# THE IMPORTANCE OF SUPPLIER SELECTION PROCESS IN BUSINESS RELATIONSHIPS

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**Abstract:** The paper presents the way of selecting the most appropriate suppliers. The process of the optimum selection of the supplier how a long-term nature. The selection process plays an important role in reducing the cost and time to market and also improves the quality of the products. The paper considers the choice of supplier due to the most significant criteria for producer. It includes several stages for ensuring the effectiveness final cooperation, with using different tools improvement of outcomes.

**Key words:** supplier selection process, selection criteria of supplier, cost reduction plan

#### Introduction

Dynamic development of the market of logistics services brings about that the implementation of modern management techniques is one of the most important elements of the operation of the supply chain. The process of material requirements planning as the first element of the supply chain determines the effectiveness of further operations of many enterprises [1,2]. Appropriate material requirements planning originates in searching for cost reduction, improvement in production quality and shortening the time of the processes creating value for the client. In this field, it is essential to select the appropriate strategy of the best supplier. In the paper, there will be proposed the procedure of the selection of the best supplier based on the basic needs of the producer in the category of creating value for the client.

## The process of the selection of suppliers

The process of the optimum selection of the supplier how a long-term nature. Its beginning is identified at the moment of formulating the cost reduction plan by the producer. Further operations concentrate on the mutual cooperation, which aims at negotiating prices, analyzing the purchasing scenario and, eventually, the selection of the final supplier [3].

A significant factor in the assessment of the efficiency of the supplier is the time, and more precisely, the rapidity and reliability of the supply. The rapidity of the supply is described as the operational function whose performance and assessment are possible after the identification of requirements [4]. In turn, the reliability of supplies refers to the capability to deliver products or to provide services at the time agreed [5]. The supplier may simultaneously have a long time of processing orders and, in spite of this, they can be characterized by high reliability of deliveries. The reliability of deliveries is very important for enterprises which are inter-connected

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by supply chains. In case of delays - the enterprise will bear the costs due to production stoppage, if deliveries are supplied too early - the enterprise will bear additional cost due to the necessity of storage of inventories.

For the selection of potential suppliers the following information is significant:

- 1. specifying the needs resulting from material requirements (kinds of materials and services), their properties, the required amount, time of delivery etc.
- 2. the way the enterprise wants to satisfy the existing material requirements,
- 3. indicating potential suppliers,
- 4. specifying the criteria of the assessment and selection of suppliers.

The result of these activities should be the list of suppliers along with their assessment, by means of which the selection of one or many suppliers is possible. At the same time, with investment purchases or the ones where the agreement between the parties is required, there is a necessity to conduct negotiations, which usually results in concluding a contract.

The process of the selection of suppliers allows the producer to create the following decision-making options:

- single sourcing,
- dual sourcing,
- multi sourcing,
- mix sourcing [6].

The final result of the performance of the whole function of the selection of suppliers is the decision on the selection of the particular supplier or suppliers.

Possessing the information on the supplier indicates who the orders should be placed to and enables the performance of the subsequent operation which placing the procurement/purchase order is.

The most frequently chosen criteria of the selection of suppliers are the offered material prices, the proposed delivery times, their location and opinion on the market, bearing the supply costs by any of the parties, the quality of materials and the offered payment provisions [7].

The process of the selection and assessment is one of the most important aspects of the company's operation in the supply chain, therefore enterprises have to maintain long-term relationships with their most reliable suppliers [8]. Therefore, the analysis of suppliers should be based on some previous experiences. The figure below presents the proposal of the procedure of the supplier selection and the purchase of specific components from the producer. The supplier not fulfilling the requirements of all the stages is not selected.

Fig. 1. The procedure of the supplier selection at the level of the producer





Source: [9]

The requirements posed to new and current suppliers:

- the supplier should meet the requirements of the producer-client as early as at the start of the cooperation,
- the supplier ought to fulfill the requirements of the producer-client in the subsequent periods of cooperation,
- the supplier should constantly improve their products.

## 2. The cooperation with the selected supplier

# 2. 1. Specifying the cost reduction plan

For the purposes of the further optimization and an increase in the effectiveness, the selected supplier obtains, from the producer-client, the cost reduction plan to be prepared in a specific period (most frequently, the quarter plan). The specific plan must be usually made by the third quarter of each year. The calendar below presents the subsequent steps to achieve the goal from the quarter to quarter. An exemplary calendar of the achievement of the cost reduction plan:

- I quarter: there is recommended a high level of negotiating the terms of development of the cost reduction plan since most savings must be made as early as in this period (in spite of the continuous nature of activities until 100% of the plan is implemented),
- II quarter: constant development and improvement in the cost reduction plan and confirmation at the level of departments,
- III quarter: implementation of the cost reduction plan at the level of the whole company,
- IV quarter: development of the documentation amounting to the end of negotiations and passing information on achievement of the goal assumed in the plan.

To increase the effectiveness of processing orders for each supplier, it is recommended to assign a direct person dealing with purchasing and negotiating

conditions with the specific supplier. Negotiations should last until the goal is achieved.

#### 2.2. Communication

"Open and frequent communication between buying firm personnel and their suppliers is as a key approach in motivating suppliers" [10]. The basis are the documents being the evidence of the terms of negotiations are obtained by both parties. They specify that the terms of the contract ought to be favorable for both the producer and the supplier. The agreement confirms both the previously established prices of the specific component, includes the engineering specification and the price list for specific components which is satisfactory for the producer. To provide high efficiency of deliveries, there should be involved some organizational units from the material supply department in the relationship with suppliers. The range of help which can be proposed by co-workers in the framework of the process development is presented in Table 1 (where S stands for Support, I- Information, A-Approve, TR- Total Responsibility).

Table 1. The involvement of the purchasing department in the process of supplier relationship management [9]

	T	1- 1
Tasks	Purchases	Purchases
	across	in a single
	the company	production
		department
Specifying the list of suppliers in agreement	TR	S
with the production department	IK	3
Examining the suppliers' offer	TR	A
Providing the data essential for the	S	TR
assessment of requirements		
Creating and providing offers to the supplier	TR	S
base	111	~
Management of the decision on the selection		
of the specific supplier in accordance with	TR	S
the decision issued by the production line		
Management of commercial negotiations	TR	S
with suppliers		
Recommending the supplier selection (along with alternatives)	TR /A	A
Defining and communicating business needs	I	TR
Selecting the supplier across the whole		
company in agreement with the production	TR /A	S/A
line		
Defining and maintenance of the advanced	S	TR
procurement across the whole company		
Management of the procurement system	TR	S

Implementing the selected supplier into a new project	S	TR
Decision-making impact on the selection of the option – to produce or to purchase?	S	TR

Source: [9]

## 2.3. Purchasing analyses

The task of purchasing analyses and delivery monitoring is the analysis of the benefits being the result of the already delivered supplies. Each of suppliers, by means of access to information at the level of the achieved goals, allows to currently control the reliability and quality of supplies and to take possible remedial actions in case of failures. The process of assessment and qualification of suppliers is characterized by periodicity. For the current evaluation it is required to regularly follow every supply so as to conduct a thorough analysis after its delivery. To streamline the assessment of individual suppliers it is possible to adopt the technique using color, where:

- o suppliers systematically achieving the established goals can be marked with green color (100%),
- o suppliers whose cost reduction plan is developed at a high but not completely required level must be marked with yellow color (minimum 90%),
- o suppliers whose cost reduction plan is developed at the average level can be marked with blue color (minimum 75%),
- o red color refers to suppliers who do not comply with the established plan (less than 75%).

Correct analyses and establishment of the strategy of cooperation with suppliers determines which supplier will supply components in future years. Moreover, these decisions have to meet the long-term expectations of companies [11].

#### Conclusions

In the operation of the entities, whose basic activity is production, the process of purchasing raw materials and materials, the course of which is determined by the selection of the appropriate supplier, occupies a special position.

This selection, imposed by the requirements of the producer, apart from the provision of the supply on time, is also to lead to minimizing the costs of procurement. Inappropriate selection of the supplier brings about high costs connected with the repetition of orders, prolongation of the time of supplies and harm arising as a result of the damage to the procurement. Taking into consideration the consequences of the supplier selection, entrepreneurs should invest in expansion and development of procurement departments, which will take actions to search for cost reduction, improvement in quality and shortening the time of the processes creating the total value for the end-customer.

Therefore, to select the optimum supplier it is advisable not to be in a hurry, while simultaneously taking into consideration the requirements of the company and the goals of both parties. Efficient negotiations, the development of the cost reduction plan and continuous communication with suppliers foster the development of the whole company, bringing about long-term profits. The condition of the effective

cooperation is also partnership which obliges both parties to take continuous operations improving measurable results.

### **BIBLIOGRAPHY**

- [1] AKSOY, A., ÖZTÜRK, N.: Supplier selection and performance evaluation in just-in-time production environments.- Expert Systems with Applications, 38 (2011). pp. 6351;
- [2] KOZERSKA, M., SMOLNIK, P., Rola dystrybucji w przedsiębiorstwie na przykładzie firmy HYGIENIKA S.A.- Logistyka, 3/2012. pp.1131.
- [3] CALVI, R., DAIN M. A., FENDT, T.C., HERRMANN, C. J.: **Supplier selection for strategic supplier development.-** Unité Mixte de Recherche CNRS / Université Pierre Mendès France Grenoble, 2/2010. pp.4-5.
- [4] VRUNO, D.M.: Concrete Delivery Time Study, Research Project.-Minnesota Department of Transportation, 2011. pp.1.
- [5] SKRZYPEK, E.: **Jakość i efektywność.-** Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin, 2000. p. 45.
- [6] CHRISTOPHER, M.: Logistyka i zarządzanie łańcuchem dostaw.- Wyd. PCDL, Warszawa, 2000. pp. 230-231.
- [7] AKAMP, M., MülLLER, M.: Supplier management in developing countries.-Journal of Cleaner Production, 56/2013, pp.56; SCHARY, P.B., SKJOTT LARSEN, T.: Zarządzanie globalnym łańcuchem podaży Wyd. Naukowe PWN, Warszawa, 2002. pp.147-151.
- [8] CHEN, P., WU, M.: A modified failure mode and effects analysis method for supplier selection problems in the supply chain risk environment: A case study.- Computers & Industrial Engineering, 66/2013. pp.635.
- [9] own labour
- [10] HUMPHREYSA, P.K.: LIB, W.L.: CHAN, L.Y.: The impact of supplier development on buyer–supplier performance.- Omega, 32/2004. pp.134.
- [11] ARAZ, C., OZKA, I.: Supplier evaluation and management system for strategic sourcing based on a new multicriteria sorting procedure.- Int. J. Production Economics, 106/2007. pp.586.