APPROACH TO SUPPLIER EVALUATION IN THE CONTEXT OF BUILDING VALUE NETWORKS

Lenka BRANSKA, Zuzana PECINOVA, Hana LOSTAKOVA

University of Pardubice, Faculty of Chemical Technology, Pardubice, Czech Republic, EU,
lenka.branska@upce.cz, zuzana.pecinova@upce.cz, hana.lostakova@upce.cz

Abstract

To develop mutually beneficial relationships in the value network leading to the final success of the network, businesses need to carry out supplier evaluation. This evaluation can be performed by both entities, i.e. by the supplier who evaluates its own performance in relation to a particular customer, and by the customer, who evaluates the quality of performance of its own supplier. The latter of the mentioned methods is referred to in the literature as supplier evaluation and is traditionally performed using a set of suitably chosen criteria, usually aimed at evaluating the technical quality of products, supplier logistics performance and costs associated with purchases. However, the customer should not carry evaluation thus narrowly focused; it should assess the total value it obtains as a result of establishing and maintaining a relationship with the supplier. This value must be assessed not only by evaluating the transaction value benefits that the customer gains from the supplier, but also by intangible relational emotional and social benefits, reflected in the overall satisfaction of both partners with the relationship, level of trust prevailing in the relationship and the intentions concerning the future of the relationship. Only this concept of supplier evaluation contributes not only to improving the quality of supply, but to the actual development of the relationship, which is a prerequisite for successful business not only for both partners, but also for the entire value network.

Keywords: customer value, value network, supplier evaluation

1. INTRODUCTION

The goal that leads to a company's success in the current market conditions is to offer the customers a value greater than that offered by the competition and effectively support them in serving their customers. There is no common definition of what ‘value’ actually means. However, according to Woodruff [1], most authors agree that value is inherent in or linked to the use of a product. Moreover, value is a perception on the part of the customer and this perception is typically based on a trade-off between the benefits the customer attains from the product exchange with the supplier and the sacrifices associated with this exchange [2]. Payne et al. [3] define value as the summation of all positive effects upon a customer's business [4]. The main feature of customer value, apart from the width of this concept, is in particular subjectivity of its assessment based on the perception by the customer. The problem is also its difficult measurement by the supplier and communication with the customer, because the supplier rarely perfectly knows and understands what is decisive for the customer choosing a supplier and what forms the customer requirements, preferences and shopping and consumer behaviour [5].

The chances of success of any business increase if it develops mutually beneficial relationships with its own suppliers and other links of the value networks to which it is connected. That is why we can see increasing importance of value chain management, which aims to build up a perfectly flexible and resistant system that is able to satisfy the customers’ exacting requirements efficiently [6]. Supplier-buyer relationships are characterized by continuous problem solving and co-creation of value. In these processes, problem solving ability is one of the most fundamental capabilities for any supplier, including “the ability to design and develop an offering that will provide a solution to a customer's problem” [7]. Ritter et al. [8] state that relationships with suppliers can be an important source of competitive advantage when strategically valuable products or services are supplied [9]. Relationships may reduce costs through face-to-face interaction, written communication, flexibility, adaptations, product quality, geographical closeness, and active monitoring of the market. [4]. Relationships are built over time through social and personal interaction between the parties [10], [11]. Open sharing of information leads to increased commitment, trust and dependence. Where it is difficult to assess the quality of suppliers, intermediaries may attempt to reduce risk and ambiguity by increasing the dependence of existing suppliers [12]. Aastrup et al. [13] argue that although relationships might increase costs by reducing negotiation power and inducing loss of full control of category marketing variables, the benefits of dyadic collaboration prevail and deliver positive net value. Ulaga and Eggert [14] report that relationships deliver greater benefits than reduced costs as differentiators for suppliers striving to gain key supplier status.

In general, business relationships are part of a network of relationships and thus interconnected [15]: if firm A supplies firm B and firm B supplies firm C, then interaction in either of the two relationships affects the other, sometimes marginally but often substantially [16]. Establishing and deepening relationships in the value network will enable the development of cooperation, benefiting not only the direct customer in the value network, but also the ultimate consumer, whose loyalty ensures the economic prosperity of the business as a direct supplier, and ideally of all businesses in the value network. However, to achieve the defined effects of cooperation in the value network, they need to develop relationships with the right entities. One party chooses to invest in building a relationship with another party in the expectation that the benefits will outweigh the sacrifices made to build such relationship [4], [14], [17], [18]. Developing relationships with selected entities requires openness, trust, and also efforts to find a solution satisfactory to both parties, or even better, yielding an optimal effect for the value network. This usually pushes companies to reduce the number of suppliers and to develop cooperation with the best supplier, or a few best suppliers. Manufacturers in many business markets witness a strong trend towards closer relationships with selected key suppliers. In many industries, customers have significantly reduced their supply base recently. Especially for key components, sole supplier or dual supplier relationships have become the norm rather than an exception. Along with this trend, customers have invested in supplier performance evaluation tools and supplier development programs. Indeed, customers need to understand how to build and manage a portfolio of supplier relationships to increase overall return on relationships [19], [20], [21].

Evaluation of suppliers is particularly important in B2B markets, in all industries, including the metallurgical industry. Sectors may differ in the criteria used for evaluation of products and other parameters of supply, but the supplier evaluation principles are the same. The problem is, however, that the traditional approach to supplier evaluation is usually based on the transactional concept of interaction between the supplier and the customer. Transactional exchanges are associated with weak ties between the parties and dependence is low [22]. Price is an important factor in the exchange and the products exchanged tend to be standard. Weak-tie approaches focus on the short-term and the governance problems associated with transaction cost economics [23]. Evaluation of suppliers must comply with the new trends in the supplier relationship management, which occurs in the context of relationships in the value network. It must reflect that transaction relationships are turning into collaborative exchanges, that, are associated with very close information, social, and process linkages and mutual commitments made in expectation of long-run benefits [12], [24].

The aim of the paper is thus to specify current approaches to the evaluation of supplier (by the customer) based on literature search and outline the necessary shift in this area in building and managing relationships in the value network. Supplier evaluation must abandon traditional approaches that focus mainly on the evaluation of quality of supply and must emphasize the assessment of relationship benefits.

2. THEORETICAL BACKGROUND - CURRENT APPROACHES TO SUPPLIER EVALUATION

In today's world, there is no organization that does not purchase what is commonly referred to as supplies - i.e. input materials, energy, information, services, etc. [25]. Therefore, no company can avoid a situation where it chooses the right supplier that is expected to be in the near or distant future to satisfy its desires, needs and requirements.

Supplier evaluation will have certain characteristics, depending on:

- whether it is to choose a new supplier or assess the performance of the current one,
- how comprehensive the supplier evaluation is,
- whether we are to evaluate only the current performance of the supplier or also its long-term performance and prospects for further development of mutual relations.

Each customer usually creates a very large database of potential suppliers, from which it can select, using the right tools in the preliminary evaluation and selection, those potential suppliers who shall be subject to further, usually more detailed assessment. The outcome of the evaluation and selection process is the definitive list of suppliers with which the customer enters into a contract for a particular supply [26]. When choosing suppliers, the company evaluates various offers by comparing the advantages of each potential or actual supplier, but at the same time it compares external supplies with internal performance of its own businesses [27] According to Nenadal et al. [25], the purpose of supplier evaluation is to choose from the many potential suppliers at least one that will be able to meet requirements of the customer in the long term. The basic framework for evaluation and selection of suppliers should be perceived as a precaution against possible future supply problems and unreliability of the supplier. He adds that the preliminary evaluation of suppliers can be done, for example, by assessing the conformity of pilot physical samples of future supplies, by reviewing the record of the state of the supplier management system, analysing references of other customers, etc. This view is based on transaction concept of interaction where the supplier is expected to flawlessly meet the supply requirements as defined by the customer and when especially the customer does not expect developing a mutual relationship leading to the creation of strategic benefits. However, even Nenadal et al. [25] warn against excessive narrowing of the selection criteria for suppliers. He points out that applying the price of supply as a key selection criterion can lead to problems - attractive and low prices offered may increase during the performance of the business contract with very high additional customer costs, such as of the re-verification of conformity, loss of performance due to non-compliance of supplies, customs fees, etc. Kozel, Mynarova and Svobodova [27] recommend to evaluate suppliers in the relationship establishment phase by working with the value principle, i.e. evaluate the advantages (benefits) that the product brings to the customer. They state that the resulting value can consist of a combination of three benefits - service benefits (e.g. better service, more contact options, greater availability), product benefits (more combinations of elements, wider range, faster product innovation) and image benefits (personal image of the user, prestige associated with the use of brand). When choosing suppliers they then recommend using the criteria that take into account also the parameters of the products [27]:

- level of quality, complexity, certification;
- references, experience, financial security;
- prices (costs), terms of payment;
- duration of contracts, compliance with contractual terms;
- adherence to deadlines, readiness, speed, reliability, flexibility, availability;
- guarantee, warranty period, consultancy, installations;
- compliance with safety and other standards, such as environmental impact standards, etc.

When analysing the recommended criteria it is clear that they emphasize particularly evaluation of transaction benefits, in particular, evaluating the magnitude of the benefit that the customer receives, the amount of costs that must be incurred in obtaining the product and supplier reliability in the provision of supplies. It is usually a significant problem for enterprises of the metallurgical industry to get ahead of the competition due to the technical quality of the products, since in the steel industry, the vast majority of products are standardized and often perceived as commodities [28], [29], [30]. Steel suppliers do their best to differentiate by modifying the products they supply. This is achieved “by offering more sophisticated products, such as high strength steel, isotropic steel, or grades with special surface qualities” [29].

A shift in the approach to evaluation of suppliers is evident with the authors Tomek and Vavrova [31]. They consider purchasing a significant business process that needs to be assessed in terms of its contribution to the corporate performance. Therefore, they consider it crucial for the company, when choosing a supplier, to decide "who offers the best solution." They recommend that the selection of suppliers should be based on the evaluation of three conditions:

- assessing the products, i.e. how the product meets the customer requirements,
- business (marketing) vetting of supplier,
- reviewing the supplier management system (likelihood of establishing the desired relationships).

In particular, the second and third circles indicate the efforts to assess the supplier not only with regard to its ability to consistently deliver the desired product, but also to examine the prospect of a future relationship with the supplier.

Nenadal et al. [25] highlight the application of the principle of mutually beneficial relationships with suppliers. The effective application thereof increases the quality of relations among business partners, which is a guarantee of the ability of supplies to meet the demands of those who buy them. He therefore understands building a relationship with the supplier as a means of ensuring the delivery reliability to the customer. The effort to evaluate more than just the suppliers' supply ability to satisfy production needs of the supplier can be found with other authors, too. For instance, consulting firm McKinsey defines seven areas of potential assessment of business partners, i.e. strategy, structure of the organization, staff, management systems, shared values, service and people skills [26] These criteria clearly show that supplier evaluation must include not only the size of the value that the customer receives as a result of the implementation of individual deliveries (benefits in relation to the total costs connected with the delivery), but also the prospect of establishing and developing a mutually beneficial relationship. However, it is of course difficult to assess the benefits and the prospect of a relationship with a supplier when the relationship has not been established yet. This is possible once the company has gained experience with the supplier service. According to Nenadal et al. [25] it is expected (and it is also required by the ISO 9001), that the customers will repeatedly and regularly evaluate the performance of their suppliers during the contract, and the results of this assessment may serve as useful information for the new selection and evaluation of suppliers [26] in the following period.

In our opinion, it is Nenadal et al. [25] who have the closest view of the content of the evaluation of actual supplier performance as he maintains that the performance of suppliers is given by their ability to meet the immediate requirements for deliveries specified in the supply contract. According to Nenadal [26], the three basic elements of the performance evaluation of the contractors are quality of supply, delivery times and costs associated with deliveries.

Tomek and Vavrova [31] recommend applying the following criteria in assessing the current performance of supplier:

- quality (flawless products, cooperation in planning and managing the quality, responsiveness to suggestions on improving the quality),
- costs (pricing, payment terms, price transparency, price level),
- supplier reliability (compliance with quantity, delivery availability, flexibility),
- technical capabilities (new technologies, cooperation in solving the problems of research and development, responsiveness to the desired changes),
- delivery service (technical support, support for the conclusion of contracts, guarantees, material preparation, packaging, handling of packaging),
- communication with the supplier (communication before and after the conclusion of the contract, acceptability of mutual relations),

- other (place, attitude to the environment, compliance with regulations on packaging, etc.).

Nenadal [26] also essentially agrees with these criteria while further supplementing them with criteria such as the extent of discrepancies in deliveries in the past, delivery terms, delivery time, the range of additional services provided by the supplier, the quality of mutual relations and communications, financial health of the supplier, distance of the supplier, the supplier's market share and its image, the number of positive references in the media, approaches to risk management, the potential for further development and improvement and the extent of implementation of the principle of social responsibility.

It is clear from the above criteria that the current (traditional) approaches to supplier evaluation are focused on evaluating the current contribution arising to the customer from the individual deliveries and evaluating the success of selected areas of management in the supplier company, but in none of the theoretical guidelines there is a shift emphasizing the principles of strengthening relations, i.e. that traditional approaches do not provide instructions for assessing the overall benefits of the relationship, which could become a real driving force for the development of the relationship between the supplier and the customer.

3. PRACTICAL RESEARCH - PROPOSALS FOR CHANGES IN SUPPLIER EVALUATION

Supplier performance evaluation must answer the question to what extent the supplier contributes to the fulfilment of business goals of the customer, or to the effective fulfilment of its tasks in the value network. Naturally, the customer's goal is its own business prosperity; therefore, to fulfil the goal, the company must be efficient in satisfying the needs of own customers, i.e. to deliver higher value than the competition. Supplier evaluation must therefore be the result of a comprehensive assessment of its contribution to the achievement of customer business objectives, in all areas that generate the value. At the same time, it must respect the trend to build partnerships and mutually beneficial long-term relationships.

The scope and content of the evaluation of current suppliers will therefore be certainly affected by:

- importance of the supplier to the customer's company in terms of its position, i.e. supplier status in the portfolio of suppliers, importance of the supplied item to customers and the volume and regularity of purchases,
- approach of both partners to developing cooperation and strengthening relationships with business partners (interested in a deeper relationship versus interested only in normal business relations),
- purpose of the evaluation, i.e. whether it is a regular, essentially routine assessment of the supplier that will mainly relate to easily assessable parameters of supply, or whether the purpose of the evaluation is to support strategic decisions in purchasing, i.e. support the management in deciding on the form of relationships with individual suppliers in the context of own objectives; this is related to the time horizon of evaluation as well,
- for whom the results of the evaluation are intended, i.e. whether for internal use of the evaluator or as feedback to the supplier.

The evaluation of individual suppliers must yield information about the overall perceived value of the solution delivered. The evaluation must therefore be designed so as to allow finding a supplier that is able to deliver solutions that provide the customer with the highest total value benefits, i.e. the highest perceived value. According to Kaplan and Norton [32], the customer value comprises three parts - the attributes of the product/service, image and relations with customers. These areas may therefore produce value benefits and it is also these components that should be evaluated. There must therefore be a shift from the traditional assessment (resulting from the transaction concept of interactions), which focuses primarily on the evaluation of the supply parameters and supplier perspectives in this area.

That there is a value created in other areas too is indicated by the fact that, in practice, often intuitively, other criteria are considered in comparing suppliers. Objective evaluation on the basis of clearly quantifiable characteristics is supplemented with subjective evaluation of benefits difficult to measure that stem from the image and reputation of the supplier or better mutual relations. It is these aspects that are the key factor distinguishing the supplier on highly commoditized markets in which metallurgical industry companies operate as well. In the value networks built on the principles of cooperation and partnership, they have an irreplaceable role. The aim is to find the most appropriate partners to support own business activities.

The literature [31] recommends for supplier evaluation to create a catalogue of criteria, i.e. to choose the evaluation criteria, their importance and scores, appoint the decision maker for the performance thereof, and establish a team of evaluators for the actual evaluation and the evaluation procedure. The practical implementation of these steps in the context of assessing the overall beneficial effect of the relationship, however, has many problems. Therefore, attention should be paid to the following recommendations:

- supplier evaluation should involve all employees of the customer company who come into contact with the supplier's employees (buyers, technology engineer and production manager, economist, management, research and development personnel, quality management department personnel, logistics department personnel, including warehouse management personnel),
- when selecting criteria we must make sure that the overall value advantage as obtained from the supplier is affected (product/service, image, relationships),
- weight of each criterion should reflect the importance of the criteria to the evaluator, i.e. individual evaluators assign different weights to the same criteria depending on what parameters of the complex offers are relevant to them,
- it is important to note, however, that individual setting of weights increases the subjectivity of evaluation, which is already significantly influenced by personality traits of the evaluator,
- if the same area is represented by a number of evaluators, it is necessary to process their opinions in a partial manner to ensure the evaluation relevance before proceeding to the next step,
- overall score of the supplier through individual evaluators and evaluated parameters is the basis for the choice of strategy of building relationships with individual suppliers,
- to strengthen relations and build partnerships we need to communicate the results of the evaluation with the supplier.

For deepening relations in the value network, therefore, important is not only the content and outcome of the assessment, but also communication thereof with the supplier based on the idea that deeper relationships allow both parties to get a greater value. The supplier commonly gets an evaluation relating primarily to the current performance (commonly carried out by customers in accordance with the requirements of ISO 9004), but for qualitatively higher level relations, it is necessary to substantially deepen the cooperation which must also be supported by the supplier evaluation. It is only mutually beneficial relationships that work in the long term, and supplier evaluation and communication of its results brings benefits to both parties. In order to gain a higher value, the customer contributes to the development of the relationship with its feedback. That will allow the supplier to increase the value proposition. If the supplier knows not only the overall result of its evaluation, but the results according to various criteria and their importance to the evaluator, it has the opportunity to identify areas where its performance threatens the relationship most and where there is the greatest potential for improvement.

CONCLUSION

Building mutually beneficial relationships based on the principle of cooperation in creating value significantly affects the nature, content and purpose of many business processes, including supplier evaluation. The traditionally conceived evaluation as a tool to select the best supplier in terms of the basic parameters of supply becomes a tool for promoting and strengthening relationships and communicating the needs and requirements of business partners. A comprehensive evaluation is more difficult, but it provides feedback to the supplier in all areas that affect the customer perceived value, and takes into account the views of all who are served by the supplier and whose opinion influences the size of the perceived value. The efforts made pays off to the customer not only in the greater value offered, but also in the trust prevailing between the partners and the stability of the relationship. Therefore, in supplier evaluation, evaluation criteria need to include not only the transaction value benefits or the parameters of supply, but also intangible relational emotional and social benefits, reflected in the overall satisfaction of both partners with the relationship, level of trust prevailing in the relationship and the ideas concerning the future of the relationship, strengthening of the position in the branch and increasing of the competitiveness of both partners by eliminating duplicate activities and further synergy effects arising from the interdependence and integration with the supplier and other partners in the value network.

ACKNOWLEDGEMENTS

The authors thank for the financial support provided by the Grant Agency of the Czech Republic under the project No 403/12/1279 "Tools for strengthening the long-term relationships with customers based on integration and cooperation of value network subjects."

REFERENCES

[1] WOODRUFF, R. Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science,* 1997, vol. 25, no. 2, pp.139-153.

[2] ULAGA, W., EGGERT, A. Relationship value in business markets: The construct and its dimensions. *Journal of Business-to-Business Marketing,* 2005, vol. 12, no. 1, pp. 73-99.

[3] PAYNE, A., CHRISTOPHER, M., CLARK, M., PECK, H. *Relationship marketing for competitive advantage: winning and keeping customers.* 1. ed. Oxford: Butterworth-Heinemann, 1995. 304 p.

[4] BIGGEMANN, S., BUTTLE. F. Intrinsic value of business-to business relationships: An empirical taxonomy. *Journal of Business Research,* 2012, vol. 65, no. 8, pp. 1132-1138.

[5] LOSTAKOVA, H., PECINOVA, Z. Creation of the customer´s value within the value network of products determined for production consumption. In Metal 2011:. *20. int. metal. conference*: 18. - 20. 5. 2011. Brno, Hotel Voronez I, Czech Republic [CD-ROM]. Ostrava: TANGER: May, 2011, pp..1126-31. ISBN 978-80-87294-24-6.

[6] VLCKOVA, V., PATAK, M. Outsourcing and its impact on demand planning. In Metal 2012:. *21. int. metal. conference*: 23. - 25. 5. 2012. Brno, Hotel Voronez I, Czech Republic [CD-ROM]. Ostrava: TANGER: May, 2012, pp..1687-94. ISBN 978-80-87294-31-4.

[7] FORD, D., GADDE, L.-E., HAKANSSON, H., SNEHOTA, I. *The business marketing course-Managing in complex networks*. 2. ed. Chichester: John Wiley and Sons, 2007. 288 p.

[8] RITTER, T., WILKINSON, I.F., JOHNSTON, W.J. Managing in complex business networks. *Industrial Marketing Management* 2004, vol. 33, no. 3, pp.175-183.

[9] VANDAELE, D., GEMMEL, P. Purchased business services influence downstream supply chain members. *International Journal of Service Industry Management* 2007, vol. 18, no. 3, pp.307-321.

[10] HAKANSSON, H. *International marketing and purchasing of industrial goods. An Interaction Approach.* 1. ed. Chichester: John Wiley and Sons, 1982. 415 p.

[11] HAKANSSON, H., SNEHOTA, I. *Developing relationships in business networks.* 1. ed. Boston, MA: International Thomson Press, 1995. 415 p.

[12] CHEN, I., FUNG, P. Relationship configurations in the apparel supply chain. *Journal of Business & Industrial marketing,* 2013, vol. 28, no. 4, pp.303-316.

[13] AASTRUP, J., GRANT, D.B., BJERRE, M. Value creation and category management through retailer-supplier relationships. *International Review of Retail Distribution and Consumer Research,* 2007, vol. 17, no. 5, pp. 523-541.

[14] ULAGA, W., EGGERT, A. Value-based differentiation in business relationships: gaining and sustaining key supplier status. *Journal of Marketing,* 2006, vol. 70, no. 1, pp. 119-136.

[15] RITTER, T. A Framework for analyzing interconnectedness of relationships. *Industrial Marketing Management,* 2000, vol. 29, no. 4, pp.317-326.

[16] HAKANSSON, H., FORD, D. How should companies interact in business networks. *Journal of Business Research,* 2002, vol. 55, no. 2, pp.133-139.

[17] CANNON, J. P., HOMBURG, C. Buyer-supplier relationships and customer firm costs. *Journal of Marketing,* 2001, vol. 65, no. 1, pp. 29-43.

[18] LAPIERRE, J. Customer-perceived value in industrial contexts. *The Journal of Business and Industrial Marketing,* 2000, vol. 15, no. 2/3, pp. 122-140.

[19] GUMMESSON, E. Total relationship marketing. 1. ed. Oxford: Butterworth-Heinemann, 2002. 350 p.

[20] JOHNSON, M. D., SELNES, F. Customer portfolio management: toward a dynamic theory of exchange relationships. *Journal of Marketing,* 2004, vol. 68, no. 2, pp. 1-17.

[21] ULAGA, W., EGGERT, A. Relationship value and relationship quality - Broadening the nomological network of business-to-business relationships. *European Journal of Marketing,* 2006, vol. 40, no. 3-4, pp. 311-327.

[22] FERGUSON, R. J., PAULIN, M., BERGERON, J. Contractual governance, relational governance, and the performance of interfirm service exchanges: the influence of boundary spanner closeness. *Journal of the Academy of Marketing Science,* 2005, vol. 33, no. 2, pp.217-234.

[23] WILLIAMSON, O. E. *The Economic Institutions of Capitalism*. 1. ed. New York: Free Press, 1985. 19 p.

[24] DAY, G. S. Managing market relationships. *Journal of the Academy of Marketing Science,* 2000, vol. 28, no. 1, pp.24-30.

[25] NENADAL, J., NOSKIEVICOVA, D., PETRIKOVA, R., PLURA, J., TOSENOVSKY, J. *Modern quality management: principles, procedures, methods.* 1. ed. Prague: Management Press, 2011. 377 p. (in Czech).

[26] NENADAL, J. *Management of partnership with suppliers*. 1. ed. Prague: Management Press, 2006. 323 p. (in Czech).

[27] KOZEL, R., MYNAROVA, L., SVOBODOVA, H. *Modern techniques and methods of marketing research.* 1. ed. Prague: Grada Publishing, 2011. 304 p. (in Czech).

[28] HILL, N. Commodity products and stalemate industries: Is there a role for marketing? *Journal of Marketing management, 1990*, vol. 5, no. 3, pp. 259-281.

[29] WOERTLER, M., JONES, B., MOUTON, J., SCHMIEDEBERG, A., SHANAHAN, M., YOUNG, D. *Breaking the stalemate. Value creation strategies for the global steel industry.* 1. ed. Boston: Boston Consulting Group, 2002. 28 p.

[30] SKARP, F., GADDE, L.-E. Problem solving in the upgrading of product offerings-A case study from the steel industry. *Industrial Marketing Management,* 2008, vol. 37, no. 6, pp. 725-737.

[31] TOMEK, G., VAVROVA, V. Operation and purchasing management. 1. ed. Prague: Grada Publishing, 2007. 384 p. (in Czech).

[32] KAPLAN, R. S., NORTON, D. P. Balanced Scorecard: Translating Strategies into Actions. 4. ed. Prague: Management Press, 2005. 267 p. (in Czech).