IMPROVING A SHORT AND LONG-TERM SUPPLIERS DEVELOPMENT PLAN

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Abstract

Objective of a long-terms strategy development plan for a firm a global player in windows/doors fittings is to ensure the sustainability of internal and external processes and to steadily increase the quality of the firm. The focus of our project was suppliers from Asian Countries and Turkey. The firm does not have any long-term improvement strategy for new suppliers outside of Europe. However, strict global competition and increased interest in supplier integration in recent years force firms to outsource some of their resources in Far East. As a result, for each part of the firm, short-term strategy(s) could be developed to adapt new changes. Finally, a long-term strategy could be created. The purpose of this paper is to analyze the existing and new suppliers and problems having occurred and to give suggestions how to organize supplier activities of the firm and plan suppliers’ development in Far East.

Keywords: Supplier Development, Interviews, Long and Short-Terms Strategies.

JEL Classification: L10, M1, L25.

Introduction

With concept of globalization, many international firms from developed countries have located some of their manufacturing facilities in developing countries. China is a fast growing country and is now a very important headquarter of manufacturing in the World. It is the main interest of many international firms due to cheap production. However, the environment in this country is different from European suppliers. Thus, big firms must understand the supply environment of this country. The degree of flexibility among firms, buyers and suppliers determine the successes of them and this flexibility is multidimensional which can be the ability to handle a range of products or variants with fast set-ups, changeover, modification, volume, rerouting, strategic adaptability etc (Dixon, 1992)

The firm has a head-quarter in Germany and some firms in Europe and many suppliers and firms in other parts of the World. We imagined the all connections among firms and departments as pipelines. When there is not any obstacle in pipelines, the water can flow inside them without any problem but when there are some problems or something else, the water cannot pass through them. The communication among parties is like water. The problems preventing good communication should be eliminated and then parties could understand each other better. In short term, the firm may not notice but in long term, it may cost the firm so much. As a result, a long-term supplier’s quality improvement strategy is necessary for the firm. Quality and communication problems, customer and supplier complaints are the signs that the firm is on an edge.

The aims of interviews to see how problems related to suppliers could be found. Moreover, information about existing system was collected to show the manager of the firm that firm needs a long-term strategy plan. He wanted to see how it could be done. Then, an interview with him and two other managers were carried out. Based on these interviews, some conclusions have been drawn. Of course, these interviews are not enough to develop a long-term strategy but to prepare a plan, it was necessary. Interviews are made to show how findings can help to make this kind of strategies. People in the system know how it runs. They can be the best source of finding for improvements. The initial task should be talks with some key workers. They can show how the system operates, share their own ideas, and help the person who will carry out this study. These key people know things mainly in their environment and limited with their education and experiences. So, some things that they say may be incorrect and have inherent biases. The job of system analyzer is to find facts of the existing situation.

The current problems of the firm lack of communication and low quality have been determined in details. The competitors of the firm were analyzed and some suppliers from Far East were invited to Germany. Moreover, the needs to enlarge the supplies activities in China and other cheap labor countries were explained. Some methods to solve the problems are mentioned in the project. Some results of practical applications were presented to the managers of production and quality departments. Based on these works, a
long term quality improvement map was suggested to the manager of the firm. The exploitation of external capabilities with suppliers will increase the benefit of collaboration and learning. A premise of this study is that the flexibility will increase if the firm integrates with suppliers.

**Theoretical basis**

To get competitive advantages, firms have to combine their internal operations with suppliers, customers and other related parties’ operations. Suppliers can be classified according to level of investments. Which sourcing strategy is the best depends on the firm’s aims. Collaborative learning is a potential way for strategic partnership to manage mutual risks. The risk management brings strategic results for both sides. The level of risk sharing is determined by firms and suppliers. (Hallikas, 2005) Due to high competition, there are rapid technical changes. Hence, there is a need of development of products with high quality and reliability. The firms can not catch all technical requirements and they have to focus on their core activities. They can outsource non-core activities. In most industries, it is stated in their budget that firms buy up to 60%-70% of their materials from suppliers. Differentiation and cost leadership can bring strategic leadership through supplier’s development. Changing suppliers can result in new costs. Thus, the loyalty of firms and suppliers is essential. Therefore, they need best supplier world-wide to work collaboratively. (McIvor, 2006; Stephan, 2006) To remain competitive, the firms must use its all resources. The quality and cost are the main source of competition for suppliers and firms. So, firms apply programs to develop the performance and capabilities of suppliers. Before selecting the suppliers, the evaluation and certification are required by visiting or training them. Later, the knowledge transfer of operational activities can start with suppliers. Collaborative inter-organizational communication is crucial to decrease the problem with suppliers and increase their performances. Inefficient communication results in misunderstandings, and incorrect strategies. Many firms apply Suppliers’ Development Programs. Suppliers are graded or ranked according to this program. Suppliers with achieving excellence get more attention and priority. Suppliers can be pre-evaluated by some methods then a second evaluation can start and interviews can be done later. Firms will invest their limited financial, technical and personal resources on selective bases to suppliers to exploit strategic opportunities for creating value with suppliers (Kara, 2011) Some incentives can be used to improve the performance of suppliers. Suppliers can be invited to the firm to see the quality problems related them. The engineers of firms can visit the suppliers and help them for personal development. The management of the firm should know information of suppliers and the strategic development of them with firm is to be decided and controlled. A strategic partnership can be established and both parties can share assets of new projects. (Modi, 2007; Kozan, 2006)

If suppliers decrease costs in processes and products, this leads to a share of reduction of these costs on to the firm. Moreover, shorter cycle time, better marketing and logistics activities and R&D can be managed in a more effective way with suppliers. (Stephan, 2006) It is critical to involve suppliers in the chain for new ventures. The level of involvement of suppliers increases the performance of manufactures, suppliers and innovation with valuable knowledge and expertise. Costumer and supplier involvement increase the quality, reliability, delivery, processes flexibility, and customer service and decreases costs, which brings competitive advantages. Moreover, short time to market in collaboration will bring another strategic advantage. The role of costumers at design, production and service is crucial and changing. (Feng, 2010) Firms invest the best of their suppliers according to their abilities for new products. The qualifications in terms of product quality, delivery capability, compatibility of production processes, technical capability, and financial strength of suppliers have a positive effect on suppliers’ performance. The early involvement of suppliers decreases the cycle time of product development. The most important stage of involvement is design stage and mistakes in this stage may be costly in following stages. If suppliers are involved in the market testing, they can know better the customers’ expectations and they can increase the satisfaction level of them. This will be beneficial for both parties. In this way, the amount of risk is shared with suppliers. The critical information during design stage must be shared with suppliers. This involvement will develop the suppliers’ capabilities and this can result in a long-term alliance of firm-supplier-costumers. (Song, 2008; Andersen, 2009; McIvor, 2006)

Capability development is essential to create value in supply chain in relationships. Smaller suppliers’ capabilities with large costumers are developed to create a vision and to fit their costumers and firms. Four capabilities human, technological, managerial systems and cultural that are in interaction are needed to be developed in order to enhance their interaction capability developments with involved network of
organizations as shown in Figure 1. (Johnsen, 2006) Each supplier has different strategies and profile. A supplier specific evaluation is needed. The suppliers have strategies from where to connect the network of chain. The success of supplier depends on how much they connect that network. If many suppliers have to work in the same project, the project manager should bring all suppliers with related workers of firm to coordinate the project according to their capabilities.(Holmen, 2010)

**Human Interaction Capability**
- Bilateral development of knowledge by employees of supplier and customer.
- Combine & new areas of knowledge & expertise development through sharing & intertwining of both firms’ knowledge & expertise.

**Technological Interaction Capability**
- Integrated technical systems & procedures across supplier and customer.
- Bilateral identification of technological requirements of each party.
- Supplier’s technology & technical systems adaptable to new.

**Managerial Systems Interaction Capability**
- Bilateral development of supplier & customer’s structures, strategies & relationships.
- Supplier has experience of collaboration with different counterparts & established techniques to facilitate collaboration
- Supplier’s relationship management approaches developed to cope with range of different counterparts.

**Cultural Interaction Capability**
- Bilateral development of supplier & customer’s culture and values.
- Supplier has opportunities cross-cultural learning & development of international management skills through engaging with variety of counterparts in network.

![Figure 1. Smaller suppliers’ interaction capability developments (Johnsen, 2006)](image)

The degree of integration determines the success of firms with suppliers. Some firms get better results than others and the main reason is how to integrate with them. The optimal integration is determined by strategies of the firm. The positive side of integration is that it offers flexibility and capability to adapt in uncertain environment. Moreover, the costs of running system which are transaction cost, production cost, administrative cost, and processes are decreased with integration. Sharing information and coordination increase the trust. The negative sides of integration are slow response to changes, additional cost of coordination, hindering learning, possibility of unhealthy development of organizations, and fears of integration. (Das, 2006)

Which factors determine the successes of collaboration is another thing that should be considered. The win-win strategy is possible for both parties. Joint trust relationship is greater for suppliers than for buyers. Trust is a more important factor than commitment since trust effect both commitment and satisfaction with relationship while commitment has affect on just performance as shown in Figure 2. Improvements in trust and commitment will be beneficial for both firms and suppliers. Firms and suppliers have different perspectives on satisfaction which is categorized as economic and non-economic satisfactions. Eye to eye contact will increase the satisfaction while both parties can see the results together, which means that the proximity of parties is also important. It is clear to see interdependent between suppliers and firms from Figure 2. (Nyaga, 2010; Walter, 2003)
Information sharing

Commitment

Satisfaction with relationship

Joint relationship effort

Trust

Performance

The arrows show paths that are statistically different between buyer and supplier samples.

Suppliers emphasize these relationships more than buyers or firms.

Buyers emphasize these relationships more than buyers.

Figure 2. Paths of buyer and supplier differences. (Nyaga, 2010)

Research methodology and findings

The main sources of information are observations during a project and interviews. The project was carried out to improve the quality of products coming from China, Turkey and other low labor countries in 2007. The suppliers of firm and their product history in details were analyzed. The products of them rejected by firm were the main source of observation. Based on this project, it was suggested to the firm to prepare a quality improvement and a supplier development plan. The firm has opened a new firm in china and this firm would be the center of Asia. All operations in Far Asia are controlled here. It is expected that the firm will buy new parts from Asian supplier and the quality of them were not enough to meet German standards. Finally, a new project has been started. This kind of projects needs serious work. As a result, targets and tasks of this project should be defined at the beginning. All necessary plans should be done. Later, the project can be carried out. However, a kind of project for long term is suggested to the firm and worth to be carried out.

Interviews

The aims of interviews to see how problems related to suppliers could be found. Moreover, information about existing system was collected to show the manager of the firm that firm needs a long-term strategy plan. He wanted to see how it could be done. Then, an interview with him and two workers were carried out. Based on these interviews and observations, some conclusions have been drawn as shown in Table 1. Moreover, interviews were carried out to show how findings can help to make this kind of strategies. People in the system know how it runs. They can be the best source of finding improvements. The initial task should be talk with some key workers. They can show how the system operates, share their own ideas, and help the person who will carry out this study. These key people know things mainly in their environment and limited with their education and experiences. So, some things that they say may be incorrect and have inherent biases. The job of system analyzer is to find facts of the existing situation.

The interviews’ questions were mainly open questions. The interviewers’ answers were written on the form with important findings. Their opinions were also taken into consideration to add further questions to the form. The firm has more 4000 workers and there is no need to interview with all of them. Key workers are the main interest of analysis. Each interview took more than one hour. Simultaneous questions were also asked according to the cases and topics. The results of project were shared with them. This ongoing project was extended and combined with new project.

On unrealized project were analyzed during interviews. This project was decided to be done in Turkey. But in almost one year, none suitable suppliers had been found. The main reasons why the chain in Turkey was slow questioned. Each time, the works of firm in Turkey submitted a reason why they had not found a supplier. The direct relationship of firms with suppliers would prevent bottlenecks in that chain. These workers have direct relationship with suppliers and each time the firm had to wait for their reports. It is clear that they need a supplier integration program.
Table 1. The summary of Interviews

<table>
<thead>
<tr>
<th>The information about interviewer</th>
<th>The Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Interview</strong></td>
<td></td>
</tr>
<tr>
<td>• The manager of Central Logistic</td>
<td>• His manager style is patriarchal as a surrogate father of the workers</td>
</tr>
<tr>
<td>• 15 years experience in the firm</td>
<td>• Stay close to problems</td>
</tr>
<tr>
<td>• Engineer</td>
<td>• Creates a reliability factor for each worker, then he evaluates them</td>
</tr>
<tr>
<td>• Can give critical decisions for further investments</td>
<td>• States that the key for retaining the market is the quality and he defines the quality “Over fulfilling increasing customer expectations”</td>
</tr>
<tr>
<td>• Responsible to the owner of firm</td>
<td>• Ready to give commitment to any kinds of improvements</td>
</tr>
<tr>
<td></td>
<td>• Wants to improve quality in China</td>
</tr>
<tr>
<td><strong>Second interview</strong></td>
<td></td>
</tr>
<tr>
<td>• One of the production chefs</td>
<td>• Has an obsolete view of quality</td>
</tr>
<tr>
<td>• She has done her education at the firm as mechanical technician</td>
<td>• Quality of statistics in her area should be analyzed</td>
</tr>
<tr>
<td>• Attended some seminars about production control, Just-In-Time (JIT) and SAP program</td>
<td>• Complaints rate should be compared with defect rates for products in her section.</td>
</tr>
<tr>
<td></td>
<td>• Consistency with actual data should be done.</td>
</tr>
<tr>
<td></td>
<td>• Complaints and defects could be classified into groups according to their importance</td>
</tr>
<tr>
<td><strong>Third interview</strong></td>
<td></td>
</tr>
<tr>
<td>• Purchaser for batch and prepares prototypes for new products</td>
<td>• It seems that he has prepared for this interview</td>
</tr>
<tr>
<td>• He did his education at the firm as Purchaser, attended a seminar about optimal batch-size controls stocks and prepare plans for batch-sizing</td>
<td>• Different questions related his area could have been asked</td>
</tr>
<tr>
<td>• one of best experienced worker</td>
<td>• Learning information about worker interviewed before is important</td>
</tr>
</tbody>
</table>

The first interviewer explains the reliability that if a worker has a 0.7 reliability factor in his mind, he will believe in him/her 70%. This is a very good approach especially in office where workers are in competition. Moreover, Germany is famous for its high quality products. The firm should not destroy this image. This is the same for all German firms with their increasing outsourcing rate. He is ready to give commitment to any kinds of improvements. Before such a serious project, he wants to talk with other department’s managers and make meeting with related workers such Quality Department and Production Managers. The likelihood is that this kind of project will result in changes both short-term and long-term. Starting this job and then stopping it shortly could be worse than nothing. As a result, fully commitment should be given and this commitment should be communicated to the company. There will be of course some risks but they should be worth to take. He has already hired a Quality Engineer in China and made a Supplier Engineering Team there to improve the quality of products from there. He wants to see a feeling of improvement in next three months. Many suppliers even do not have any definite organization structure. This team may improve their performance. It is so difficult to get instantaneous results. Long-term changes take long time to accomplish. However, in some areas with good recommendations, good results may be gotten soon. The second interviewer seems a valuable source of information for future. She controls workers in her assembly lines. A solid argumentation may be needed before changes. The third interviewer did not think so much to answer the questions almost the same questions of the second interview asked. He may have gotten information from his colleague.

Information about worker interviewed should be known before. Some of them may block recommendations in the future. For example, if analyzer wants to make changes in quality control, Quality Control Manager may block recommended changes. Then analyzer could determine his state of knowledge and experience. Analyzer approach is very important in this case. He should show him as cooperative that he wants to make recommendations or changes together. Manager should inform all persons. Interviewing with the top management is to assess the level of commitment and knowledge they know about operational problem. These interviews may help to develop questions for other interviews. They should be informed...
about other interviews and should be cooperated to find people for interviews. There were different opinions on quality and potential problems. Generally, workers define quality restricted with their areas and duties. A pocket recorder could be used not to miss critical points during interviews and steps in the processes.

**Short-term Development Plan for Suppliers**

A short improvement strategy could be developed by focusing on technical aspects, documenting potential process improvements, developing an interim report and recommendations. The suppliers in Europe are well developed but their products are expensive when compared with Far East countries. The firm does not want to decrease its quality and decided to improve the quality of their products. Each time the suppliers have to send an example to Germany to get the production permission from departments. It takes sometimes more than few weeks. Some tests take long time. So, the firm decided to make some tests at its firm in China and some by suppliers.

Steps to develop a short-term strategy for suppliers:

a) Communication among departments: Good communication is a must. Departments have different requirements. Engineering department investigates technical requirements and the quality department cares about the quality standards of product. Purchasing department concentrate mainly on cost requirement. Production department had some problems due to lack of communication.

b) Management communication with suppliers: The main interest of the firm manager is improving communication with suppliers and this degree of communication will be determined.

c) Recovering and documenting of necessary processes: Documenting G-U’s standards and updating of these standards, recovering these documents and sharing with suppliers.

d) Improvement of production processes: The firm will make some investments and will buy some dies of suppliers, so they want to improve their quality to decrease the rates of rejections.

e) Improvement of data archiving and reporting: Data should be archived systematically and should be reached when needed. Firm has an intranet and it will be used for that purpose.

f) Implementing Supplier Manual to all suppliers: A supplier manual example were prepared for suppliers in China and sent them. The quality engineer from there will explain it suppliers. Every requirement of the firm is explained there. If a supplier has a problem, what to do is also detailed. Moreover, revisions of manual can be done overtime. A supplier manual for European suppliers should be prepared by using the existing one.

g) Quality Assurance/Quality Control procedure for key sources: Key sources bringing a high value to the firm should be defined, updates should be done in Quality Control Procedures over time, the firm should work closer with suppliers for key sources and necessary documents should be shared.

h) Uncertainty assessment. The firm has a big logistic centre and it uses parts when they do not get products on time. Contingency plans should be prepared against uncertainty and countermeasures should be taken. Moreover risk awareness should be improved.

i) Awareness rising among workers: Problems related to workers should be decreased. Especial workers from production do not have much experience and they need to be controlled. Mainly, workers have a contract for period of time. This can be done by improving the capabilities of workers and explaining their work in details and results of their work in case of success and failure.

**Planning improvements in long term**

Solving technical problems and processes improvement are not enough for a Quality Program. A system should be established to foster continuous improvement otherwise; performance can be deteriorated after improvements done. Many firms concentrate on solving technical problems that may never occur. The quality program should reach all parts of the company, develop quality attitudes in workers and management, and continuously focus on quality in design, production, and performance. Total Quality Management (TQM) philosophy can be implemented in firm and for suppliers in Far East and Turkey.

Some useful techniques for this kind of quality program can be used in long run:

a) Identifying and grouping problems: Affinity diagrams

b) Potential problems and their relationships: Interrelationship diagrams, identifying relationship between factors and brainstorming

c) Use tree diagrams to combine results of affinity and interrelationship diagrams, Setting Priorities: Prioritization matrices,
An organized look at conceptual data: Matrix Diagrams, Documenting the improvement plan, and the process flow: From incoming material to shipped product

Results and Discussion

Many global firms have outsourced some parts of their products in China. It is estimated that the rate of outsourcing will grow. The firm’s competitors are already on that way. To catch its competitors, the firm decided to increase its purchasing amount up to 30% in Far East and Turkey. The quality is low in this region and one way to overcome this problem is to increase the quality of products in houses of production. The degree of partnership and cooperation in future is aimed to be determined.

A quality improvement engineer could be hired. General information about the company, history of the firm, and organization structure of the firm should be explained to him/her. His job is to conduct a comprehensive study of operations, recommend quality improvements actions and assist to develop a Supplier Development Plan. The degree of technology and knowledge transfer is another important critical decision that needs to be considered. Integration is a strategic decision and managing it healthy is very important.

Where to start? Analyzer should make his plans whether he should start interviews from down to top or otherwise. He should make a list of potential problems and potential solution. Before starting interviews, person specific good questions should be prepared to get more information about targets and system. Processes should be well learnt, which is very difficult for outsider. Workers may overlook details. A good way to learn a process is to develop flowcharts. Before that, key people should be determined with manager of Central Logistic and Production Manager. With knowledge of the firm, its products and processes, few people can be determined by position. Then, interviews with these people could be carried out. Some key questions depending on what they do could be asked. Next, findings found could be evaluated by analyzer since most of things may be opinions. These findings should be accepted based on real data.

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