

Local sourcing: its expected benefits, experienced challenges and relationship with sourcing strategies.

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ABSTRACT,

Within current literature local sourcing, especially its challenges, has not achieved much attention. This study investigates the motivations and achieved benefits of local sourcing. Second, the challenges experienced by buying organizations that are sourcing locally are investigated. In addition, this research tries to link the motivations and challenges of local sourcing to sourcing strategies, the Kraljic Portfolio Matrix is used for this. This research is qualitative in nature and data was gathered by means of semi-structured interviews with purchasers from ten different organizations across eight different industries. In line with current literature, logistic benefits and flexibility were mentioned as main benefits of local sourcing. As most experienced challenges, problems with the availability of products and a high purchase price were named. Beneath this, it appeared that challenges were also experienced in the relationship with local suppliers. Although, in general, purchasers prefer local sourcing over global sourcing, the challenges of local sourcing are forcing buying organizations to source globally. Regarding the Kraljic Portfolio Matrix, it appeared that products with a high supply risk are less sourced locally, for which two explanations were found. As practical implications, buying organizations should always balance the benefits of local sourcing against its challenges when considering to source locally or globally.

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Keywords

Local sourcing, Kraljic Portfolio matrix, motivations, challenges, purchasing and supply chain management.

1. INTRODUCTION: THE INCREASING IMPORTANCE OF LOCAL SOURCING

Within the twenty-first century, the role of the purchasing/sourcing function has become more and more important (Monczka, Handfield, Giunipero, & Patterson, 2016). The literature describes sourcing as “the set of business processes required to purchase goods and services” (Chopra & Meindl, 2007, p. 58). Where in the past, purchasing used to be seen as a transactional or operational activity, it has now acquired a much more strategic focus (Giunipero, Bittner, Shanks, & Cho, 2019). This means that purchasing has become a critical process within organizations and makes an important contribution to an organization’s strategic objectives (Monczka et al., 2016). By systematically analyzing an organization’s purchase expenditures and managing the relationships with suppliers, purchasing forms a major factor in achieving competitive advantage (Giunipero et al., 2019). Monczka et al. (2016) name globalization as one of the most important drivers for strategic sourcing. Within the last decades, our world has increasingly become globalized (Antràs, Fort, & Tintelnot, 2017). This trend caused that organizations faced new competitors from around the world and had to increase the performance of their purchasing function and supplier base.

As organizations started to search for new markets and cost saving opportunities, global sourcing gained more and more attention by scholars and practitioners (Giunipero et al., 2019). As most important motivations for global sourcing, lower purchase prices and increased market competitiveness are often mentioned (Cho & Kang, 2001; Holweg, Reichhart, & Hong, 2011; Rexha & Miyamoto, 2000). Monczka et al. (2016) even described global sourcing as an requirement for most organizations instead of a luxury. Despite this trend towards global sourcing, the associated benefits have been questioned by several authors (Cho & Kang, 2001; Kotabe & Murray, 2018). Schiele, Horn, and Vos (2011) concluded that global sourcing can lead to cost savings, however global sourcing cannot be considered as the only effective way to reach these cost savings. Local sourcing forms the opposite of global sourcing and involves purchasing goods from suppliers within the near proximity (Körber & Schiele, 2020). Within literature, local sourcing has gained much less attention than global sourcing and has often been seen as a part of operational sourcing instead of strategic sourcing (Giunipero et al., 2019). However, based on the limitations of global sourcing practices, local supply bases might be preferred over global supply bases (Steinle & Schiele, 2008). As global sourcing and the trend towards global sourcing is facing more criticism and because current literature has not touched upon heavily on local sourcing, this research focus on local sourcing.

This research aims to find out what organizations expect as benefits of local sourcing and what challenges they experience when sourcing locally. More specifically, the first aim of this research is to find out why buying organizations choose to source locally. This first goal focuses upon the motivations that made organizations decide to source locally. As second aim, this research tries to define the challenges faced by organizations when sourcing locally. It will be examined to what extent these challenges impede organizations from local sourcing. In addition, this research tries to establish a link between local sourcing and sourcing strategies. the portfolio matrix developed by Kraljic (1983) is used for this. The matrix classifies sourced products into four quadrants based on profit impact and supply risk. It is investigated how these two factors relate to the practice of local sourcing. The Resource Based View of the firm is also covered in this research. By extending this theory, local suppliers can be seen as a valuable resource. A regional network of

suppliers and buying organizations might be beneficial for both parties.

The above mentioned research objectives have led to the following research questions:

RQ 1: What motivations do organizations have and what benefits do they get from local sourcing?

RQ 2: What challenges do organizations experience when sourcing locally?

RQ 3: How do expected benefits and experienced challenges of local sourcing relate to sourcing strategies?

2. LITERATURE REVIEW

2.1 Global versus Local Sourcing

Sourcing can be described as the required processes to acquire goods or services (Chopra & Meindl, 2007). Within the process of sourcing, a distinction can be made between global sourcing and domestic sourcing. Global sourcing can be defined as the process of purchasing goods from suppliers that are located in other countries than the organization’s home country (Monczka et al., 2016). During the last decades, globalization led to search for new markets and cost-saving opportunities. This trend caused an increase in the study of global sourcing and the number of articles reviewing global sourcing (Giunipero et al., 2019). Global sourcing has often been considered as the ultimate level of a continuum of sourcing strategies (Trent & Monczka, 2003).

However, in recent years, the expected benefits of global sourcing have been questioned by several authors and it cannot always be considered as the best purchase strategy that organizations can use (Kotabe & Murray, 2018). In literature, several limitations on the benefits of global sourcing can be found. Cho and Kang (2001) list three risks/challenges that make global sourcing more complicated than domestic sourcing: logistic problems, cultural differences and at last regulations that protect national organizations. Monczka et al. (2016) defined logistic problems and cultural differences as well and adds: lack of skills, currency fluctuations and resistance to change as other factors that increase the risk of global sourcing. With these named benefits and risks in mind, the impact of global sourcing on an organization’s performance have been investigated. Schiele et al. (2011) concluded that global sourcing can lead to cost savings, however global sourcing cannot be considered as the only effective way to reach these cost savings. In addition to this, global sourcing projects that do not reap their expected benefits often come with high additional costs (Horn, Schiele, & Werner, 2013). When discussing the costs of global sourcing, the Total Cost of Ownership (TCO) concept is often mentioned. “The TCO implies that all costs associated with the acquisition, use, and maintenance of an item be considered in evaluating that item and not just the purchase price” (Ellram & Sifferd, 1993, p. 164). Beneath the price, five key purchasing activities are defined that influence the TCO these are quality, management, delivery, service and communication. When sourcing globally, purchasing managers should focus on the TCO of goods instead of the purchase price only (Degraeve & Roodhooft, 1999). In line with this Vos, Scheffler, Schiele, and Horn (2016) state that global sourcing is not a guaranteed success for cost savings and managers should not use this purchase strategy solely based on expected cost reductions.

As opposite of global sourcing, domestic sourcing refers to process of purchasing goods from suppliers that are located within an organization’s home country. Within domestic sourcing, local sourcing refers to the purchasing of goods in the immediate geographical proximity (Körber & Schiele, 2020). Domestic sourcing is defined by Trent and Monczka (2003) as the lowest level of sourcing strategies. However, based on the

above mentioned limitations of global sourcing, local supply bases might be preferred over global supply bases (Steinle & Schiele, 2008). Porter (1990) goes even further by stating that “having a competitive domestic supplier industry is far preferable to relying even on well-qualified foreign suppliers” (p. 103).

When choosing between global and domestic sourcing, Jin (2004) state that firms face the cost/agility trade-off. “That is, by sourcing globally, manufacturing firms can reduce production costs, but may not be agile enough to meet retailers’ needs on a timely basis” (p. 1292). To reduce this trade-off, organizations might use global and domestic sourcing simultaneously. Four factors are identified that influence an organization’s choice for global or domestic sourcing. These factors and related propositions are:

1. *Nature of demand.* The greater demand uncertainty, the higher the practice of domestic sourcing.
2. *Information and manufacturing technology.* The greater the contribution of technology to the manufacturing the phase, the higher the practice of domestic sourcing.
3. *Clusters of local subcontractors.* The higher the local subcontractor clusters a firm has, the higher the practice of domestic sourcing.
4. *Long term-relationships with subcontractors.* The higher the long-term relationships with subcontractors a firm has, the higher the practice of domestic sourcing (Jin, 2004).

Although his study focuses upon domestic sourcing, Jin (2004) states that these factors and propositions also apply to local sourcing.

2.2 Benefits of Local Sourcing for Buying Organizations

Porter (1990) states that organizations can most benefit from local sourcing in the process of innovation and upgrading. As most important reason for this benefit, Porter names the close working relationships between suppliers and organizations. This relationship provides organizations with quick access to information, innovative ideas and other insights. Beneath this, by closely working together with suppliers in the immediate vicinity, organizations have the ability to influence technical efforts of these suppliers. At last, organizations can benefit from shared Research and Development (R&D) projects and joint problem solving. When sourcing from a global supplier, these benefits are not obtained for the reason that these benefits arise from social interaction, which decreases when spatial distance increases (Sorenson & Baum, 2003).

When comparing global to local sourcing, Ivanov, Tsipoulaniadis, and Schönberger (2019) state that organizations can benefit from the same norms/standards, same culture, same currency and same political climate of local suppliers. These shared values make it easier to build relationships with local suppliers compared to global suppliers. Beneath this, the short distance between the buying organization and the supplier, makes it easier to react fast to changing conditions. Jin (2004) recognizes this benefit as well, by defining a more responsive and agile supply chain as benefit of local sourcing. A responsive and agile supply chain is especially beneficial during times that demand is uncertain and fluctuates. Third, Ivanov et al. (2019) state that another advantage of local sourcing is the basis that it provides for Just-in-Time (JIT) deliveries. At last, local sourcing lowers the disruption risk of the overall supply chain.

When focusing on the relationship between buyers and suppliers and the benefits that arise from these relationships, social capital plays an important role. Various definitions and explanations of

social capital exist. Social capital is understood as the goodwill that results from social relations which can be used to facilitate action (Adler & Kwon, 2002). Nahapiet and Ghoshal (1998) define social capital as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit (p. 243). The presence of social capital, accumulated within the relationship between a buyer and a supplier, positively influences the purchasing performance of the buying organization (Lawson, Tyler, & Cousins, 2008). Schiele, Ellis, Eßig, Henke, and Kull (2015) expect as well that the presence of substantial amounts of social capital leads to a higher amount of supplier satisfaction, which is beneficial to the buying firm. For the reason that social interaction decreases when spatial distance increases (Sorenson & Baum, 2003), it is easier to achieve social capital when sourcing from local suppliers than from global suppliers. When introducing the topic of deep localization, which refers to the process of not only sourcing from local suppliers, but localizing the entire supply chain, Bohnenkamp, Schiele, and Visser (2020) found that social capital indeed plays a crucial role.

Whereas above mentioned benefits are all based on theory, Handfield (1994) conducted a survey with 97 US-based purchasing managers of which 42 were sourcing domestically. This survey tested, among other things, supplier selection criteria when sourcing globally and domestically. For both global and domestic sourcing, quality was the number one criteria. However, after quality the criteria’s for global and domestic suppliers start to differ. When sourcing domestically, purchasing managers place greater emphasis on trust, schedule reaction, on-time delivery and the fact the supplier is established in the same country as the buying organization. On the other hand, when sourcing globally, purchasing managers are more concerned with price, trust (again), product technology and process technology. As stated by Handfield (1994, p. 45) “these results point to a general trend that US firms using domestic sources are concerned with delivery performance and developing partnerships with local suppliers”. In a similar study, Nassimbeni (2006) found that although the selection criteria for global and domestic suppliers are approximately the same, the relative importance differ. In other words, the selection criteria used for home-based suppliers are more restrictive compared to those for global suppliers. Based on these two studies, Holweg et al. (2011, p. 335) conclude that “foreign suppliers are mainly chosen based on cost, while for domestic suppliers service considerations are more important”.

2.3 Challenges of Local Sourcing for Buying Organizations

In current literature, not much has been written about local sourcing practices and the associated challenges. Stated by Li, Shou, Ding, Sun, and Zhou (2019): “the findings in the extant literature are largely fragmented and none seeks to understand local sourcing practices from a unified theoretical perspective” (p. 215). Ivanov et al. (2019) names a limited number of suppliers as the main disadvantage of local sourcing. When dealing with a limited supply base, it is more challenging for buying organizations to source the needed products with the right quality. Beneath this, a limited supply base possibly limits the bargaining power of buying organizations and in turn increases the bargaining power of suppliers. Bargaining power of suppliers is recognized by Porter (1985) as one of the five forces that shapes competition. Strong bargaining power of suppliers may be challenging for organizations as this may cause the supplier to raise prices or deliver products at inferior quality.

Other challenges of local sourcing may arise in a situation in which a small supplier may become dependent on the larger buying organization. In their study of SME (Small and medium-

sized enterprises), local sourcing and supplier development in the grocery industry, Wagner, Fillis, and Johansson (2005) name trust and power issues and supplier development practices as challenges of local sourcing. When suppliers feel they are dependent on larger buying organizations and feel the threat of coercive power that may be used by these buying organizations, they become suspicious and mistrusting (Deutsch, 1958). This may lead to dissatisfaction of suppliers, which negatively influences the relationship between the supplier and buying organization (Hunt & Nevin, 1974). Besides the challenge of managing trust and power issues, Wagner et al. (2005) name supplier development practices as challenge when sourcing locally from an SME supplier. To be competitive, “firms must ensure that their suppliers’ performance and capabilities are equal to or greater than the performance and capabilities of the firm’s competitors” (Krause, 1997, p. 12). When a local supplier is incapable of meeting the needs of the buying organization, the buying organization might need to invest in supplier development. Supplier development is defined as “any activity that a buyer undertakes to improve a supplier’s performance and/or capabilities to meet the buyer’s short-term or long-term supply needs” (Handfield, Krause, Scannell, & Monczka, 2000, pp. 37-38). Cousins, Lamming, Lawson, and Squire (2008) name different barriers to successful supplier development outcomes. Supplier specific barriers that are named are: lack of commitment, reluctance to participate, insufficient human resources and insufficient capabilities. When sourcing locally, it might be challenging for buying organizations to overcome these supplier development barriers.

2.4 The Resource-Based View of the Firm and Local Suppliers

The Resource-Based View (RBV) of the firm has become one of the most influential frameworks in the literature of strategic management (Lavie, 2006). The RBV of the firm argues that the competitive advantage of an organization can be explained by a subset of superior internal resources, like financial, physical, organizational, technological, intangible and human resources (Steinle & Schiele, 2008). Barney, Wright, and Ketchen (2001) characterize this subset of superior internal resources as resources that have value, are rare, are imperfectly imitable and are not substitutable. This means, the RBV of the firm, sees a firm’s resources instead of its products as most significant component to achieve competitive advantage (Kraaijenbrink, Spender, & Groen, 2010). Steinle (as cited in Steinle & Schiele, 2008, p. 5) names the inside-out focus as one of the criticisms directed at the RBV. This inside-out focus has ensured that, within the RBV of the firm, suppliers have never been seen as a valuable resource that can provide competitive advantage. Although there is nothing to hinder it (Foss, 1999), Steinle and Schiele (2008) conclude that, not much has been written about the applications of the RBV to inter-firm relationships. Based on the purely inside-out focus of the RBV of the firm, Steinle and Schiele (2008) name some proposed extensions of the classical RBV. Their reasoning is based on the following extensions that allow suppliers to be part of an organization’s resource base.

As first extension, Steinle and Schiele (2008) name the existence of regional competencies. Regions can be seen as an ensemble of competencies, these competencies stretches through organizations within the region (Lawson, 1999). The combination of competencies give organizations within the region the opportunity to develop resources that are not available to organizations outside the region (Steinle & Schiele, 2008). These combination of competences cannot be owned by a single firm, however are a result of the coherence of organizations within the region (Lawson, 1999). In addition to this, relational competencies are named. These competencies are not solely

linked to organizations placed within the same region, but more broadly in the relationship between firms or a network of firms (Dyer & Singh, 1998). Dyer and Singh (1998) state that “a firm’s critical resources may span firm boundaries and may be embedded in interfirm resources and routines” (p. 660). From this follows the argumentation of Steinle and Schiele (2008) that organizations can achieve competitive advantage from their relationships with suppliers or alliance partners, thus external partners can be seen as valuable resources. Based on the theory of regional competencies and relational competencies, Steinle and Schiele (2008) consider suppliers as valuable resources. They name the following criteria that should be fulfilled by suppliers to be of sustainable competitive advantage:

1. “they offer a valuable product to the final customer;
2. they are rare, that is, there are only a few comparable suppliers;
3. their product is not easy to substitute and
4. it is difficult for third parties to imitate the buyer-supplier relationship” (Steinle & Schiele, 2008, p. 6)

In particular the buyer-seller relationship (4) can be fulfilled by local suppliers. In their paper Steinle and Schiele (2008) talk about clusters, these are “geographic concentrations of interconnected companies and institutions in a particular field” (Porter, 1998, p. 798). Within such clusters, tightly bound relationships between buying organizations and local suppliers might be build, that are difficult to imitate for firms outside the cluster (Steinle & Schiele, 2008). “When suppliers are treated as a valuable resource, competitive problems may arise for firms which cannot rely on a local supply base” (Steinle & Schiele, 2008, p. 7). In conclusion, the benefits of being embedded withing a strong network of buying organizations and suppliers can be of competitive advantage. The benefits of this regional network can outweigh the benefits of close individual relationships between buying organizations and suppliers. This could be a motivation for buying organizations to work with a network of local suppliers.

3. METHODOLOGY

3.1 Semi-structured Interviews as Method of Data Collection

In general there are two types of research methods, these are quantitative research and qualitative research. Whereas quantitative data can be described as numerical data, qualitative data can be described as non-numerical data (Punch, 2013). This research is qualitative in nature, more specific “qualitative data refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and description of things” (Lune & Berg, 2017, p. 12). The aim of this research is to develop a better understanding of benefits expected and challenges experienced by buying organizations when sourcing locally. Therefore interviews were conducted to gather data. The advantage of conducting interviews is that there is the possibility to get a deep understanding of a certain subject. In addition, it is possible to develop multiple perspectives and to investigate the motives and reasoning behind arguments (Weiss, 1995).

From different types of interviews, it was decided to conduct semi-structured interviews. Within semi-structured interviews “the questions are pre-planned prior to the interview but the interviewer gives the interviewee the chance to elaborate and explain particular issues through the use of open-ended questions” (Alsaawi, 2014, p. 151). This type of interview is often referred to as qualitative research interview (Saunders, Lewis, & Thornhill, 2019) and is therefore suitable for this research. When designing the semi-structured interview, the method described by (Saunders et al., 2019) was followed.

To start with, a predetermined list of themes was developed. These themes derived from the literature and the theories described in the literature review. Based on these themes, broad interview questions and probes were developed. Probes were used to ask follow up questions to initial responses in order to encourage an interviewee to expand on their given answer and to obtain a greater detail from the interviews (Cassell, 2015; Saunders et al., 2019). By probing the reliability of the gathered data is increased (Barriball & While, 2013).

The interview questions can be found in Appendix B.

3.2 The Kraljic Portfolio Matrix as Framework for Sourcing Strategies

To assess the relationship between motivations and experienced challenges of local sourcing and sourcing strategies, a framework was sought that distinguishes between different types of sourcing strategies. In addition, the interviewees should be familiar with this framework, if not, the framework had to be easy to explain, so that it did not cause problems during interviewing. It was decided to use a purchasing portfolio, more specific the Kraljic Portfolio Matrix (KPM) was used within this research. As different situations need different strategies, purchasing portfolios aim to differentiate the overall purchasing strategy in order to apply the appropriate strategy in a given situation (Van Stekelenborg & Kornelius, 1994). Purchasing portfolios can be used to classify suppliers (Buvik & Reve, 2001; Tang, 1999), or focus upon classifying commodities (Nellore & Söderquist, 2000; Olsen & Ellram, 1997). Kraljic (1983) developed the first comprehensive portfolio model for the use in the purchasing and supply chain management field (Gelderman & van Weele, 2003). Many variants of the (KPM) exist within current literature (Dubois & Pedersen, 2002; Gelderman & Mac Donald, 2008; Tryggvason & Johansen, 1996), however the KPM can be seen as the dominant portfolio within the purchasing field (Cousins et al., 2008).

The matrix developed by Kraljic (1983) assesses purchasing items on the basis of two factors: profit impact and supply risk. Purchased items score 'high' or 'low' on both profit impact and supply risk, the result is a matrix with the following four categories: leverage, strategic, routine and bottleneck items as can be seen in Figure 1. Based upon the position of a product in the KPM, for every quadrant of the KPM a different sourcing strategy is required (Gelderman & van Weele, 2005). Leverage items are characterized by their high impact on profit and their low supply risk. Because of the high purchasing power of the buying organization, the exploitation strategy should be used to obtain the best deal possible (Cousins et al., 2008). When sourcing strategic items with both a high impact on an organization's profit and the high supply risk, buying organizations should focus on collaboration with their suppliers (Gelderman & van Weele, 2005). Routine items are of low value, have low supply risk and are ordered frequently. Therefore the followed strategy should be based on efficiency, organizations should aim to "pay the most competitive price for product, whilst maintaining delivery and quality standards" (Cousins et al., 2008, p. 51). Bottleneck items cause risks and can seriously affect the delivery of an organization's end product (Cousins et al., 2008). Most important, buying organizations should maintain supply continuity (Cousins et al., 2008) in some cases it is necessary to search for alternative suppliers or products (Gelderman & van Weele, 2003). Regarding to local sourcing and global sourcing, Kraljic (1983) states that for leverage items and routine items local sourcing should be used mainly. However, for strategic and bottleneck items, global supply bases should be established. The KPM was introduced during the interview sessions. Prior to each interview, it was unclear whether or not the interviewee was

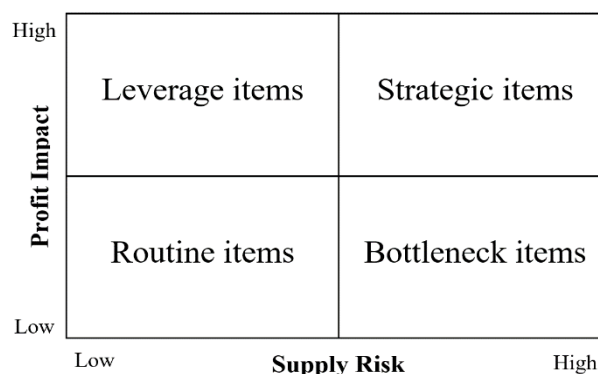


Figure 2: Kraljic Portfolio Matrix by Kraljic (1983)

familiar with the KPM and whether the KPM was used by the organization of the interviewee. To keep the interview clear and structured, the matrix was printed and taken to each interview.

3.3 Collecting Data by Visiting Companies and Online Meetings

In total, ten interviews were conducted in May 2021 with purchasers from different organizations. All these purchasers are responsible for local sourcing activities within their company. All companies are manufacturing organizations and are located in the Netherlands, however they are different in size and operating industry. The sizes of the organizations are varying from small to medium enterprises. All organizations source locally as well as globally and some of them sell their products also both locally and globally. As this research focuses on local sourcing, it was important that organizations were using local suppliers to source some of their products. All organizations were selected randomly and were approached via e-mail, telephone or LinkedIn. When organizations were open to be interviewed, an appointment was made. Hereby the purchaser was asked whether he preferred a physical meeting at the organization's location or an online meeting on an online platform such as Skype or Microsoft Teams. Eight interviewees preferred a face-to-face meeting, therefore most companies could be visited. This means two interviews were conducted online, via Microsoft Teams. Physical interviews were held at locations convenient for both the interviewee as well as the interviewer, as advised by Saunders et al. (2019). As all physical interviews were held at locations of the guest organizations, the likelihood that interviewees felt at ease was increased. All conducted interviews were recorded with a voice recorder, therefore it was important that all places were quiet so that outside noise did not reduce the quality of the audio-recording. In addition to this, notes were made during interviews. A combination of audio recording and making notes, might for example be useful to note follow-up questions that come to mind (Cassell, 2015).

All recordings were manually transcribed for accuracy. To ensure reliability and quality of transcriptions all data was 'cleaned', this means transcriptions were checked a second time and corrected if needed (Saunders et al., 2019). When transcribing interviews, it is important to distinguish between interviewer and interviewee, for example to draw on quotes from the interviewees. At the same time, anonymity and confidentiality need to be protected (Cassell, 2015). Therefore, Saunders et al. (2019) advises to use speaker identifiers, this advice was followed during transcription. At last, the denaturalized transcription approach was followed. This means that "idiosyncratic elements of speech (e.g., stutters, pauses, nonverbals, involuntary vocalizations) were removed (Oliver, Serovich, & Mason, 2005, pp. 1273-1274). Within the naturalistic approach, idiosyncratic aspects are also included in

the transcription and everything is described in detail (Oliver et al., 2005). Due to the time restriction of this research, the denaturalized approach was followed.

3.4 Analysis of Data by Using Coding Software

For the analysis of qualitative data, the thematic analysis approach is often considered as the general approach. According to Braun and Clarke (2006), thematic analysis could be characterized as the foundational method for qualitative data analysis. When using this approach, one is searching for themes and patterns that occur across a set of data (Saunders et al., 2019), within this research this set of data is a series of transcribed interviews. Part of thematic analysis is coding the qualitative data to categorize data with similar meaning related to the research questions (Saunders et al., 2019). In more detail, “coding involves labelling each unit of data within a data item (such as a transcript or document) with a code that symbolizes or summarizes that extract’s meaning” (Saunders et al., 2019, p. 653). By coding, all data units that refer to the same concept or theme are located and can later on be examined together (Rubin & Rubin, 2005). In this research, the software Atlas.ti was used to code the transcribed interviews. This program allows to code a multiple transcripts and afterwards analyze them. Before starting to code, a codebook was made. First, code groups and codes were made based on the research questions and interview questions. Second, all transcripts were read through and codes and code groups were added to the codebook. Then the coding could start and codes were attached to specific data units. When a data unit could not be labelled with an already existing code, a new code was developed and added to a code group and the codebook. To ensure nothing was missed and to increase the reliability of the study, a second round of coding was performed. After scanning the interviews and two rounds of coding, the codebook counted a total of 83 codes spread over 11 code groups. The entire codebook can be found in Appendix C.

After all interviews were coded, the data could be analyzed. By the use of the software Atlas.ti, codes and associated quotations could be compared in a structured way. In this way, frequencies and connections of and between given answers and cases came to light. Summaries and visualizations of the results were made to better understand the data. The results of this analysis are discussed in the next chapter.

4. FINDINGS AND ANALYSIS

4.1 Case description: Profiling the Companies

Ten organizations were subject of this research. An overview of all companies and their corresponding letter can be found in Appendix A. All ten companies are manufacturing companies, however operating in different industries. Within this research only small and medium enterprises took part. This research focuses on local sourcing, which is why the companies should be characterized based on local sourcing practices. Companies could be profiled based on the share of locally sourced products, this varies from about 20% to 97,55. However, the share of locally sourced products does not necessarily say anything about how organizations look at local sourcing and what they expect from it. Company G, for example, sources only 40% of their products locally, but indicated that they always prefer to source locally. Therefore companies will be based on their vision towards local sourcing. Company A,B,D,E,F,G and J indicated they always prefer local sourcing over global sourcing. They are willing to pay a premium price for this, but if the price or quality difference is too great, they will opt for global sourcing. Company C and I indicated that sourcing is based on price, they

source as cheap as possible. However, if the price of a local supplier is equal to the price of a global supplier, they prefer to source locally. At last, company H indicated that the nature of the sourced product is leading, this decides whether a product is sourced globally or locally.

To preserve the anonymity of the interviewees and the organizations they work for, no (company) names are mentioned. Instead, each company is identified by a letter. When an interviewee is quoted, he will be referenced by the letter of his company. In the table in Appendix A can be found what kind of company this interviewee is part of.

4.2 Analyzing and Comparing the Answers across Cases

4.2.1 Logistic benefits as main motivation to source locally

In total eleven different motivations for local sourcing were named by the interviewees. Nine of these named motivations can be seen as direct benefits of local sourcing. Flexibility is an example of a benefit that a company can gain directly by sourcing products locally. Stimulating sustainability and stimulating region are examples of motivations that are not directly beneficial for organizations. Although stimulating sustainability and stimulating region cannot necessarily be seen as advantages, they are reasons for companies to source locally and are therefore part of the list of motivations. To analyze the results, the frequency of motivations mentioned across all interviews was examined, Figure 2 shows the results of this. However, this can lead to a skewed interpretation of the results. If, for example, a motivation comes up very often in one interview, this one interview has a large influence on the total frequency of the motivation. Therefore, the analysis is also based on the number of interviews in which the motivation was named by the interviewee. This makes the analysis more clear and more reliable.

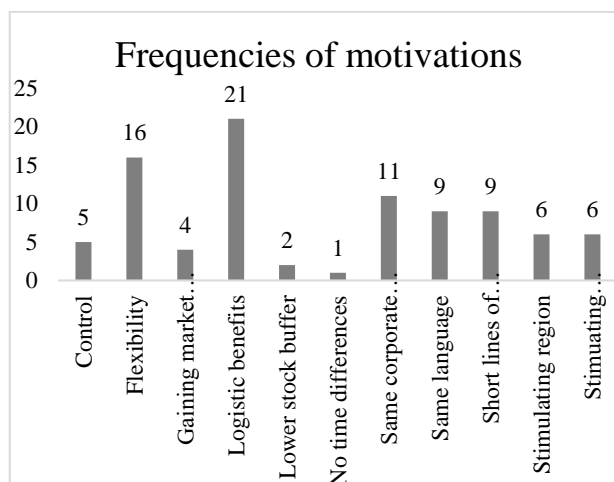


Figure 2: Frequencies of local sourcing motivations

While analyzing these motivations, it soon became clear that logistic benefits was the most named motivation. In fact, every interviewee mentioned logistic-related benefits as motivation for local sourcing. In total this motivation was mentioned 21 times across all interview sessions. Within the logistic benefits, three specific benefits are identified. The most obvious is the shorter transport time, the closer to home you source the faster the products arrive. When asked interviewee E about the motivation for local sourcing, he answered the following:

“In particular delivery time, so a shortened delivery time compared to purchasing abroad. That's actually very important to us” (Company E).

The quote above describes that because of transport time, organizations prefer to source within their home country rather than sourcing from foreign suppliers. Interviewee H goes a little further and describes that there is actually a difference between sourcing from a supplier in the nearby region and sourcing from a domestic supplier that is located about an hour and half to two hours away:

“We also outsource the production of certain products, in which we look very closely at logistics. If you have a company in Groningen, for example, you have to drive 1.5 to 2 hours to bring and pick up the product. And if you have to do that four times a week, it is not interesting. So, for this type of product, you are much more likely to look for local suppliers” (Company H).

In addition to the shorter delivery time, lower transport costs and higher delivery reliability were mentioned as logistical advantages of purchasing locally :

“(…) because almost all suppliers come from the Netherlands, the transport distances are a lot shorter than when you get products from abroad. That also saves us a lot in price” (Company E).

“(…) and the delivery reliability, as we notice that this is not always good for products that come from further away” (Company B).

Flexibility can be identified as second most important motivation for local sourcing. This expected benefit of local sourcing was mentioned sixteen times across all interviews and is therefore the most often mentioned after logistic benefits. It also came up in most interviews after logistic benefits, in total eight times. Some companies are characterized by their flexibility towards the customer or fast delivery time. To guarantee this flexibility, it is important that these companies can rely on the flexibility of suppliers, this is mainly achieved by purchasing locally. Citing from an interview:

“But anyway, buying locally is just nice, because you can act quickly. We depend on our flexibility, which is why we buy a lot locally” (Company G)

Further, flexibility of the supplier is useful when an organization finds itself in a difficult situation. Interviewee F described that flexibility is particularly beneficial in an ‘ad hoc’ situation. In such a situation a problem can be solved quickly with the

supplier. Interviewee J recognizes this benefit as well:

“We get our stickers at the other side of the street, they are the last to go on the machine. When we put something in the truck and there is still a scratch somewhere, we call the supplier, so he can come again. That's where flexibility and responsiveness really come into play” (Company J).

However, interviewee J does note that if you organize your internal processes properly, you do not need to rely on this flexibility.

After the two most important motivations for local sourcing are named, the results of the other motivations mentioned in the interviews are somewhat more divided. As Figure 2 shows, same corporate culture is mentioned third most often. However, this motivation was only named by four of the interviewees. Short lines of communication and same language are in total mentioned less often, both nine times. However, they do come up in more interviews, six and five times respectively. Due to the fact that short lines of communication and same language are mentioned by more different interviewees, these motivations can be considered more important than same corporate culture. One could argue that short lines of communication is a direct result of speaking the same language and while these two motivations are certainly related, they are not the same. During the interviews it became clear that speaking the same language can be seen as the basis for building a relationship with the local supplier and reaping benefits from that relationship. Interviewee I stated that in terms of distance, a German supplier close to the Dutch border can certainly be seen as local. However, you do have to deal with a language barrier:

“(…) so even though it is local in terms of distance, that does not necessarily give an advantage” (Company I).

When asked interviewee H about the difference between working with local and global suppliers, the first thing he mentioned was the problem that not everyone masters the English or German language. He described the importance of speaking the same language with the following statement:

“Companies do business, but contacts make the business” (Company H).

As mentioned, speaking the same language does not necessarily mean that the benefit of short lines of communication is achieved. First, corporate culture plays an important role in the way of communicating. Four interviewees named the same corporate culture as benefit of local sourcing, they all indicated

Table 1: Motivations across interviews

Company / Motivation	A	B	C	D	E	F	G	H	I	J
Control	x			x			x			
Flexibility	x			x	x	x	x	x	x	x
Gaining market knowledge						x			x	
Logistic benefits	x	x	x	x	x	x	x	x	x	x
Low stock buffer	x	x								
No time differences							x			
Same corporate culture						x		x	x	x
Same language						x	x	x	x	x
Short lines of communication		x		x		x	x	x	x	
Stimulating region		x				x			x	x
Stimulating sustainability	x	x	x	x	x					

that this influences the way of communicating and being approached. In this, they noticed a clear difference between suppliers from the region and suppliers from other regions. Sharing the same corporate culture ensures that people understand each other better and feel what is expected. Two of the interviewees indicated that communicating in regional language is also important here. In addition, the possibility to see each other more often and to have personal contact instead of telephone or online contact, contributes to a stronger relationship and smoother communication. Concluding, speaking the same language contributes to shorter lines of communication and can even be seen as a condition. However, it is not the only condition and therefore short lines of communication and the same language are considered as two different benefits of local sourcing.

Furthermore, stimulating region and stimulating sustainability were both mentioned six times, across respectively four and five interviews. Finally, control, gaining market knowledge, no time differences and a low stock buffer were named by the interviewees. All these motivations were not named in more than three interviews.

4.2.2 Challenges faced when sourcing locally force organizations to source globally

Analyzing the challenges of local sourcing was done in the same way as analyzing the motivations. Whereas Figure 3 shows the frequency of the mentioned challenges, Table 2 shows in which interviewees the challenges occurred. When coding and analyzing the interviews, it soon became clear that challenges of local sourcing are twofold. First, organizations face challenges during the sourcing process, which is the process of sourcing the right products, for the right price, at the right quality and quantity from the right source (Monczka et al., 2016). Interviewees named availability problems, a high purchase price, lack of quality and lack of quantity as experienced challenges in the local sourcing process. Second, organizations face challenges in the relationship with local suppliers. This means that in addition to the experienced challenges during the search for products (the sourcing process), challenges are also experienced when the supplier has already been found and business is already being done with the local supplier. Interviewees named the relationship getting too personal and loss of control as challenges in the relationship with local suppliers. In particular the challenges experienced in the sourcing process play an important role for organizations. Seven out of ten interviewees indicated that they prefer local sourcing over global sourcing for all of their sourced products. However, the challenges of local sourcing force them to look further and source globally.

Availability problems can be identified as most experienced challenge of local sourcing. With eighteen times, this challenge was most mentioned during the interviews. In addition, this challenge occurred in the most interviews, eight in total. The explanation is simple: the product that the purchasing

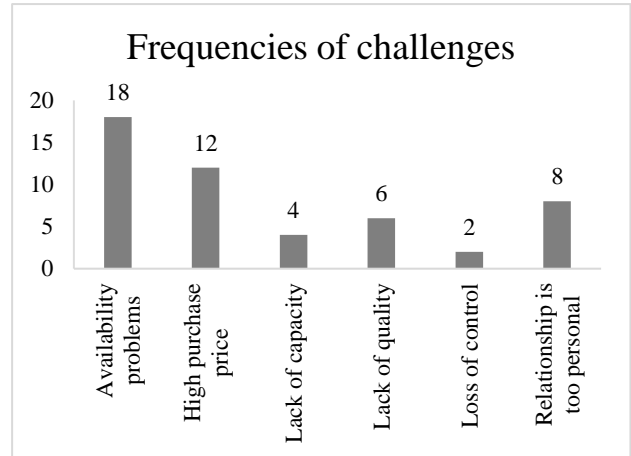


Figure 3: Frequencies of local sourcing challenges

organization is looking for is not available in the region. Interviewee C and G stated that the reason for this is that the product they are looking for is too specific for the region. This is caused, for example, because the region has no history with the business of the organization. As much as companies want to buy locally, the availability problems simply force them to look and source beyond the region. Citing from an interviewee:

“Once again, because suppliers are close by, you can act faster. (...) but sometimes it is just not possible to buy products locally and then you have to look further” (Company F)

After availability problems, a high purchase price was mentioned most often and occurred in most interviews. Interviewees indicate that purchase prices abroad, especially in China, are often lower than purchase prices in the region. In particular, when organizations are part of a competitive market, price is the deciding factor. In this case, the benefits of sourcing locally do not outweigh the lower purchase price of sourcing globally. Interviewee B said the following about this:

“Because we are in a competitive market, price plays an important role. As a result, we are sometimes forced to purchase abroad” (Company B.)

However, as mentioned, many interviewees prefer to source locally. They are therefore willing to pay a higher purchase price to achieve the benefits of local sourcing. However, there is limit to this, if the difference in price is too big, purchasers still choose to source globally:

“Those [enclosures] from abroad should also be checked a lot, but this happens much less. That is why you see that there are far more quality problems with enclosures from abroad than with locally sourced enclosures. You take that for granted because it is very cheap. But actually, I would rather buy it locally, because then you have much more control. So the price is the deciding factor” (Company G.)

Table 2: Challenges across interviews

Company / Challenge	A	B	C	D	E	F	G	H	I	J
Availability problems	x	x	x	x		x	x			x
High purchase price		x	x		x	x	x		x	
Lack of capacity							x			x
Lack of quality	x						x	x		
Loss of control						x				
Relationship getting too personal						x			x	x

Further, lack of quality and lack of capacity were named as challenges of local sourcing with the sourcing process itself. Lack of quality was named by three interviewees, whereas lack of quantity was named by two interviewees. The inability of local suppliers to meet the demanded requirements in terms of quality or quantity of the purchasing organization is, just like availability problems and a higher purchase price, a force to source globally.

In having and maintaining a relationship with local suppliers two challenges were named: the relationship getting too personal and loss of control. Relationship getting too personal was mentioned in total eight times across three interviews. This may cause that the professionalism within the relationship is no longer guaranteed. Continuing to source products from a local supplier because the purchaser or the organization has a good personal relationship with the supplier, means that you no longer look further into the market. This can cause that an organization outcompetes itself, because competitors purchase the same product for a lower price or better quality. In addition, interviewees experience that when having a too personal relationship with local suppliers, the suppliers sometimes assume that you will always continue to source from them. When you as buying organization decide to source products somewhere else out of price or quality considerations, the supplier may feel personally attacked. Finally, there is the risk that the relationship becomes so personal that the organization becomes too dependent on the supplier. As a result, the organization loses control to the supplier. Interviewee F described the risk of a too personal relationship as follows:

“The biggest disadvantage I see is that, in the long run, a bit of professionalism is lost. You always have to compare suppliers with the rest of the market, also to remain competitive yourself. This can sometimes lead to uncomfortable situations, because you start buying from somewhere else. A local supplier may think: I deliver to his company now and because I am on the corner of the street, I will remain their supplier. This can give them the idea that they can afford anything. That is the danger of buying locally” (Company F).

4.2.3 KPM and local sourcing: the higher the supply risk, the less locally sourced

As described in the methodology part and as can be found in the interview in Appendix A, the KPM was also discussed during the interviews. First, interviewees were asked to provide an example of a product that is sourced locally by their company for each quadrant of the KPM. Most of the interviewees could name a product within each quadrant. However, not all interviewees were able to ‘fill’ each quadrant with a locally sourced product. For the routine quadrant every interviewee could think of locally sourced products, products often mentioned were bolts and nuts. The same holds for the leverage quadrant, here the given examples were more business specific, ranging from software to special types of wood. For the two quadrants at the right-hand side of the KPM, where the supply risk is the highest, not every interviewee could name an example. Within the strategic quadrant, two of the ten interviewees could not name a locally sourced product. One named reason for this is that there is simply no local supplier who can supply the desired products with the desired specifications. Interviewee G came up with the following example:

“(…) for the strategic quadrant, we have quite a few products that are “exotics”. For example, we have a product consisting of three parts. One of those three parts we buy in France, which is still European. But you cannot buy this part anywhere else but from that one supplier. And on top of that, there is a delivery time of 24 months. So you are forced to look further than the local market. In our strategic products, we do not have many

[products] that we can buy locally. This is purely because the region here has no history with our business” (Company G).

Within the bottleneck quadrant, only seven of the interviewees could name a locally sourced product. Often the price was mentioned here as driving force for purchasing a bottleneck product globally. Interviewee J stated that for bottleneck products the focus is mainly on developing an effective process that maintains the flow of goods. This is mainly about *“making sure you do not have any trouble with it”* (Company J). A suitable supplier must be found for this, be it locally or globally. In conclusion, less products are locally sourced within the strategic and bottleneck quadrant compared to the leverage and routine quadrant. This is mainly due to availability problems and a high local purchase price. This may (partly) explain why products are placed in the bottleneck and strategic quadrant. Because products can not be sourced locally, they can only be sourced from a greater distance, which automatically makes them products with a high supply risk and places them in the strategic or bottleneck quadrant.

Diving further into this, there is a second explanation for why less local sourcing is used within the strategic and bottleneck quadrant. When the interviewees were asked whether the benefits and challenges they mentioned differed per quadrant of the KPM, the most common response was that the benefits and challenges applied to each quadrant. However, when the different quadrants were examined in more detail, there came a greater understanding of quadrant specific benefits and challenges. First, it is noticeable that most examples were given in the strategic and bottleneck quadrant. The routine quadrant was barely covered, the leverage quadrant slightly more, but still considerably less than the strategic and bottleneck quadrant. From this it can be concluded that the focus of the interviewed purchasers is mainly on the products on the right-hand side of the KPM. This makes sense because the supply risk is highest on this side of the matrix. The interviews made clear that the KPM is not only used to classify sourced products and to set up a strategy per quadrant, but also to shift products from one quadrant to another. Organizations prefer to shift products from the right side (high supply risk) to the left side (low supply risk). So by reducing supply risk, bottleneck products can become routine products and strategic products can become leverage products. As interviewee J said:

“For bottleneck products, there your goal is to get them out of the quadrant” (Company J).

As stated in part 4.2.1 the most important motivation to source locally is logistic benefits. The delivery reliability increases when products are sourced locally. Therefore local sourcing can be a strategy to shift products within the KPM, from high supply risk quadrants to low supply risk quadrants. Although it was not directly mentioned by the interviewees this explains why in the leverage and routine quadrants more products are sourced locally compared to the strategic and bottleneck quadrants. As a buying organization can find a local supplier for bottleneck or strategic products that were previously sourced globally, they might be able to lower the supply risk of these products. If this is the case, these products shift from bottleneck to routine or from strategic to leverage. Interviewee G said the following about this:

“In principle, you prefer to buy bottleneck locally, because then you have as little supply risk as possible” (Company G).

The quote above is an example of shifting products across the KPM. By sourcing a bottleneck product from a local supplier, the supply risk can be minimized and the product can shift from a bottleneck to a routine product. In summary, strategic and bottleneck products are the least sourced locally for two reasons. On the one hand, it is challenging for some products to find

suitable local suppliers with the right purchase price, which automatically places these products on the right-hand side of the KPM. On the other hand, local sourcing can be a strategy to switch products from these quadrants to the leverage and routine quadrants.

5. DISCUSSION AND CONCLUSION

5.1 Found Motivations for Local Sourcing Are Supported by Existing Literature

This research aimed to find out what motivations buying organizations have to engage in local sourcing and what benefits of local sourcing they actually achieve. It turned out to be difficult to make a comparison between the motivations that made organizations decide to source locally and the actual achieved benefits. However, this research did investigate the benefits that organizations get from local sourcing. The results showed that logistic benefits are most achieved by local sourcing. It was found that flexibility was the second most named benefit.

These results seem consistent with previous studies done on local sourcing and its benefits. In a study done by Handfield (1994), about supplier selection criteria, it was found that schedule reaction and on-time delivery were the third and fourth most named criteria after quality and trust. The study concluded that companies using domestic suppliers are in particular concerned with delivery performance. Other research as well did recognize that logistic benefits and flexibility can be achieved by local sourcing. Ivanov et al. (2019) state the short distance between the buying organization and the local supplier, make it easier to react fast. Furthermore Jin (2004) described how local sourcing can support a more agile and responsive (flexible) supply chain, which is in particular beneficial in times of demand uncertainty. The importance of a flexible supply chain and how local sourcing can help to achieve this, was described by Interviewee A:

“Over the past half year we experienced that we are one of the few organizations that can deliver in times of corona. We are organized in such a way that we have not had any supply chain problems in the past six months. Unlike our competitors” (Company A).

Furthermore speaking the same language, sharing the same corporate culture and short lines of communication were identified as important motivations and benefits of local sourcing. Again, these results are in line with existing literature Ivanov et al. (2019) named the same norms and standards and the same culture as benefit of local sourcing. Handfield (1994) found that being established in the same country as the supplier is an important reason for companies to source domestically. However, short lines of communication is not recognized by current literature. This study found that, in particular, the same corporate culture is of importance to reach short lines of communication. In addition, short distance makes it easier to communicate effectively. This is where local sourcing differs from domestic sourcing. Being located in the same country as the supplier does not mean you share the same (regional) corporate culture and spatial distance may still be too great to engage in effective communication. Although it does not match exactly, this finding is more in line with the social capital theory and the RBV of the firm. Social capital is described by Nahapiet and Ghoshal (1998) as the goodwill the results from social relations. Interviewees within this research mentioned that due to sharing the same corporate culture and short lines of communication, strong relationships develop. These strong relationships are beneficial for both supplier and buying organization. The extension of the RBV of the firm by Steinle and Schiele (2008) described that local supplier can be seen as a valuable resource. The findings of this research that relationships with local

suppliers provide benefits in terms of flexibility and communication are consistent with this. However, this research did not find that being embedded in a regional network of suppliers and buying organizations outweigh the benefits of close individual relationships. To investigate this, more in depth research should be done.

5.2 Supporting and Expanding Current Literature with Found Challenges

Existing literature has not touched upon heavily on local sourcing challenges. Li et al. (2019) stated that findings within current literature are fragmented and none unified theoretical perspective have been established. This research tried to expand current literature by defining the experienced challenges of local sourcing. It was found that availability of the right products is the most experienced challenged by buying organizations. In addition, the findings showed that buying organizations experience that local sourcing can come with high purchase prices. These challenges are forcing organizations to source globally, even if they prefer to source locally.

Availability problems as challenge of local sourcing was also identified by Ivanov et al. (2019). In their analysis they identified a limited supplier or no supplier base as biggest disadvantage of local sourcing. As a result, two challenges are mentioned: sourcing the needed product against the right quality and increasing bargaining power of the supplier. The first challenge is consistent with the challenge of availability problems that are found in this research. However, the second challenge of increased bargaining power of the local supplier is not in line with the findings of this research. This challenge was not mentioned by the interviewees in this research. As bargaining power of a local supplier increases a higher purchase price may be charged, interviewees indicated to move away from local suppliers and source globally if this is the case. As a result of this, one could say, that the bargaining power of the local supplier is decreased, because the buying organization has the option to source the needed product globally.

This research also found that there might arise challenges in the relationship with the local supplier. When this relationship gets too personal, professionalism is not guaranteed. This can affect purchasing price and quality of the sourced products, which may cause that the buying organizations is outperformed by competitors. This challenge was also found by Wagner et al. (2005) which state that buying organizations must involve in supplier development practices in order to ensure that the performance and capabilities of the their supplier are equal to or greater than the performance and capabilities of the firm's competitors. However, whereas Wagner et al. (2005) sees this challenge as a result of the local supplier being incapable of meeting the needs of the buying organization, this research found that this challenge is a result of a too personal buyer-supplier relationship.

5.3 Local Sourcing and the Relation with Sourcing Strategies Explained by the KPM

This research tried to establish a link between local sourcing and sourcing strategies, the KPM was used as a tool for this. The findings of this study are twofold. First, as the supply risk is higher for the strategic and bottleneck quadrants, buying organizations face challenges regarding the availability of products and purchase price. Some products might automatically be placed on the right side of the KPM, because they can not be sourced locally. Sourcing products globally instead of locally increases namely the supply risk. This explains why strategic and bottleneck products are less sourced locally. These findings are partly in line with the recommendations given by Kraljic (1983),

which state that for strategic and bottleneck products mainly global supplier should be established and for leverage and routine products chiefly local suppliers should be established. However, where (Kraljic, 1983) advises to source strategic and bottleneck products globally in any case, this study showed that purchasers do not necessarily source these products globally. Local sourcing is often preferred for these products, but this is simply not always possible.

Second, this research found that local sourcing might be used to shift products between different quadrants of the KPM. Which also explains why less products are sourced locally in the strategic and bottleneck quadrants. By sourcing locally, the supply risk of products can be decreased. As the supply risk is decreased, products shift from the right side of the KPM to the left side. This means that strategic products become leverage products and bottleneck products become routine products. This explains why local sourcing is more prevalent in the leverage and routine quadrants. This was also found by Gelderman and van Weele (2003). As the original framework does not provide guidelines for movements within the KPM, Gelderman and van Weele (2003) investigated whether it would be advisable and feasible to do so. Their case concluded that pursuing movements within the KPM can be a followed strategy. Regarding bottleneck products, they conclude that these can be shifted towards the routine quadrant by broadening products specifications or by searching for other suppliers. Regarding strategic products, they state that partnerships should be build with suppliers in order to shift these products to the leverage quadrant. This research supports and expands these findings of Gelderman and van Weele (2003) by recognizing local sourcing as a strategy to shift products from the strategic and bottleneck quadrants to the leverage and routine quadrants.

6. PRACTICAL RECOMMENDATIONS

Based on the findings and conclusions presented, the following recommendations are suggested for purchasers and buying organizations. This research revealed that, by sourcing locally, companies strive to reach in particular logistic benefits. In addition, local sourcing comes with flexibility and the same language and culture make shorter lines of communication possible. Buying organizations should be aware of the benefits they can expect from sourcing locally. These mentioned motivations should be taken into account when considering to source locally or globally. However, local sourcing also presents challenges to buying organizations. The results showed that needed products are not always available in the nearby region, especially for strategic and bottleneck products. In addition, the local purchase price is often higher compared to the global purchase price. Therefore, when considering to source locally or globally, buying organizations should also take these challenges into account. When companies want to reap the benefits of local sourcing, they should carefully research whether they can overcome the challenges associated with local sourcing. In particular, they should check whether products are available locally against the right price and quality. Furthermore, this research showed that the relationship with local suppliers can be challenging. Therefore, when the choice is made to source locally, buying organizations should be aware of this. The buying organization should ensure that the relationship will not become too personal and that professionalism is always guaranteed. Beneath this, local suppliers with whom the buying organization has a good relationship should always be benchmarked against

the market, like all other suppliers. When this is not done, the buying organization runs the risk of being overtaken by competitors on price or quality. At last, buying organizations should be aware that local sourcing can be used to switch products across quadrants in the KPM. By sourcing locally, the supply risk of products can be decreased, which causes that products move from the right side to the left side of the KPM.

7. LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

This research has some limitations that should be mentioned. First, this research is qualitative in nature, however the analysis of the results across cases was based in quantifying. By solely focusing on numbers, relationships across cases and broader insights might be overlooked. Second, the semi-structured interviews were conducted by two different interviewees. This might have caused that the interviews and given answers are biased. In the way of asking questions, the interview can influence the interview. Because two interviewers conducted the interviews, there is a difference in the questions asked and answers given. Third, a small sample size of only ten companies was used during this interview. Because only ten companies took part, each industry is only represented by one company, except the metalworking industry which was represented by three organizations. A bigger sample size would increase the reliability of the research. In addition, a larger sample would probably give more insights in the relationship between the KPM and the benefits and challenges of local sourcing. Not every interviewee was able to provide answers to this. At last, the KPM was used in this research to classify products into four quadrants. However, it turned out that the interviewed companies classify more by supplier than by product. This means that, for example, products from different quadrants are purchased from the same suppliers. The supplier is then not treated differently per product, but is treated on the basis of the overall performance as supplier.

Whereas this research described the main motivations and challenges of local sourcing, this research failed to compare expected benefits of local sourcing against actually achieved benefits. Future research could go into more detail on this, by for example using a longitudinal approach. By doing so, one could investigate what companies expect to achieve from local sourcing before they start to source locally. Afterwards one could investigate whether all these expected benefits have been achieved, how much effort this took and what additional benefits were experienced. Another option is to dive into the documentation of the buying organization. Here one might find the business case or criteria for local suppliers, which helps to understand the motivations for local sourcing. In addition, further research could investigate what solutions companies use to overcome the challenges of local sourcing. Although this was asked during the interviews of this study, too little information was obtained to draw conclusions about this.

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APPENDICES

Appendix A

Table 3: Description of cases

Name	Industry	Products	% local sourced products	Size Small=<50 Medium=51-200 Large=>200	Country	Interviewer
A	Metalworking	Company curves	97,5%	Small	Netherlands	Lars
B	Metalworking	Diamond drill	40%	Small	Netherlands	Lars
C	Construction	Skirting boards, window sills	90%	Medium	Netherlands	Lars
D	Electronics	Installation technology, central heating boilers	60%	Medium	Netherlands	Lars
E	Furnishing	Business walls, cheat screens	75%	Small	Netherlands	Lars
F	Agriculture	Agricultural machinery and manure systems	40%	Medium	Netherlands	Gerald
G	Oil & Gas	Gas turbine systems	60-70%	Medium	Netherlands	Gerald
H	Metalworking	Machinery for metalworking, engineering, laser cutting, robot welding and powder coating	80%	Medium	Netherlands	Gerald
I	Plastic	Customer specific plastic products	20%	Medium	Netherlands	Gerald
J	Packaging	Packaging machines, backs and consumables,	20-25%	Medium	Netherlands	Gerald

Appendix B

Interview questions Local sourcing

Within the introduction, the interviewee is briefly told about the objectives of the interview, and the background of the interviewer. It is explained that the focus of this interview will be on having a 'conversation', rather than a formal interview.

- Recording: First of all, is it OK if I record the interview to analyze the data afterwards?

Part 1: How are you involved with the sourcing process of this company?

Optional sub-questions part 1

- 1.1 What is your function within this company?
- 1.2 How long are you working for this company?
- 1.3 How long have you been functioning in the purchasing field?

Part 2: What is your vision on local sourcing?

Optional sub-questions part 2

- 2.1 How large is the share of local suppliers relative to the total amount of suppliers?
- 2.2 How would you describe the relationships with your local suppliers?

Part 3: About the Kraljic matrix: The Kraljic matrix is often used by purchasers to classify sourced products into four quadrants based on complexity of supply market and profit impact (see matrix below).

For every quadrant of the Kraljic matrix, can you give an example of a product that is sourced locally by your organization?

- Examples might be:
 - Leverage: plastic (lego bricks)
 - Strategic: raw materials
 - Routine: office supplies
 - Bottleneck: computer chips

Optional sub-questions part 3

- 3.1 If one or more quadrant(s) are not locally sourced, what is the reason for this?
 - No products sourced in this quadrant
 - Only globally sourced products in this quadrant

Part 4: What are for this company the motivations to source products locally?

- Examples might be:
 - Cost (purchase price, transportation costs)
 - Quality
 - Accessibility
 - Sustainability (fuel)
 - Social Capital

Optional sub-question part 4

- 4.1 For every quadrant of the Kraljic matrix, which expected benefits do you seek from local sourcing and which expected benefits do you actually experience?

Part 5: What are for this company the experienced challenges when sourcing locally?

- Examples might be:
 - Lack of skills
 - High costs
 - Loss of technology
 - Loss of control
 - Other risks

Optional sub-questions part 5

5.2 When looking at the Kraljic matrix, do these challenges differ per quadrant?

5.3 Which solutions do you pursue for managing the challenges with local suppliers?

Part 6: How do you stimulate a relationship with your local supplier?

For local sourcing there are several practices mentioned in the literature, these are:

(will be printed or shared by screen)

- information sharing
- goal congruence
- decision synchronization
- incentive alignment
- resources sharing
- collaborative communication
- joint knowledge creation

6.1 On a scale from 1-10, how important is each local sourcing practice for you, when sourcing locally?

6.2 According to your answers, practices X and Y stand out. Can you elaborate how you apply these practices in relation to your local suppliers?

6.3 In part 3 of this questionnaire, for each quadrant an example product was given. Can you elaborate for each product which of the 7 local sourcing practices is most applicable?

Part 7: Closure

7.1 Is there anything that I missed, or that you would like to share with me before we finish?

Thank you for your time. If you have any further ideas you would like to share with me, or questions about the project, please contact me. And I will make sure that you receive the summary of the thesis report and if you like, also the full report once it is finished.

Appendix C

Table 4: Codebook

Code Group	Code
Changes in the market	Increasing sustainability Need for certificates Price inflation Scarcity of raw materials
Experienced challenges of local sourcing	Availability problems High purchase price Lack of capacity Lack of quality Loss of control Relationship getting too personal
Importance of seven sourcing practices	High importance collaborative communication High importance decision synchronization High importance goal congruence High importance incentive alignment High importance information sharing High importance joint knowledge creation High importance resource sharing Low importance collaborative communication Low importance decision synchronization Low importance goal congruence Low importance incentive alignment Low importance information sharing Low importance joint knowledge creation Low importance resource sharing
Kraljic quadrant	Bottleneck Leverage Routine Strategic
Motivations for local sourcing	Control Flexibility Gaining market knowledge Logistic benefits Low stock buffer No time difference Same corporate culture Same language Short lines of communication Stimulating region Stimulating sustainability

Codebook extended

Code Group	Code
Reasons to use sourcing practices	Better collaboration with suppliers Creating a standard process Getting supplier rewards Improving communication Improving products Improving the production efficiency Increasing purchase certainty Increasing quality Making better agreements Reducing mistakes
Seven sourcing practices	Collaborative communication Decision synchronization Goal congruence Incentive alignment Information sharing Joint knowledge creation Resource sharing
Share of products sourced locally	0-25% 26-50% 51-75% 76-100%
Stimulating buyer-supplier relationship	Collaboration with suppliers Making clear agreements Making contracts Making forecasts Meetings with suppliers Price agreements Sharing product information
Tackling local sourcing challenges	Changing parts Increase stock Increasing volumes to decrease purchase price Inviting suppliers to improve Making clear purchase agreements Perform audits Producing products in-house Second sourcing
Vision on local sourcing	Nature of product is leading Preferably sourcing local, if price or quality difference is too big then global Sourcing based on price, but first local and then global