

Available online at www.sciencedirect.com



Int. J. Production Economics 107 (2007) 333-349



Sourcing in China: a typology

Guido Nassimbeni, Marco Sartor*

University of Udine, Via delle Scienze 208, 33100 Udine, Italy

Received 4 January 2006; accepted 8 September 2006 Available online 27 November 2006

Abstract

China is one of the most attractive sourcing basins thanks to the low cost of manpower, the rapid increase in the quality and quantity of its products, the availability of major logistic platforms, and the possibility of justifying a commercial presence in the market that is potentially the biggest of the world. Taking into consideration the importance of the phenomenon, this study has tried to analyse—through case study research—the sourcing types adopted by a sample composed of 10 companies with their headquarters in Italy and at least 5 years experience in the management of sourcing activities in China. The data gathered highlight that the sourcing activity in China can differ in some structural characteristics; certain critical factors of the sourcing types described in this study are considered. Moreover, we try to identify the context variables that can indicate the most suitable sourcing type. As far as this latter aspect is concerned, the research group has developed some hypotheses that will be tested in subsequent investigations.

© 2006 Elsevier B.V. All rights reserved.

Keywords: International sourcing; China; Case study research

1. Introduction

With a GDP that has increased by more than 7% per year since 1980 (China Statistical Yearbook, 1980–2004), 64 billion dollars of foreign investments in 2004, and 2.5 million new entrepreneurs, China is one of the most dynamic economies in the world. This rapid growth is generated by several factors, but chiefly the low cost of manpower. However, cost advantage itself is insufficient to explain the extraordinary growth of this country. We can find similar cost advantages in other countries that have not

a monetary stability and obtained favourable

experienced the same rapid growth. To understand this phenomenon, it is vital to think back over the

recent history of this nation and the sequence of reforms that have influenced its economic transformation and progressive opening to other nations. Since 1979, the Chinese government has launched a series of reforms that have gradually paved the way for economic growth: they have granted incentives and facilities for foreign investments, created logistic platforms able to make intercontinental transport easier, ignored international complaints regarding the pervasive problem of the violation of property rights (and the enormous environmental impact of their production) so as not to hinder the first phase of industrialization, linked the exchange rate of their currency to the dollar so ensuring

^{*}Corresponding author. Tel.: +39 0432 558331; fax: +39 0432 558251.

E-mail addresses: nassimbeni@uniud.it (G. Nassimbeni), sartor1@uniud.it (M. Sartor).

conditions for entrance into the WTO. They have heavily invested in research, thus determining rapid growth of the technological profile of Chinese companies.

Despite this wise plan of action, the problems to be solved are many: unemployment, heterogeneous development from a territorial point of view, inadequacy of the legal system, exposure of the credit system, insufficiency of infrastructures and environmental pollution. The main quandary is the social sustainability of the transformation, and the ability of a political system to control a country that, having experienced free enterprise and private property, could demand greater democracy and participation in the future.

A frequent question is how long can the advantages offered by China last. The lesson learnt in countries such as South Korea, Taiwan and Singapore is that wage growth has quickly followed industrial development. But China's profile, not only geographic and demographic, cannot be compared with that of the countries mentioned.

Though risk exists, it cannot reduce the strong appeal of China to the entrepreneurial class. The Dragon nation has become number one in the world (among the developing countries) for inflow of direct foreign investments (64 billion dollars in 2004) and one of the (still potential) biggest commercial markets in the world.

As far as sourcing is concerned—the topic of this study—the USA, Japan, South Korea, Germany, The Netherlands and the United Kingdom have been making the most of the opportunities available in this area. Italy is 11th in the classification of nations importing from China; Italian imports were valued at 9.23 billion dollars in 2004 and this has considerably grown (+38.8% in 2004, +38.0% in 2003) during the last year (World Trade Atlas, 2005).

The development of sourcing strategies in a social, cultural and normative context so distant from the Western one is complex and needs careful planning (Nassimbeni and Sartor, 2006a, b). A number of obstacles must be overcome in order to create and manage a sourcing channel in China: language, cultural and geographic distance, coordination of an international logistic net, transfer of technological capabilities and managerial praxes, and quality monitoring at source.

The EU project "International Sourcing Strategies for China" focuses on these aspects. The objectives of the research were to analyse the

solutions adopted by these companies to manage their sourcing activities in China, find out the cultural, normative and logistic problems that this activity implies, identify the organizational and managerial solutions adopted and their developmental path, and verify whether these solutions identify a prevailing strategy or if there are a variety of strategic options.

This article presents (Section 2) a review of the literature on international sourcing (highlighting studies regarding the Chinese context); Section 3 describes the research objectives and the methodology adopted. The main results then follow (Section 4). Lastly some conclusions drawn from these results are reported.

2. Background

International sourcing is a rather new research topic, but—thanks also to the growth of this phenomenon over recent years—already well analysed in literature. Some authors (Spekman et al., 1991; Birou and Fawcett, 1993; Swamidass, 1993; Handfield, 1994; Herbig and O'Hara, 1996; Nellore et al., 2001: Nassimbeni and Sartor, 2005) have described determinants and problems connected with the creation of a sourcing basin outside national borders; others (Kotabe and Murray, 1990; Monczka and Trent, 1992; Swamidass, 1993; Arnold, 1999) have developed conceptual models able to represent international sourcing types and their evolutionary dynamics; others (Ellram and Billington, 2001, Andersen and Buvik, 2001; Caddick and Dale, 1987; Carter and Narasimhan, 1990; Babbar and Prasad, 1998) have analysed the modalities for the management of an international sourcing channel and some organizational solution, as for instance the creation of an international purchasing office (Goh and Lau, 1998; Nassimbeni and Sartor, 2006a, b); still others (Sabel, 1992; Sako and Helper, 1998; Helper et al., 2000; Sabel, 2004; Zeitlin, 2004; Helper and Kiehl, 2004) have studied forms and effects of the buyer-supplier collaboration (by sharing strategic information, engaging in joint design, etc).

Studying these papers it appears that the search for economy seems to be one of the most important factors that induce companies to choose international sourcing channels (Spekman et al., 1991; Birou and Fawcett, 1993; Swamidass, 1993; Handfield, 1994; Herbig and O'Hara, 1996; Nellore et al., 2001). However, cost savings are not the only

motive: the pursuit of higher quality (or in any case a better price/quality ratio) is described by several researchers (Carter and Narasimhan, 1990; Min and Galle, 1991; Monczka and Trent, 1992; Handfield, 1994; Herbig and O'Hara, 1996; Fraering and Prasad, 1999; Nassimbeni, 2006). Another distinctive resource offered by foreign sources is the technology that is not available at home, or available under worse conditions (Swamidass, 1993; Herbig and O'Hara, 1996; Meijboom and Dekkers, 1997; Bozarth et al., 1998). Exploration of the international supply markets can decidedly increase the base of the suppliers (Rao and Young, 1994; Birou and Fawcett, 1993; Handfield, 1994; Humphreys et al., 1998; Fraering and Prasad, 1999). So, being able to count on a higher number of options, the buyer can obtain greater mix and volume flexibility. By widening the sourcing area, the buyer can obtain benchmarks to activate (or increase) competition among the suppliers. Several companies adopt international sourcing also to legitimise or develop a foreign market outlet (Cohen and Mallik, 1997; Giunipero and Monczka, 1990; Shi and Gregory, 1998, Frear et al., 1995): in some nations there are commercial liabilities that force foreign companies to source locally in order to legitimate their commercial presence in the country (Bozarth et al., 1998; Eberhardt et al., 2004).

If, in the past, advantages linked to international sourcing were gained in countries close to the homeland (Poland, Rumania, Croatia Czech Republic were the favourite countries in Europe), the progressive reduction of logistics costs, global information integration and development of overseas countries have extended in the last decade the area in which these activities are carried out. All this has contributed to the rapid growth of exports from several countries in South-East Asia (India, Indonesia, Malaysia, Thailand) and in particular from China (World Trade Atlas, 2005). Today (World Bank, 2005) this country—which has undergone complete transformation in order to interact with the market logic typical of capitalist economies (Weber, 2003)—is in first place² regarding the inflow of foreign investments (64 billion US dollars in 2004) and—with its rapid growth of exports (increased by 35.4% in 2004, by 22.1% in 2003) one of the most attractive sourcing basins.

The great importance of this phenomenon has, in the past few years, encouraged numerous studies on sourcing in China. The first group of studies (Pan and Li, 1998; Luo, 1999; Shi, 2001; Sun et al., 2002;

Kotabe and Zaho. 2002; Chadee et al., 2003; Haley. 2003) analyses foreign direct investments in this country. In particular they underline opportunities and risks connected with foreign direct investment (Luo, 1997; Haley, 2003) and the characteristics (e.g. duration of the agreements, localization of the partner, nationality of the investor, etc.) that can have an impact on the performances achieved (Chadee and Qiu, 2001; Shi, 2001). Other investigations (Luo, 1997; Li et al., 2001; Kotabe and Zaho, 2002) analysed the profitability of the different company structures available in China. These studies document the rapid changes taking place there. In fact, at the beginning of the 1990s the joint venture seemed to be the most efficient company structure, whereas more recently it has been substituted by the "wholly foreign owned enterprise" (China Ministry of Foreign Trade & Economics Cooperation, 2004). This evolution appears to arise from the rapid normative transformation that the country has undergone in recent years (Chadee and Qiu, 2001; Shi, 2001; Sun et al., 2002; Chadee et al., 2003).

Other authors have studied the criticalities linked to the creation of production or commercial activity in China. As far as this topic is concerned, the problems regarding logistics seems to be relevant (Carter et al., 1997; Daly and Cui, 2003; Lancioni et al., 2003): the infrastructural system is not homogeneous in China and it is inadequate in several areas. Other critical elements are connected to social—cultural aspects concerning business relations with Chinese partners. The influence of the relational networks ("guanxi¹") (Luo, 2000; Wong and Leung, 2001; Weber, 2003; Gao, 2003; Gold et al., 2002) and Chinese culture (Bjorkman and Kock, 1995; Li et al., 2001; Gao et al., 2003) seem to be

¹This term indicates a type of interpersonal relationship (pervading the Chinese society) characterized by reciprocal help and exchange of favours. There is ample literature (Pye, 1982; Lee, 1997; Luo, 2000; Wong and Leung, 2001; Gold et al., 2002; Gao, 2003; Weber, 2003; Chen, 2004; Nassimbeni and Sartor, 2006a, b) analysing guanxi and its effects on the economy and social structure of China. These papers emphasise the impact of this relationship network, both in the past and in the present, on the production and social system of this country. According to Chen (2004), in different epochs guanxi managed to compensate the weaknesses of the political and legislative system by supplying a sort of social protection and defining behavioural codes. This particular type of relational dynamics also affects relationships between enterprises, to such an extent that it creates webs of multiple connections (called guanxiwang) that appear to strongly condition business relationships (Weber, 2003).

important: an adequate knowledge of the latter and insertion into the local relational system are fundamental for the management of these activities.

Another criticality underlined in several papers regards technology transfer. They show that on one hand this activity significantly increases productivity in Chinese companies, but on the other causes problems concerning the transferred technology (Weber, 2003; Davies et al., 1995).

Finally there is a research stream (Kotabe and Zaho, 2002; Wang, 2004)—to which this study belongs—regarding sourcing types. Here they classify the strategies adoptable for the management of sourcing channels in the Chinese market, describing the main features and determining factors. While the studies mentioned above analyse specific aspects and problems of "business making in China", this one analyses different "sourcing situations", characterizing them with respect to technology transfer, modalities of foreign direct investments and social—cultural aspects.

Within this area we have found only two studies focused on the Chinese market. Kotabe and Zaho (2002) present a taxonomic review of sourcing strategies and classify sourcing activities according to (1) China vs. home country-based components sourcing, (2) marketing in China vs. home market. The authors then analyse the profitability of these types. This investigation does not consider two other sourcing modalities that are relevant: "imposed sourcing" (the use of local Chinese suppliers as a condition to sales) and "intermediated sourcing" (mediated by third parties).

The second paper is that by Wang (2004). It proposes a taxonomy based on the profile of the foreign company and underlines four types: multinational manufacturing companies, trading companies, leading retailers, procurement professionals and agents. However, like the previous paper, Wang does not consider the context variables (industry and purchased material characteristics) associated with the various sourcing types and does not characterize them in terms of key capabilities, organizational requirements, kind (formalization and time horizon) of the supply transaction.

In fact the literature lacks some information of great significance. Studies focused on sourcing modalities different from those based on FDI are missing. Other equally important modalities exist (i.e. resorting to independent suppliers or intermediaries), particularly for those (small) enterprises that do not possess adequate financial and manage-

rial resources to establish equity participation in China. Generally, the various sourcing modalities are not characterized by features such as purchasing items, key competences and resources required in supply transactions.

Moreover, aspects closely connected to organisational and managerial requirements in China are rarely considered. Several of these seem to be linked to the legal, infrastructural, cultural features of the area where a company works; they are "country specific" factors able to influence the choice of sourcing activities.

In this study we have tried to provide information in the spheres where it seems to be poorest, analysing country-specific aspects that are typical of international sourcing activities in China.

3. Objectives and methodology

This study is part of the "International Sourcing Strategies for China" project co-financed by the European Union and carried out in collaboration with the University of Magdeburg and the National Center for Science and Technology Evaluation in Beijing.

The main objectives are to qualify the choices of International Sourcing in China, analyse cultural-legal-logistics problems, identify available organizational and managerial solutions and their path of growth, and verify whether the solutions adopted identify a prevailing strategy or if there are a variety of strategic options.

In addition, we tried to underline the "countryspecific" factors linked to the activity of sourcing in China. The analysis of these factors was particularly complicated for several reasons: the size and heterogeneity of the country (in China some areas-Special Economic Zones-have favoured tax regulations, while others do not), a legal system that changes continually (the corpus of laws regarding foreign direct investments, international trade and the protection of property rights has been modified several times (in some cases—as on 1st January 2005—drastically) since 1979), an infrastructural and industrial system that is very heterogeneous in different regions of the country, and relational and negotiation methods with characteristics dissimilar from Western ones.

The complexity of this research was due to its interdisciplinary character. Several research fields crisscross each other: legal aspects (e.g. concerning the choice of company structures, the solutions

available for technology transfer and protection of property rights, methods for the management of the cases, etc.) linked to the political and economic geography of the country; cultural aspects (useful for understanding the influence of relational networks on investments made in this country) and those regarding logistics and ICT solutions for the management of these activities. In an attempt to adopt an interdisciplinary perspective, the research aimed at comprehending the best strategies for the creation and management of a sourcing channel in China.

The methodology chosen was that of case studies (Yin, 1988; Patton, 1990; McCutcheon, Meredith, 1993). In fact:

- "sourcing in China" is a "contemporary" solution for (mostly small and medium-sized) European enterprises; it is an activity that is changing continually because of the rapid, profound transformation taking place in this nation:
- because of the lack of research that could be confirmed/supplemented, this investigation was essentially explorative (its primary purpose being to better understand *how* international sourcing in China could be carried out and which were the variables influencing this activity);
- the aspects analysed were not suitable for a standard survey tool, but rather for a qualitative analysis of each single experience and situation.

The multiple case study approach was also selected because, being "particularly oriented towards exploration, discovery, and inductive logic (...)" (Patton, 1990), it is an activity well suited to the empirical development of testable theories (Eisenhardt, 1989; Voss et al., 2002), and operations management (e.g. McCutcheon and Meredith, 1993). In fact this was one of the aims of our research project.

The adopted research protocol was the following:

- Literature analysis (summarized in Section 2 of this paper);
- Development of a check list (see Appendix A) divided into three sections: general characteristics of the company (juridical form, turnover and employee number, geographical distribution of the production and commercial units are summarized), general information on the sourcing activities of the company (value of the interna-

tional purchases and their geographic distribution, criteria for supply market choice, type of goods bought locally and in foreign markets, success factors and failure in the resort to foreign supply areas, etc.), characteristics and problems of sourcing in China.

- Selection of the sample composed (Table 1) of 10 companies with their headquarters in Italy and operating in sectors where the China-Italy trade exchange is best developed (ICE, 2004): furniture, textiles, plant engineering, data processing, toys, household appliances and tools. Within these sectors we have selected companies that have worked in China for at least 5 years (the period considered adequate for acquiring sufficient knowledge of this market). Moreover the sample was composed of companies of different sizes in order to investigate which effects each dimension has on the International Sourcing (IS) process.
- Development of the case studies: using a semistructured questionnaire, the procurement director and (in 2 cases) the managing director of the sampled companies were interviewed between 2003 and 2004.

The questionnaire was given to each respondent prior to the interview and then we spent 3–4 h talking about its contents with each manager.

The information gathered was supplemented with documents provided by the companies (various secondary data sources—such as project plans, reports, selected cost data, market performance, etc.—were made available).

A detailed profile of the activities carried out by each company was thus obtained.

In this way we developed a preliminary version of the case studies that was subsequently sent to the companies to verify the accuracy of all the information.

As a result of the feedback received from the companies, the final version of the case studies was developed.

• Data analysis and elaboration.

4. Results

4.1. Sourcing types

The enterprises analysed show that sourcing activities in China may depend considerably on some structural characteristics: the presence of

Table 1 The sample

Case study	Industry	Number of employees	Sales 2002 (Mln €)	Localization of the manufacturing facilities	Far east sourcing basin	Typology Of Purchased ITEMS	% Sourcing made abroad	Company profile
1	Data processing	90	23	Italy	China, Taiwan	Electrical components	Not available	The company is the most important Italian producer of personal computers for industrial purposes.
2	Office furniture	400	90	Italy, Slovakia	China	Components	15	The company is ranked 3rd European producer of chairs and office equipment.
3	Engineering industry	2945	1000	France, Italy, Germany, Spain, Sweden, UK, USA	China	Finished products	60	The company is the worldwide leader in the production of plants and equipment for steel and non-ferrous metal industries.
4	Eyewear industry	6651	894	Italy, Slovenia, USA	China	Finished products	40	The company is ranked 2nd worldwide producer of glasses.
5	Textile plant engineering	480	480	India, Italy, USA	China, Taiwan	Components	35	The company is one of the worldwide leaders in the production of plants for the finishing of wool, cotton, linen and other textiles.
6	Textiles	250	100	Italy	Bangladesh, China, India, Pakistan	Finished products	100	The company designs, produces and commercializes articles of clothing.
7	Home furniture	160	55	China, Italy	China	Finished products	80	The company designs, produces and commercializes ceramic gifts and fancy goods.
8	Footwear industry	5000	220	China, Czech Republic, Hungary, Italy, Rumania	China, Indonesia, Sri Lanka, Vietnam	Finished products	95	The company is the Italian leader in the production of shoes. They sell shoes in 68 countries of the world.
9	Toys	80	25	Italy	China	Finished products	100	The company is the Italian leading firm and one of the European leading firms in the production of soft toys.
10	Household appliances	300	40	Italy	China	Components	67	The company produces household appliances.
	Average value:	1636	293	_	_	_	66%	_

governmental limitations in vendor selections, the presence and the kind of possible (inter)mediation forms (third parties), the content of the customer—supplier interactions, and the establishment of equity agreements between Western and Eastern parties. Three different types of sourcing were identified:

- "sourcing imposed" by the need to legitimate the presence of an enterprise in the Chinese territory;
- "sourcing intermediated" by a third party at the purchaser–supplier interface;
- "direct sourcing" in its different forms: with or without operational collaboration between the parties, with or without shareholding.

These three types (that may also coexist in the one company because, for instance, a company can source directly for certain products and resort to intermediaries for others) represent conceptual categories well established in IS literature (see for example Monczka and Trent, 1992). However, our research contributes to previous studies by characterising these categories with respect to a number of contingent factors (such as purchased material typology, organizational infrastructures required, buyer's and supplier's key capabilities, critical factors in the relationships, formalization and time horizon of the relationship) and considering the Chinese context, where important specificities exist.

4.1.1. Imposed sourcing

By this term, we mean sourcing imposed as a condition for the sale of Western products on the Chinese market. The selection of suppliers is bound (through a list of suppliers imposed to the Western enterprise) by the client and (local or central) government when the contract is submitted for signing.

The reason for this sourcing typology can be found by looking at the process of radical transformation undergone in the Chinese industrial system in the last 20 years. State-owned enterprises gradually give way to private ones, which hasten towards technological, organizational and managerial improvements so as to be able to work in a market economy regime (Weber, 2003). In order to promote a gradual transition, the Chinese state (or the local administration) requires in some "strategic" industries (usually connected to high-tech and Engineer-To-Order products) imposed sourcing (in

this way they create a sort of "protected" market that allows the SOE to be converted to privatised regime). Moreover "imposed sourcing" has the favourable effect (for the Chinese industrial system) of transferring know-how from leading Western companies to Chinese ones characterized by a technological and organisational profile that was anything but acceptable when they exited from the state regime. The almost 20-year systematic application of these obligations enabled China to acquire key competences in some industries and, at the same time, improve the professional skills of the local labour force (Osland and Bjorkman, 1998).

The aspects that characterize imposed sourcing are several. First of all the level of skills a buyer is required to have are high and diversified: negotiation capability (the phase of negotiation with the customer, which is critical in all the sourcing types identified, in this case possesses specific complexity factors, as the formalization level of the transaction is higher than in other sourcing types, governed by strict local regulations and subjected to institutional control), ability to coordinate the local supply network, and capacity to transfer know-how and technology to the supplier (Western companies responsible for the whole product/project realization have to enable "imposed" suppliers to perform the work assigned to them). The latter activity is particularly critical in China.

Moreover in "imposed sourcing" the Western company can be required to play the important and complex role of main-contractor, i.e. leadership and supervision of the entire international supply network, as the local (Chinese) technological and organizational level is usually poor. Production control and the scheduling activity, as well as flow progress, may require the Western company to assign its own staff to the suppliers, in order to monitor their quality and time. Furthermore, the possible location in China of organizational facilities is aimed at facilitating sales service, order management, and after-sale services.

In contrast, screening of the suppliers is less relevant since this activity is subject to the abovementioned constraints.

4.1.2. Intermediated sourcing

By this term we mean sourcing characterized by the presence of a third party that is interposed between the two ends of the transaction (supplier and buyer). The empirical cases highlight two types of intermediation:

- Traditional intermediation: In this case the intermediary is an international wholesaler who buys products on the Chinese market and resells them on other markets. The profile is essentially commercial, even though the type of service provided requires the capacity to duly manage all the variables connected to the international transfer of goods (logistics, customs obligations, etc.). Thus, the Western buyer is not directly visible, and consequently the interaction with the Eastern supplier is only indirect. The goods bought are usually standard. In fact it is not advisable to use this form of supply to buy specific or complex products, as there is no steady, direct relationship between the parties. The possibility of giving technical explanations or asking for any project and productive changes is indeed difficult as the intermediary typically plays a commercial role.
- International outsourcing of services: In this case the intermediary provides a set of services: analysis of the Chinese offer, identification of potential suppliers, agreement definition, quality checks, screening of international carriers, monitoring of the suppliers.

Thanks to their experience and base operating on the Chinese market, the intermediaries can select the most suitable information channels and screen the supply opportunities. They can successfully manage the trading phase by controlling opportunistic behaviour of the Chinese party and, at the same time, clarify the advantages of the supply relationship. As a matter of fact, the Western operator exploring the Chinese market is often bewildered by the various offers provided, the surplus of information available and an unusual contractual style.

The analysis of the case studies has highlighted that resort to outsourcing is linked to company size. SMEs rarely have suitable resources and expertise to autonomously manage a sourcing channel in China. In many respects, the intermediary acts as an International Purchasing Office for these companies.

The analysed companies declared that intermediation can be an effective and relatively safe way of testing the Chinese market before deciding to source directly.

The main disadvantages of this kind of sourcing are the intermediation costs and—as far as the traditional one is concerned—the difficulty (in some cases the impossibility) of interacting directly with the sources.

As far as the Chinese situation is concerned, the evolution of the industrial system has brought about great changes in intermediation. Until a few years ago, only public *foreign trade companies* (FTC) had *foreign privileges*. With the opening to international markets and the progressive privatization of the industrial system, FTCs lost their monopoly over foreign trade and their power started to decrease. Consequently, Western companies could increase their contact with other enterprises.

Thus Western companies can now decide whether to collaborate with foreign trade companies (FTC) or other intermediaries, or work directly with the Chinese producers.

The data collected show that large enterprises are generally more qualified to deal with Western buyers, while small enterprises tend to have an inadequate profile for direct interaction with Western companies. FTCs continue to be an important trade interface for many of these small enterprises. NCSTE of Beijing—the research partner in the project from which this study arises—has recently carried out an investigation on a sample of Chinese SMEs in order to define their average technological, organizational, and managerial profile and find out why companies refer to intermediaries. These reasons can be summarized as follows:

- possibility of exploiting FTC contacts, capabilities and experiences in international trade;
- difficulties in dealing with a world which is considered difficult to understand: cultural and language differences are often perceived as an insurmountable obstacle;
- payment terms defined by the foreign buyer that stress the imminent risk of a liquidity crisis in these SMEs. FTCs, using economies of scale and

²The "People's Republic of China Foreign Trade Law" (1994) decrees that an enterprise can only engage in import-export operations if in possession of foreign trade privileges (FTP). FTPs, once only granted to state-run foreign trade companies, can now also be obtained by private companies (both Chinese and foreign). The New Foreign Trade Law of the People's Republic of China (June 2004) and subsequent revisions (the latest in June 2005 extended the privileges to other, non-trade oriented foreign companies) have facilitated a gradual increase in the number of operators who can apply for FTPs.

- a greater capital availability, can sustain longer payment terms and obtain more favourable conditions thanks to a higher contractual power and international market knowledge.
- despite improvements in recent years, law enforcement still limits international trade development, especially that of small enterprises.
 Impediments relating to (international) trade may be due to customs duties, problems linked to foreign currency, and untimely fiscal reimbursements that are often responsible for liquidity crises:

Therefore, FTCs continue to be an important trade interface for many small enterprises by undertaking activities such as market analyses, the search for foreign customers, negotiations concerning conditions (deliveries, payment terms, etc.) and price; and management of international transport.

According to the information we gathered and the literature analysed, public FTCs are seldom able to meet the requirements of Western buyers (Luo, 1997; Weber, 2003; Lee, 1997). FTCs can however provide information on local producers with whom companies could establish a direct relationship in the future.

An alternative intermediation in China is offered by the (Sino)Korean and (Sino)Taiwan intermediation companies. These societies, familiar with both Western and Chinese cultures, offer valid intermediation mainly during the most critical steps of the buyer–supplier relationship: negotiation and specification transfer.

Finally, another type of intermediation is that carried out by Western companies which have gained experience and developed organizational infrastructures in China. The Western purchaser assigns to them outsourcing activities requiring a presence in China: supplier and raw material search, transfer of specifications, know-how and technology, quality control and post-purchasing assistance. Moreover, legal support, a faster exchange of information, and better logistics support are offered. Compared to Chinese FTCs and (Sino)-Korean or (Sino)Taiwan intermediation companies, they offer advantages linked to the geographical and cultural closeness to the customer whose place they take during the management of the abovementioned activities. As far as the supply side is concerned, the quality of the service offered depends on the relationship network and the infrastructures they have developed in China.

4.1.3. Direct sourcing

By this term we mean sourcing with neither intermediation or constraints connected with the choice of supplier. On the basis of empirical evidence, it is possible to distinguish these forms of direct sourcing:

- *Traditional*: The supply relationship occurs when there are no operational integration forms between the parties. The Western buyer turns to a Chinese contact according to an approach we could call "pure market": the article is standard, i.e. it is available in the catalogue without specific adjustments (limited switching costs). There are limited risks concerning unreliability of supplies. Quality control exhibits no particular problem as these are reiterated orders of standardized items. It is often carried out or completed in the buying plant. The Western firm does not guarantee longterm relationships: the relative ease in finding new sources makes it possible to choose from time to time the most favourable opportunity on the Chinese or other markets.
- Collaborative: In this case, the relationship provides for an operative "collaboration" between the parties. Among the case studies analysed, "collaborative direct" sourcing is the most common solution. The cases investigated confirm the presence of numerous forms of buyer-supplier collaboration-interactions: transfer of production plans, joint definition of product specifications, shared engineering and industrialization choices, the adoption by suppliers of agreed capacity planning and manufacturing tools, quality control, packaging and transportation modalities. The items purchased through this kind of sourcing are characterized by relevant technological or qualitative contents or stringent service requirements. In other cases they have a short life-cycle: collaboration between buyer and supplier is solicited by the frequent product portfolio turnover that requires flexible and reliable suppliers, ready to comply promptly to new specifications. Western buyers benefit from promoting and supporting the supplier's growth. They can therefore undertake supplier development programmes, transferring a correct modus operandi, which can lead to the complete re-organization of suppliers and the training of local staff and executives. This activity of technology and know-how transfer seems to be particularly critical in China (for the reasons described in Section 4.1.1).

In the sample surveyed, these forms of collaboration sometimes go hand in hand with equity agreements, i.e. forms of capital participation. Among the types of enterprise that can be established in China (joint ventures, wholly foreignowned enterprises, foreign invested companies limited by shareholdings and—since 2005—wholly foreign-owned foreign trading companies), the solutions that are usually adopted are the joint venture and the wholly-owned foreign enterprise (WOFE). In particular WOFE has recently become the prevalent choice of foreign investors (data supplied by China's Ministry of Foreign Trade & Economics Cooperation show that while in 1998 WFOEs accounted for 46% (in value) of FDIs in China, in 2003 they increased to 65%). We have found this preference also in the sample interviewed. The analysed companies stated that the recent success of the wholly foreign-owned enterprise (to the detriment of joint ventures) is due to three advantages that this form of investment presents: rapidity of decision making (there is no Chinese partner with whom the Western company has to negotiate every decision), greater protection of intellectual property (there is no Chinese partner that can steal knowledge inside the company), a Chinese legislation that is less restrictive than in the past with respect to this form of investment (initially the Chinese government supported the creation of JVs instead of WFOEs so as to ensure an adequate transfer of technology from Western companies to Chinese ones). On the other hand, the absence of a local partner can cause a number of problems regarding introduction into the local industrial context (activation of business relations) and a greater vulnerability in legal proceedings.

The cases examined show how direct sourcing is often accompanied by the use of an International Purchasing Office whose role—as the literature demonstrates (Goh and Lau, 1998; Avery, 2002; Carbone, 2002; Porter, 2003)—is to manage several activities such as the selection of new suppliers, negotiation of purchase contracts, management of communication and technology transfer to the suppliers and quality control.

The creation of an IPO, however, gives rise to some organizational problems regarding task distribution between this office, central (purchasing) departments and suppliers, for example with reference to quality control. An excessive IPO decisional autonomy cannot be accepted by central

departments. Therefore, centralization/decentralization requirements must be balanced.

As regards the establishment of an IPO in China, the situations analysed reveal that the foreign staff charged with establishing the office is usually first flanked then substituted by local personnel. The reasons behind this are that the local staff, though less well paid, is usually well-prepared (thanks also to training financed by the Central Government and that, in 2004, according to the National Bureau of Statistics of China—2005—accounted for 3.4% of China's GDP), possesses a high degree of technical expertise and knows the Chinese language and the local legal system. Moreover, experience shows that in China, most of the obstacles and risks that an enterprise may encounter can be minimised by exploiting the "guanxi¹" of their staff.

4.2. Some illustrative examples

In this section we will supply some examples to define the context of the above classification.

4.2.1. Imposed sourcing

Case 3, one of the world leaders in the steel production systems industry, provides an example of imposed sourcing. China is for Case 3 one of the most important markets, since it represents about 25% of its turnover. Chinese customers impose precise conditions to the sales: about 85% of the order value must come from local suppliers. So Case 3 develops internally the whole design of the steel production systems and the manufacturing of the most critical parts; the rest is committed to the local (Chinese) supply base. Since Case 3 is completely responsible for the projects it carries out in China with the participation of local developers, it is generally necessary to supervise the suppliers directly; so the location of personnel at their premises is necessary. Case 3 has therefore created an office in China, whose main duty is to control the production cycle and to ensure the control of each phase.

4.2.2. Intermediated sourcing

Case 2, the largest Italian producer of office chairs and the third largest in Europe, provides an example of intermediated sourcing. Since 2000 Case 2 has purchased spring suspensions for office chairs from Korean and Taiwanese companies, which have relocated their production to China. Case 2 negotiates price, quantity, terms of payment, and

delivery times with the intermediary. The intermediary then asks his Chinese suppliers for these services in order to ensure deliveries according to the agreed scheduling and to the required technical specifications. Intermediation was effective mainly for the management of two activities: the negotiations, and the monitoring of the execution of the technical specifications. During negotiations the Chinese suppliers often feel tempted to try continuously to reduce prices, aiming at changing some specifications in order to meet the agreed target price. From this, the need arises for an interlocutor able to establish suitable relations with the manufacturer and, at the same time, to offer adequate warranties to the Western customer. It is evident that the Taiwanese origin of the intermediary plays a decisive role: on the supplier's side the intermediary can speak Chinese and knows the relational context of the country, on the customer's side he is familiar with western practices.

Another example of intermediated sourcing is given by Case 1, one of the Italian leaders in the production of industrial personal computers and the first national server producer. The Taiwanese supply market represents about 30% of the purchase value for the office division. At least half of Case 1's Taiwanese suppliers have created manufacturing facilities mainly on the Chinese coastal areas in order to facilitate handling and logistics flows. As far as some products are concerned, Case 1 has developed direct contacts with Chinese manufacturers; however the Taiwanese intermediation is absolutely preferred, since it offers warranties of quality and reliability that direct sourcing has not been able to offer.

4.2.3. Direct sourcing

An example of this type of sourcing is provided by Case 9, leader of the Italian market of soft-toys. Case 9 has transferred most of its manufacturing activities to Chinese suppliers. Only the most value-added activities (marketing, product and prototype development, engineering) have been maintained in Italy. If we exclude the manufacturing process of some components, the product does not have a particular technological complexity. Nonetheless it requires a significant methodological precision and then the ability to rapidly reconfigure the manufacturing system to introduce the new collections. As a matter of fact the soft toy is a product that, apart from some exceptions, has a short life cycle and must be rapidly renewed at the most important

annual deadlines (beginning of the school year, Christmas, Easter, etc.). These requirements and the competitive positioning of Case 9 (high quality) suggested the transfer of technical know-how to the Chinese suppliers, the careful assignment of quality control responsibilities and the adoption of strong collaboration with the suppliers (by sharing strategic information, engaging in joint design, etc). Case 9 also created in China an IPO (International Purchasing Office) that has allowed it to develop a more effective control of the suppliers' activities and a more direct coordination with them.

4.3. Types of sourcing and contextual conditions

Literature focusing on sourcing in China includes a number of papers (Luo, 1997; Kotabe and Zaho, 2002; Chadee and Qiu, 2001; Chadee et al., 2003) that attempt to link forms of foreign investment to certain "contextual" factors (the moment when entering the market, level of property control, capital use, size of the enterprise and the partner, etc.). Taking into account these papers, during the course of the research we tried to understand the "contextual" factors that can affect decisions concerning the type of sourcing to use. Among these factors, three seemed to be particularly important (Fig. 1): size of the enterprise (or volumes exchanged), complexity of the sourcing article (component/product) and complexity of the supply industrial context. These are the three macrovariables (enterprise, product and industry) that seem to influence the policies and the dynamics of any kind of sourcing, not necessarily at an international level, and which in this case are described considering their peculiarities in the Chinese context.

The size of the sample and the nature of the study don't allow for generalizations regarding these findings. So in the next pages we will only describe three research propositions that result from the analysis of these case studies and that will have to be verified in future researches.

Proposition 1. The sourcing type is linked to the size of the buying organization

From the investigation it seems that the business size affects the way the company faces up to the internationalization challenge. Managerial ability and culture, and availability of financial resources are in the first instance linked to size, and they determine the possibility of entering the foreign

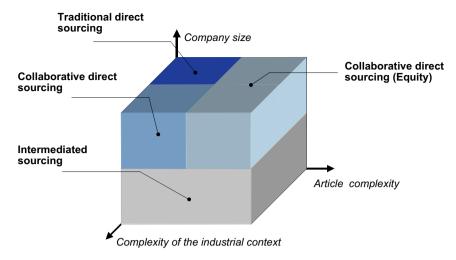


Fig. 1. Context variables and sourcing types.

market and their type of presence in it. Think, for instance, of the possibility of investing in shareholdings or in the creation of IPOs, but also the level of human resources specialized in international trading, the ability to process information concerning international markets and therefore the different perception of the environmental complexity.

The variable "purchase volumes" is separated from the business size, even though clearly linked to it. The total value of the purchases realized or realizable in China suggests sourcing choices binding and challenging in different ways. Small volumes do not justify investments for the settingup of a Chinese office or the suppliers' development, unless they are part of a strategy aimed at exploiting the opportunities and the (supply and/or sale) potentials of the market in the medium-long term. In regard to this aspect, compared to other countries the "critical volume" needed to open an office/factory in China is rather limited, as the opening and managing costs are low and often incentives are available. On the other hand, volumes affect the supplier's behaviour towards the buyer, and therefore the range of sourcing options that can be used.

Proposition 2. The sourcing typology is linked to the complexity of the purchased item.

The types of sourcing analysed in the current research cover a wide portfolio, from low-added-value and notably labour-intensive goods (for which therefore the Chinese sourcing is essentially justified in terms of cost) to high-added-value goods (requiring technological abilities and sophisticated

monitoring tools). Different complexity levels of the exchanged article correspond to various levels of source availability, negotiation power, relation and interrelation forms, that is, different types of sourcing.

The variable "product complexity" includes a number of attributes: the complexity of the technical specifications required, the life cycle of the purchased item, characteristics regarding product mix and architectural complexity (linked to the quantity and the heterogeneity of lower-level components), the need to transfer technology and knowledge (in order to get the expected level of quality), the need for specialized personnel for quality control and assistance during the manufacturing phases.

Proposition 3. The sourcing typology is linked to the complexity of the industrial supply context.

This variable is intended to capture the heterogeneity of the Chinese context, in terms of production ability, technological state of the art, familiarity with Western practices, possibility of penetrating the relational "guanxi" by establishing profitable trade relationships, geographical concentration (in China there are industrial sectors that are distributed throughout the country, whereas others are more concentrated, and still others are concentrated in industrial districts), facilitations and incentives for the Western operators. In other words, there are various, attractive industries and territories in a country as large as a continent, in which, as already indicated, the industrialization process has developed in a non-uniform way. There are industries

and companies that are more inclined to change than others, i.e. follow the Western partner along a development path based on cooperation. In the same way there are fossilized, less flexible, and still strongly bureaucratized companies (mostly stateowned). From the experiences described, it can be seen that the ability to relate with Western enterprises causes difficulties at a geographical level, among the different sectors and also within the same sector. However, even in those sectors with many qualified producers, there is the problem of supplier selection: the Chinese interlocutor tends to comply with the requirements of the customer, even agreeing to marked price reductions but without possessing the necessary abilities and competences.

Fig. 1 depicts (on the grounds of case studies) a series of hypotheses on relationships between contextual variables and types of sourcing. The scheme combines direct sourcing strategies with a dimension in the medium-large purchasing enterprises (with substantial exchange volumes), while it suggests using intermediation in the case of reduced size (of the enterprise and the volumes purchased). Direct sourcing, in particular when of a collaborative nature, seems to require infrastructures and investments that would be out of the reach of smaller units, or only motivated by the exchange of adequate volumes.

Previously, we distinguished traditional traders, i.e. international wholesale dealers mainly interested in trade, from providers of international logistics services, who take the place of the customer in the selection and management of suppliers and in the control of the logistics linked to the order cycle. This intermediary becomes more indispensable as the product and context complexity increase, namely when superior production specialization is required from a third party, and greater commitment and control when monitoring the sources and flow of materials. For standard types of purchases, on the other hand, when no special competences are required to support the technical interaction with the supplier, the intermediate action of the traditional trader can be considered sufficient.

Where the sizes (of the company and of the purchase volumes) are more substantial, the choice of proper sourcing types becomes wider. Generally speaking, the direct collaborative sourcing type is associated with high product complexity, since sourcing requires the transfer of knowledge concerning product-process and quality control to the suppliers. Cooperation can be supported by equity

agreements, in case greater control of the Chinese party is needed, for example to better protect intellectual property or limit the risks of suppliers' opportunistic behaviour. Usually the manufacturing and organizational integration between buyer and supplier with the consequent greater information (and knowledge) exchange and the supplier's gradual improvement are favoured by joint shareholding.

The equity agreement in a direct and collaborative IS relationship is strongly motivated by the elevated complexity of the industrial supply context. As a matter of fact, the Chinese partner can more easily set up and manage the relationships with the external local parties (suppliers, customers, public institutions) and the internal ones (personnel). It repeatedly emerged in the interviews that negotiation produces different results according to whether it is carried out among Chinese interlocutors or interlocutors of different nationalities. The presence of a local partner (equity agreement) especially in highly complex contexts becomes essential to ease entry into the local relationship network ("quanxi"), strengthening that reciprocal trust that often constitutes the prerequisite to operating with local subjects.

The traditional type of sourcing, i.e. with no forms of integration between the buyer and the supplier, is considered in this model as a low-complexity typology, as far as both the environment and product are concerned. It refers to standard goods, for which different, consolidated procurement possibilities exist, and which are mainly chosen for cost advantages. In other cases this type of sourcing concerns goods manufactured in China by multinational companies, whose reliability level is considered excellent.

The scheme does not take into account the option of imposed sourcing (which only characterizes "strategic" sectors), since this type of sourcing is not selected on the grounds of contextual factors, but is imposed by local authorities as a condition for trading these products in China.

The scheme moreover does not consider the option of foreign investment made by wholly-owned foreign enterprises. In this case, rather than sourcing from a supplier (buy), it is more correct to refer to a delocalization of production activities (make). However, from an analysis of the case studies it emerges that, from the point of view of the contextual factors that better qualify it, the decision to establish a wholly-owned foreign enterprise

implies large-sized companies (to ensure set up from a financial viewpoint and justify the investment from a productive one) and complexity of the product (thus suggesting the creation of a production unit within and integrated into the international manufacturing system of the company). On the other hand, a wholly-owned foreign enterprise, in the absence of a local partner, can find it difficult to become part of the local industrial context, with subsequent problems regarding sourcing, staff recruitment, social recognition and legal protection. This solution seems to be best in low-complexity industrial contexts.

4.4. Managerial implications

The study suggests some managerial prescriptions, whose generalization however requires the caution already pointed out. Beside the choice of sourcing typology, at least three other aspects deserve mention. The first concerns organisational decentralisation. The experiences analysed show the importance of exactly defining task distribution among Chinese units (e.g. international purchasing offices), central purchasing departments, and suppliers. In other words it is important to understand the activity of each single subject by defining the reciprocal interdependence. Centralization/decentralization requirements must be correctly balanced.

The second aspect concerns the relationship logic and the negotiation process. Cultural differences between eastern and western countries often represent an important obstacle to entering the Chinese market. Interpersonal relationships in China are guided by "guanxi" rules. This dynamic also has a relevant impact on inter-organizational relationships: Chinese companies are part of multiple connection networks (called "guanxiwang") that deeply influence their business. Western operators need to be conscious of these dynamics: the signature of the contract often defines only the first step of a more articulated relationship. It corresponds to the introduction of the partner to its "guanxixue". To achieve this kind of understanding, a negotiation process, often considered exhausting, is necessary. Actually, as already observed, it must not be considered (only) as an effort to obtain better conditions, but as a kind of interpersonal and inter-organizational path of mutual knowledge.

The third aspect concerns the protection of transferred technology and intellectual property.

Since the "Dragon Country" has entered the World Trade Organization, it has improved its legal structure and promulgated laws and regulations in order to be aligned to WTO principles. In spite of these efforts, measures used to limit a phenomenon so diffused throughout the country seems to be not vet sufficient. As far as trademark protection is concerned, the experiences analysed show that before carrying out any activity in China, it is useful to register one's own trademark directly in the nation. Prompt registration in China is important for two reasons: first of all, it represents a protection tool in case of violation (granted by Chinese Trademark Law); secondly, it prevents registration of the trademark by other subjects. Actually, in China the registration priority principle is in force: this principle considers that the owner of the rights is the first subject to register a trademark. If this happens, the 'real' owner not only suffers the damage derived from the use of the trademark by a third person, but he/she cannot commercialize his/her products in China because he/she will infringe the law. In this regard, it is important to observe that, in the past, third parties registered trademarks for extortion: once they had the ownership of a trademark, they offered it to the real owner at a high price.

5. Conclusions

After opening to international trade and investments, China is currently considered to possess one of the most dynamic economies in the world.

Many European companies, enticed by the opportunities—not only cost-related ones—present in Europe, have decided to source from its market. In a social, cultural, and legal context that is so different from that of Europe, they are likely to encounter numerous obstacles when creating and managing a supply flow from China. To clarify these problems and define the most appropriate strategy, the European project called "International Sourcing Strategies for China" was established, and our research is part of it. Ten Italian companies were analysed (chosen from those sectors where Italian-Chinese interchange is most substantial). These cases revealed that sourcing from China can differ extensively regarding certain structural features: the restraints in the choice of suppliers, the presence and nature of forms of (inter)mediation, the type of customer-supplier interaction, the presence of agreements concerning shareholding. Three types of sourcing (imposed, intermediated

and direct) have been described in relation to a series of factors (such as type of materials purchased, the key competencies of customers and suppliers, the level of formalization of the relationship) and the Chinese context. Moreover, within the sample there exist some correlations between the type of sourcing used and certain contextual conditions (complexity of the purchased article, complexity of the industrial environment, company size). The size of the sample is too small to allow unequivocal generalizations regarding this hypothesis. Furthermore, it is difficult to estimate to what extent the results obtained are linked to the nationality of the companies examined. Italy is ranked 19th among the investors in China (World Trade Atlas, 2004). The presence of Italian enterprises is limited and more recent than that of other Western countries (e.g. the United States, Germany, Great Britain, France) and this could have somehow affected the results obtained during our investigation. Further research is needed since the subject of this paper risks becoming rapidly obsolete as the Chinese context evolves in such a dramatic manner. The research offers a contribution to an area usually neglected in literature: the analysis of interdependence between a series of aspects resulting from the decision to internationalise sourcing. It also underlines the importance of carefully planning the international sourcing strategy, which must coherently combine the structural characteristics of the enterprise, objectives of the decision, specificity of product and sector, and country-specific factors.

Appendix A. Check list

Section 1: General data about the company

- 1. Juridical form of the company;
- 2. Number of employees;
- 3. Number and localization of the units;
- 4. Markets and products;
- 5. Company mission and strategy;
- 6. Organizational structure.

Section 2: International sourcing

- I. Sourcing areas
- 1. Nationality of the main suppliers and total value of the items purchased abroad;
- 2. Criteria used for the selection of the sourcing areas;
 - 3. Types of items bought in the markets;
 - 4. Success and failure factors.

- II. Sourcing organization
 - 1. Organization of the purchasing function;
- III. Sourcing strategy
- IV. Market research
 - 1. Information sources used:
 - 2. Frequency of the selection;
- 3. Modalities of interaction with the suppliers;
- 4. Methods for the identification of the sourcing areas;
 - 5. Success and failure factors.
 - V. Supplier selection
- 1. Criteria used for the selection of international and local suppliers;
- 2. Methods used to control the suppliers' activity;
 - 3. Success and failure factors.

Section 3. Sourcing in China

- I. Analysis of the Chinese market
- 1. Criteria used for the choice of the Chinese market;
- 2. Characteristics of the items purchased in China:
 - 3. Level of integration in the Chinese market;
- 4. Trend of the total value of the item purchased in China;
- 5. Activities carried out in Special Economic Zones: characteristics and problems;
 - 6. Success and failure factors.
 - II. Market research
 - 1. Information sources used;
 - 2. Frequency of the selection;
 - 3. Modalities of interaction with the suppliers;
- 4. Methods for the identification of the sourcing areas;
 - 5. Success and failure factors.
 - III. Supplier selection
 - 1. Criteria used for the selection of suppliers;
 - 2. Success and failure factors.
 - IV. Contractual aspects
- 1. Characteristics of the process of negotiation and definition of the contract:
- 2. Contractual solutions adopted and reasons for their choice;
- 3. Necessary authorizations and their characteristics;
 - 4. Success and failure factors.
 - V. General data about the Chinese suppliers
 - 1. Number of employees;
 - 2. Localization of the facilities;
 - 3. Organizational structure;
 - 4. Other distinctive characteristics.

VI. FDI

- 1. Investment modalities and reasons for these choices:
- 2. Methods used for technology transfer and protection of property rights;
 - 3. Success and failure factors.

VII. Logistics

- 1. Transport solutions;
- 2. Transport responsibility;
- 3. Time of delivery;
- 4. Transport cost;
- 5. Success and failure factors.

VIII. Control

- 1. Methods used for the evaluation of the suppliers' performances;
- 2. Characteristics of quality control of suppliers;
 - 3. Success and failure factors.

IX. ICT

- 1. ICT tools used for communication:
- 2. Communication costs;
- 3. Problems encountered;
- 4. Success and failure factors.

References

- Andersen, O., Buvik, A., 2001. Inter-firm co-ordination: international versus domestic buyer–seller relationships. Omega—The International Journal of Management Science 29, 207–219.
- Arnold, U., 1999. Organization of global sourcing: ways towards an optimal degree of centralization. European Journal of Purchasing & Supply Management 5, 167–174.
- Babbar, S., Prasad, S., 1998. International purchasing, inventory management and logistics research. An assessment and agenda. International Purchasing 28 (6), 403–433.
- Birou, L., Fawcett, S., 1993. International purchasing: benefits, requirements and challenges. International Journal of Purchasing and Materials Management 29 (2), 28–37.
- Bozarth, C., Handfield, R., Das, A., 1998. Stages of global sourcing strategy evolution: an exploratory study. Journal of Operations Management 16, 241–255.
- Caddick, J.R., Dale, B.G., 1987. Sourcing from less developed countries: a case study. Journal of Purchasing and Materials Management. 17–23 fall.
- Carter, J., Narasimhan, R., 1990. Purchasing in the international marketplace: implications for operations. Journal of Purchasing and Materials Management, 2–11 summer.
- Carter, J., Pearson, J.N., Peng, L., 1997. Logistics barriers to international operations: the case of the People's Republic of China. Journal of Business Logistics 18 (2), 129–145.
- Chadee, D.D., Qiu, F., 2001. Foreign ownership of equity joint ventures in China: a pooled cross-section-time series analysis. Journal of Business Research 52 (2), 123–133.
- Chadee, D.D., Qiu, F., Rose, E.L., 2003. FDI location at the subnational level: a study of EJVs in China. Journal of Business Research 56 (10), 835–845.

- Chen, M., 2004. Asian Management Systems. Thomson Learning, London, pp. 44–55.
- Cohen, M.A., Mallik, S., 1997. Global supply chain: research and applications. Production and Operations Management 6 (3), 193–210
- Daly, P.S., Cui, L.X., 2003. E-logistics in China: basic problems, manageable concerns and intractable solutions. Industrial Marketing Management 32 (3), 235–242.
- Davies, H., Leung, T.K.P., Luk, S.T.K., Wong, Y., 1995. The benefits of Guanxi. Industrial Marketing Management 24, 207–214.
- Eberhardt, M., McLaren, J., Millington, A., Wilkinson, B., 2004.
 Multiple forces in component localisation in China. European Management Journal 22 (3), 290–303.
- Eisenhardt, K.M., 1989. Building theories from case study research. Accandemy of Management Review 14 (4), 532–550.
- Ellram, L., Billington, C., 2001. Purchasing leverage considerations in the outsourcing decision. European Journal of Purchasing & Supply Management 7, 15–27.
- Fraering, M., Prasad, S., 1999. International sourcing and logistics: an integrated model. Management decision 12 (6), 451–459.
- Frear, C.R., Arguire, M.S., Metclaf, L.E., 1995. Country segmentation on the basis of international purchasing patterns. Journal of Business & Industrial Purchasing 10 (2), 59–68.
- Gao, T., 2003. Ethnic Chinese networks and international investment: evidence from inward FDI in China. Journal of Asian Economics 14 (4), 611–629.
- Goh, M., Lau, G.T., 1998. Electronics international procurement offices in Singapore. European Journal of Purchasing and Supply Management 4 (2), 119–126.
- Giunipero, L.C., Monczka, R.M., 1990. Organizational approaches to managing international sourcing. International Journal of Physical Distribution & Logistics Management 20 (4), 3–12.
- Gold, T., Guthrie, D., Wank, D., 2002. Social Connections in China: Institutions, Culture, and the Changing Nature of Guanxi. Cambridge University Press, Cambridge.
- Haley, U.C.V., 2003. Assessing and controlling business risks in China. Journal of International Management 9, 237–252.
- Handfield, R., 1994. US global sourcing: patterns of development. International Journal of Operations & Production Management 14 (6), 40-51.
- Helper, S., Kiehl, J., 2004. Developing supplier capabilities: market and non market approaches. Industry and Innovation 11 (1/2), 89–107.
- Helper, S., MacDuffie, J.P., Sabel, C.F., 2000. Pragmatic collaboration: advancing knowledge while controlling opportunism. Industrial and Corporate Change 9 (3), 443–483.
- Herbig, P., O'Hara, B., 1996. International procurement practices: a matter of relationships. Management Decision 34 (4), 41–45.
- Humphreys, P., Mak, K.L., Yeung, C.M., 1998. A just-in-time evaluation strategy for international procurement. Supply Chain Management 3 (4), 175–186.
- Kotabe, M., Murray, J., 1990. Linking product and process innovations and modes of international sourcing in global competition: a case of foreign multinational firms. Journal of International Business Studies 21 (3), 383–408.
- Kotabe, M., Zaho, H., 2002. A taxonomy of sourcing strategies types for MNC's operating in China. Asia Pacific Journal of Management 19, 11–27.

- Lancioni, R., Schau, H.J., Smith, M.F., 2003. Internet impacts on supply chain management. Industrial Marketing Management 32, 173–175.
- Lee, T., 1997. Contract, Guanxi, and Dispute Resolution in China. Garland Publishing, New York.
- Li, J., Lam, K., Qian, G., 2001. Does the culture affect behaviour and performance of firms? The case of Joint Ventures in China. Journal of International Business Studies 32 (1), 115–131
- Luo, Y., 1997. Pioneering in China: risks and benefits. Long Range Planning 30 (5), 768–776.
- Luo, Y., 1999. The structure-performance relationship in a transitional economy: an empirical study of multinational alliances in China. Journal of Business Research 46, 15–30.
- Luo, Y., 2000. Guanxi and Business. World Scientific Publishing Company, Singapore.
- McCutcheon, D.M., Meredith, J.R., 1993. Conducting case study research in operations management. Journal of Operations Management 3 (11), 239–256.
- Meijboom, B., Dekkers, K., 1997. International manufacturing: the role of global sourcing. Journal of International Business Studies, 167–172.
- Min, H., Galle, W., 1991. International purchasing strategies of multinational US firms. International Journal of Purchasing and Materials Management 27 (3), 9–18.
- Monczka, R., Trent, R.J., 1992. Worldwide sourcing: assessment and execution. International Journal of Purchasing and Materials Management 30, 9–19.
- Nassimbeni, G., 2006. International Sourcing: empirical evidences from a sample of Italian firms. International Journal of Production Economics 103 (1), 694–706.
- Nassimbeni, G., Sartor, M., 2005. The internationalisation of local manufacturing systems: evidences from the Italian chair district. Production Planning and Control 16 (5), 470–478.
- Nassimbeni, G., Sartor, M., 2006a. International purchasing offices in China. Production Planning and Control 17 (5), 494–507.
- Nassimbeni, G., Sartor, M., 2006b. Sourcing in China— Strategies, Methods, Experiences. Palgrave Macmillan, London.
- Nellore, R., Chanaron, J., Soderquist, ., 2001. Lean supply and price-based global sourcing-the interconnection. European Journal of Purchasing & Supply Management 7, 101–110.
- Osland, G., Bjorkman, I., 1998. MNC-Host Government Interaction: Government Pressures on MNCs in China. European Management Journal 16, 91–100.
- Pan, Y., Li, X., 1998. Alliance of foreign firms in equity joint ventures in China. International Business Review 7, 329–350.

- Patton, M.Q., 1990. Qualitative Evaluation and Research. Sage Publications, Thousand Oaks.
- Pye, L., 1982. Chinese Commercial Negotiating Style. Oelgeschlager Gunn & Hain Quorum Books, Cambridge.
- Rao, K., Young, R., 1994. Global supply chains: factors influencing outsourcing of logistics functions. International Journal of Physical Distribution & Logistics Management 24 (6), 11–19.
- Sabel, C.F., 1992. Studied trust: building new forms of cooperation in a volatile economy. Human relations 46 (9), 1133–1170.
- Sabel, C.F., 2004. Pragmatic collaboration in practice: a response to Herrigel and Whitford and Zeitlin. Industry and Innovation 11 (1/2), 81–87.
- Sako, M., Helper, S., 1998. Determinants of trust in supplier relations: evidence from the automotive industry in Japan and the United States. Journal of Economic Behaviour & Organization 34 (3), 387–417.
- Shi, Y., 2001. Technological capabilities and international production strategy of firms: the case of foreign direct investment in China. Journal of World Business 36 (2), 184–204.
- Shi, Y., Gregory, M., 1998. International manufacturing networks to develop competitive capabilities. Journal of Operations Management 16, 195–214.
- Spekman, J., Spear, J., Kamuff, J., 1991. Towards more effective sourcing and supplier management. European Journal of Purchasing & Supply Management 5, 103–116.
- Sun, Q., Tong, W., Yu, Q., 2002. Determinants of foreign direct investment across China. Journal of International Money and Finance 21, 79–113.
- Swamidass, P., 1993. Import sourcing dynamics: an integrative perspective. Journal of International Business Studies, 671–691 Fourth Quarter.
- Voss, C., Tsikriktsis, N., Frdich, M., 2002. Case research in operations management. International Journal of Operation and Production Management 22 (2), 195–219.
- Wang, W., 2004. China's role and strategy in the Integration of global procurement and supply chain management. Proceedings of the EU–China Conference on International Sourcing and Supply Chain Management, pp. 73–79.
- Weber, M., 2003. Il miracolo cinese. Il Mulino, Milan.
- Wong, J., Leung, T., 2001. Guanxi: Relationship Marketing in a Chinese Context. Haworth Press, New York.
- Yin, R.K., 1988. Case Study Research: Designs and Methods. Sage Publications, Newbury Park.
- Zeitlin, J., 2004. Supply chain governance and regional development in the global economy. Industry and Innovation 11 (1/2), 5–44.

Guido Nassimbeni, Marco Sartor, Int. J. Production Economics 107 (2007) 333–349, ELSEVIER, 27 November 2006



http://creativecommons.org/licenses/by-nd/2.0/fr/deed.fr