Procurement Structures for Low-Cost Country Sourcing

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Abstract

Low-cost country sourcing (LCCS) offers the opportunity to considerably save costs and enter new attractive markets. In order to tap the potential of low-cost country sourcing successfully, the barriers and challenges coming with it need to be systematically specified and the procurement structures must be oriented towards LCCS. This paper will analyze and categorize the barriers and challenges which are given in literature. Based on this literary analysis, this paper will give recommendations on how to implement different aspects of low-cost country sourcing. The results of a practical example from industry will finally be presented. As part of this, a company's strengths and weaknesses with regards to LCCS were analyzed by using a checklist which was developed based on these recommendations.

1. Introduction

In recent years, globalization has developed rapidly and has turned from an option to a must for a wide range of industries [Bha-04]. Global sourcing is one of the areas in which globalization is no longer an abstract concept but has become real [Tre-05]. The implementation of such a strategic global sourcing strategy is increasingly considered crucial for gaining competitive advantages [Pet-00]. In this respect, the permanent reduction of the value added plays a key role. In many branches, companies are procuring approximately 60% of their turnover externally [Bog-05]. In the present global economic crisis, procurement is stepping into the limelight as funds can be released in this area. According to a global survey in which 430 procurement departments were interviewed, around 60% of procurement managers stated that their saving targets were increased [Mäg-09; Acc-08]. In order to achieve these aims, 57% relied on low-cost country sourcing (LCCS). Cost benefits mainly result from considerably lower labor costs in these countries [Bha-04]. When global sourcing is exclusively geared towards suppliers from low cost countries, the term low-cost country sourcing is used, making it a special variety of global sourcing [Loc-07]. Low-cost country sourcing does not only offer savings potentials but also opportunities to enter attractive and growing markets. Many managers, however, are still hesitating to approach low-cost country sourcing [Bha-04] since LCCS does not only offer opportunities but also a number of challenges resulting from external and internal barriers (see Figure 1). These have a major impact on the results of LCCS schemes and, for example, lead to the fact that savings potentials are often lower than initially expected or may even result in additional costs compared to procurement in the home country [Pri-08]. Professional planning and implementation of LCCS is necessary to successfully carry out an LCCS project [Jah-07]. If challenges and barriers are, however, systematically analyzed and approached, LCCS can provide an important competitive advantage for the company.

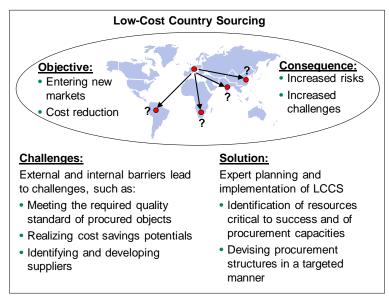


Figure 1: Correlation between objectives and consequences with regards to LCCS

Several different aspects are to be taken into account with regards to mastering LCCS (see Figure 2). First of all, a suitable procurement market (and later a suitable supplier) needs to be chosen which can best help achieving company objectives. This requires an exact procurement market analysis (and, later on, assessment, choice and, if applicable, development of suppliers) [Lan-08; Lan-09a]. Furthermore, if the products to be sourced are allocated to the respective procurement markets and chosen accordingly, the situation on the procurement market can easier be taken into account [Lan-09b; Str-09]. The adaptation of product design, which is referred to as design for low-cost country sourcing, can also offer advantages [Lan-09c]. A third aspect is to develop one's own structure in order to adapt to the high demands of LCCS [Tre-05]. The lack of internal capacities and resources within one's own company is one of the main reasons for unsuccessful low-cost country sourcing (cf. [Hem-07]). These resources and capacities therefore need to be considered closely with regards to LCCS [Jah-07]. In order to do so, the company's procurement structures need to be analyzed in detail to identify strengths and weaknesses and to derive development measures.

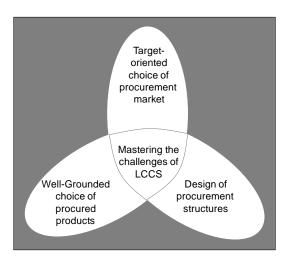


Figure 2: Facing the challenges of LCCS

2. Research Objective

This paper aims at facing the challenges and overcoming the barriers posed by LCCS by tailoring the company's procurement structures to low-cost country sourcing.

In chapter 3, scientific literature serves as the basis for identifying the barriers and challenges of LCCS before then being categorized. Chapter 4 of the paper will then present a framework on the basis of which procurement structures can be analyzed. This will allow for a comprehensive analysis of procurement structures which takes all the important aspects into account. Chapter 5 will then focus on the resources and capacities of procurement structures with regards to LCCS. This poses the question of which resources and capacities are particularly important to make LCCS successful and how they shall be structured. Although various different aspects of company structures with regards to LCCS have been discussed in scientific literature, there have so far been no comprehensive approaches which take a holistic look at all aspects of procurement. This paper therefore aims at assessing the different theoretical approaches in scientific literature. The results of this assessment shall then be illustrated systematically in a comprehensive procurement framework. Recommendations on how to structure procurement will be given for all the important aspects of LCCS. These recommendations were edited to a checklist. As part of a workshop, this checklist served as the basis for analyzing the strengths and weaknesses of a German company with regards to its low-cost country procurement structures. The results will be presented in **chapter 6** of this paper.

3. Barriers of LCCS

Companies sourcing in low-cost countries are facing a number of challenges which have an impact on the success of their LCCS activities. In order to be able to take these challenges into account when planning LCCS, we identified and categorized the challenges and barriers posed by LCCS and stated in scientific literature. The following eight barriers to LCCS were identified from the literature (see Figure 3): lack of competencies, lack of infrastructure, different cultural and linguistic backgrounds in combination with different market conditions, cost incurred by global coordination, piracy and legal issues, political and social risks, currency and payment risks as well as internal opposition to LCCS.



Figure 3: Internal and external barriers of LCCS

Barriers and risks can vary widely within the group of low cost countries, which makes a thorough analysis of the conditions that prevail in the potential procurements markets indispensable. This helps to become aware of the risks which must be taken into consideration when selecting a procurement market. Risk identification is therefore part of any procurement market analysis and selection and must be repeated on a regular basis as risks are subject to continuous changes, which holds particularly true for low cost countries [Bha-04]

4. The dimensions of procurement structures

This paper will analyze procurement structures based on the management modules of the supply management navigator developed by Jahns (cf. [Jah-05]). The supply management navigator is a framework analyzing these areas and topics in a company which are necessary for successful supply management. The navigator shall serve as a roadmap giving managers and employees an overview of supply management and enables them to structure this area. The supply management navigator consists of sixteen modules, the main focus of this paper being on management modules building the main body of the navigator (see Figure 4). The management modules stretch over three levels. The strategy level consists of the modules supply vision, supply strategies and supply value management; the process level comprises the modules supply key account management, supply process management and supply organization; the potential level consists of the modules supply human resource management and supply controlling.

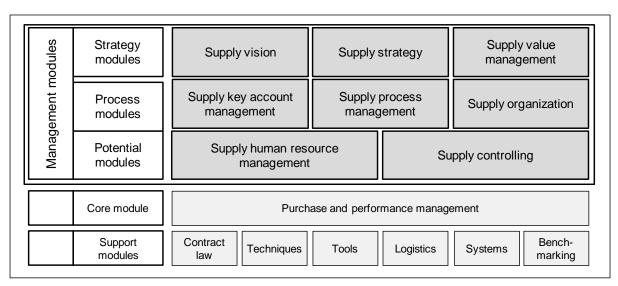


Figure 4: Supply management navigator (cf. [Jah-05])

5. Structure recommendations for efficient LCCS

LCCS must always factor a company's own resources and capabilities into the equation. They must be structured according to how important they are for the success of the enterprise and what would be the best way to use them. The literature discusses different aspects of company structuring for LCCS as a separate topic. There are no comprehensive approaches including all aspects of procurement, however. This article means to evaluate the different theoretical approaches and to systematically present the results within an extensive frame of refererence, which includes structure recommendations for LCCS concerning all important procurement aspects. The results are integrated into a check list to make them useable for industry.

In this paragraph, structure recommendations for LCCS will be derived from scientific literature for the management modules of the supply management navigator. It will be pointed out which resources and capacities needed for successful LCCS are considered

important in scientific literature. A checklist was devised based on these recommendations. It can be used by companies to carry out a systematic internal analysis with regards to LCCS and to critically analyze the company's own resources and capacities. It thus helps to adjust company structures to the barriers and obstacles of LCCS.

Given the overall scope, only the analysis of 3 modules, i.e. supply vision, supply key account management and supply process management will be described here.

5.1 Supply vision in the context of LCCS

Internal resistance against LCCS is often found at the levels of management and functions. Managers at these levels perceive the relocation of resources to LCCs as a risk because it means they must give up control while still being responsible for results and outcome [Bha-06]. For this resistance to be overcome, top management must be fully committed to the idea. Clear and ambitious goals which will gear the company towards LCCS must be set out at the top [Bha-06]. This should be achieved through a vision, among other means. It is therefore important for LCCS that there is a senior executive who holds sufficient authority, has a strong influence on development and communication of the vision and is able to lead by example [Tre-05]. Peterson et al. conducted an empirical study which showed the positive impact a strong commitment by the top management has on the effectiveness of global sourcing [Pet-00]. Bhattacharya et al. even consider committed leadership by the top management the most important factor for capitalising on the opportunities LCCS has to offer [Bha-04].

Figure 5 shows the factors that have an impact on the structuring of LCCS and the barrier of internal resistance they influence.

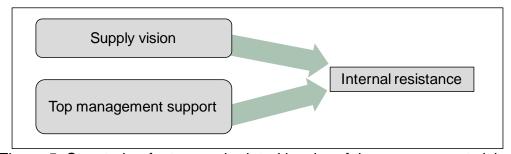


Figure 5: Structuring factors and related barrier of the procurement vision

Factors

All of the above raise the following questions for an internal company analysis:

- 1. Is there a supply vision, has it been written down and communicated, and how detailed is it?
- 2. To what extent has LCCS been inclued in the supply vision?
- 3. To what extent does the company management support the supply vision, and how well is it communicated within the company?

5.2 Supply key account management in the context of LCCS

The advantages of supply key account management hold benefits for LCCS. One of the biggest obstacles for LCCS is the internal resistance against it. This resistance is said to be the result of a lack of understanding, a lack of incentives and a high risk perception [Hem-07; Bha-04; Pio-94]. The concept of key account management is aimed at improving communication with internal customers, which helps to increase appreciation of the idea and reduce the perceived risks. Transparency is created for internal customers which will have one contact person they can discuss their concerns with. These concerns can come up in the product development department, for example, because the staff may see LCCS as possibly detrimental to their quality and functional requirements. It is important to ensure

that thorough assistance is provided for important internal customers and that communication is good. A structured communication strategy is an important criterion for effective global sourcing [Tre-05].

An increased involvement of internal customers (in particular of product development) allows for the use of procurement market knowledge for the product creation process at an early stage. This way, product design can be adapted to the conditions prevailing in the low cost country, which will allow for an improved exploitation of the opportunities offered by LCCS [Bha-04].

Figure 6 illustrates the effects thorough assistance given to key account customers has on the aforementioned barriers and challenges posed by LCCS.

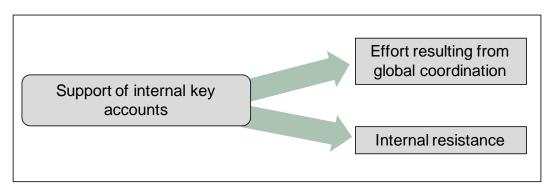


Figure 6: Structuring factor and related barriers of supply key account management

Factors

From the above, the following relevant factors for an internal company analysis can be derived:

- 1. How well is procurement aware of who the most important customers (i.e. key account customers) are?
- 2. How thorough is the assistance given to the internal key account customers, and are customer relations continuously improved, for example through supply key account management?
- 3. How well are the internal customers aware of who their contacts in procurement are?
- 4. How well are the internal customers being prepared for LCCS?

5.3 Supply process management in the context of LCCS

The global sourcing and LCCS literature considers process structuring an important criterion.

Global sourcing structures and processes are rated as an important factor for the development of global sourcing capabilities according to an empirical study conducted by Petersen et al. [Pet-00]. According to Petersen et al., these capabilities include an awareness of intercultural business practices, the management of international risks and uncertainties), knowledge of where information, exerience and skills important for critical global sourcing products can be found and international negotiation skills. These capabilities can only be developed when global structures and processes are already in place, for example in logistics and supply chain management.

Trent and Monczka consider a well-defined, rigorous and strictly followed global sourcing process (including all subprocesses) a key factor for successful global sourcing [Tre-02]. The empirical study asked international companies for their most and their least successful experiences with global sourcing. Out of a catalogue of 22 factors, a well-defined process was identified as the most important differentiating factor for successful experiences and failures. According to Trent and Monczka, such a process has got several characteristics [Tre-05]. It is well communicated and generally understood, making it a basis for tracking the global sourcing strategy. This means that internal process customers must be trained.

In addition to all this, a process owner must be designated who will be responsible for the process. He is in charge of monitoring and improving the process. Another important characteristic of successful processes consists in the implementation of a 'lessons learned' round at the end of each project, the results of which will be communicated to all team members worldwide and to management. During the process, strict milestones must be complied with and reported. Trent and Moczka see several advantages in such a global sourcing process, which will be briefly listed below [Tre-05]. A global sourcing process improves the learning curve of the staff, because they will become increasingly familiar and experienced with the defined process. In addition, processes help to deeply root best practices and knowledge in the company. Clearly defined processes allow for documenting, measuring and continuously improving corporate activities. The transparency created this way is considered important for LCCS by other sources, too, and is regarded as one means to overcome internal resistance [Ulu-07; Hem-07.]. Besides, processes help to overcome differences between different company locations. Different cultures, different languages and different market conditions which companies involved in LCCS are facing have already been mentioned as one of the challenges. Clear and strict processes can help to overcome this challenge. Different process participants and practices can be compared and aligned in line with the general company interest. Closer cooperation and an improved understanding between partners sitting in different regions of the world are facilitated. For this to be achieved, only processes which work for all regions can be selected. Sometimes it may have to be necessary to adapt processes to local conditions in order to make them work, to be able to capitalise on specific LCCS benefits and to mimimise risks such as piracy [Bha-06; Bha-041.

The scientific literature also provides additional thoughts on the structuring of processes. For organizational barriers to LCCS within the company to be overcome, appropriate structural links and mechanisms must be firmly established in the organisation. This includes processes that facilitate cooperation between functions, regions and departments. Cooperation between different departments is considered a success factor for LCCS [Bha-04]. Cooperation with suppliers must also be intensified, including the involvement of strategic suppliers in business processes [Har-08]. Support of processes linking the home country and the LCCs by simple tools is just as important [Bha-04]. These tools may include data bases, check lists, etc., which must usually be created from scratch. The IT structure must also be able to support the processes.

Figure 7 gives a summary of these recommendations in connection with the corresponding barriers and challenges.

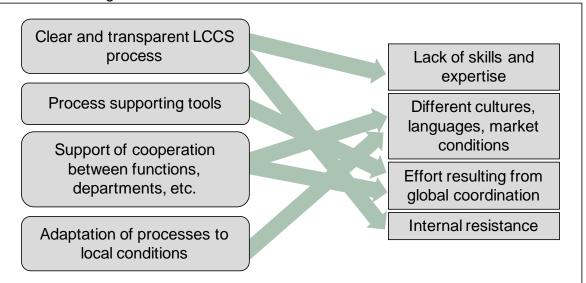


Figure 7: Structuring factors and corresponding barriers of supply process management

Factors

The following factors for an internal company analysis result from the aforemented aspects:

- 1. How transparent is the LCCS process for the company staff (Is it clearly communicated, documented and generally understood)?
- 2. Is there a process owner, and does everyone know who he is?
- 3. Is there a 'lessons learned' round at the end of each project?
- 4. Have the process milestones been clearly defined?
- 5. Are there process-supporting tools, and how good are they (data bases, check lists, intranet platforms)?
- 6. To what extent is cooperation between functions and regions supported and facilitated?
- 7. To what extent has the process been examined for the need to have it adapted to local conditions?

6. Practical checklist application

As part of a workshop, the devised checklist was applied to a manufacturing and medical technology company. The company has got a global footprint and generated a turnover of more than two billion euro in 2008. The company's procurement manager manufacturing material/central procurement manager and the procurement manager medical systems were present to discuss relevant issues. The main focus was on China where new suppliers are to be qualified. The checklist was discussed and evaluated with regards to procurement structures.

Below, the results of the checklist are illustrated for each oft he three modules, and conclusions are drawn.

6.1 Supply vision:

The company has a procurement manual that specifies the basic conditions and goals of procurement. One of the conditions states that no supplier can generate more that 40% of his sales revenue with the company, for example. The manual however, does not include a vision. According to what the interlocutors said, the general company vision is used for procurement as well. It provides a frame of reference for procurement matters. Consequently, there is no separate procurement vision that would take LCCS into consideration, meaning that the top management does not explicitly communicate that LCCS is rated as important. One reason for this might be the company's motiviation behind LCCS. Sourcing from low cost countries is not explicitly planned, for example for the specific target of achieving cost savings. It is rather a result of production being relocated to these countries. Local procurement is meant to compensate exchange rate fluctuations. LCCS is therefore, a result of the general internationalization of the company.

6.2 Supply key account management:

The concept of key account management in the field of procurement was not known to the company. The recommended structuring measures however, were already partly being implemented. The contact persons for internal customers are known to procurement and vice versa, for example. A homogeneous company structure and a telephone list published on the intranet prove helpful. Procurement has not designated a specific member of staff who would be responsible for mutual contacts and for preparing internal customers for LCCS. The company relies on the internal network and on personal relationships instead.

6.3 Supply process management:

There is no overall process for LCCS in place. Supplier search and supplier release for suppliers from low cost countries have to follow a defined process, though. There is a project sheet including information circle, objective, milestones and project initiator. This

overview is transparent and fits onto one page. 'Lessons learned' rounds are not carried out at the end of a project. Results are documented in the form of a project report. There are supporting tools such as check lists, for example, for the field of supplier management. As mentioned above, there are no such tools for the overall LCCS process however, meaning that there is still room for development. There is no systematic support for cooperation between functions and departments with regards to LCCs, either.

It was generally noted that many aspects of procurement are not specifically geared towards LCCS. There are visions and strategies, but LCCS is not specifically taken into consideration. Rather, there are intentions towards transferring general and generic strategies from the procurement manual to low cost country sourcing. There are no company-wide key indicators to measure performance with regards to LCCS. As mentioned above, the reason probably is the motivation behind LCCS which is rather driven by general internationalization and only to a lesser extent by cost motives. This represents some potential for gearing the company more towards LCCS and exerting the required pressure by taking a systematic approach to LCCS and by defining concrete processes and goals. One of the first measures to take can consist in the elaboration of a procurement vision that takes sourcing from low cost countries into consideration. This can help shift the focus from procurement localization determined by production to an active LCCS that capitalizes on the opportunities offered by low cost countries. For this to be implemented, the procurement manual must be adapted to LCCS including the establishment of clear objectives. A clear process should be defined for the subsequent implementation of LCCS. This facilitates the implementation and increases transparency by simplified measurement, documentation and continuous improvement of LCCS activities. In addition, such a process improves the learning curves of the company staff who will become more familiar and experienced with the defined process. A 'lessons learned' round at the end of each project is also helpful. A process has so far been only defined for general supplier search and supplier release. Cooperation between the different functions and departments of the company can also be further extended. Instruments such as cross functional teams, workshops and strategy meetings are hardly used to support cooperation. They are indispensable for projects such as LCCS, though, because they include several departments. Coordination is generally mostly achieved through personal agreements. Time and financial resources should be freed and made available for procurement staff from all over the world to be able to meet and have a workshop on a regular basis. Furthermore, teams should be established for special tasks concerning LCCS including staff from different company functions. This way, engineering and logistics, for example, can get involved in the supplier search at an early stage. Communication and the exchange of experience between different functions and departments should also be given better support. It might be helpful to have an internal corporate wiki for procurement in general or for LCCS. This wiki could include relevant knowledge from the entire company and could be made generally available. Currently, it is possible to get access to knowledge and skills from other parts of the company which are already active in China, such as production, for example, which can be rated as positive. There is no structured exchange, though.

7. Conclusions

Low-cost country sourcing harbors pitfalls for Western companies which may lead to unsatisfying results. Professional planning and a consistent approach to procurement are thus required in order to seize the great opportunities of LCCS. A procurement structure which is conceived to these ends needs to be part of this approach. Based on eight different aspects of procurement structures this paper illustrated how these individual areas shall be structured in order to overcome the barriers and master the challenges of LCCS. This paper shall help companies on the verge of low-cost country sourcing to meet the high demands

of these projects. The procurement measures identified in scientific literature were also applied in a practical example. Based on the checklist that was derived from structural recommendations the procurement structures of a company were analyzed with regards to LCCS. Measures on how to improve the approach to LCCS were then derived from the analysis of strengths and weaknesses. The check list proved to be viable for application and helpful for getting an overview over the strengths and weaknesses of procurement. The selection of structuring fields was rated as helpful by the interlocutors. Using these fields as guidelines allowed for the subdivision of the workshop into separate parts.

References

- [Abe-08] Abele, E. (ed.): Handbook for Global Production. Springer, Berlin, 2008
- [Acc-08] Accenture, "Procurement in turbulent times", 2008, Accenture, http://www.accenture.com/Global/Research_and_Insights/By_Subject/Supply_Chain_Mgmt/d efault.htm, September 25, 2009.
- [Bha-04] Bhattacharya, A., Bradtke, T., Hemmerling, J., Lebreton, J., Mosquet, X., Rupf, I., Sirkin, H, Young, D., "Capturing Global Advantage. BCG Report", The Boston Consulting Group, April 2004.
- [Bha-06] Bhattacharya, A.; Hemmerling, J.; Michael, D.; Nicole, R.; Tang, T.; Waddell, K.; Wong, J.: Organizing for Global Advantage in China, India and other Rapidly Developing Economies. BCG Report, The Boston Consulting Group, March 2006
- [Bir-93] Birou, L.; Fawcett, E.: International Purchasing: Benefits, Requirements, and Challenges. in: International Journal of Purchasing and Materials Management 29 (1993), 2; p. 28-37
- [Bog-05] Bogaschewsky, R., "Global Sourcing: wettbewerbsstrategische Bedeutung und methodische Unterstützung". In Fröhlich-Glantschnig (Ed.), Marketing im Perspektivenwechsel, Springer, Berlin 2005.
- [Fit-05] Fitzgerald, K.: Big Savings But Lots of Risks. in: Supply Chain Management Review, Dezember 2005
- [Han-94] Handfield, R.: U.S. Global Sourcing Patterns of Development. in: International Journal of Operations and Production Management 14 (1994),6, p. 40-51
- [Har-08] Hartmann, E.; Trautmann, G.; Lockström, M.: Organisational design implications of global sourcing: A multiple case study analysis on the application of control mechanisms. in: Journal of Purchasing and Supply Management 14 (2008), p. 28-42
- [Jah-05] Jahns, C., "Supply Management Neue Perspektiven eines Managementansatzes für Einkauf und Supply", SMG Publishing AG, St. Gallen 2005.
- [Jah-07] Jahns, C., Hartmann, E., Lockström, M., Bals, L., "The quest for competitive advantage Empirical evidence of the role of resources in a global sourcing context", Die Unternehmung, 61 (2007), No 3, pp. 213-226.
- [Lan-08] Lanza, G.; Weiler, S., "Conception of a Methodology for a Comprehensive Procurement Market Selection for Low-Cost Country Sourcing". Proceedings of the 13th Annual Cambridge International Manufacturing Symposium, 24-26 September 2008
- [Lan-09a] Lanza, G.; Weiler, S.; Stoehr, A., "Valuation of the Development of Low-Cost Country Suppliers". 42nd CIRP Conference on Manufacturing Systems, Wed. 3 Fri. 5, June 2009, Grenoble, France, Sustainable Development of Manufacturing Systems, pp. 48, 8 pages
- [Lan-09b] Lanza, G.; Weiler, S., "Selection of Procurement Objects for Low-Cost Country Sourcing".18th Annual IPSERA Conference, 5 8 April, 2009, Oestrich-Winkel, Germany, Proceedings of the 18th Annual IPSERA Conference: Supply Management towards an Academic Discipline?, pp. 1229 1245
- [Lan-09c] Lanza, G.; Weiler, S.; Vogt, S., "Design for Low-Cost Country Sourcing: Motivation, Basic Principles and Design Guidelines". CIRP Design Conference 2009, 30.03 31.03.2009, Cranfield, UK, Proceedings of the 19th CIRP Design Conference, pp. 229-236

- [Loc-07] Lockström, M.: Low-Cost Country Sourcing. Deutscher Universitäts-Verlag, Wiesbaden, 2007 [Mäg-09] Mägerle, R., Kleemann, F., "Einkäufer müssen Lieferrisiken eindämmen", Deutsche Verkehrs
- [Mäg-09] Mägerle, R., Kleemann, F., "Einkäufer müssen Lieferrisiken eindämmen", Deutsche Verkehrs Zeitung, 086 (2009), p. 5.
- [Pet-00] Petersen, K., Frayer, D., Scannel, T., "An Empirical Investigation of Global Sourcing Strategy Effectiveness", The Journal of Supply Chain Management, 36 (2000) No 2, pp. 29-38.
- [Pio-97] Piontek, J.: Global Sourcing. Oldenburg, München, 1997
- [Pri-08] Pricewaterhouse Coopers, BME, "Beschaffungslogistik im China Geschäft", March 2008, www.pwc.de, October 04, 2009.
- [Rua-07] Ruamsook, K.; Ruusel, D.; Thomchick, D.: U.S. Sourcing from Low-Cost Countries A Comparative Analysis of Supplier Performance. in: The Journal of Supply Chain Management, Fall 2007
- [Rui-09] Ruile, H.; Schulze, H.; Groeneweg, M.; Ryser, T.: Cultural Differences as a Cost Driver for LCCS. in: 18th IPSERA Conference Proceedings, 2009
- [Str-09] Strozek, A., Bakker, C., Sanchez, V., "Kostenreduzierung durch Global Sourcing", ZWF, 104 (2009), No 6, pp.518-522.
- [Tre-02] Trent, Robert J.; Monczka Robert M.: Pursuing Competitive Advantage Through Integrated Global Sourcing. in: Academy of Management Executive 16 (2002) 2; p. 66-80
- [Tre-05] Trent, Robert J., Monczka Robert M., Achieving Excellence in Global Sourcing. MIT Sloan Management Review, 47 (2005) No 1, pp. 23-32.
- [Ulu-07] Uludad, E.: Low-Cost-Country Sourcing. in: Automotive Design & Production 119 (2007) 7; p.16-17