

EURASIAN JOURNAL OF BUSINESS AND MANAGEMENT

www.eurasianpublications.com

CONTRIBUTION OF SUPPLIER MANAGEMENT TO COMPANY VALUE DEVELOPMENT

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Abstract

Increasing the value of the company is one of the main tasks of the management in order to survive in the market in the long term. Due in part to the very high proportion of Value Added outside of the company itself among suppliers, especially in the case of manufacturing companies, the development of the Company Value is strongly influenced by these. Suppliers are increasingly involved in processes of their customers or even take over processes by themselves. As a result, Supplier Management by purchasing departments is important. From this, the cost-benefit ratio of Supplier Management activities is of great importance because the individual functions within the company compete for investments. For this purpose, the main tasks and the Profit Contribution of purchase activities are examined. Furthermore, the type and general significance of the Value Added provided by the suppliers is analyzed and the motivation for the cooperation is shown. Last but not least, the critical Success Factors of Supplier Management are examined and the reasons that make Supplier Management more difficult are determined as well. The result is that Supplier Management can contribute to the value of the company if purchasing is able to agree cost improvements with suppliers. Therefore, purchasing has to show the improved cost positions which can be realized via direct cost improvements and in addition via improved supplier performance which goes beyond direct cost reductions.

Keywords: Company Value, Profit Contribution, Success Factors, Supplier Management, Value Added

1. Introduction

The importance of Supplier Management has increased significantly in recent decades, as companies have increasingly focused on their core competences and shifted value creation to suppliers in order to generate higher value contributions and to be able to shift risks in parallel (Hofbauer *et al.* 2015). According to Federal Statistical Office (2018) in Germany, the share of material consumption including merchandise and wage labor in the gross production value in manufacturing is on average 58.0% and in mechanical engineering 53.9%. The cost of materials thus represents the largest cost block in the manufacturing industry, from which the necessity of an efficient and systematic Supplier Management derives.

The objective of this study is to identify the importance of Supplier Management by purchasing with regard to contributing to increase Company Value. Contributions can be both qualitative and quantitative in nature as well as on the cost or revenue side. For this purpose, a

written survey with involvement of purchasing representatives, who have many years of experience, was conducted in manufacturing companies. According to this survey, it emerged that the perception of cost responsibility by purchasing is particularly important and good savings results reflect the right to exist of the function. In addition, ensuring delivery and quality performance is of great importance, so that purchasing contributions to increase Company Value go beyond direct cost reductions.

The remainder of this paper is organized as follows. Section 2 discusses not only the conceptual classification of Supplier Management, but also aspects that underpin the importance of purchasing. Section 3 describes the structure and realization of the written survey as well as the objective with regard to the findings from the respective questions. Section 4 explains the results of the survey and graphs them. Finally, Section 5 concludes the paper - with conclusions and derivations - from the respective findings.

2. Supplier Management

First, the term Supplier Management is explained because it is sometimes defined differently in the literature. Essentially, Supplier Management means the targeted management of relationships with suppliers, which specifies in detail the topics of determining:

- Supplier base (segmentation of the portfolio and selection of suppliers),
- Sourcing strategies (consideration of geography, number of suppliers and vertical cooperation intensity),
- Activities for qualification of suppliers (implementation of testing and approval processes),
- Supplier evaluation (assessment of performance according to uniform evaluation criteria),
- Risk management measures (assessment of contingency risks and preparation of emergency plans),
- Classification of suppliers (classification and selection of preferred suppliers),
- Supplier development (improvement of performance and agreement of targets),
- Procedures in change management (implementation and management of technical and procedural changes),
- Supplier integration (integration and intensification of cooperation),
- Auditing of suppliers (review of technical and commercial performance),
- Supplier control (controlling the achievement of objectives and dealing with weak points), and
- Procedures for change of supplier (phase-out and conversion processes) (Jäger, 2009; Hofbauer *et al.* 2012; Hofbauer *et al.* 2015; Czaja, 2009; Carr and Pearson, 1999; Boutellier and Wagner, 2000; Hess, 2008; Hess, 2011; Gabath, 2011; Koppelman, 2004; Roodhooft and Konings, 1996; Van Weele, 2009; Wagner and Krause, 2009).

As a result, Supplier Management is defined as very comprehensive, which is further supported by Supplier Relationship Management (Monczka *et al.* 2015; Park *et al.* 2010) as a sub-discipline and thus includes marketplaces and e-solutions.

Close cooperation with suppliers is a characteristic of successful companies. This interlocking already in the early phase, i. e. in the development process, is useful to be able to develop competitive products in the sense of supplier integration with the support of external supply partners and then manufacture them cost-effectively. Of great importance are interdisciplinary and cross-company teams, which are composed of the respective departments (Gabath, 2010; Appelfeller and Buchholz, 2011).

Through interdisciplinary cooperation, different aspects can be viewed and combined across multiple disciplines to ultimately achieve the best solution for the entire process. This multidisciplinary approach requires not only an understanding across disciplines, but also, in particular, openness and understanding of the requirements that are addressed by the respective other disciplines and possibly even touch and influence one's own priorities. Particularly important in this context is the fact that interdisciplinarity is to be found both on the customer side and on the supplier side. Otherwise, the effects can only be partially realized (Gabath, 2010).

The cooperation with suppliers mainly focuses on the major topics such as purchase cost, quality performance, material supply and supplier innovations. As a rule, each of these four pillars is based on the respective company-specific purchasing strategy. Depending on the branch affiliation, the characteristic and importance of the subject areas and thus the purchasing strategies differ considerably.

Due to the high use of materials, the focus in the manufacturing industry is very much on optimizing purchase costs (Hofbauer *et al.* 2015; Koppelman, 2004). A reduction in the cost of regular supplies has a timely impact on the company's earnings in the income statement and is often quicker to realize than a sales increase (Hess, 2011; Appelfeller and Buchholz, 2011). In addition, the leverage effect is significantly bigger than an increase in revenue, considering that a five percent reduction in purchase costs is about as likely to impact profit as a fifty percent increase in sales (Rast, 2008).

According to Hofbauer *et al.* (2015), the assurance of quality performance is the second most important factor. Purchasing is required to procure the required components and assemblies in 'sufficiently good quality' in accordance with the specification (Koppelman, 2004). The quality requirements may vary depending on the component or use case, which in turn can affect the individual purchase cost of a part. As the main interface to the suppliers, purchasing has to organize that the delivery quality is sustainably sufficient to avoid bad deliveries or insufficient quality and that neither follow-up costs nor customer dissatisfaction arise. On the other hand, the components should not be procured to a higher quality level than demanded, if they do not create Value Added for the own product or for the customers, and if they are also unwilling to accept a higher price for it.

Equally important is a reliable and demand-based material supply of the own production with components and assemblies by the suppliers. This includes possible flexibilities and fluctuations due to short-term program changes (Hofbauer *et al.* 2015; Koppelman, 2004). Using intelligent logistics solutions such as Vendor Managed Inventory (Appelfeller and Buchholz, 2011; Arndt, 2018) can in particular map this requirement.

After all, purchasing is also responsible for bringing innovations (Wagner, 2009; Monczka *et al.* 2011; Bessant and Phillips, 2013; Bower and Christensen, 1995; Winter, 2014) from suppliers to the company. In the meantime, the topic of 'generation of supplier innovations' has emerged as an important field of action for purchasing, because it has been recognized that Value Added can be achieved sustainably through supplier innovations. Due to the increasing focus on core competencies (Prahalad and Hamel, 1990; Prahalad and Hamel, 2006; Hungenberg, 2014; Hofbauer *et al.* 2015), outsourcing activities, lack of know-how and many new technologies emerging in the market, companies are no longer able to cover the wide range of innovative topics without external support. The integration of external specialists, very often of suppliers, is the logical consequence. In addition to procurement market research, Winter (2014) sees consistent work with the current supplier base in order to maintain innovation.

3. Data and Methodology

This research aims to investigate the Profit Contribution from Supplier Management in the manufacturing industry. The study was conducted between August and November 2017. A total of 628 companies were contacted in writing via a standardized and structured questionnaire. The contact was made by email, LinkedIn or personal delivery. 68 questionnaires were answered, which corresponds to a response rate of 10.8%.

In order to receive qualified feedback, explicitly experienced purchasing representatives, some of them from middle or higher management, were addressed. In addition, it must be clear that the company belongs to the manufacturing sector. This industry focus has been chosen because the requirements of different industries sometimes differ greatly. The classification or branch is carried out according to the definition of the main industrial groups of the European Community (Commission of the European Communities, 2007).

Furthermore, due to the query of the sales figures or the purchasing volumes, a different behavior between small and medium-sized enterprises (SMEs) and groups may be derived. The definition of SMEs is based on Commission of the European Communities (2003), which was also

based on the Institute for SME Research Bonn in terms of turnover; the further gradations are determined on the basis of personal experience.

The purchasing volume is based on an average material quota of 50% and is classified analogously to sales. However, it is highly industry-dependent. The question of connecting purchasing within the organization allows conclusions to be drawn about the strategic importance and classification of the purchase.

The purchasing agents participating in the survey have 80.9% of purchasing experience of more than ten years. 77.9% have completed a study. 82.4% of the participants in the respective companies stated that they held a managerial position. Of the participating companies, 72.1% were in the industrial goods sector (66.2% of the companies were mechanical engineering alone) and 14.7% were in the intermediate goods sector. 94.1% of the companies generate a turnover of less than € 5.0 billion and at 97.1% the purchasing volume is less than € 2.5 billion. For 97.1% of the companies, purchasing is linked to the Executive Board, the Management Board or C-Level or represented therein.

The technical questions start with the main tasks of purchasing as well as the available capacities. From this, initial conclusion can be drawn on the strategic importance of purchasing overall and of the individual companies in comparison with each other. The questions also aim to find out about the contributions made by the purchasing department to the company result in relation to the cost or capacity input, so that the strategic importance of purchasing can be further confirmed.

Answering the question about the contribution to profit is particularly important because quantitative answers are expected and corresponding insights can be derived with regard to the contributions from Supplier Management in relation to the increase in Company Value. However, the question can be classified as sensitive and a part of the respondents did not make any statements about this. Nevertheless, the question is asked, because otherwise the findings cannot be sufficiently or otherwise obtained.

Additional information should come from the question of the extent of internal Value Added. The nature of the purchased materials indicates how open is the willingness of companies to purchase some materials or services externally, and what motivates companies ultimately to do so. In particular, the comparison of companies is important in order to identify priorities. The classes have been chosen so that not only a correct answer can be expected, but also industry specifics can be recognized.

The question of the 'Critical Success Factors' should, in particular, provide insights into the extent to which the respective topics are considered to be important for Supplier Management, in order to be able to work out any focus issues, if necessary. Regardless of the importance of each topic, there may also be reasons that make Supplier Management particularly difficult. If necessary, conclusions can also be drawn in the context of a company comparison in order to recognize connections between Supplier Management and contributions to the company result.

4. Results from the survey

4.1. Cost-benefit ratio from Supplier Management activities

This section aims to identify the key tasks of purchasing and the available capacities. The capacity statements should be used to derive insights between input and output in conjunction with the earnings contribution of purchasing.

The main importance of the major tasks of purchasing (Figure 1) lies with 98.5% on price and conditions agreements, followed by supplier selection and qualification with 83.8%. In 3rd place and 4th place follow supplier development / evaluation (76.5%) and quality management (60.3%). Escalation management was rated at 57.4% and innovation management at 43.3%.

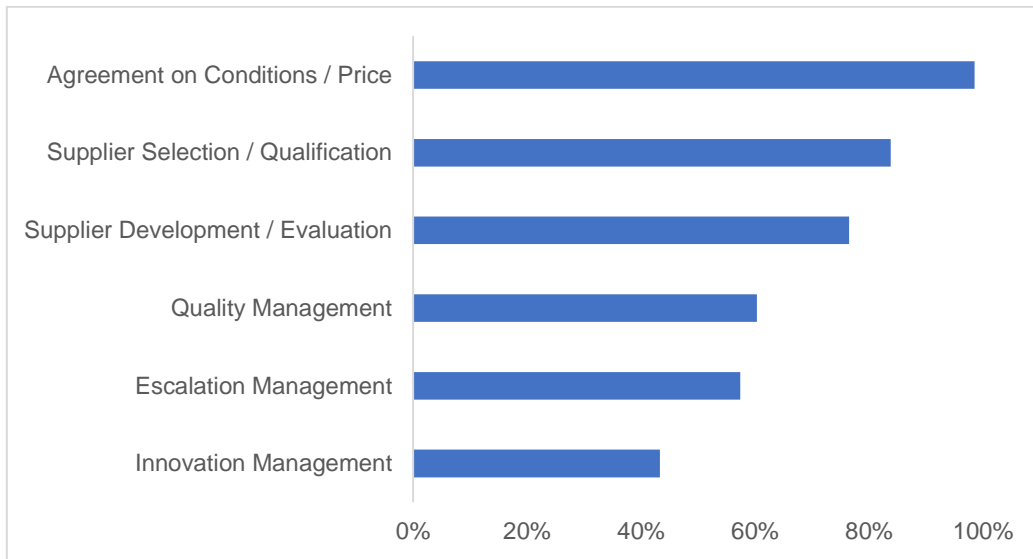


Figure 1. Importance of Major Tasks of Purchasing

The questions about capacities and Profit Contribution of purchasing were answered by up to 30 companies and allow corresponding conclusions. In particular, the existing employee capacities related to purchasing employees and purchaser as well as the overall Profit Contributions of the purchasing department were questioned.

Figure 2 shows already one of the results - the Profit Contribution per purchasing employee in Euro per year. The evaluation was made taking into account the outliers and shows values between 0 Euro per year (minimum) and 300,000 Euro per year (maximum). The average value is 94,773 Euro per purchasing employee per year.

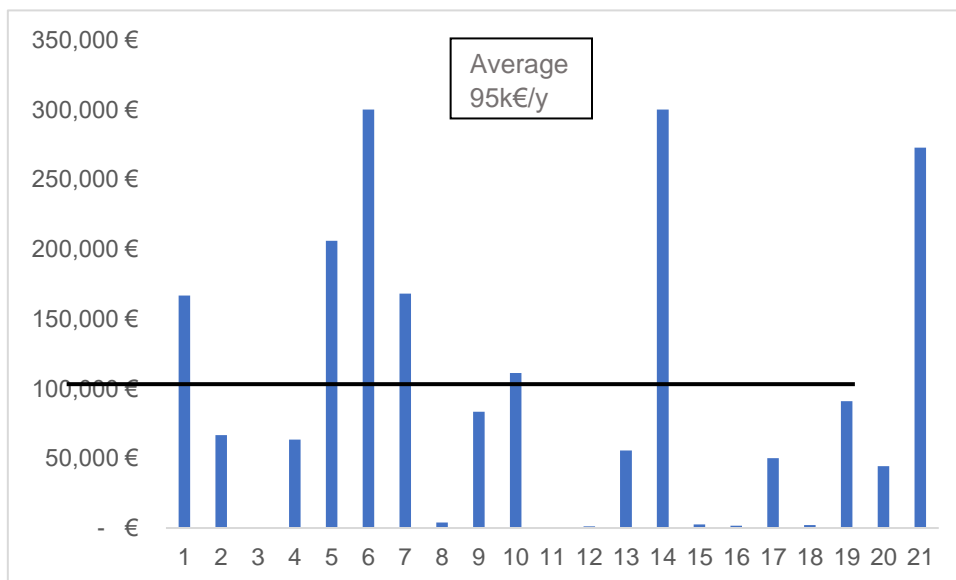


Figure 2. Profit Contribution per Purchasing Employee per year (21 companies)

Figure 3 shows the Profit Contribution per purchaser in Euro per year. The evaluation was also made taking into account the outliers and shows values between 0 Euro per year (minimum) and 588.235 Euro per year (maximum). The average is € 204,132 per purchaser per year.

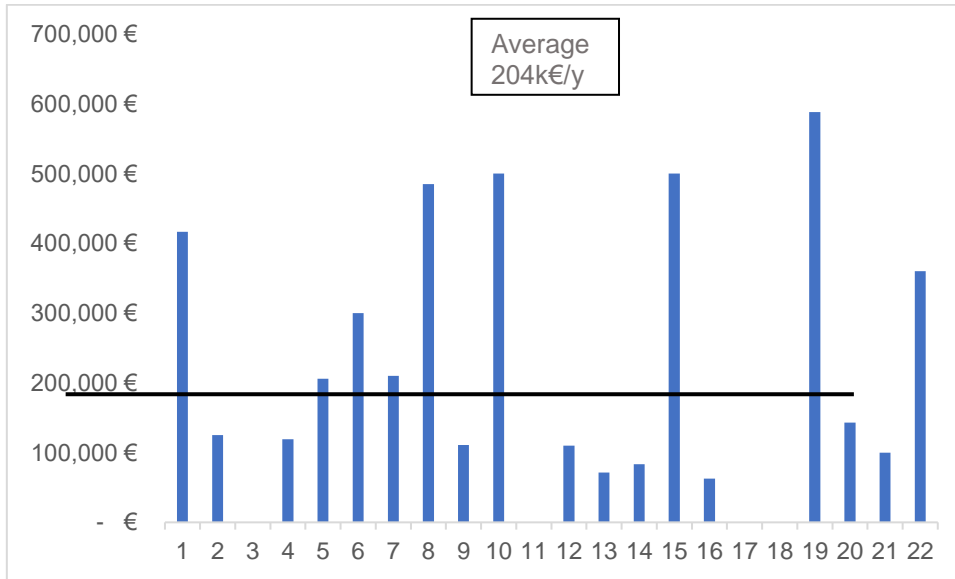


Figure 3. Profit Contribution per Purchaser per year (22 companies)

Last but not least, Figure 4 shows the results of the calculation concerning the relative Profit Contribution of purchasing in percent per year. This is the contribution of purchasing to earnings in relation to the cost of materials. The evaluation was again made taking into account the outliers and shows values between 1.5% per year (minimum) and 10.0% per year (maximum). The average value is 3.8% per year.

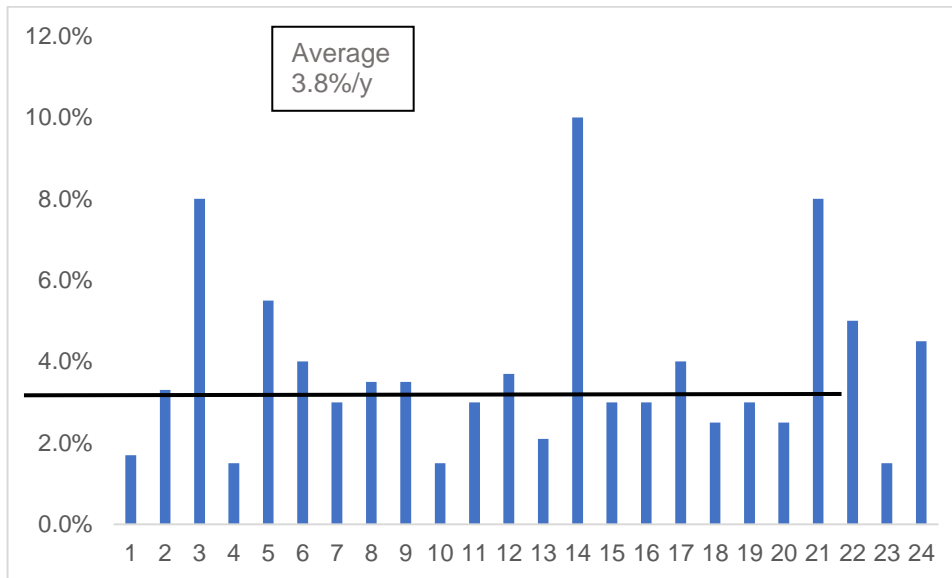


Figure 4. Relative Profit Contribution per year (24 companies)

4.2. Internal and external Value Added activities and cooperation with suppliers

The importance of purchasing in a company depends on the share of external Value Added in relation to the total Value Added. In addition to this investigation, the nature and general significance of the cooperation of the Value Added generated by suppliers as well as the reasons for the cooperation are questioned.

The Value Added shares in the individual companies have been grouped into classes and are shown in Figure 5. In total, 53 of the companies surveyed submitted feedback. The average of the internal Value Added share is calculated as 35.7%. The high importance of suppliers due to the high external Value Added share is thus underpinned.

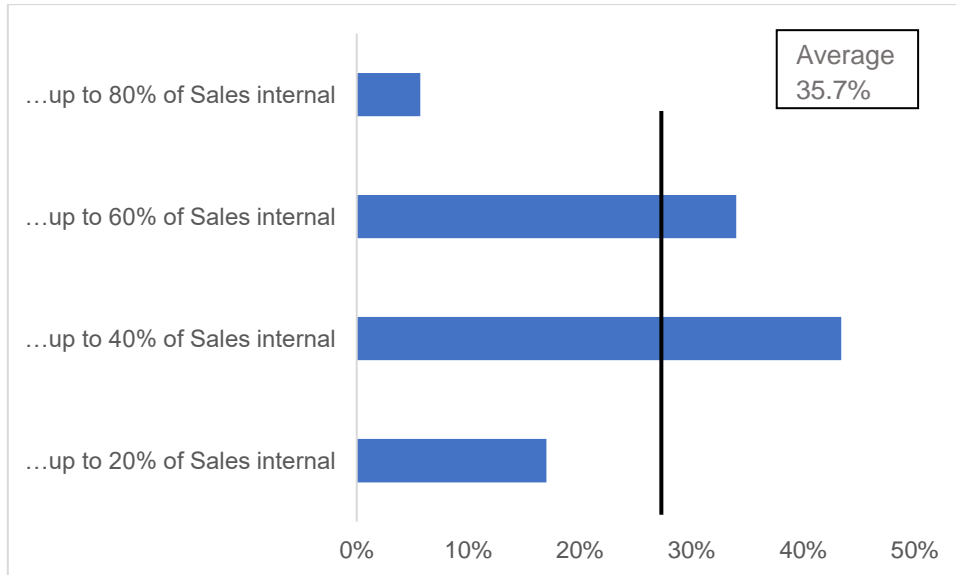


Figure 5. Internal Share of Value Added in Companies in the Manufacturing Industry (53 companies)

The type and importance of Value Added by suppliers is shown in Figure 6. The supply of merchandise or purchased parts is of the highest importance at 80.9%, followed by component and assembly deliveries (72.1%) and raw material deliveries (61.7%).

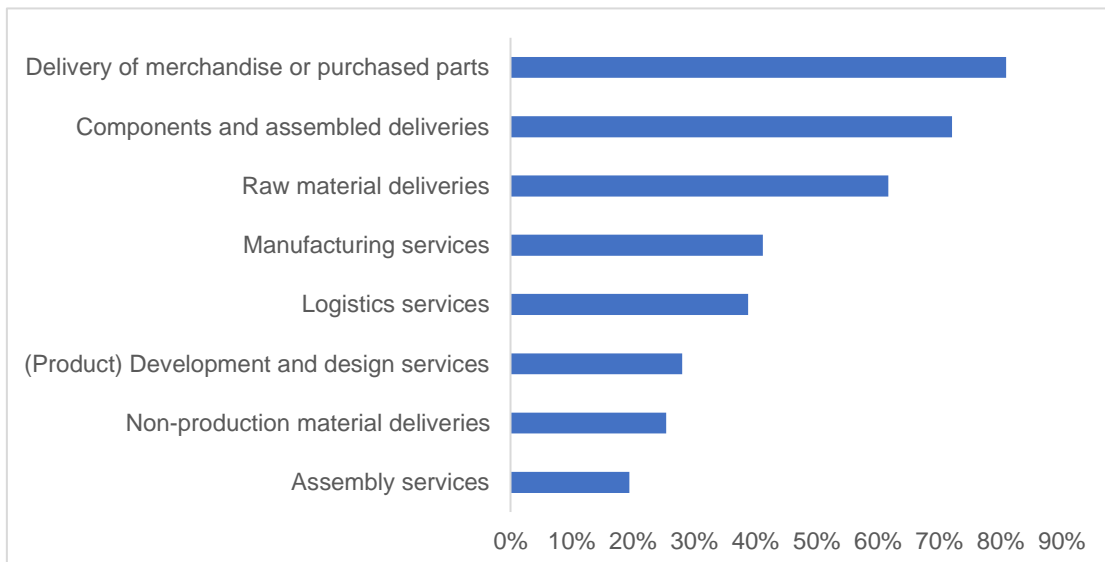


Figure 6. Type of Value Added by Suppliers

Figure 7 shows the reasons for working with suppliers. The most important reasons for achieving Value Added from the cooperation are stated by the companies as being lower purchasing costs (73.5%). Furthermore, with 61.8% flexible and short-term deliveries as well as

missing capacities in the company (60.3%) and lack of know-how in the company (55.9%) are mentioned.

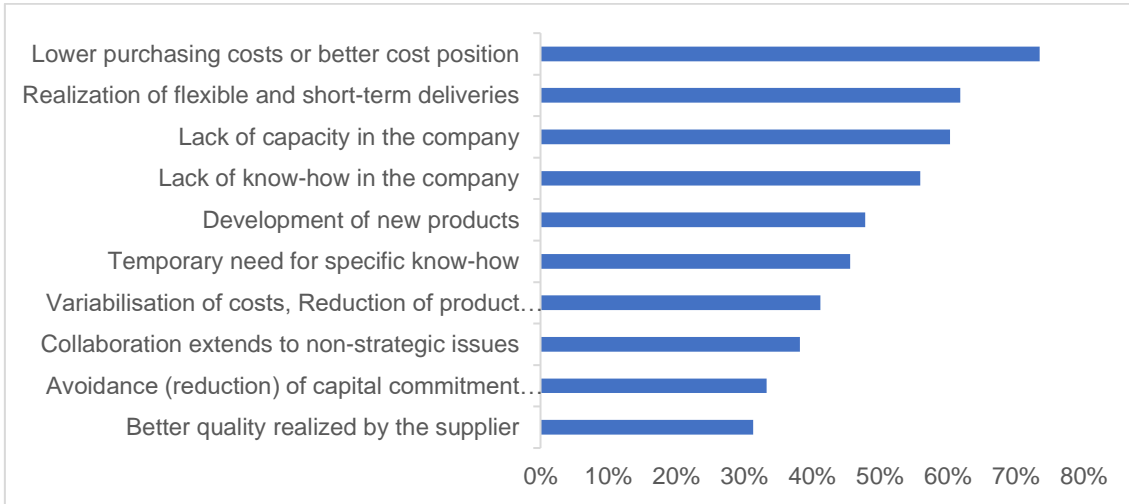


Figure 7. Reasons for Cooperation with Suppliers

4.3. Critical Success Factors of Supplier Management with regard to increasing Company Value

The critical Success Factors in the context of Supplier Management have also been examined in terms of importance. In addition, the reasons that make Supplier Management more difficult or limiting are questioned in this context.

With regard to the critical Success Factors, the most important criteria are in particular the quality performance (93.9%), the price level (92.6%), flexibility in fluctuations in demand (92.6%) and delivery accuracy (91.2%). The critical Success Factors are shown in Figure 8.

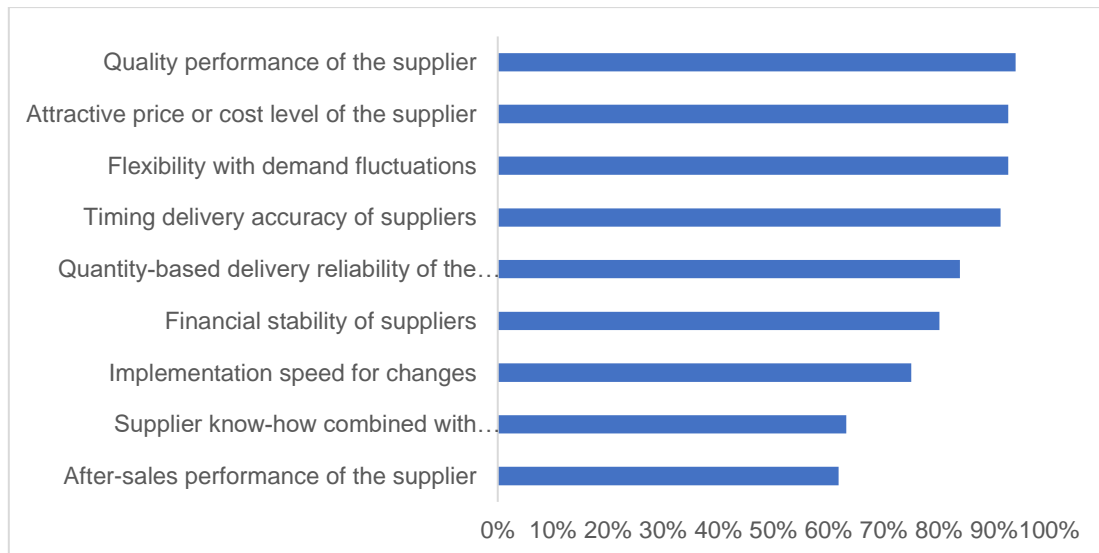


Figure 8. Critical Success Factors of Supplier Management concerning Increasing of the Company Value

In addition to critical Success Factors, reasons that complicate or limit cross-functional Supplier Management have also been identified and presented in Figure 9. By far the most important reason for difficulties in Supplier Management is the supplier's market position (80.6%).

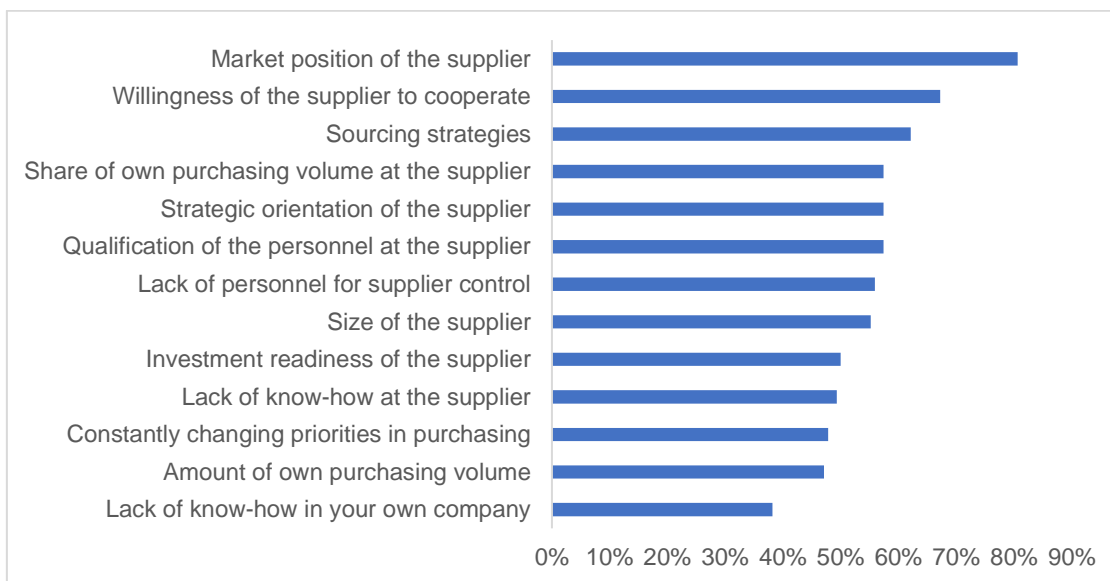


Figure 9. Reasons for difficulties in Supplier Management

In particular, for three reasons, differences in the feedback can be determined depending on the size of the company or the purchasing volume. Sourcing strategies are only of minor importance as a limiting factor for SMEs with 44%; for larger companies, the significance of this factor is partly well above 63%. The size of the supplier is given as a restriction by SMEs with only 41%; for larger companies the value is 54% and higher. It is conversely concerning the own purchasing volume: SMEs see the influence with 64% relatively high; for larger companies, the impact is stated with only about 40%.

5. Conclusion

The high share of Value Added in the manufacturing sector, which is provided externally by suppliers, underpins the importance of Supplier Management and the importance of sustainably contributing to increasing the value of the company. Purchasing as the main interface to the suppliers has this responsibility and must drive the selection and determination of the supply partners accordingly. In doing so, purchasing must ensure that the specified suppliers can meet the diverse challenges of the own company.

Derived from the main tasks of purchasing, the perception of price and cost responsibility comes first. Essentially, the reputation and the right to exist of purchasing depends thus from a good savings result. Therefore, the main motivation for working with suppliers is to achieve improved cost positions.

Suppliers are, however, also confronted with high demands with regard to the quality of the products as well as the delivery performance (time-related). Fulfilling these expectations is a basic requirement for cooperation in general. Good quality and high delivery performance of suppliers are two key parameters on which to build a supplier relationship that further steps can be taken towards close and long-term collaboration.

The question of the contribution to profit is important for purchasing in order to be able to show that purchasing contributes to the company result, which goes beyond direct cost reductions. Only in this way purchasing can show that it pursues a holistic interest. It is therefore important to calculate the Profit Contributions that are made by the purchasing department beyond the direct cost reductions; for example, the improvement in quality and delivery performance, which has a monetary impact, too. Last but not least, the points that make Supplier Management more difficult must not be neglected. Particularly challenging is the cooperation with suppliers, which are very well established in the market.

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