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Sourcing from China: Approaches and Outcomes for Swedish Firms

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ABSTRACT

The large and persistent trend of firms sourcing from China is in itself well-established with many success stories. However, managing the sourcing is a complex issue confounded both by cultural differences and the length of the supply chain. The purpose of this paper is to analyze the sourcing approaches of Swedish companies in China and the resultant outcomes. This study is based on a set of cases of Swedish manufacturing and retailer firms. The firms represent different industries and sizes of the company but all have substantial experience sourcing from China. The paper finds that the firms have developed good monitoring systems for their sourcing work and are generally satisfied with the outcomes, but also have persistent communication issues. Two archetypes of firms successfully sourcing from China emerge from the research. The study shows the importance of investing long-term in sourcing operations, especially with regard to developing market understanding and supplier relationships. This must however be matched by appropriate supplier monitoring systems. The research addresses a gap where sourcing configurations and their outcomes beyond general assessments of whether they are successful or not are little explored in the

Keywords: China, sourcing, sourcing outcomes, supply chain governance, Sweden.

1. INTRODUCTION

The trend of European companies sourcing from China is well-established and documented (Wang et al., 2011; Kumar et al., 2010). Many firms can source a wide variety of components from China and there are substantial success stories of cutting costs and increasing competitiveness even at the industry level (see e.g. Shelton and Wachter, 2005). There is some complexity in the trend itself, that is whether firms are switching from domestic suppliers to Chinese suppliers, moving their production to China, or outsourcing production at the same time as moving it. From an academic point of view, the initial focus of research has been the drivers for sourcing from China in the first place, whether internal or mimetic, and to a certain extent on the barriers to operating in the Chinese context such as the regulatory environment and differing business cultures (Fredriksson and Jonsson, 2009; Kerkhoff et al., 2017). What seems clear from much of the literature is that one of the primary

motivations for such sourcing is to cut costs, whether this is based on exact calculations or assumptions about the Chinese market, for example, based on the labor cost as an input factor. In practice, however, it seems that the picture is more complicated, and many firms have not achieved the savings they were searching for (Fredriksson and Jonsson, 2009; Fredriksson *et al.*, 2010; Gurtu *et al.*, 2019).

Some researchers have questioned to what degree such sourcing actually increases productivity (Capulupo *et al.*, 2017), and raised the issue of managing the risks in sourcing from China (Hernandez and Haddud, 2018). Supply chain challenges in global sourcing including the issue of risk have arguably been underestimated considerably (Ciabuschi *et al.*, 2018) and supply chain risk remains a complex multi-level issue (Ahlqvist et al, 2020). The issue is related to overall challenges in outsourcing/sourcing, with some authors predicting that the patterns of sourcing will change considerably in the next years (Gadde and Jonsson, 2019), and looking at this issue from specific countries (Wang *et al.*, 2011). The importance of understanding changes in sourcing including geographic reconfiguration remains high (Li *et al.*, 2019; Wiesman et al, 2018).

Some authors have raised questions as to whether the sourcing decisions are made in a good and systematic manner (Jones, 2009) and have recently presented more comprehensive frameworks for example for offshoring (Gurtu et al., 2019). Companies may choose to source abroad as part of a general outsourcing decision where the strategic choice is to focus on core competence or minimize transaction costs (Jiang and Qureshi, 2006; Mohiuddin, 2011). However, there is a significant issue of whether companies focus on local or global sourcing. Global sourcing is defined as the use of "purchasing potential on a worldwide level" (Arnold, 1989 cited in Steinle and Schiele, 2008, p.3). For a more complete picture, it is important to consider how firms carry out the sourcing from China and the outcomes experienced. The original motivations for sourcing from Chinese suppliers may differ from what firms eventually consider as the most important outcomes of such sourcing (Mugurusi and de Boer, 2013).

The outcomes obtained can be understood at several levels. The first is the type of outcome experienced such as a reduced cost base, changes in quality, or impacts on supply chain flexibility and lead times. These outcomes say much about what is happening to the business when sourcing from China, even though the outcomes are typically at different levels of the business and may require assessment of tradeoffs (Bygballe et al., 2012). The second dimension of outcomes is how successful they are, for example, the degree of cost reduction and the amount of increased or decreased flexibility. As Zhang et al. (2013) note, there is typically a survival bias in this type of measure since only firms which have been more successful in their sourcing attempts may be available to participate in surveys or interviews. Since most studies have focused on overall measures of performance such as aggregate costs or competitiveness, this will not be the focus here but is rather the ultimate backdrop for the sourcing firms. Here we want to dig deeper in terms of the outcomes and connections to different sourcing approaches. There is potential for exploring the experiences of firms from Sweden in particular, representing a high-cost open economy with a traditionally strong manufacturing base (Johansson and Olhager, 2018). It is also a particularly salient example of supply chain issues in global sourcing due to the distance and complexity between the Swedish and Chinese contexts.

The purpose of this paper is to analyze the sourcing approaches of Swedish companies in China and the resultant outcomes. The purpose is twofold. First, we aim to analyze the experienced outcomes themselves. Second, we aim to analyze the sourcing approaches, that is, how the sourcing is carried out and how it impacts the experienced outcomes. The specific research questions are: (1): 'What are the outcomes experienced by Swedish firms sourcing from China?' and (2) 'How are the sourcing approaches related to the outcomes experienced?'. These questions are addressed through a multiple case study including seven companies from the Swedish manufacturing sector. Empirical data has been collected mainly from semi-structured interviews with key persons representing the sourcing function in the selected case companies

The present paper is structured in six sections. This introduction places the study in its context and outlines the research questions to be pursued. In section two we review previous findings in the area and summarize the theoretical framework. Section three considers methodological issues and outlines the selection and use of a multiple case design. Section four presents the results and findings. Section five covers the analysis and discussion while conclusions and further research is presented in section six.

2. THEORETICAL FRAMEWORK

The theoretical framework is built on two building blocks. First, we review previous findings on outcomes of sourcing from China, here presented in section 2.1 together with some contextual findings on drivers and barriers. Section 2.2 builds on previous literature on governance of international sourcing, with one particular framework adapted to the current context. The framework selected focuses on supply chain issues since this is a neglected part of the research on sourcing.

2.1 Drivers, barriers and outcomes

Previous research has given most attention to drivers and barriers to sourcing from China, but there is also some attention paid to outcomes (Kam *et al.*, 2011; Rahman and Wu, 2011; Wang *et al.*, 2011). Motivators for sourcing from

China can be economic, strategic, and environmental (Lau and Zhang, 2006; Wang et al., 2011). In terms of economic motivators, cost reduction and cost improvement are essential, even though some costs such as transportation may increase. Strategic motivations include access to competence, high-quality resources, and market access. Global sourcing can also increase the flexibility of the supply chain due to easy access to more capacity. Finally, regulatory motivations may be related to the ease of hiring and firing personnel or reduced governmental oversight.

Kwok et al. (2006) identified 20 expected beneficial outcomes of outsourcing to China, but these are not necessarily realized. Translating desired outcomes to realized outcomes can be a complicated process. We cannot follow the sourcing process indefinitely so that outcomes are necessarily relevant to one particular point in time. However, we would expect that for many companies outcomes are quite clear given that the trend itself is long-term (Mugurusi and de Boer, 2013). For individual firms, it may be the case that certain types of outcomes are seen early while others come later, some being direct whereas others such as competitiveness take longer to materialize. There is a potential blurring here between drivers, barriers, and outcomes. The barriers, depending on how they are formulated may also be seen as early outcomes, for example, legal barriers may lead to increased legal costs as an outcome (Mykhaylenko et al., 2015).

Previous research has addressed the issue of outcomes and the problem of determining outcomes to some degree. There are distinct challenges in obtaining clear data on the consequences of global sourcing from sources such as annual reports (Jiang and Qureshi, 2006). The main problem may be that it is difficult to specifically pinpoint the total cost effects of global sourcing due to complexity (Enderwick, 2009). There may also be a substantial confirmation bias where firms that fail to find sufficient savings disappear (Zhang *et al.*, 2013). A consequence is that the literature often relies on perceived and rather subjective ratings of the success of a global sourcing initiative.

A frequent outcome is that the cost savings achieved are not as substantial as anticipated due to the complexity of the supply chain and underestimating associated costs (Horn et al., 2013). There seems to be a tendency to underestimate costs related to global sourcing, such as costs of finding a suitable partner, transportation costs, costs of supply chain complexity, and quality issues (Fang et al., 2010; Kumar et al., 2010; Lau and Zhang, 2006; Platts and Song, 2010). Administration costs tend to increase with the degree of sourcing from low-cost countries (Lorentz et al., 2015). Costs related to obsolescence and potential loss of intellectual property can also be significant since many jurisdictions do not have the same level of legal protection that firms are used to from their home market. Nevertheless, Fang et al. (2010), in a study of Swedish firms sourcing from China, found that a combination of cost and strategy drivers was important, including CSR considerations. The study was however made in the context of global sourcing where sourcing from China was compared with other overseas alternatives. A time-based challenge is an idea of "quality fade" over time where quality will often be acceptable initially, but suppliers then replace materials or spend less time on products later to increase their profitability (Enderwick, 2009).

2.2 Sourcing and governance

There are numerous models for supplier selection (e.g. Sarkis and Talluri, 2002; Narasimhan and Talluri, 2006) which include a broad concept of costs, but these do not in themselves explain the motivations and outcomes of actual firms sourcing from a particular geography. The models emphasize that it is very difficult for decision-makers to usefully include multiple factors in their decision making and that sometimes decisions may be based on very broad perceptions of geography rather than accurate data. In addition, it has been shown that purchasing managers do go beyond simply focusing on costs but that the criteria may be biased (Carter et al., 2008). To complicate this picture several authors argue that there is a substantial range of sourcing types and that companies must choose an appropriate type to be successful (Kotabe and Zhao, 2002; Mohamad et al., 2009; Murray et al., 2005). Indeed, some authors make the point that adaptation in the sourcing context is a key advantage (Plugge et al., 2016) and that both supplier and buyer aspects should be included (Andersson et al., 2010).

Here, we would like to explore different supply configurations, representing both the structures used and the governance arrangements. This is an approach focusing more on supply chain issues and how the sourcing is configured rather than the process of selection. A central challenge in ensuring successful sourcing from China is how to manage or monitor the relationship, that is which governance mechanism to use. This decision is related to the issue of the physical flow of goods, especially since previous literature has shown that supply chain issues are often responsible for making sourcing from abroad less successful than expected (Horn, et al. 2013). In a transaction-cost analysis context, the governance may be market, hierarchy, or trust/relationship-based (Williamson, 1979; Bradach and Eccles, 1989; Sauvée, 2013), and should be made according to the degree of specific investments, frequency of dealings, and uncertainty. The value of outsourcing particular

activities such as maintenance has been further explored in the Swedish context by Maley *et al.* (2015) but is not pursued further here.

Purchasing goods from an overseas supplier or establishing your factory is a classic make or buy decision (Mykhaylenko et al., 2015). Other authors have specifically addressed the issue of which supply chain structures are appropriate for different types of global sourcing. This is a different way of considering how to manage global sourcing not only based on the traditional criteria in the TCA framework. Christopher et al. (2005) suggest that the combination of long and short supply lead-time with predictable and unpredictable demand can be used to determine which type of pipeline to operate. The options are lean, agile, and le-agile combinations depending on the need for efficiency, flexibility, or a combination (Hilletofth *et al.*, 2009). Persson and Håkansson (2007) suggest a rethink of the traditional Kraljic (1983) matrix-based in part on the activity interdependency framework from Thompson (1967). In their framework, the different logics are best served by different collaboration strategies which build upon each other. The goal is to identify is what type of collaboration strategy to employ, not whether to collaborate. The relationship with suppliers and how this is handled is seen as an essential component of sourcing.

Bygballe *et al.* (2012) draw on both Christopher *et al.* (2005) and Persson and Håkansson (2007) and show some of the main strategies in the literature with a focus on balancing total costs. This is in contrast with other views which focus on various facets of the supply network overall (Srai and Gregory, 2008). The main three elements are the differentiation of the supply chain, relationship management, and as an outcome the balancing of customer needs. This overall thinking is quite relevant here, and we suggest that the framework can be adapted to the current setting and the focus as well as previous research on sourcing outcomes. This means focusing on supply chain strategy, how supply chain control is exercised, and the supply chain outcomes. The main concepts are shown in **Figure 1**.

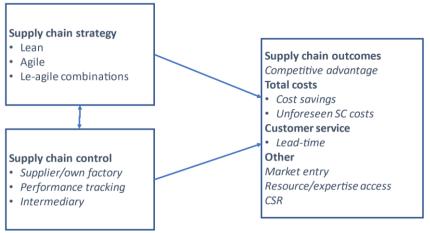


Figure 1. Conceptual Model for Sourcing from China (based on Bygballe et al., 2012)

In the framework in **Figure 1**, the differentiation of the supply chain can take place to match both the product, supply, and demand characteristics and is reflected in lean, agile, or leagile supply chain structures. These issues have been extensively covered in previous literature (e.g. Fisher, 1997; Huemer, 2006; Fadaki *et al.*, 2018). Rubesch and

Banomyong (2005) demonstrate some of the complexities in picking either a lean or agile approach as inherently superior in global supply chains. This part of the framework is kept unchanged. The relationship management aspect, which is how to deal with suppliers, can be seen as directly relevant to governance or supply chain control, and it is an essential

part of the issue of Swedish firms sourcing from China. A critical governance issue for sourcing is whether to buy from a supplier or establish your factory (Hutzschenreuter *et al.*, 2011) and this is seen as a basic decision here.

The literature on Swedish firms sourcing in China mentions performance tracking in particular as an important measure. This is added to the governance box as one way of dealing with suppliers. Persson and Håkansson (2007) suggest that long-term relations and collaboration is always superior option in terms of performance. Balkow (2012) explores the use of intermediaries for Swedish companies sourcing in China. Since this can be seen as a way of dealing with governance it is added as an alternative to **Figure 1**.

On the outcome side, Bygballe et al. (2012) focus on total costs and customer service. In previous research, several aspects have been pointed out regarding sourcing from China. The first is that cost savings are heavily tied to product prices. The second is that there are numerous unforeseen costs often tied to the supply chain itself. In terms of customer service, the main observation is that there can be issues tied to lead times due to the physical distance from suppliers. Finally, several other outcomes are observed in the literature - market entry to the Chinese market (and also the challenges with entry strategies), access to specialist skills or resources, and superior CSR performance (compared to other sourcing locations and within certain industries such as textiles) (Choi & Nailer, 2005; Gunterget and Larsson, We consider the adapted model to reflect the literature on governance in international sourcing with particular attention to aspects the literature has pointed to in the Chinese context.

3. METHOD

Developing and structuring the outcomes and approaches to sourcing from China is primarily a matter of developing existing literature and adapting it specifically to the Swedish/Chinese context in this paper. This is an issue

best approached through rich data which allows us to explore and discuss the approaches to sourcing in more detail. Companies in many countries and many different industries have offshored either their production or switched to Chinese suppliers. The trend may be large and seemingly inevitable, but this does not mean that it has been uniform.

In the present study, a multiple case design is used, with each firm representing a case of sourcing from China with its own experiences and based on interview data as well as some general background on the firm. Combining several types of data is necessary for a good case study format according to some researchers (Näslund, 2010; Pedrosa *et al.*, 2012), but it should be kept in mind here that the majority of data is primary. We have kept to the multiple-case structure because it is useful for analytical purposes.

The selection of the case firms started with identifying Swedish firms that source from China and could provide rich and detailed data. Companies were all manufacturing firms or closely involved in manufacturing but differed in terms of turnover and size giving substantial variation on this dimension. Potential participants were identified through a simple web search and the webpage "Teknikföretagen." These sources give an overview of Swedish manufacturing companies. From the list of potential companies, a total of 53 firms were then contacted through email and asked to participate. The selection of these companies was based on confirmed or likely sourcing from China. This initial contact was followed up with phone contact for the 17 companies that gave a positive response. Finally, 7 companies agreed to one or more interviews. These were carried out face-to-face, through Skype, or by phone. For the interviews, it was important to identify knowledgeable individuals in the company with experience in the sourcing processes, typically from purchasing, logistics, or general management. One to three respondents were interviewed from each company. **Table 1** shows the interviews. The companies have been anonymized in accordance with their wishes.

Table 1. Interviews Conducted in the Case Study

Interview	Company	Date	Туре	Duration	Position
I1	Company A	2015-03-10	Face-to-face	90 min	Managing Director
12	Company B	2015-03-11	Face-to-face	60 min	Purchasing Manager
13	Company C	2015-03-16	Face-to-face	50 min	Product Manager
14	Company D	2015-03-23	Telephone	40 min	Purchasing Manager
15	Company D	2015-03-23	Telephone	30 min	CEO
16	Company D	2015-04-07	Skype	35 min	Business Manager China
17	Company E	2015-03-25	Face-to-face	60 min	Purchasing Manager
18	Company F	2015-03-27	Face-to-face	40 min	Tooling Manager
19	Company F	2015-03-27	Face-to-face	30 min	Project Leader
I10	Company F	2015-03-27	Face-to-face	60 min	Quality Manager
l11	Company G	2015-04-01	Telephone	55 min	Quality/Sustainability Manager

Based on the transcribed interviews short case descriptions were developed for all the companies. Responses related to relevant aspects of sourcing such as

outcomes, challenges, and sourcing approaches were noted to develop an understanding of each case. Once the descriptions for each case were completed cross-case comparisons were made to identify recurring patterns and develop the two archetypes. The archetypes are a synthesis of the observations in the cases and prior research on sourcing approaches.

For qualitative case studies, the quality criteria from Lincoln and Guba (1985) focusing on credibility, transferability, dependability, and confirmability are frequently used and considered suitable (Eriksson, 2015). Credibility touches on the data collection and analysis. A systematic approach is preferred, and here interviews were recorded and transcribed to have a basis for the analysis. Triangulation of data sources is recommended for credibility, and this has partially been carried out in the study, with several interviews for some of the companies and secondary data to balance the interviews. Transferability refers to the ability to make claims about how findings may be appropriate for other contexts. The transferability of this study is limited especially as the contextualization of the outsourcing from Sweden to China is limited – that is we do not describe the particular variables that guide this outsourcing decision. It is however plausible that similar high-cost economies have similar challenges to the Swedish context. Dependability covers the traceability of the process so that other researchers could follow a similar research approach. This is primarily covered through the transcribed interviews and description of the approach for data collection. Finally, confirmability describes the connection between the findings and interpretation which is primarily covered here through the description and presentation of the case studies.

4. RESULTS

Sweden represents a country with several favorable features for the present study. First, it has a relatively heavy

and varied manufacturing industry including precision engineering. There is some variation since both quite standardized production and production with exceptionally high demands e.g. tolerances have been offshored. Second, the country is not large enough that which affects the validity of sourcing from China overall. That is, Swedish companies will not in themselves drive up the cost of factors of production in China significantly. Finally, Sweden represents a classic high-cost production environment, and these costs remain high so that fluctuations in labor costs or minor movements in terms of currency should not affect the eligibility of sourcing approaches. There is an interest in understanding more about the Swedish example itself because the coverage of the experience of Swedish companies is limited. However, for the current study we can consider Sweden to be one example, but a very good one, of a high-cost economy offshoring a broad range of manufacturing to China.

4.1 Company Backgrounds

The firms presented here represent considerable variation in terms of size, history, and the type of industry, although all have the significant manufacturing capacity and mostly deal with physical products. All the firms are quite established and have had to deal with the issue of whether to move production to China. In terms of original motivations to source from China, these have varied. Companies A and D include expansion as a motivator showing that the idea of accessing new markets is still very much relevant. Company B, D, E, and F mention cost savings specifically, but also variously capacity and flexibility of the Chinese supplier. Access to skills is also a motivator, as in the case of Company B. A summary profile of the firms are given in **Table 2**.

Table 2. Basic Data on Case Firms

Firm	Employees	Turnover (approx.)	Domain
Company A	200 in Sweden, 80 in	50 million EUR	Contract manufacturing, conveyor solutions and
	China		manufacturing of steel components
Company B	35 in Sweden	68 million EUR	Electronic and steel component manufacturing
Company C	14 000 employees	3.5 billion EUR	Power tools
	globally		
Company D	500 worldwide, 30 in	80 million EUR	Engineering and manufacturing of metal components
	China		
Company E	100	41 million EUR	Textile industry
Company F	255	50 million EUR (2014)	Manufacturing plastic systems solutions and assembly
Company G	140 000 worldwide	28 billion EUR	Broad manufacturer and retailer

Company A has one manufacturing plant in Sweden and one subsidiary in China. Only a small proportion of the production in China is directed to Sweden with the rest intended for local consumption. Company A considers its overall expectations of sourcing from China to be met, but this assessment is partial because the subsidiary is a successful business in its own right. The image of the company as an international operator is strengthened since it often has more knowledge of the Chinese market than its customers. The willingness of Chinese employees to work overtime when required is very high leading to flexibility in production.

Company B has a presence in over 40 countries, with five percent of the total volume purchased from China. Sourcing from China did not start until 2008. Company B is

not so satisfied with the outcomes so far, however, according to the purchasing manager. From a peak of 10 products sourced from China, the company is now only sourcing 3. The main problem is finding a reliable business partner in China for the products the company wants to source.

Company C has been sourcing from China for some time and it represents about 15% of the purchased volume. The company combines sourcing from Chinese suppliers with its own factories in China. Sourcing in China has not been without problems and was considered more time-consuming than in other countries. However, the company considers the process overall to be successful and profitable.

Company D has 30 employees working in a joint venture in China. Products sourced from China are primarily used for mass production and are based on standardized

components. The company is satisfied with the expansion to China but is aware that it is still too early to make a final judgment as it has only sourced from China for two years. The costs for the standardized products the company buys are significantly cheaper in China, and transport costs are also relatively low. The same does not go for specialized products, which are sometimes more expensive overall if sourced from China. Some specialized products require components to be shipped from Europe as inputs to the production in China. The company has faced initial challenges with communication, especially in terms of expectations for quality. However, the company considers that outcomes so far have been satisfactory.

Company E outsources to China, Turkey, and Vietnam and has a strategy of international sourcing. The company carries out both sourcing from and manufacturing in China with about 20% of its sourcing from China overall. The company considers that the goals in sourcing from China are met. The assessment of success is based in part on detailed cost calculations on a product basis comparing three global sourcing locations. Even part of the sourcing process itself has been outsourced to China thus simplifying sourcing decisions.

Company F primarily manufactures in Sweden, but sources 90-95% of its production tools from China. These come from 6-7 Chinese manufacturers, with the rest sourced in Western Europe. Initially, the company experienced some problems with the Chinese suppliers because of the special quality requirements. These problems can be exacerbated due to communication difficulties with the suppliers who tend to simply work around problems, which is not acceptable to Company F. The company considers that many of these issues are based on cultural differences. One big issue is quality, and a second issue is a geographical distance to the suppliers, with bureaucracy as an added obstacle. Some issues in packaging standards have also led to

additional handling costs. The company used an intermediary to help with sourcing previously but now considers that it can handle this process fully itself. The company notes that sourcing from China is faster than more local sourcing since the main component of lead-time for the tools it is buying is related to production capacity rather than transport.

Company G has 34 years' experience sourcing from China, making it the most experienced of the group. 20-25% of the total volume is estimated to come from China. In general, sourcing from China is considered to be very successful and satisfying for the company. The price/quality ratio is considered the best, and the company has long-term relationships with its suppliers. Since the company started sourcing from China so early, their experience eases working with the local suppliers. The company keeps tight cost control "tracking every cent" can cut costs wherever possible.

The overall impression from the case companies is that they are relatively satisfied with the outcomes of the sourcing from China with the notable exception of firm B.

4.2 Findings

4.2.1 Individual-company Findings

The companies have widely different approaches to governance and sourcing, although the common denominator is that most sources are from suppliers in China.

A starting point for considering the sourcing approach is the physical placement of facilities, the ownership, and what other tools the companies use to manage the sourcing. The individual company approaches sourcing are shown in **Table 3**. The column describing other management tools represents an interpretation of the cases.

Table 3. Sourcing Approaches in the Cases

Company	Physical placement	Supply Chain Control – Ownership	Supply Chain Control - Other
Α	Sweden and China	Own factories, China factory is a subsidiary	Ownership as main tool
В	5% sourced from China	Sourcing from suppliers	Reducing scope
С	15% sourced from China	Own factories and sourcing from Chinese suppliers	Performance tracking
D	30 employees in China	Joint venture	Chinese production used for mass production, standardized
E	International sourcing including China at 20%	Sourcing from suppliers	Exact cost calculations, parts of sourcing process outsourced to China. Performance tracking
F	90-95% of production tools from China	Sourcing from suppliers	Performance tracking
G	20-25% of volume from China	Sourcing from suppliers	Exact cost calculations, Performance tracking - "tracking every cent"

Company A is using ownership as a main tool in a direct sense since the China factory is a subsidiary. This means that they have already made substantial investments and are getting many of the expected advantages of sourcing from China in their operation. The case is somewhat unusual in that the subsidiary mainly serves the Chinese market. In

this sense, the company obtains both cost advantages and market entry.

Company B is buying directly from suppliers and is unusual in this context because it has not achieved desired outcomes. That is, to a certain extent there have been cost savings, but these have always been balanced against quality issues that seem to be specific to the industry. The company does not mention any well-developed monitoring tool and seems to have relied mainly on the relationship with the suppliers. In fact, the company seems to be dealing with the current situation primarily through an exit, continuing to source only a small amount of production from current suppliers.

Company C has some similarities to Company B in that the outcomes are mixed. They have reasonable profitability overall but at the cost of using considerable time with the suppliers to communicate their needs. In this sense, they are investing much effort in the relationship and are operating on a combination of their factory and local suppliers. The sourcing is seen as complex and demanding but still gives substantial benefits in terms of market access and profitability.

Company D is also using ownership as a control mechanism through a joint venture. This is different from operating a factory directly but gives a closer level of control. The case is interesting since it shows a clear stratification where standardized products that require mass production are manufactured in the joint venture, and other products which are more adapted to customers are manufactured at the Swedish factory.

Company E bases itself entirely on sourcing from suppliers but keeps very close track of their performance, a

classic monitoring approach. The company has high competence in terms of costing and has even outsourced part of the sourcing process to China. In this sense, they are still using an intermediary approach, although not because of a lack of experience in the market. The outcomes are seen as very positive with high overall profitability and expectations met.

Company F has a clear approach in that it is sourcing directly from suppliers and has a solid performance tracking system. However, the results are somewhat similar to Company C – there is improved profitability so overall aims are met but significant quality issues remain and are difficult to overcome. There does not seem to be a clear ambition to change this system.

Company G sources substantial volume directly from suppliers in China but, similarly to company E it has a very comprehensive tracking system that combines the competence to carry out exact cost calculations with very close performance measurement for suppliers. Like company E it is very satisfied with its sourcing approach with good profitability as the main outcome. Interestingly this company also emphasizes access to expertise among the suppliers, which can be hard to find elsewhere.

The specific outcomes in each case according to the interviewees are shown in **Table 4**.

Table 4. Outcomes in the Cases

Company	Specific outcomes or experiences	Self-assessment	
Α	Market entry, access to expertise, good delivery performance	Profitability and competitive advantage, overall expectations met	
В	Communication issues	Poor performance, reliability issues	
С	Market entry, communication issues	Profitability but mixed outcomes, high use of time	
D	Market entry	Profitability, success in standardized products	
Е	Moving parts of sourcing to China	Profitability, goals of sourcing met	
F	Communication issues, shorter lead-times.	Profitability but significant quality issues	
G	Market entry, access to expertise	Profitability, sourcing very successful	

Generally, market-entry means that a company has obtained at least partial access to the Chinese market, but this may also include the future ambition to expand. Good delivery performance means that the supplier or factory has a good record of delivering on time. Communication issues can represent a complex set of issues but are often based on different backgrounds and business cultures. Shorter lead times in this case do refer to the overall lead-time including production time. Access to expertise tends to be focused on a specific sector where Chinese suppliers have high competence.

Both the specific and overall outcomes as experienced by the companies are based on a self-assessment and so there may be some inherent bias. However, the fact that both positive and negative outcomes are reported gives a more complete picture.

4.2.2 Cross-company Findings

There are some specific outcomes mentioned by several firms, such as market entry and persistent communication

issues. The communication issues are arguably a barrier but it can also be considered that this is a more persistent issue when sourcing in China since some of the firms have long experience with this type of sourcing. Market entry is somewhat unusual in that several of the firms see this as an outcome even where they have not truly entered the market. In this sense, they seem to perceive that they have a good starting point for when market opportunities increase.

It seems clear that some of the specific challenges and outcomes experienced by the companies may be related to the industry they are in. That is, for certain types of products companies seem to have underestimated the difficulties of duplicating suppliers' quality outside of Sweden, whereas for others it is rather the opposite, and sourcing from China gives access to both more flexibility and a higher level of supplier competence. It is also worth noting that there are few entirely generic examples – that is a company that sources directly from suppliers, using standard contracts and without experiencing significant challenges. In fact, most of the examples here show some hybrid elements, whether

through using joint ventures, moving sourcing selection tasks to China, or consistent communication challenges that have not been fully resolved over time.

In terms of an overall self-assessment of performance, most of the firms are rather positive. The exception is Company B, which has reduced its sourcing in China primarily due to communication and reliability issues. Company C, which generally considers the overall sourcing as successful, has also experienced some mixed outcomes, again with communication issues requiring time and effort to combat. Company C does not seem to have made an exact assessment of the cost of this time but considers the balance to be positive. Company F also sees the sourcing as successful but has significant quality issues to deal with. The remaining firms are generally satisfied with profitability as the overall high-level outcome. Since these firms have mostly maintained a policy of sourcing from China for a substantial amount of time there is some issue of a confirmation bias here - i.e. if a firm is unsuccessful in sourcing from China it is unlikely to continue the sourcing for twenty years.

5. ANALYSIS AND DISCUSSION

The model from Bygballe *et al.* (2012) adapted in **Figure 1** appears as quite fitting for the current paper, although the data does not allow us to fully expand on the issue of differentiation of the supply chain. The companies did not comment on the differentiation of the supply chain in terms of product and demand characteristics beyond noting that the lead times are an important determinant of which products can be sourced in China. Firms were not asked specifically to characterize their products nor does this paper attempt to do this. We can conclude that these characteristics are important for the sourcing decision but not about specific relationships.

5.1 Approaches to Sourcing from China

There are some variations in the sourcing approaches pursued by the case firms. Whereas most buy from suppliers in China, several have made arrangements either to set up their factories or in one case a joint venture. The first model option represents monitoring through price, the other through ownership or authority (e.g. Bradach and Eccles, 1989). Furthermore, the second option of setting up their own facilities also seems to be an approach designed to ensure market access in the long term.

One general aspect of the firms' experience is that most seem to have developed an understanding of how to do business in a particular market, not necessarily tied to individual suppliers but to the supplier market for the type of product they are sourcing in China. This is not surprising given the length of experience in sourcing but it is still significant that it is emphasized by many of the firms as one of their advantages.

In terms of governance, two general features are quite noteworthy in the cases. Even where firms have experienced quite a few issues regarding quality, communication, and prior misunderstandings, they see themselves as quite competent in navigating the supplier market. To a certain extent, they seem to rely on long-term relationships with individual suppliers enabling them to overcome some of the communication difficulties and perhaps do better in the Chinese context where such relationships can be very valuable. Notably several of the respondents mention that they used to employ different types of intermediaries to help with the sourcing but do not need this anymore.

Despite this knowledge and long-term relations, several of the firms emphasize that they have particularly good monitoring systems for controlling the suppliers, both in terms of the total cost of sourcing from China and also following up on the performance of individual suppliers. This is in some ways a contrast to the more relational and adaptive governance approach of understanding the Chinese market and suppliers and goes more in the direction of enforcement (Williamson, 1979). It seems that the companies combine these two approaches for a successful long-term way of operating, where it is the exact monitoring of performance together with relational management over time that leads to good outcomes.

5.2 Proposed Models

Although there are many differences between the companies and they represent different industries some overall issues recur. We suggest that there are two main archetypes of successful sourcing that emerge, shown in Figure 2 and Figure 3 respectively. These archetypes represent the two most obvious groupings of the case firms in terms of their main features, focusing on the choice of buying or owning means of production, and the relation of the firm to its customer(s). As such they should be seen as propositions of alternative approaches to sourcing and relate to RQ 2.

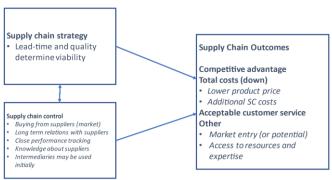


Figure 2. Archetype 1 of Swedish Firms Sourcing from China – Experienced Buyer

The first archetype which we label "experienced buyer" is the most prominent for the case companies and represents

a company that sees itself as having found solutions to many of the teething issues related to sourcing in China. This archetype is represented by companies B, E, F, and G but we also see elements in company D. This leads to some specific features for each of the three elements in the sourcing model.

In the long-term quality and lead time seem to be hygiene factors rather than considered outcomes. That is, if sourcing from China works within acceptable lead times and quality criteria then the focus shifts to other outcomes, but these factors must be in place to serve customers adequately. If this is not the case then in the longer term the company must either find a structural solution or stop sourcing from China. By implication companies that have been sourcing successfully from China for some time have solved these issues, and the original decisions on supply chain structure may be less obvious when asking questions retroactively.

This also means that the focus shifts to the competitive advantage of having access to production in China as mentioned in the framework. The cost issue remains in most cases since sourcing is still cheaper even with the originally unforeseen SC costs. These costs are now more obvious and are part of calculations for whether to source new products. In the longer term the unforeseen supply chain costs become

part of the overall cost calculation. Access to resources and expertise remains important, as does the potential ability to access the market more easily due to knowledge and existing relationships with Chinese suppliers.

In terms of governance issues, companies are buying from a range of Chinese suppliers and supplier selection is important, especially due to the size of the supplier markets. Contracts are balanced with long-term relationships and trust mechanisms that are seen as particularly important in the Chinese context (Jones, 2009; Sauvée, 2013). Building up such long-term relationships and a reputation in the market is seen as an advantage whereas firms that started sourcing in China more recently are at a disadvantage. However, despite the reliance on trust and knowledge of the supplier market, there is a separate focus on very close supplier monitoring. This parallels arguments from the literature claiming that a balance between the two is necessary (Sauvée, 2013). Successful sourcing thus seems to be an outcome of several governance mechanisms used in an appropriate balance, arguably a hybrid approach where longterm relationships are important (Hutzschenreuter, 2011).

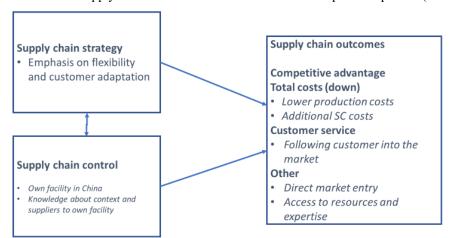


Figure 3. Archetype 2 of Swedish Firms Sourcing from China – Adaptive Supplier

The second archetype raised presented here is rather different in terms of the motivation and context of sourcing and is based on somewhat fewer examples, primarily A, C, and D. It is nonetheless a significant theme in the findings. It represents a company following an important customer in the Chinese market, labeled "adaptive supplier" here. The goal of such a company is to follow the initiative of a major customer which itself is moving into the Chinese market, representing a significant reconfiguration of the supply chain. The supplier then establishes its factory (or sets up a joint venture) to follow customer demands and be close to the customer. The exact format may vary but represents a very different approach to governance than buying from one or more suppliers, e.g. this can represent hybrid forms as well (Sauvée, 2013). The customer may variously wish to enter the Chinese market directly or make use of Chinese suppliers and needs some of its major suppliers to be part of this reconfiguration. In terms of differentiation of the supply chain, this is more oriented towards lower lead times and customer adaptation in terms of quality.

In terms of outcomes, cost savings are again an important motivation, this time driven by the ability to operate the factory much more cheaply than the domestic factory due to differential costs such as labor. This is

somewhat balanced by both the unfamiliarity with how to operate a factory in the Chinese context leading to a substantial learning curve for both company and employees and remaining supply chain issues such as how to configure supply chains for manufacturing in several locations. Solutions may be to use the Chinese production for more standardized products and to rely on the home factory for certain specialized products, especially where this implies fast delivery. Nevertheless, the Chinese employees and their willingness to put in extra time are seen as a good resource for the company as a whole. A consequence of the positioning is that the customer is served better. A potential downside is the required investment especially if it represents a new facility the firm would otherwise not build.

In terms of governance, the main approach is clear ownership, with the added perspective of having to understand the context the new factory is operating in with regards to the company's suppliers, permits, and so on. There is an advantage in getting to know the market quite well due to the persistent presence there, although the joint venture approach of one of the companies (Company D), is again not a pure form of hierarchical governance (Hutzschenreuter *et al.*, 2011). The fact that one of the companies (Company A) already uses the factory in China primarily to supply the

Chinese market, driven by its main customer shows that this approach can lead to a strong market presence. This also implies a much higher level of risk should the customer choose to make changes since the investments may be very much tied to one particular customer.

The main consideration for the firm within this archetype is to stay flexible in terms of its customer, e.g. it retains the customer by being flexible and making quite substantial changes to its production. Consequently, substantial demands are put on the firm in terms of investment, adapting to a new context, and reconfiguring its supply chain.

5.3 Discussion of Research Questions

Previous literature has found both very successful and less successful outcomes of sourcing from China (Fang et al., 2010; Kumar et al., 2010; Lau and Zhang, 2006; Platts and Song, 2010). In the current study, the majority of the companies are very satisfied with their sourcing from China and obtain positive outcomes. Due to the selection of companies however, there is likely some survivor bias in terms of overall success, since the long experience of the companies may mean that companies with unsuccessful sourcing approaches have withdrawn. These overall outcomes and satisfaction with sourcing address research question 1 in general, but we are also able to show some specific outcomes. These are related to cost as expected, but also much more strategic issues such as competitiveness and potential access to the Chinese market. Issues related to leadtime and quality, while recurring are considered under control by the firms. Significantly, that the companies are still experiencing this type of challenge despite their long experience.

For research question 2 we summarize the results as two different archetypes representing different approaches to sourcing. One archetype is an experienced buyer which has found an acceptable level of performance in terms of delivery criteria and quality, and subject to these obtains good performance on cost parameters. This archetype relies on sourcing from suppliers but supplants the contracts substantially with both sophisticated monitoring systems and long-term relations. This fits well with the idea of a hybrid form in the literature, and previous findings on outsourcing to China (Li et al., 2019). The second archetype follows a main customer to the Chinese market and sets up a factory to be flexible and close in supplying the customer leading to considerable demands on the firm in the longer term. The sourcing is internal but is still complex due to the need to understand how to operate in the new market. This type of company does particularly well on customer responsiveness and market entry. Both types of companies typically refer to having solved the issues with sourcing from China, showing the value of building competence regarding the Chinese supplier market.

It should be noted that the two archetypes presented here represent a break with the usual description of sourcing from China where a company either buys from suppliers or sets up its factory to supply its own internal needs but benefits from a more favorable production environment. Given the nature of the data, this does not mean that a third or more archetype should be excluded, but rather that the support was limited in this case. Indeed, a broader empirical

base might lead to a larger set of sourcing archetypes. What seems promising is to classify such sourcing approaches through their structural dimensions, that is the supply chain strategy, supply chain control, and to link this through supply chain outcomes.

The time perspective seems even more important than expected and does open for some further development. What we have observed is essentially long-term and stable solutions, but not initial challenges, and not the development of the solutions and configurations over time. It may well be that this development can be described as a maturity model, where firms that are not successful can depart at any time, and the remaining companies move through several stages. For example, the brief references to having used intermediaries early on in their sourcing but then discontinued such use hints at the relevance of such a model, which could provide additional guidance to companies in their sourcing strategies.

6. CONCLUSIONS

The present study contributes by starting to unpack the experiences and actual solutions that companies (Swedish in particular) have developed to deal with the challenges of sourcing from low-cost locations (here in China). The results show the complexity of the approaches and the importance of time and experience in a successful sourcing approach.

In terms of theoretical contributions, we see a combination of the usual governance mechanisms of trust and monitoring, where Chinese suppliers are governed by a combination of market incentives and well-developed monitoring systems but also long-term relationships and context-specific knowledge. This may be an example of a hybrid form that is necessary to operate in the global sourcing context. Companies that managed this balance seemed quite successful in their sourcing efforts.

The focus on market access even when firms have not fully moved into the Chinese market shows that the motivations for changing from China may be shifting. It may no longer be the lead-time to home markets that will be the critical issue in the future but rather access to new markets.

The value of the archetypes of Swedish sourcing from China is also managerial – that is it shows the need for a long-term approach where failure to initially consider issues around lead times lead to underperformance and possible withdrawal from sourcing in China. On the other hand, a balance between the different governance mechanisms seems necessary to be successful in the long term. Even where the company sets up a factory in China the supply chain implications are substantial.

There are some limitations of the study partially due to the selection of firms. Significant problems which have been dealt with some time ago may not seem as salient to the interviewees now, and previous decisions may be hard to recall. Further, selection has been based on finding good examples of sourcing from China which can lead to a success bias. The relation between the governance approaches and outcomes over time can be difficult to trace given this empirical material.

There are several different directions to pursue in terms of further research. One is to investigate in more depth the dual governance mechanisms used by combining very close monitoring with trust-based approaches. Another is to consider some of the firms which have presumably not been so successful and see whether they have joined the recently identified trend of reshoring or near-shoring, moving production closer to the home market to overcome difficulties experienced when sourcing on a global level (Arlbjörn and Mikkelsen 2014; Cagliano, Marco, et al. 2012; Eriksson et al., 2021). A third and promising direction is to build on the strategic sourcing literature to explore further the idea of different sourcing approaches and control mechanisms employed when sourcing from China since the firms in this study seem far more mature in their approaches than firms studied in some previous literature (Sarkis and Talluri 2002, Agrawal, Farrell et al. 2003, Jiang and Qureshi 2006). Finally, these models based on experiences from long-term global sourcing can be applied to new geographies (Nnamdi and Owusu 2014).

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