

Supplier Development: Review of Recent Literature

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1. Introduction

Supply chain management has become increasingly important as more and more companies outsource work to suppliers. Why is high performance of suppliers becoming such an important issue to customer companies? This is because a company's supplier base is an important variable that determines the success of the customer company. "In a number of organizations, cost effective supply chain is a matter of survival as purchased goods and services account for up to 80% of sales revenue, whilst in the public sector there is a ever-increasing demand for savings in the procurement process" [1].

If the supplier is not able to meet the demands of the customer, the customer has three options: 1) In-source the product, 2) switch to a different vendor, or 3) aid the supplier to enhance or transform its processes and abilities [2]. The decision made will hinge on the cost and quantity of the product as well as whether the product is crucial to the future plans of the company [2]. If the product adds little value and is not strategic in nature, then the costs involved in switching to a new vendor will probably be low. If this is the case, then changing to a new vendor is the optimal decision [2]. However, changing vendors can cost a company a great deal in terms of money, political situation, and how the company is regarded by others [3]. If the product is strategic in nature, then the customer company may want to in-source the product [2]. Again, there may be costs involved with doing this because in-sourcing can cause "substantial diseconomies of vertical integration outside of the core business" [3]. For situations which vary between these two situations, the customer may want to engage in supplier development [2].

2. Discussion

Supplier development is "any activity that a buyer undertakes to improve a supplier's performance and/or capabilities to meet the buyer's short-term or long-term supply needs" [2]. These activities include: assessment of vendor's processes, offering rewards for improvement, encouraging rivalry between vendors, and direct involvement with the vendor (including training). A company may engage in one, some, or all of these activities [2].

Supplier development can be a tremendous undertaking requiring resources of money, capital, and people by both the customer and the supplier. Therefore commitment from both parties is necessary. It also requires trust because it involves risk. It is risky for two reasons. First, success is not guaranteed. Second, the companies will have to share confidential and strategic data. Supplier development also requires cooperation and compromise. The companies have to come to agreements about very important matters, such as performance metrics [2]. Sako points out that the companies also must have "distinctive organizational and governance structure that facilitates long-term cumulative learning" [4]. So commitment and trust are not enough, the companies must be able to support learning on the organizational level. Supplier development should be about partnership, where both customer and supplier are committed to working together for the long-term [5].

According to Sako, "the most limited aim of supplier development is to intervene in order to teach 'maintenance capability' with respect to a specific component. At the other extreme, the most ambitious aim is for a company to replicate at its supplier a whole set of organizational 'routines' underlying its own evolutionary capability" [4]. There are two dimensions of capability: type and scope. Sako divides "type" into three categories:

- Maintenance – the capacity to sustain performance,
- Improvement – the ability to improve performance and the pace at which improvement takes place, and
- Evolutionary - the highest type, which is the ability to acquire new capabilities.

The other dimension, scope, describes the level of activity ranging from a work cell in one factory to the entire organization [4].

A study by Watts and Hahn shows "that buyers are using supplier development programs to improve the products they purchase, as opposed to improving their suppliers' capabilities" [6]. Krause found that customer companies utilize an array of techniques in supplier development programs [7]. But that they utilized lower level activities such as supplier evaluation rather

than higher level activities like supplier training and monetary investment [7]. Krause also showed that the intensity of activity correlated with the customer company's commitment to supplier development [7]. Suppliers and customers who work together and when working together, consider the "total cost" instead of the price of the product do more supplier development activities [8].

Liker describes how the Japanese automakers (like Toyota) developed their supplier development programs over the years [9]. U.S. companies have provided supplier training for a long time as well. However, the Japanese companies use a different approach. They do not teach lean production in a classroom or conference room. Instead they teach their suppliers at the suppliers' facilities according to *gemba* (a Japanese word meaning "go and see"). The supplier learns lean production from actually doing it. They usually send their own employees to the supplier's facility to help them set up "model lines" [9]. Sako's article also studies the Japanese automakers' supplier development activities [4]. He reports that these companies have organized supplier associations, study groups, forums, etc. to allow suppliers to share information and, in Toyota's case, actually work projects together. Also, it is interesting to note that for all three companies which he studied, the scope of the supplier development programs broadened over time.

Emiliani [10] describes how Pratt & Whitney (P&W) encouraged its machined parts suppliers to adopt lean practices. P&W wanted to improve its suppliers' processes so that it would not need to outsource to foreign companies. To reduce cost and improve quality and on-time delivery, P&W had to teach the suppliers about the lean basics. The means for educating the suppliers included using bimonthly e-mail briefings on lean concepts and P&W success stories. Pratt & Whitney also conducted personal visits to give suggestions.

Michaels [11] presents the findings of the case study of a Large Aerospace Company (whose real name is not revealed) which initiated a long-term project to lean its supply chain. LAC had many problems motivating its suppliers as well as its own buyers. Tension between different groups of people caused teamwork issues. However, many lessons were learned from this experience. At the end of three years, only 30% of the suppliers understood lean concepts and only 10% were implementing it.

3. Conclusions

The literature shows that supplier development can be effective in improving the supply chain (as in the case of the Japanese automakers). However, for supplier development to work, the companies must work together and commit to the initiative.

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5. References

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