basically 6 different types of shoes offered in different styles. Of the 27 made in the USA models, 20 are military sports shoes sold to the public. However, none of the shoes can be considered latest technology.

## **Conclusions**

The industry case has offered a long term view of activities and thus competence shifts in the sports shoe industry initiated by the major brands in the industry and subsequently followed by basically all players. This lengthy process and the emergence of a strategic group of integrated suppliers has changed the outset of the industry. In the following, we will develop the case conclusions and draw from the case to extent current theory.

## **CASE CONCLUSIONS**

Generally, research on business networks opposed the network model to the model of the integrated firm (Storper & Harrison 1991, Jarillo 1993, Lipparini 1996). The perspective is mostly centered on a focal firm that might be or integrated or be the dominant firm in a business network assuming a core-periphery network structure. Lipparini (1996) proposed for example the following model of networks and innovation, which itself presents a variation of the Storper & Harrison - model.

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Insert Fig. 5 about here  
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The central idea of this model is that ‘most of the action’ is happening at the focal firm level: integration and disintegration. Implicitly the model assumes that because of relational asymmetries, which are largely competence based, the position of the focal firm is relatively stable. Our case study, however, challenges this view in several ways.

Externalization means competence transfer and both researchers but also managers appear to have a cross-sectional view of the situation, which we would interpret in the following sense: A given competence A is transferred from firm X to firm Y. Firm X still possesses the underlying knowledge to the competence while firm Y is slowly acquiring the competence. At some point in

time X still possesses the relevant knowledge of competence A (and thus could potentially integrate the competence) and Y also possesses the competence Y.

### **Knowledge loss at the focal firm**

However, the New Balance example shows that knowledge loss and competence loss occurs and suggests that this can play an important role in changing the relational influence. This finding while not so surprising appears to be over-looked both by academics and researchers. However, important analogies can be drawn from a very different research field: the language attrition field in linguistics. There is actually a research stream investigating the (partial) loss of one's first language. Owning a competence can be compared as 'owning' a first language. Important insights from language attrition research (see e.g. Schmid et al. 2004; Köpke et al. 2007) could therefore tentatively applied to our case study.

First, when firms externalize one competence, they will focus and invest more in another existing competence similar to an individual that is practicing more a second language at the detrimental of the first language. This will lead under different circumstances to increased or reduced language attrition or in our case, knowledge loss. Generally, language attrition is linked to disuse (which is also influenced by interaction), motivational effects, the link between first and second language, and the order of learning.

**Proposition 0:** *There is a general competence loss over time generated by externalization.*

**Proposition 1:** *The competence loss is accelerated if firms invest more in its remaining competences.*

**Proposition 2:** *The competence loss is even stronger if firms invest into new competences.*

**Proposition 3:** *The competence loss is accelerated if the similarity between the remaining competences and the externalized competences is low.*

**Proposition 4:** *The competence loss is accelerated if the externalized competence is one of the more recent acquired competences of the focal firm.*

Proposition 1 and 2 deal with the motivational effect of investing in competencies but also that increased activities in competence building will further erode the knowledge base of the externalized competence. Proposition 3 is straight-forward as similar competence can be reduced to similar concept patterns (as it is the case for languages, i.e. a native Italian with French as a second

language - both Roman language - will be affected with lower language attrition in French than a native Italian with German as a second language). Proposition 4 is linked to the idea of (organizational) imprinting. Since language disuse is also a function of potential interaction, we could add a proposition taking into account a spatial dimension of cluster research, which generally highlights how physical proximity favors interaction (Harrison 1992).

**Proposition 5:** *The more distant the firm acquiring the (externalized) competence, the higher the competence loss for the focal firm.*

### **Knowledge gain at the recipient firm**

The case evidences that two forces are at play: knowledge loss at the focal firm but also knowledge gain at the supply side. We could call this process a generalist - specialist paradox: the focal firm having multiple activities and underlying competences is a generalist externalizing to a firm that in at a first period is rather becoming a specialist. Innovation literature ( see e.g. Kessler and Chakrabarti 1996) suggest innovation speed is higher for specialists than for generalists. As a consequence, the knowledge gain happens faster at the supplier site especially if the amount of outsourced work increases through the success of the focal firm (Fine 1998). While this process is somehow documented, it is not sufficient to challenge the position of the focal firm. However, the two factors knowledge loss at the focal firm and knowledge gain at the supplier site lead to a relevant competence shift (instead of a mere transfer of competences).

### **Integration driving relational influence and competence complexity**

The network model understands network stability as a results of interdependence and relational asymmetry stemming from asymmetrical competences (Lipparini 1996). To some extent, these models make an important implicit assumption. The focal firm externalized and governs a system of distributed activities and thus underlying competences. Under this condition, every member of the network specializes and participates to the overall value creation process but the focal firm maintains some important competences that justify its position. Three meta-capabilities appear to be decisive for the position of the focal firm relational capacity, combinative capacity and absorptive capacity (see Lechner 2000). Or in other words, the business system understood as the sum of complementary activities in Richardson's sense, i.e. the industry value chain of separate activities

(Richardson 1972, Jarillo 1993) is highly distributed. That means that firms perform only a very restricted number of activities of the business system.

However, the case illustrates another mechanism: the re-consolidation of large parts of the business system of an industry through increased integration of activities on the supplier site. These integration activities change the competence distribution within the business network and challenge the position of the focal firms, which appears less competence endowed than the (now) integrated supplier.

**Proposition 6:** *In a business network, increasing integration of activities of the business system by a supplier increases the probability of the substitution of the focal firm in the business network.*

### **Cognitive Limits**

At the current stage, we could not directly investigate the question of cognitive limits but from the case material emerge a series of indications. The focal firm is usually defined by some characteristics of which one is the perception of the customers, i.e. the direct link with the final user (the brand) or an perception of the importance (such as Intel inside). Similarly cluster studies (see Lechner 2000) suggest a strong awareness of the members of the business system of who is the focal firm. But what if a company that has been perceived as the focal firm in a given context, starts to outsource and sell in another context ? From our case, it emerges that the customer perception might be quite different but increased by physical distance of the focal that also the members of network are less aware of the existence of the distant focal firm. In this sense, the focal firm of context A might be unaware of the point of view of the members of the distant network and the members of the network might be less inhibited and mentally locked in with the focal firm.

**Proposition 7a:** *The more distant the members of the business network, the higher the instability of the business network.*

**Proposition 7b:** *The more distant the new client base, the higher the instability of the business network.*

From a business network perspective, Gomez-Cassares predicted that the future of competition would be strategic networks against strategic networks. This prediction suggested that a relevant

portion of the relationships within a strategic network are relatively exclusive (1994); case studies in the textile industry in Portugal also proposed that for specific product lines, at least the whole value chain could not be replicated by competing brands (Lechner 2000). However, the case offers a contrasting view: Yue Yuen manufactures about 80% of the top line of sport shoes for the mayor brands and it appears in general that brands use frequently the same supply chain for a relevant proportion of the product. In the case, we studies take over were linked to crises of the focal firms but also done by a former supplier who was or working rather exclusively for the brand (Fila) or where the brand sourced almost exclusively from the supplier (Tacchini). Little surprisingly, it appears that the diversification of the supplier base reduces the risk of substitution but more interestingly also that the diversification of the client base reduces the risk of a substitution.

**Proposition 8a:** *The diversification of the supplier base (multiple sourcing) stabilizes the strategic network of the focal firm. Dominant sourcing (high percentage coming from a single supplier).*

**Proposition 8b:** *The diversification of the client base of the supplier stabilizes the strategic network of the focal firm.*

## DISCUSSION

Over the last few years, there has been an increasing number of cases of companies, based in the traditional industrialized countries and holders of major brands, that have been purchased by companies, often based in newly industrialized countries, which previously were in the position of suppliers of products and manufacturing services. We may mention the cases of Fila, which was acquired in 2007 by the Korean company Fila Korea Ltd., which acted as his supplier and licensee, and of Tacchini, bought by the Chinese Hembly. These phenomenon may have a wider spread and not limited to a particular industry, as in the case of the personal computer division of IBM, acquired by China's Lenovo in 2004.

This paper discusses the hypothesis that this development is the outcome of a process of progressive impoverishment of competences held by firm which owns brands. The company's brand could be built on the basis of manufacturing expertise which has built its market position and its brand. These competences are then 'escaped' from the enterprise and have switched to suppliers, often based in developing countries. The latter may have initially benefited from a technology transfer, and then independently developed new competences and technological capacity.

The literature analyses the passage of a number of suppliers based in newly industrialized countries by OEM status to that of ODM to that of OBM. This shift can be the outcome of continuous competence evolution or of an acquisition of the former client, overcoming thus the former "focal firm" in the network. The process of competence development at the supplier site, based in the newly industrialized countries, has obvious implications for the relations within the business network. The supplier power is growing in relation to the difficulties that business customers may have in its place, especially when its size and consequently the production capacity and even more its global R & D are unlikely to be emulated by the enterprise customer.

In the strategic network approach, an important step in this discussion regards certainly the definition of "focal firm" since its inception (see about this point Lorenzoni 1992). The focal firm may have declined to invest in production and then in design and R & D to focus its resources on brand development and point of sales. On one hand, outsourcing allowed for focusing on the company's capacity in the area of investment for them of interest. On the other hand, however, its position in the business network can prove to have progressively weakened, resulting in a strong rise of the share of added value and financial strength of the supplier until the acquisition of the same focal firm.

In this case the instability of the position of the focal firm in the business network can be explained due to the learning ability of companies to which activities and thus competences had been externalized that were previously held by the focal firm. This hypothesis assumes the following elements:

- the ability to learn is the basis of the competitive success;
- the manufacturing processes are as important as the terrain of learning processes.

If the focal firm does not maintain its internal processes, it runs the risk in the long run of not remaining engaged in the processes of learning and of losing its role as the focal actor. While firms appear to be more aware about learning races in horizontal alliances (Khanna et al. 1998), they might be less aware of these processes in supply relationships. However, learning races need to be initiated and depend on motivation and mind-set. If the provider has for years been living in a context with a vision of itself as a "sub-contractor", it may build a sub-contractor's mentality that can limit the learning process (cognitive limits). In the same sense, focal firms might be overconfident regarding its structural position in the business network forgetting how the position originated.

On an international level the "global shift" is then translated into a "competence shift" to contexts which are different from the traditional source of industrial products.

If the focal firm has started a process of competence transfer within its business network, leading to relational power shifts, then this process can introduce elements of instability in the business network and threaten the position of the focal firm in the long run.

Our study makes theoretical contributions and has several implications. First, it puts the outsourcing perspective in to a long-term view, given that most managerial and academic discussion is focused on short-term to mid-term effects. Second, it develops the notion of competence shift as a long-term consequence of competence transfer. Third, as a consequence, it introduces the notion of business network instability and thus the threatening of the focal firm's position. Business network research implicitly assumes largely a stability of the position of the focal firm. Fourth, it adds a spatial dimension to the idea of competence shift.

## **REFERENCES**

Baraldi E., Brennan R., Harrison D., Tunisini A., Strategic thinking and the IMP approach: A comparative analysis, *Industrial Marketing Management*, 36: 879-894.

Blackburn, R., Curran, J. and Jarvis, R. (1991) Small firms and local networks: some theoretical and conceptual explorations, in Robertson, M., Chell, E. Mason, C. (eds), *Towards the Twenty-first Century Challenge for Small Business* (London: Nadamal Books) pp. 105–122.

Eisenhardt, K. (1989) Building theories from case study research, *Academy of Management Review*, 14: 532–550.

Fine, C. H. (1998) *Clockspeed – Winning industry control in the age of temporary advantage*, Perseus Box, Reading, MA.

Ford D., Gadde L.-E., Håkansson H., Snehota I., Waluszewski A. (2008) Analysing business interaction, 24th IMP-conference in Uppsala, Sweden in 2008.

Gomes-Casseres, B. 1994: Group versus Group: How Alliances Networks Compete, in: *Harvard Business Review*, July-August 1994, pp. 62-74.



- Ghoshal S., Bartlett C.A. (1990) The multinational corporation as an interorganizational network, *Academy of Management Review*, vol. 15, n. 4, pp. 603-625.
- Håkansson H. (ed.) (1982) *International marketing and purchasing of industrial goods*, IMP Project Group, New York.
- Håkansson, H., Johanson, J. (1992) A Model of Industrial Networks, in: *Axelsson & Easton 1992*, pp. 28 – 34.
- Håkansson H., Snehota I. (1995) *Developing relationships in business networks*, Routledge, London.
- Huggins, R. (2000) The success and failure of policy-implemented inter-firm network initiatives: motivations, processes and structure, *Entrepreneurship & Regional Development*, 12: 111–135.
- Jarillo, C. (1993) *Strategic networks*, Butterworth Heinemann: Oxford.
- Kelley, P. (1991) Factors that influence the development of trade associations' political behaviors, in Post, J. (ed.), *Research in Corporate Social Performance and Policy 12* (Greenwich, CT: JAI Press) pp. 93–142.
- Kessler, E., Chakrabarti, A. (1996) Innovation speed: A conceptual model of context, antecedents, and outcomes, *Academy of Management Review*, 21 (4), 1143-1191.
- Khanna, T., Gulati, R. and Nohria, N. 1998, *The Dynamics of Learning Alliances: Competition, Cooperation and Relative Scope*, in: *Strategic Management Journal*, Vol 19/3, pp. 193 – 210.
- Köpke, B., Schmid, M., Keijzer, M., Dostert, S. (Eds.) (2007) *Language Attrition: Theoretical perspectives*. Amsterdam: John Benjamins.
- Lechner, C. (2000) *The competitiveness of firm networks*, Peter Lang: New York.
- Lipparini, A. (1996) Architetture relazionali inter-impresa. *Sviluppo & Organizzazione*, Vol. 153, pp. 33-47.
- Lorenzoni G. (a cura di) (1992) *Accordi, reti e vantaggio competitive*, Etas, Milano.
- Pfeffer, J., Salancik, G. (1978) *The external control of organization*, Harper & Row, New York.

Pihkala, T., Varamaki, E., Vesalainen, J. (1999) Virtual organization and the SMEs: a review and model development, *Entrepreneurship & Regional Development*, 11: 335–349.

Richardson G.B. (1972) The organization of industry, *The Economic Journal*, vol. 82, n. 327, September, pp. 883-896.

Schmid, M. S., Köpke B., Keijzer, M., Weilemar, L. (2004) *First Language Attrition: Interdisciplinary perspectives on methodological issues*. Amsterdam/Philadelphia: John Benjamins.

Storper, M., Harrison, B. (1991) Flexibility, hierarchy and regional development: The changing structure of industrial production systems and their forms of governance in the 1990s, *Research Policy*, 20 (5), 407-422.

Yin, R. (1984) *Case Study Research*, Thousand Oaks, CA: Sage.

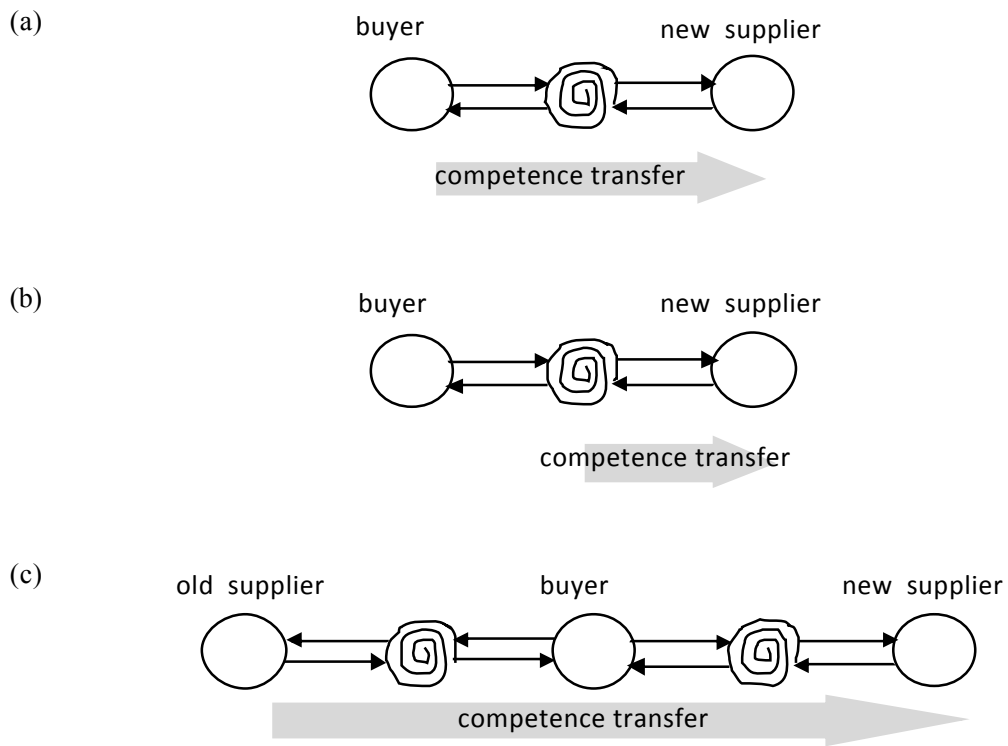
*Table 1: Description of typical contract manufacturers*

<b>Size of contractor</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
Shoe production volume in units	500.000 to 1.500.000	2.000.000 to 7.000.000	10.000.000 to 15.000.000
Number of employees (average)	250	500	1000
Number of R&D employees	0-5	10-20	60-100
Average price for pair of sport shoes	8 \$	10 \$	12 \$
OEM / ODM	OEM	OEM/ODM	ODM
% of integration (% of parts and stages of the final shoe)	40-70%	60-90%	80-100%
Average number of factories	1	3-4	7-10
<b>Number of firms</b>	6000	200	300

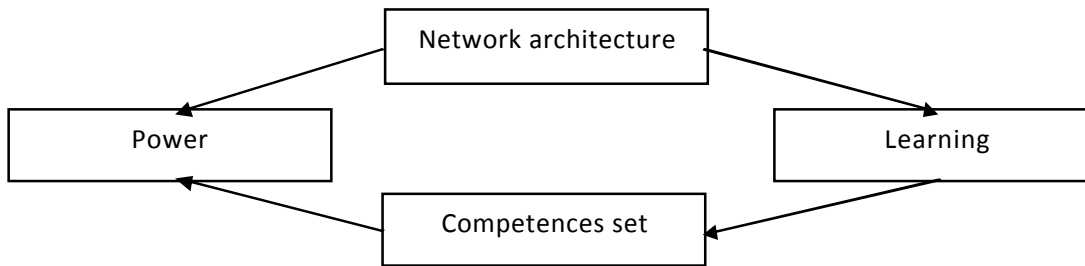
*Table 2: Major sole producers for sport shoes*

<b>Company</b>	<b>Number of soles</b>	<b>Type</b>	<b>Country</b>
Yuen Yuen (supplying others)	85 000 000	sport shoes & sandals	China
Vibram	35 000 000	outdoor, sport sandals, safety shoes	Italy
High Tech Group	15 000 000	sport shoes & molds	Taiwan
Quanzou	12 000 000	sport shoes & molds	China
Shenzou	10 000 000	sport shoes & outdoor	China

*Figure 1. Change path in interaction activities and competence transfer*



*Figure 2. Source of power and learning and competence transfer in business networks*



*Figure 3: The business system of sports shoe production, branding and selling*

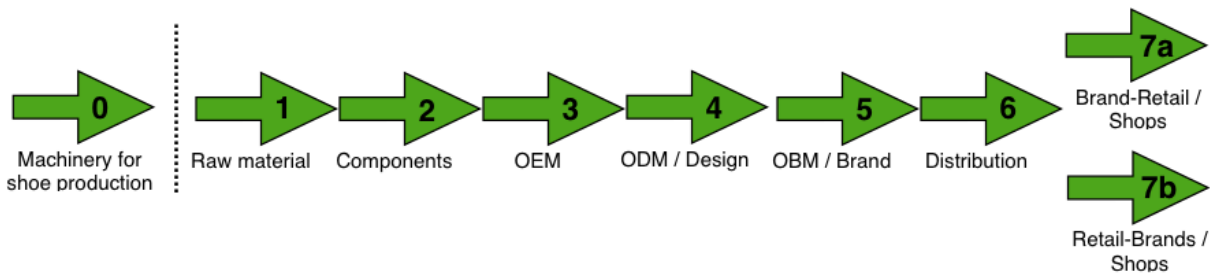


Figure 4: Outsourcing in the sports shoe industry

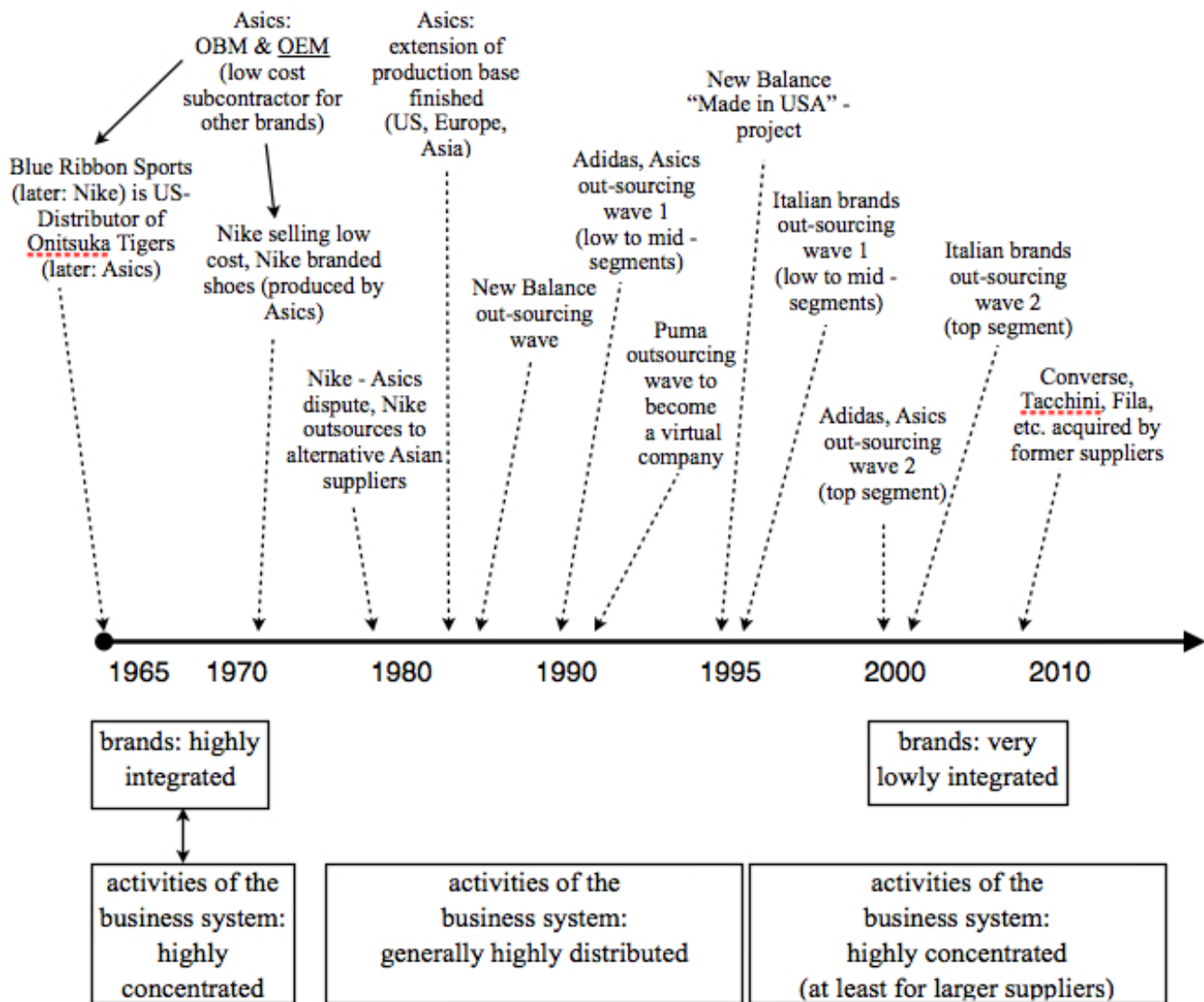


Figure 5: Networks and Innovation based on Lipparini 1996

