

Research on Supplier Selection, Evaluation, and Relationship Management

Xiaoyuan Shi, Weihua Zhang

School of Digital Commerce, Zhejiang Yuexiu University of Foreign Languages, Shaoxing, China

Email: sxy_008@126.com

How to cite this paper: Shi, X. Y., & Zhang, W. H. (2023). Research on Supplier Selection, Evaluation, and Relationship Management. *Open Journal of Business and Management*, 11, 1208-1215. <https://doi.org/10.4236/ojbm.2023.113067>

Received: March 22, 2023

Accepted: May 22, 2023

Published: May 25, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Procurement is a key step in determining the quality and cost of an enterprise's products, and the selection of procurement suppliers is one of the important factors in this key step. How to choose a qualified and satisfactory supplier is not only related to the future product quality, but also affects the control of procurement costs. This article mainly discusses the selection and development of suppliers, supplier performance evaluation, and how to strengthen the relationship management with suppliers, in order to expect the procurement department to select, utilize, and retain suppliers, in order to ensure procurement quality and improve product market competitiveness.

Keywords

Supplier, Performance Evaluation, Supplier Relationship Management

1. Introduction

Supplier management is an important part of procurement management, and traditional supplier management mainly focuses on supplier selection. With the development and progress of society, profound changes have taken place in the market. The main performance is that the product life cycle is becoming shorter and shorter, the market region is expanding, customer consumption is personalized, and the relationship between enterprises is becoming closer and closer. The competition between enterprises is no longer the traditional competition between individual enterprises, but has shifted to the competition between the entire supply chains. In the emerging supply chain environment, in order to achieve greater competitive advantage, enterprises must re-plan their supplier management scientifically and optimize the competitiveness of the entire supply chain. Referring to the research content of previous scholars, it mainly focuses on the

selection and development of suppliers (Cai, 2015), or just how to evaluate suppliers (Zhuo, 2021). As a supplier management, it is not only necessary to pay attention to its selection and evaluation, but also to maintain suppliers from a long-term perspective. The purpose of this study is to provide theoretical reference for enterprises to select and use suppliers well, and to help enterprises comprehensively consider supplier selection, evaluation, and maintenance. Based on reference to previous relevant literature, this article proposes some issues that should be considered in the selection and development of suppliers, and then comprehensively considers the performance evaluation of the suppliers to be selected to select suppliers suitable for the development of their own enterprises. It is believed that suppliers should not only be selected well, but also maintain the relationship between them, in order to better serve the long-term development of the enterprise. Finally, a summary and outlook are given.

2. Selection and Development of Suppliers

Choosing the right supplier is crucial for enterprises, which can not only save costs and expenses, but also provide qualified and satisfactory products to enterprises. Enterprises can choose and develop suppliers from existing suppliers or develop potential enterprises that may call themselves suppliers (Hu, 2021).

2.1. Issues to Be Considered before Supplier Selection and Development

1) Number of suppliers

Single source suppliers are generally suitable for being the sole supplier of a key component of an enterprise, and can provide valuable and excellent products. Especially when more reliable and shorter lead times are required, most of them choose a single supplier. When purchasing in large quantities, it is easy to generate scale effects, which are beneficial to both parties. In this case, it is unnecessary to consider other suppliers. The purpose of selecting multi-source suppliers is often to ensure supply, reduce risk and dependency, avoid excessive reliance on a particular supplier, and provide backup sources of supply in order to achieve better prices and services. Sometimes, there are also corporate policy requirements.

2) Supplier size

The size of a supplier not only reflects its strength and market influence, but also reflects its quality, reputation, and other factors. However, when an enterprise cooperates with such a supplier, it is difficult for the purchaser to take the initiative and speak up because the other party has a large market share and a certain degree of popularity. When negotiations are needed, consider the situation and handle it flexibly.

3) Location of the supplier

With the globalization of the economy, cooperation between enterprises has gradually expanded from domestic to international markets. Domestic and geo-

graphically close suppliers have the advantage of short transportation costs and delivery times, while multinational suppliers may seek more competitive prices and quality for enterprises to purchase goods.

4) Existing or potential suppliers

The existing suppliers have had multiple cooperation experiences with enterprises, and are familiar with personnel and handling, and are easy to communicate and trust. However, it may be difficult to make further breakthroughs in product quality and price negotiation, as enterprises always use old employees, lacking fresh blood to enrich and vitality. Developing new suppliers can pose significant risks to enterprises and even affect their relationships with existing suppliers.

5) Direct or indirect purchase

Direct purchase may bring lower prices to enterprises, but it requires a lot of effort to search and negotiate. If an intermediary agent is sought to purchase, it will save the enterprise a lot of unnecessary trouble and enable it to concentrate more on product development and quality improvement.

2.2. Selection of Suppliers

1) Analysis of demand and supply environment

Market demand is the foundation of enterprise activities. Enterprises should first understand the characteristics, types, quantities, and other relevant information of market demand, determine the specific requirements of users, and then select appropriate suppliers based on customer wishes. Then determine whether to choose an existing supplier or develop a new one. Next, we need to analyze the supply environment, collect and analyze data on the distribution of suppliers, as well as the quality, model, specification, price, enterprise strength, scale, and reputation of the products provided (Li, 2022).

2) Clarify the objectives and principles of supplier selection

The goal of selecting suppliers is to provide appropriate products and raw materials to meet the production needs of the enterprise. Therefore, there should be clear goals and directions that are consistent with the long-term planning and strategy of the enterprise, so as to enhance its competitive advantage. When selecting suppliers, it is also necessary to respect certain principles, such as objectivity, stability, comprehensiveness, and flexibility. At the same time, it is also necessary to control the quantity and select suppliers that match the strength of your enterprise and have strategic partnerships.

3) Criteria and methods for supplier selection

Generally, the criteria for selecting suppliers should coordinate the long-term and long-term goals of the enterprise, so that there are corresponding short-term and long-term standards. The short-term criteria for selecting suppliers are often based on comprehensive service levels such as the quality of purchased goods, the price of procurement, the delivery ability of the enterprise, and the timeliness of providing additional consulting services and solving problems. The

long-term criteria for supplier selection focus on factors such as the financial situation, reputation, technical level of internal employees, and management organization status of the enterprise.

Generally, qualitative methods, quantitative methods, and a combination of both methods are used in selecting suppliers. Qualitative methods include the intuitive judgment method for determining suppliers based on the analysis of data from enterprise surveys, the bidding method, and the selection method for the same few suppliers. There are three quantitative methods: activity based costing, procurement costing, and weighting. The commonly used layer and analysis (AHP), data envelopment analysis (DEA), and the emerging neural network algorithm (ANN) belong to a combination of qualitative and quantitative methods (Yin, 2021).

4) Establish a supplier selection team and eliminate candidate lists

Selecting a supplier is a system. Complex processes, especially for large procurement or some enterprises involving large amounts, require enterprises to establish a supplier selection team to form a team collaboration, and determine a list of potential suppliers by collecting information about relevant suppliers, actively contacting them via phone calls, and conducting interviews with existing suppliers and purchasers in the procurement department.

5) Supplier Review and Final Selection

The supplier audit is conducted through market research in the early stage. Final review of potential suppliers based on initial screening. Specifically, the highest level audit can be conducted at the company level for the main management processes such as the products provided by the supplier, the processing process, the quality assurance system (ISO9000), and its operating status, financial status, and design capabilities. The methods for supplier audit include the survey method of issuing forms, the organization of on-site supplier scoring and evaluation method, the performance evaluation method of the quality, price, and other supply conditions of goods supplied by past cooperative suppliers, the organization of comprehensive audit methods by professionals from relevant departments of the enterprise, and the overall cost method. After clarifying the supplier selection criteria and reviewing relevant information, and using certain techniques and tools, you can successfully select the best supplier.

3. Supplier Performance Evaluation

Supplier performance evaluation refers to the evaluation and monitoring of suppliers through a series of daily cooperation and performance after selecting them. The purpose is to improve the work of suppliers and select them again in the future (Wang, 2019).

3.1. Purpose of Supplier Performance Evaluation

The purpose of supplier performance evaluation is first of all to assess whether the selected suppliers can meet the requirements of the enterprise in terms of

quality and quantity of the goods and services they provide to their own enterprises. Secondly, in communicating with relevant cooperating suppliers, if they fail to perform as scheduled, the enterprise should review and measure whether to eliminate unqualified suppliers based on the evaluation results. Finally, through assessment, we can identify some shortcomings of suppliers and help them improve their business conditions to better provide their own enterprises with more satisfactory goods and services for their use.

3.2. Principles of Supplier Performance Evaluation

The principle of supplier assessment can be considered from three aspects: integrity, sustainability, and comprehensive consideration of external factors.

1) Principle of integrity

The principle of integrity is to evaluate the overall operation of suppliers and enterprises to determine the evaluation objectives.

2) Principle of continuity

The assessment of suppliers is not done only when they have thought of it, but rather based on the length of cooperation, they regularly and continuously check the status of their goals achieved. When a supplier clearly knows what they are doing, and the cooperative enterprise will evaluate and evaluate them accordingly, they will also devote themselves wholeheartedly, seriously, and responsibly to the business, striving to improve work performance and improve the quality of service provided.

3) Comprehensive consideration of external factors

The assessment of suppliers should not only focus on superficial things, but also objectively and comprehensively evaluate the quality of suppliers' supply services. It should also consider the impact of factors outside the enterprise on supply quality in combination with the external environment in which they are located. Only in this way can the assessment of supply be objective and convincing, achieving the true purpose of the assessment.

3.3. Indicator System for Supplier Performance Evaluation

1) Quality indicators

Quality indicators mainly refer to the quality of suppliers' existing supplies and their ability to develop new products in the future. The existing quality standards include the following measures. However, the primary condition for selecting suppliers for existing quality is that if this item is not qualified, there is no need to consider others. Existing quality is usually measured by the following indicators. The details are as follows: the batch qualification rate of supply items, the sampling defect rate of supply items, the scrap rate of supply items, the inspection exemption rate of supply items, and the supplier's future development ability.

2) Supply indicators

Supply indicators are measured in terms of delivery and flexibility. The main

aspects of supplier delivery inspection include:

On-time delivery rate = the batch that actually meets the delivery date and quantity/the total delivery batch when the original order is confirmed $\times 100\%$.

Delivery cycle: the date from order confirmation to actual arrival (days).

Order change acceptance rate = delivery quantity of order change/original delivery quantity specified in the order $\times 100\%$.

Flexibility refers to the responsiveness of a supply enterprise to changes in market and customer demand. It generally includes three aspects: batch flexibility, variety flexibility, and time flexibility.

3) Economic indicators

On the one hand, economic indicators are reflected in the price, which refers to all expenses incurred by the supplier after completing the delivery of the goods. On the other hand, they are mainly indicators that reflect the financial situation of the supplier enterprise.

4) Supporting indicators

In addition to the indicators mentioned above, when assessing suppliers comprehensively, performance in other factors such as service, support, and cooperation is often also a part of the assessment. Specific skills include communication skills, cooperative attitude, supplier management level, service level that can be timely handled in the face of problems, and the economic, technological, religious, cultural, and natural environment in which the supplier is located.

4. Supplier Relationship Management

In the new supply chain management environment, the win-win relationship between demand enterprises and supply enterprises has become the common desire of both parties to cooperate, and each other has become a common body of interests. Therefore, it is necessary to embody the idea of supply chain in procurement management, strengthen the management of suppliers, maintain good business progress, and maintain a win-win strategic idea (Zhuo, 2021).

1) Win-win philosophy

With the progress of society and the development of technology, the competition among enterprises has become increasingly fierce. In modern society, all enterprises in the new supply chain environment are no longer the competition between a single enterprise, but rather the competition between all enterprises in the supply chain. "The situation of losing everything and prospering everyone is a problem that enterprises must be deeply aware of at present." Therefore, enterprises should abandon traditional business concepts, not only aiming at maximizing their own profits, but also taking into account the situation of all upstream and downstream enterprises they cooperate with, and establish a new concept of "win-win" and "win-win". "Hello!" was the slogan! Hello! hello everyone! That's really good!

2) Information sharing and trust mechanism

The uncertainty of the market and the independence of mutual operation

make it difficult to avoid omissions and errors in certain decision-making and information exchange between enterprises and suppliers that purchase goods, therefore, for better cooperation. Both parties should strengthen information exchange and communication to maintain the consistency and accuracy of information. When faced with common problems that are difficult for one party to solve, a joint team should be established in a timely manner to brainstorm and overcome difficulties. Both sides should regularly form an exchange of visits mechanism. Create a good cooperative atmosphere. Achieve information sharing, mutual trust, and cooperation without involving business secrets (Lechner, 2019).

3) Establish risk awareness

Enterprises with procurement needs should have a sense of risk prevention. In particular, selecting a single supplier may expose the supplier to risks such as intentional or unintentional supply disruption or price control. Therefore, enterprises should also prevent being controlled by individual defective suppliers when selecting suppliers. Once a formal written agreement has been reached with the supplier, it is necessary to promptly follow up and communicate and supervise relevant information. If possible, try to find as many suppliers as possible who are rated well in all aspects, and write the necessary details into the terms of the agreement. If possible, try to assign profits to suppliers, establish long-term partnerships with them, and enhance mutual trust and loyalty.

4) Establish a reward and punishment mechanism

In order to prevent speculation from bad suppliers and long-term cooperation with reputable suppliers, enterprises should establish a clear reward and punishment mechanism with suppliers. On the one hand, it is necessary to punish those suppliers who do not abide by contracts and commitments. More importantly, it is necessary to provide necessary incentives to suppliers who provide timely supply, good quality, and reasonable prices, from payment terms, extended cooperation period, technical support, information sharing, and other interested incentives to make them serve themselves.

5. Conclusion

Procurement is a key link in product quality and cost control for enterprises, and the selection of procurement suppliers is one of the important factors in this key link. Good suppliers not only ensure the quality of supplied products, but also affect the control of procurement costs. The system management of suppliers should be carried out from three aspects: supplier selection and development, supplier performance evaluation, and how to strengthen the relationship management with suppliers, so as to achieve a win-win situation between enterprises and suppliers. Supplier management should not only select good suppliers, but also consider how to make good use of excellent suppliers. The significance of this study is to provide suggestions for all enterprise procurement departments to do a good job in procurement management. Of course, procurement depart-

ments in different industries have different businesses, and some of the viewpoints in this article are also mentioned in general terms, and some need to be targeted and detailed. This is the limitation of this article.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Cai, B. F. (2015). Research on the Development and Management of Purchasing Suppliers. *Science and Technology Wind*, No. 13, 276-277.
- Hu, Zh. H. (2021). Preliminary Study on Supplier Selection Based on Supply Chain Management. *Small and Medium Enterprise Management and Technology*, No. 3, 13-14.
- Lechner, G. (2019). Supplier Relationship Management: Small, Irreplaceable Suppliers and Close Customer Supplier Relationships. *Open Journal of Business and Management*, 7, 1451-1459. <https://doi.org/10.4236/ojbm.2019.73099>
- Li, Y. (2022). Supplier Selection and Evaluation Strategies in Enterprise Procurement Management. *Business Culture*, No. 14, 68-69.
- Wang, B. Ch. (2019). *Research on Procurement Supplier Selection of S Company from the Perspective of Supply Chain*. Nanchang University.
- Yin, Z. J. (2021). *Study on the Supplier Selection Evaluation Index System of Company Y*. South China University of Technology.
- Zhuo, H. Y. (2021). How to Better Manage and Maintain Supplier Relationships. *China's Small and Medium Enterprises*, No. 9, 72-73.