

**Strategic sourcing supplier selection misalignment with critical success factors:****Findings from multiple case studies in Germany and the United Kingdom**

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**Abstract**

Strategic sourcing plays an important role in organisations' performance. Strategic sourcing has been researched extensively using empirical studies as well as review work, such as strategic sourcing importance, issues and challenges, processes, source selection criteria and framework. However, there is no research on critical success factors for strategic sourcing specific to industry and country. This research aims to qualitatively evaluate and understand the current role of strategic sourcing, the critical success factors for business performance and its relationship with strategic sourcing, and strategic supplier evaluation criteria from multiple stakeholders' perspectives specific to industry and country. This research studies twenty organisations from Germany and the United Kingdom (UK) covering two industry sectors - electronics manufacturing and construction. We consider five organisations from each industry sector and each country. The findings from twenty case studies reveal comparative analysis of strategic sourcing practices of two countries and two industries.

**Keywords:** Strategic sourcing; Critical success factors; Strategic supplier evaluation criteria; Stakeholder management; Multiple case studies

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## 1. Introduction

Strategic sourcing has emerged as an important enabler for managing global supply chain because organisations are exposed to a wide variety of supply chain risks and disruptions nowadays. For instance, the financial crisis led to several supplier bankruptcies, which resulted in supply shortages. The nuclear catastrophe in Fukushima in 2011 (Japan) and the volcanic ash in Europe in 2010 (Iceland) led to significant disturbances in the supply chain (Kotula and Reiß, 2011). Furthermore, other risks such as wars and terrorisms, political instability, diseases or epidemics, product recalls, pirate attacks on container ships tremendously affect the supply chain (Chopra and Sodhi, 2004; Meena *et al.*, 2011). All these risks have direct impact on long-term strategic sourcing decision, and have led many organisations to consider switching from single to multiple sourcing strategy.

Strategic sourcing has been extensively researched using empirical studies as well as review work, such as strategic sourcing importance, issues and challenges, processes, source selection criteria and framework (Narasimhan and Das, 1999; Rossetti and Choi, 2005; Kausik and Mahadevan, 2012). According to authors' knowledge, there is no research that integrates organisational critical success factors with strategic suppliers' selection criteria. Additionally, there is no comparative analysis of strategic sourcing practices across industries and countries. Therefore, this research aims to understand the current state of strategic sourcing in specific industry and country and addresses five research questions – to what extent strategic sourcing is being adopted within the organisations, which success factors are critical to the organisations for enhancing business performance and competitive advantage, which strategic supplier evaluation criteria are considered by the organisations, which internal stakeholders are involved in strategic sourcing, and is there any alignment between the organisations' sourcing strategies and execution?

In order to address these research questions, we undertake a multiple case study method using twenty cases in electronics manufacturing and construction industry sectors in Germany and the UK. Both the industry sectors and countries were recently affected by the supply shortage and financial crisis. This study allows cross industry and cross country comparison to shed more light into the contemporary practices of strategic sourcing. The paper is organised in five sections. Section 2 reviews the current literature on strategic sourcing to establish the theoretical foundation, identify research gaps, and develop a research framework for this study. Section 3 describes the research method that was adopted to answer the research questions. Section 4 elaborates data analysis, the findings and develops a set of propositions. Finally, section 5 concludes the paper with clear statements of

both theoretical and practical contributions, limitations of the study, and scope for future research.

## 2. Literature Review

This section elaborates the role and importance of strategic sourcing, critical success factors for strategic sourcing, strategic supplier evaluation criteria, and stakeholder collaborations in strategic sourcing.

Hult (2002) and Kotabe and Murray (2004) state that sourcing can influence the competitive advantage and business performance of a company. Narasimhan and Das (1999) empirically support the positive influence of strategic sourcing on manufacturing flexibilities, as buyers can increase manufacturing performance and reduce costs through strategic sourcing. Khan and Pillania (2008) present the key dimensions of strategic sourcing with empirical validation, where partnerships, flexibility, supplier selection, and trust are essential. The authors provide evidence for the importance of strategic sourcing, and its positive correlation with the company's performance. Su *et al.* (2009) analyse how strategic sourcing and supplier selection influence competitive advantage and business performance. The study supports that the supplier selection process has an impact on gaining a competitive advantage, and strategic sourcing positively influences business performance. Furthermore, Chiang *et al.* (2012) show that strategic sourcing and strategic flexibility have significant influences on the agility of supply chains. The determination of strategic sourcing by strategic purchasing, supplier development, internal integration, and information sharing has a greater influence on a firm's supply chain agility than flexibility.

There are several papers identifying critical success factors for strategic sourcing. Table 1 summarises the critical success factors. It reveals that before Year 2000, strategic sourcing was mainly driven by cost reduction and better management of suppliers. Between 2000 and 2010, developing strategic supplier partnership was widely acknowledged as the key factor. Flexibility, forward-looking, and information integration have been emphasised for the strategic sourcing after 2010.

<Insert Table 1 about here>

There are several papers identifying the evaluation criteria for strategic supplier selection. The strategic supplier evaluation criteria are listed in Table 2. It indicates that the key criteria and their priorities have changed with time and business environment. Nevertheless, cost/price, delivery time, and quality are always the key strategic supplier evaluation criteria in the literature. To cope with the contemporary challenges of dynamic

market, numerous criteria have been taken into consideration, such as companies' financial performance, flexibility in service and production capability, and risk management.

<Insert Table 2 about here>

Additionally, there are several studies on stakeholder management and collaboration in strategic sourcing. Spekman *et al.* (1999) suggest organisations to establish commodity teams across functions to enable the enterprise-wide alignment between supplier evaluation criteria and a jointly agreed category strategy. Kocabasoglu and Suresh (2006) support the view of internal collaboration with other functions, and uncover its importance based on their manufacturing survey. Cox *et al.* (2007) and Schneider and Wallenburg (2012) argue that sourcing function has to collaborate better within the company, especially with sales or marketing. Chan *et al.* (2007) and Hartmann *et al.* (2008) point out that multi-stakeholder perspectives must be appropriately considered in a strategic sourcing supplier selection process. Otherwise, additional risks would occur and directly affect organisation's reputation, brand value, and reliability. Ho *et al.* (2011) propose that internal stakeholders and their requirements must be considered in the strategic supplier evaluation process such that the supplier selection is aligned with the business strategies. Kern *et al.* (2011) empirically prove that the successful management of three stakeholder groups (suppliers, internal clients, procurement and supply management staff) significantly contributes to enhance sourcing performance in terms of cost, delivery, quality, and flexibility. Foerstl *et al.* (2013) prove that cross function integration in sourcing enhances the firms' performance according the data collected from 148 companies.

The literature review highlights several research gaps. Although adoption and execution of strategic sourcing vary across industries and countries, there is no study that demonstrates strategic sourcing practices in specific industry and country along with associated issues and challenges. The identification of critical success factors for strategic sourcing specific to industry and country are important. Moreover, the relationship between organisational critical success factors and strategic supplier evaluation criteria are not explicitly analysed in prior studies. Although supplier evaluation criteria have been identified and analysed extensively in the literature, there is limited studies investigating evaluation criteria for strategic supplier selection. Additionally, alignment of strategic sourcing with organisational strategic intents and all functional objectives has not been analysed in depth yet. This study bridges the above knowledge gaps.

### 3. Methodology

This research adopted a case study approach considering twenty medium to large organisations from the electronics manufacturing and construction industries in Germany and the UK. We selected the research method with the objectives of better understanding and evaluating the current practices of strategic sourcing within organisations, and answering “why” and “how” questions (Eisenhardt, 1989; Yin, 2009). We selected this research method also because the research of strategic sourcing in the construction industry is in an explorative stage. Finally, the case study method allows a more in-depth evaluation of reasons through open-ended questions, allows the interviewees to explain actions and behavioural causes, and allows the observation of formal and informal processes (Miles and Huberman, 1994). The multiple case study approach also allow comparative analysis of strategic sourcing practices across organisations, industries and countries.

#### 3.1. Research framework

Figure 1 illustrates the foundation for this research. Strategic sourcing maturity varies across organisations and industries, which have a direct influence on the role of strategic sourcing within an organisation. This maturity impacts the degree of the professionalism of the sourcing function. Compared with manufacturing organisations, construction organisations are more laggard and do not apply the state-of-the-art tools and methods in sourcing (Van Weele, 2010).

The sourcing plays a critical role for organisational success and the success factors need to be aligned with the strategic supplier evaluation criteria as well as the objectives of each function. Finally, the structure and guidance of the framework enables the sourcing function to improve their sourcing decisions and ensures the alignment with corporate goals across functions to minimise supply chain risks, which will improve business performance and provide competitive advantage.

<Insert Figure 1 about here>

#### 3.2. Case selection

The country selection is primarily determined by the research gap in specific countries and its economical and geographical characteristics. First, there is limited research in qualitative cross country evaluation of strategic sourcing practices in Germany and the UK. Second, Germany (No. 4) and the UK (No. 6) are within the world largest countries and

dominant in Europe (World-Bank, 2014). Third, Germany is in central Europe, known as transit country, and has strong export quota, whereas the UK is on an island and is therefore exposed to supply chain risks.

The electronics manufacturing and construction industry were selected in order to capture global perspectives of sourcing. The electronics manufacturing sector is highly exposed to Asian markets and has to cope with global sourcing, cultural changes, and lean supply chains. The electronic component crisis led to significant risks for organisations, where the lead times for certain parts increased from a few days to months. In addition, the product life cycles become shorter and the electronic components change frequently, which leads to an additional risk exposure in single sourcing strategies and products design. The construction industry is highly dependent on tight scheduling and budgeting using project management approach. However, it utilises a network planning structure instead of an assembly line approach, which typical for manufacturing industry. Typically, the spend distribution is high and often reaches millions of Euros, which leads to a higher bargain power of buyers. The site management or during the bidding process the specifications and designs are set, which limits the bargain power of suppliers if the project starts. The case selection is presented in Figure 2.

<Insert Figure 2 about here>

The company selection is based on purposive sampling, which is a common procedure in qualitative research (Monczka *et al.*, 2011). This research is based on twenty cases (ten by industry and country), which is a solid foundation for case study research (Eisenhardt, 1989; Rossetti and Choi, 2005). The sampling criteria are shown in Table 3.

<Insert Table 3 about here>

### 3.3. Case overview

The organisations vary across countries in revenues, number of employees, strategic and operational context, and sourcing practices perspectives. Furthermore, the organisations target different markets and structure their operations based on a domestic, regional (Europe) or global focus. Table 4 shows the overview of the twenty organisations.

<Insert Table 4 about here>

The interviews were conducted between September 2011 and November 2012. The organisations and interviewees' characteristics are shown in Table 5.

<Insert Table 5 about here>



The organisations have different structures, which are dominated either by decentralised sourcing with coordinated purchasing or central sourcing (Figure 3). However, it can be seen that the construction sector is still driven by project or decentralised purchasing organisation.

<Insert Figure 3 about here>

#### 3.4. *Data collection*

An interview questionnaire was prepared, pre-tested and peer-reviewed by three researchers and one practitioner of sourcing and procurement. The feedback from a few researchers and practitioners led to finalise the questionnaire before the interviews were undertaken. Organisations were contacted by phone or mail to ask if they are willing to participate in this research project. All interested organisations received an abstract of the research project and its objectives for the interview.

The research design is based on twenty interviews to elaborate the current practices with open-ended questions. To avoid interviewer biasness, closed questions were used for verification purposes. With one exception all twenty interviews were audio recorded with direct documentation of the spoken words. The findings were not summarised. Instead, the interviewees' entire answers were used for coding purposes, and the interviews were conducted in German and English and documented in these languages. A translation from German to English was rejected to avoid translation errors and minimise interpretation bias. One of the researchers used his language skills to code them. The coding structure and definition is in English. During data reduction, and to summarise central elements, the German cases were translated into English. For the data analysis, software NVivo 9 © was used. The twenty cases were coded according to country and industry as shown in Figure 2. There is a combination of two letters for country (DE=Germany, UK=United Kingdom) and two letters for industries (CO=construction, EL= electronics manufacturing). The numbers represent each case, which has been classified randomly. The coding was reviewed within the researchers' group. The strategic supplier evaluation criteria were structured and analysed by using descriptive statistics.

#### 3.5 *Data analysis*

The empirical analysis is mainly based on an iterative and inductive process of reading, coding, and interpretation of the transcribed interview notes of twenty case studies (Yin, 2009). First, the coding structure was defined, stored in the NVivo Software, and linked to



the relevant text section. In the analysis phase, a query can be executed to analyse the case studies specifically to a semantic code. In this research, the coding structure was based on the research dimensions of the questionnaire. The majority is therefore descriptive. For organisational codes, attribute fields were used in NVivo. The applied structure and first level hierarchy is based on the conceptual framework of this research and should allow for a better understanding of the structure.

#### **4. Findings**

This section intends to address five research questions - to what extent strategic sourcing is being adopted within the organisations, which success factors are critical to the organisations for enhancing business performance and competitive advantage, which strategic supplier evaluation criteria are considered by the organisations, which internal stakeholders are involved in strategic sourcing, and is there any misalignment between the organisations' sourcing strategies and execution?

##### *4.1. Role of strategic sourcing*

Figure 4 shows that nine out of nineteen organisations see strategic sourcing as a significant and distinct function, but the remaining ten do not have an established strategic sourcing department. The UK organisations dominate the adoption of strategic sourcing, six vs. three. The remaining four UK organisations have plans to establish a strategic sourcing in near future. However, only three German organisations have plans for strategic sourcing. Industry wise, six electronics manufacturing organisations underline the importance of strategic sourcing compared with three in construction sector. It is revealed that based on the highly decentralised organisational structure in the construction sector in both the countries, the integration of strategic sourcing function is challenging.

The interview findings further reveal that the role of strategic sourcing has changed over the past five years and became more important for organisational performance with enhanced management support. At UKCO1, the importance is obvious “[...] if I’m the CEO, if sourcing wouldn’t be that important to my company, I wouldn’t give you money to build a supply chain department”. “Sourcing in general has gained more management attention, but the strategic sourcing became particularly relevant as the board saw the impact sourcing could have on revenues” (UKEL1). Case UKEL3 highlights the change of the function and its increasing importance due to changing operating models: “I mean a fundamental role in our company, as we are primarily and increasingly a kind of an outsourced manufacturing

model, i.e. that we're pushing more and more of the assembly and testing of the products externally". The organisational capability is a key burden. The management of DECO5 understands that the company has reached a significant size, where the implementation of a sourcing function makes sense. The company size is the biggest challenge for DEEL2, and is the reason why strategic sourcing remains unestablished. Instead, the strategic sourcing approaches are managed as part of the daily business. "We do not have a 100% strategic sourcing. It does not make sense, if we focus on our company size. There are three functions: project sourcing, series sourcing and strategic sourcing. But the role did change over the past three years and the strategic work-load increased up to 50% [...]", states DEEL2. DEEL4 works on the implementation of a corporate strategic sourcing role within the holding organisation, although the decentralised structures will be more bundled. UKCO5 is going through a restructuring process; the corporate strategic sourcing function has been already designed and the strategy has been developed. Structural changes and the recruitment of highly skilled people have started (UKCO5).

Three organisations do not have a strategic sourcing department. DECO2 highlights that a strategic sourcing department is not planned: "The work of strategic and transactional is really mixed together. It does not work if one employee only works strategically." Although the major workload is still transactional focused, the strategic direction is developed by the chief procurement officer and this guidance is relevant to the buyers (DEEL3): "We do not differentiate between strategic and transactional. Though, the strategic guidance will be developed by me, what we need to do, which suppliers we develop, etc." Finally, and surprisingly, UKCO4 use a different approach: "The size of the organisation we are, we have actually probably gone the other way." From centralised purchasing, the organisation has reverted back to project organisation and transferred the sourcing to the project level.

<Insert Figure 4 about here>

Based on the qualitative research findings, we propose the following propositions.

Proposition 1a: Strategic sourcing is still in a nascent stage. Although the importance of strategic sourcing has been acknowledged more, it is not commonly adopted within organisations.

Proposition 1b: The adoption of strategic sourcing in the UK organisations is more than that in German organisations.

Proposition 1c: The adoption of strategic sourcing in the construction organisations is less than that in the electronics manufacturing organisations.

#### 4.2. Critical success factors

The case studies (n=20) show that quality, supplier relationship management (SRM), and strategy alignment are the three most important success factors in the next ten years (Figure 5). Quality is obviously vital across industries and countries because several organisations highlight that quality is an important enabler to cope with raising customers' expectations. The collaboration and partnership with key suppliers will gain importance in the future because the interviewees think that they will increase the competitive advantage of an organisation. The third most important factor is the alignment of sourcing strategies with corporate goals, which directly relates to the collaboration with multiple stakeholders within an organisation. The need to achieve this particular alignment has gained management attention in the sourcing function.

<Insert Figure 5 about here>

Table 6 shows the top critical success factors in both countries. Product quality dominates specifically in Germany (90% of the organisations), which is due to the historic "made in Germany" branding. "Quality is a given, but the key topic. If you buy cheap, but you do not have quality, you will destroy your brand", states DEEL5. On the contrary, the UK organisations regard continuous improvement as the dominant factor (80% of the organisations), which is similar to quality but from a management perspective, including process quality. UKCO2 points out: "Continuous improvement, I think that goes through everything we do, we just need to keep getting better at it, if you got a period of ten years, then if we could do that then we will be doing okay." Similarly, UKCO3: "It is important to do and improve the things over and over, and the company will be able to improve margins and quality". UKEL3 highlights the need for continuous improvement: "If we stand still, we're going to fall further behind. So, you know, that's, I would say, mandatory on each business."

<Insert Table 6 about here>

Table 7 shows the top critical success factors in both industries. Quality is regarded as the most important factor in the electronics manufacturing sector because of increasing customers' expectations. DEEL1 highlights the recent changes: "Quality is very important to us, because the requirements to quality as well as technical availability of machines of the end customer is worldwide constantly increasing. [...] We are more and more involved to

*meet the quality requirements of our customers with a zero-defects rate.*” UKEL5 also states that quality helps *“retain and enhance competitiveness”*. Similarly, quality is regarded as the most important factor in the construction sector. DECO4 has a different, automotive-inspired, approach in their assembly line for prefabricated houses: *“We work in accordance with the Porsche system, and this will be more and more important. We are on the way to meet the, let’s say, zero failures.”* UKCO2 emphasises that *“Quality, we need it right first time. That just goes and that has always been the main driver. Quality.”* UKCO3 states that *“Quality is paramount because that’s what our customer wants. Customers are always right. Customer service is key.”*

<Insert Table 7 about here>

The study of critical success factors across country and industry reveals the following proposition.

Proposition 2: Quality is the most critical success factor for both electronics manufacturing and construction sectors in Germany and the UK.

#### 4.3. Strategic supplier evaluating criteria

The interviewees were asked to rank fifteen criteria, which were identified from the literature. Eleven out of twenty organisations completed this survey using the appropriate scale, whereas the remaining responses were excluded due to incompleteness. Table 8 shows that price/cost/finance, performance of the supplier, and risk are the three most important evaluation criteria. The price is still a dominating criterion for supplier selection and is also relevant to the selection of strategic suppliers. Performance of the supplier is regarded as the second important criterion. Some organisations, especially in the construction sector, heavily rely on the suppliers’ performance. Risk is ranked third. This implies that the organisations consider risks more seriously in their strategic supplier selection process.

<Insert Table 8 about here>

Tables 9 and 10 show the top three strategic supplier evaluation criteria in both countries and industries, respectively. Coincidentally, financial factor, such as the suppliers’ product price, costs and payment terms, is the most important criterion. The price *“speaks for itself”* (DECO3) and DEEL1 points out that *“it is a key premise to be competitive”*. It is an extremely important factor for DEEL2 and UKCO2, and the *“right price, I guess for us, if the price isn’t right, the rest starts to tail away”*, states UKCO3. Additionally, UKEL5 points out that *“Price, cost, finance. Why that has to be part of a contract. We need to have it.”*

<Insert Table 9 about here>

<Insert Table 10 about here>

The study of strategic supplier evaluation criteria across country and industry reveals the following proposition.

Proposition 3: Cost/price/finance is the most important strategic supplier evaluation criterion for both electronics manufacturing and construction sectors in Germany and the UK.

#### 4.4. *Stakeholder collaboration and management*

Moses and Åhlström (2008) find that many sourcing functions operate independently and the internal collaboration is weak. In this research, we try to identify the degree of collaboration, especially in the process of strategic supplier evaluation. Eight out of twenty organisations see the internal customer buy-in as essential within the sourcing processes. Table 11 presents the findings and quotes. The electronics manufacturing organisations treat engineering and research and development (R&D) as their key stakeholder groups, whereas the construction organisations have a broader stakeholder group and focus on multiple functions. Nevertheless, other crucial functions such as sales or marketing and operations were not specifically mentioned in the interviews. There exists no significant country deviation.

<Insert Table 11 about here>

The proposition that derives from the above findings is:

Proposition 4: Key internal stakeholders are not fully incorporated to develop and execute the organisations' sourcing strategies in both electronics manufacturing and construction sectors in Germany and the UK.

#### 4.5. *Strategy misalignment*

There is a key difference between what organisations believe is a critical success factor for their business and how they execute their strategic supplier evaluation and selection. The case study organisations across industries and countries identify the most critical success factor as quality, and they tend to collaborate with engineering and R&D as key stakeholder groups in order to address quality and specification requirements. However, quality and specification are never the most important evaluation criteria for their strategic supplier selection. Instead, their supplier selection process is primarily based on price, cost, and finance. Therefore, if the organisations intend to become quality leader as per their selection of critical success factors, but adopt supplier selection on the basis of cost/price, there would

be serious strategic misalignment. The last proposition that arises from the above is as follows.

Proposition 5: There exists a misalignment between the organisations' sourcing strategy and execution practices in selecting strategic suppliers in both electronics manufacturing and construction sectors in Germany and the UK.

## 5. Discussion and conclusion

Strategic sourcing has evolved as one of the enablers for supply chain performance enhancement in recent years (Dey et al. 2014). However, many studies have revealed that it's still in nascent state in both developed and developing economies (Ho, et al. 2011, Scott et al. 2014). Therefore, linking strategic sourcing practices with other functional activities within the organisations and organisational strategic intents is of interest of any organisation across industries and countries. Additionally, according to authors' knowledge, there is no study comparing two industries and two countries on strategic sourcing adoption and execution. There are several research findings that help fill the above knowledge gaps in the literature. Although many scholars see the need of strategic sourcing and its positive impact on organisations' performance and competitive advantage (Kocabasoglu and Suresh, 2006; Chiang *et al.*, 2012), this research reveals that strategic sourcing is still an emerging function within the both electronics manufacturing and construction organisations in Germany and the UK. This study also finds that the adoption of strategic sourcing in the UK organisations is more than in Germany, and the practices of strategic sourcing in the construction organisations is less than that in the electronics manufacturing organisations.

This study further reveals that quality is the most critical success factor for both the industries and countries, whereas other success factors vary across organisations, industries, and countries. This study also reveals that cost/price/finance is the most important strategic supplier evaluation criterion for both the industries and countries. It seems that the generalisation of strategic supplier evaluation criteria (Ho *et al.*, 2010) does not generally apply and organisations within a specific industry focus on certain industry specific criteria. Importantly, this research highlights a significant misalignment between the critical success factors and the strategic supplier evaluation criteria. Majority of the case study organisations focus on price and financial metrics for strategic supplier evaluation and selection, which is quite misaligned with their strategic intents. Finally, this research demonstrates the current state of stakeholder management and its involvement in a sourcing process. It reveals that engineering and R&D have been widely considered as the primary stakeholders in the



sourcing process, whereas other critical stakeholder groups are ignored, such as sales or marketing, operations, and so on.

The practical contribution of this research is also significant. Based on our research framework and findings, practitioners could adopt strategic sourcing and consider it as an important function within their organisations in order to increase their business performance and competitive advantage. The framework also provides guidance for the execution of strategic sourcing. Specifically, the strategic sourcing function should consider organisation specific critical success factors, align the strategic supplier evaluation criteria with the critical success factors, and actively collaborate with key internal stakeholders so as to capture the strategic success factors and relate them to the evaluation criteria. By doing so, the evaluation criteria are related to the strategic intent of organisation and the supplier selected can achieve the business objectives.

The major claim against the qualitative findings is typically based on personal biases and peculiarity, which is particularly the case if there is only one interviewee participated within one organisation. However, there is always a risk of interviewee bias, which cannot be excluded. The researcher has to believe in the interviewees' responses and the research design that the findings are validated with different questions and through examining the overall situation. Besides, the research design was based on questions with a high degree of subjectivity, which supports the qualitative study and the research objective of deep understanding of how companies adopt and execute strategic sourcing.

There are several possibilities for extending knowledge in the area of strategic sourcing. First, this research can be replicated in other countries and industries. Besides developed countries, it is worth of comparing developed and developing countries on the adoption and execution of strategic sourcing. Second, longitudinal studies should be carried out to examine whether the adoption and execution of strategic sourcing add value to an organisation and influence the competitive advantage and business performance. Finally, this research shows that organisations in different countries behave differently, and cultural differences between the UK and Germany were noted. Therefore, it would be interesting to understand how the cultural backgrounds of managers or chief procurement officers influence strategic sourcing and its direction. Lastly, a study on causal relationship between strategic sourcing and business success could be established using quantitative approaches.



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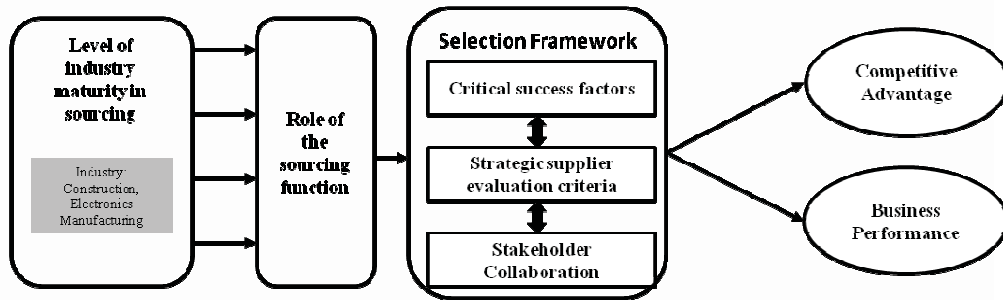
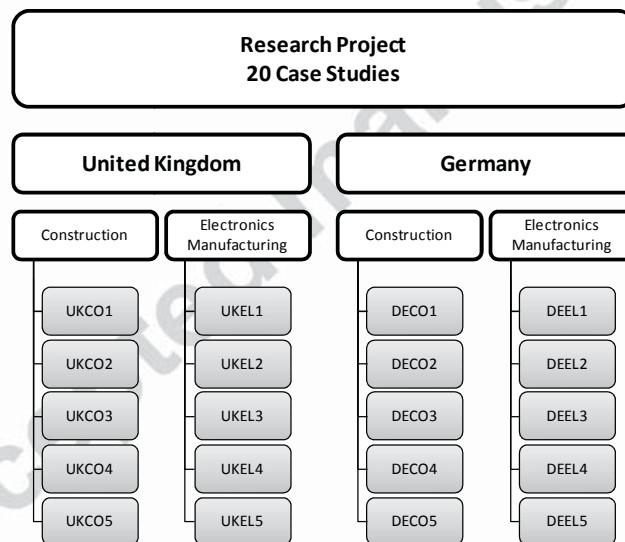
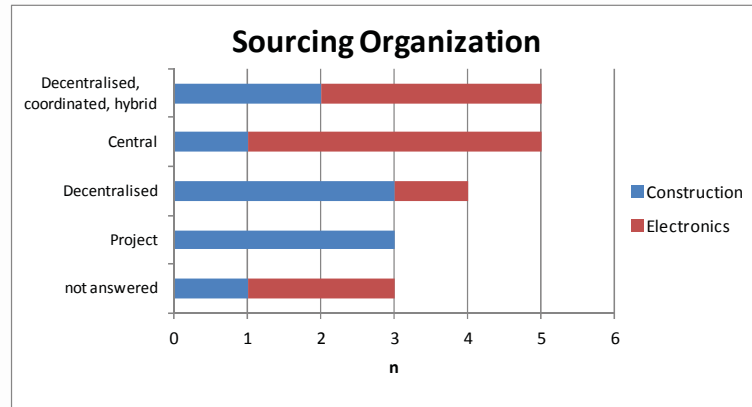


Fig. 1. A schematic diagram of the research framework.

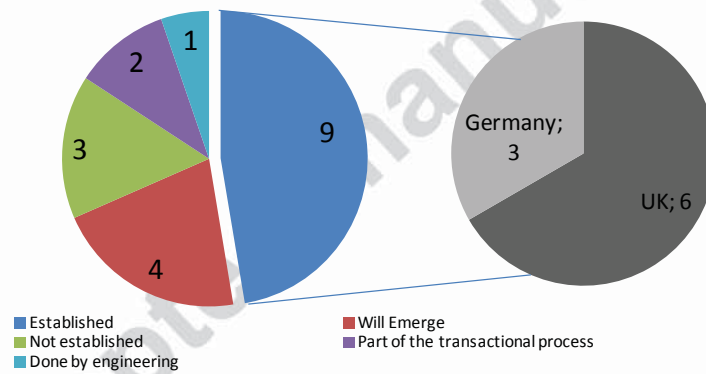


Coding: UK/DE = Country, EL/CO Industry, 1..5 case number

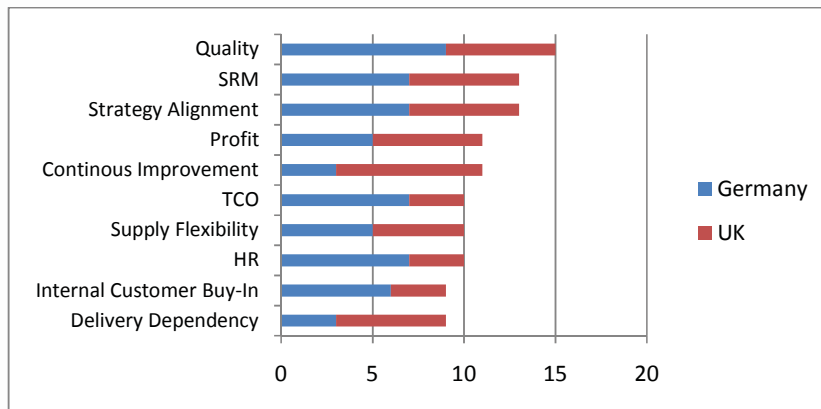
Fig. 2. An overview of twenty case studies.



**Fig. 3.** The sourcing organisation of the twenty cases.



**Fig. 4.** The adoption of strategic sourcing within the twenty cases.



**Fig. 5.** The critical success factors identified by the twenty cases.

**Table 1**

A summary of critical success factors for strategic sourcing.

| <b>Authors</b>                | <b>Critical success factors</b>   |
|-------------------------------|---|
| Anderson and Katz (1998)      | Total cost of ownership, sourcing process excellence, annual plan, develop requirements, devise sourcing strategies, procurement materials and services, evaluate suppliers, and manage supplier relationships.   |
| Narasimhan and Das (1999)     | Suppliers should have strong delivery performance, volume-change and modification capabilities. Furthermore, supplier involvement is a key element.   |
| Kocabasoglu and Suresh (2006) | Status of purchasing, internal coordination, information sharing with key suppliers and key supplier development. The authors argue to empower the sourcing function with relevant tools to make strategic decisions and to manage the supplier relationships. Besides, the cross-functional team collaboration should be improved with sales or R&D departments.   |
| Chan and Chin (2007)          | The fourteen success factors (from most important to least important) are: people management, linking sourcing strategy to corporate strategy, supplier evaluation and selection, system improvement, supplier collaboration, supplier development, supplier monitoring, sourcing strategy, learning organisation, process improvement, leadership in strategic sourcing planning, competitive analysis, proficiency focus, life cycle costs. |
| Khan and Pillania (2008)      | Strategic supplier partnership, sourcing flexibility, supplier evaluation and trust.  |
| Chiang <i>et al.</i> (2012)   | Strategic purchasing, supplier development, internal integration, and information sharing.  |
| Su (2013)                     | Sourcing's long-range plan is reviewed and adjusted to match changes in the company's strategic plans on a regular basis, sourcing's long-range plan includes developing relationships with key suppliers, and top management of the company emphasises the strategic role of sourcing function.  |

**Table 2**

A summary of strategic supplier evaluation criteria.

| <b>Authors</b>               | <b>Strategic supplier evaluation criteria</b>   |
|------------------------------|---|
| Verma and Pullman (1998)     | Cost, quality, lead time, on-time delivery, and flexibility of changing order   |
| Ndubisi <i>et al.</i> (2005) | technology, quality, cost, and delivery performance   |
| Su <i>et al.</i> (2009)      | Product cost, product quality, delivery dependability, and delivery speed   |
| Ho <i>et al.</i> (2010)      | Quality, delivery, price/cost, manufacturing capabilities, service, management, technology, R&D, finance, flexibility, reputation, risk, relationship, and safety |
| Kar and Pani (2013)          | Product quality, delivery compliance, price, production capability, technological capability, financial position, and e-transaction capability                    |

**Table 3**

The purposive sampling criteria for selecting the twenty cases.

| <b>Criteria</b>                               | <b>Definition</b>  |
|---|--|
| Country                                       | The countries defined: Germany and the UK  |
| Industry/Product                              | Construction of buildings and manufacturing of electronics components for industrial customers   |
| Company cluster: Medium and large enterprises | Based on the definition from the European Union, the targeted companies should be medium and large enterprises. The criteria are: Medium: 50–250 employees and a revenue of 10–50 million Euro; Large: above 250 employees and 50 million Euro |
| Revenue                                       | > 10 million Euro  |
| Employees                                     | > 50   |
| Production site                               | The company must have a production/construction site in Germany or the UK  |
| Function                                      | The target audience is the sourcing department. The interviewee should be the chief procurement officer or an employee in sourcing (e.g., commodity leader)  |



**Table 4**

The company background of the twenty cases.

| DECO1   | DECO2  | DECO3  | DECO4  | DECO5  |
|---|--|--|--|--|
| The company is a large enterprise and serves public and industrial clients with project development, turnkey solutions, real estate management and facility management combined with services. The markets served vary from power, infrastructure or operations of infrastructure projects with financial management. | The company has broad offerings: building, turnkey solutions, civil engineering, underground construction, building renovation or pre-casting of elements. Furthermore, the company offers real estate services.   | The primary business of the company is the services, product and turnkey solution provision with a focus on interior fit-out, facade construction and insulation engineering. The product range covers facade, steel, glass ceilings and industrial scaffolding.           | The company serves private clients with prefabricated houses. The house can be selected from standards or references or can be custom-made. The company produces around 700 houses per year.   | The company develops large projects for industrial clients. Primary activities are: project development, project management, general contracting and construction services. Furthermore, the company manages the properties, the facility, assets, centre and park houses. The company is general contractor for clients or develops and operates own properties |
| DEEL1   | DEEL2  | DEEL3  | DEEL4  | DEEL5  |
| The company is one of the competent solution providers for automation, installation, drive and control systems technology. The company produces electronic motors and drives, and automation systems based on its own engineering.  | The company is a competent solution provider for automation, installation, drive and control systems technology. It serves all industries from automotive and aerospace to consumer goods.   | The company is a global company with multiple sites and is one of the leaders in diagnosis and measuring systems for rotating components across industries.  | The company is a solution provider in communication and radio control systems covering engineering, equipment and support across multiple industries.  | The company provides the global automation markets and is a leading developer and manufacturer of electrical equipment such as sensor, barrier, fieldbus technique and positioning systems.  |
| UKCO1   | UKCO2  | UKCO3  | UKCO4  | UKCO5  |
| The company's core competency is in construction and construction consulting with integrated services across the full property and infrastructure life cycle. Despite the construction delivery, the company offers consulting services in project, facility and cost management.                                     | The company has several offerings in the area of construction of buildings and infrastructure. The offering covers design, construction through project finance and lifetime asset management. Also, it offers services in facility management, energy and infrastructure. | Morgan Sindall is the leading UK construction and regeneration group in the public and private sectors. The offerings range from construction and infrastructure projects, through investments, urban regeneration, fit-out restructuring projects and affordable housing. | The GB Group provides a broad range of services. They offer construction, development, energy, IT and management services across a variety of sectors. The company further specialises in care, student accommodation, residential, education, hotels and leisure. | Lend Lease is an international group, which operates as an integrated services provider around the globe. They offer the whole construction life cycle starting with development, investment management, project management & construction, and asset & property management for property and infrastructure.   |
| UKEL1   | UKEL2  | UKEL3  | UKEL4  | UKEL5  |
| The Seaward Group is the leading company in electrical test equipment. The company designs, manufactures and serves low and high-voltage markets, as well as the solar market.  | The company designs and manufactures portable electric test and measuring equipment for high and low voltage. Although the company has a global footprint, the organisational structure is local to meet local customer requirements.                                      | The company is a world leader in providing measurement and sophisticated communications and data solutions for gas, electricity and water customers.   | The company is an integrated electronic manufacturing service provider of custom-made solutions for cable looms, cabinets and boxes. In addition, the company offers a range of services, from electronic component sourcing to supply chain management.           | The company is a leading provider of high-technology tools and systems for research and industry. The company serves all industries, from agriculture to chemical and textiles.  |

**Table 5** The characteristics of the cases and interviewees.

|   | <b>n</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Average</b> |
|---|----------|----------------|----------------|----------------|
| <b>Revenue</b>                                | 19       | 37 Mil. €      | 8,123 Mil. €   | 1,594 Mil. €   |
| <b>Employees</b>                              | 16       | 265            | 58,312         | 6,595          |
| <b>Interviewees</b>                           |          |                |                |                |
| <b>Experience in current position (years)</b> | 16       | 2 years        | 29 years       | 8.5 years      |
| <b>Experience in sourcing in sum (years)</b>  | 13       | 3 years        | 36 years       | 17.7 years     |

**Table 6** Top critical success factors by country.

| United Kingdom  | Germany   |
|---|---|
| 1. Continuous improvement (8)                         | 1. Quality (9)  |
| 2. Delivery dependency (6)                            | 2. HR topics, talent, employees in sourcing (7)       |
| 3. Product cost (6)                                   | 3. Sourcing strategy aligned with corporate goals (7) |
| 4. Profit (6)   | 4. Supplier relationship management (7)               |
| 5. Quality (6)  | 5. TCO (7)  |
| 6. Sourcing strategy aligned with corporate goals (6) |   |
| 7. Supplier relationship management (6)               |   |

**Table 7** Top critical success factors by industry.

| Construction                            | Electronics   |
|---|---|
| 1. Quality (8)                          | 1. Quality (7)  |
| 2. Supplier relationship management (8) | 2. Sourcing strategy aligned with corporate goals (7) |
| 3. Profit (7)                           | 3. Supply flexibility (7)                             |

**Table 8** Most important strategic supplier evaluation criteria

| Rank | Strategic supplier evaluation criteria   | Sum of ranks |
|------|--|--------------|
| 1    | Price, costs, finance  | 27           |
| 2    | Performance of the supplier  | 47           |
| 3    | Risk   | 51           |
| 4    | Specification, product complexity, quality   | 52           |
| 5    | Delivery process with lead-times and supply continuity   | 65           |
| 6    | Strategic sourcing fit with internal strategy  | 75           |
| 7    | Supplier relation and integration  | 92           |
| 8    | Competitive advantage over competitors   | 95           |
| 9    | Supplier production capability   | 96           |
| 10   | Own capabilities and resources (make vs. buy)  | 104          |
| 11   | Customer / demand of own company   | 108          |
| 12   | Supply market characteristics (bargaining power)   | 112          |
| 13   | Processes and automation, transaction costs  | 120          |
| 14   | Economic environment   | 136          |
| 15   | Geography of the supplier  | 140          |
|      | n=11; DECO2, DECO3, DEEL1, DEEL2, UKCO2, UKCO3, UKCO4, UKCO5, UKEL2, UKEL4, UKEL5<br>Scale 1–15 (1=most important) |              |

**Table 9** Top three strategic supplier evaluation criteria by country.

| United Kingdom  | Germany   |
|---|---|
| 1. Financials (3.0)<br>2. Risk (3.1)<br>3. Supplier performance (3.9)                                 | 1. Financials (1.5)<br>2. Specification/ Quality (1.5)<br>3. Supplier performance (5.0) |
| n= UK 7, DE 4 - mean values from a scale of 1 to 15, where 1 is the most important and primary factor |   |

**Table 10** Top three strategic supplier evaluation criteria by industry.

| Construction  | Electronics  |
|---|--|
| 1. Financials (2.8)<br>2. Supplier performance (3.0)<br>3. Risk (3.8)                                 | 1. Financials (2.0)<br>2. Specification (4.4)<br>3. Delivery process (4.8) |
| n= UK 7, DE 4 - mean values from a scale of 1 to 15, where 1 is the most important and primary factor |  |

**Table 11** Stakeholder groups identified from interviews.

| Case  | Interview Quote  | Relevant Stakeholders  |
|-------|--|--|
| DECO1 | "The internal involvement of other departments is a real topic, because we are very technique (engineering) driven. However, if you focus on other topics as well with a broader focus such as risk management, you need to involve functions such as Treasury or Compliance."   | Functional management, engineering, project manager, treasury, compliance        |
| DECO5 | "The involvement of functions is very important, because if you consider the long and critical path of a project, you will need the functions with their knowledge and experience."  | Functional management, internal customers  |
| DEEL2 | "I see the exchange between sourcing and R&D as critical and essential. It must be more active and both departments need to identify saving potential. This will be more critical in the future."  | R&D  |
| DEEL3 | "The involvement of other functions is very critical, because we are very engineering focused."  | Engineering  |
| DEEL4 | "The involvement of the sourcing functions must be at the early beginning of the process; for complex goods & services too. This situation was not given in the past and the sourcing function was purely processing purchase orders. If you focus on R&D we can suggest preferred modules or preferred and preselected parts, the developer can select from and which are approved by sourcing. A kind of bouquet." | Functional management, engineering, R&D  |
| UKCO2 | "Internal customer buy-in, for the reasons I mentioned to you for it needs to be something that all departments are involved in the supply chain process, and so they need to buy-in to strategies that are developed, and also to contribute towards it as well."   | Functional management, internal customers  |
| UKCO5 | "Internally the business must support the global sourcing process and that the internal customer has a bind as to this new model and that's very key for us. Because that's all around the fact that as we put these people to work, they have to know that the business is actually fully supportive of their requirements."  | Functional management, internal customers (mainly engineering, project manager ) |
| UKEL1 | "Internal customer buy-in, there, I would say it's sort of, in the past, we've had issues with our engineering department that if we were basically promoting one's supplier and they want to deal with another supplier sometimes, you sort of get pulled into different directions."   | Engineering  |