ABSTRACT

Collaboration is a keyword because there are so many companies active in the building sector. Once a building project is finished, the collaboration between the parties stops. As a result, know-how and experience are wasted. Collaborations – such as strategic partnerships – that are unrelated to specific projects are better forms of cooperation. From the perspective of supply chain management theory, a supplier becomes a preferred supplier, a World Class Supplier and then a strategic partner. Partnership is a form of collaboration that enables the partners to learn for and from one another and improve in a range of areas in the long term. They use tools and instruments jointly in the process to supplement one another’s capacities. Surprisingly, management of integral costs in collaboration with suppliers does not have the highest priority, which is why an effective purchasing strategy is essential. The aim of this study is to develop an assessment system to make it possible to select the best subcontractors from the pool of suppliers so that the purchasing department can develop a strategic partnership. The assessment system is an automatic questionnaire that generates a score based on internal calculations.

1 Heijmans Bouw B.V.
2 Eindhoven University of Technology, Department of Building Architecture and Planning, Construction Management and Engineering Research Group, P.O. Box 513, 5600 MB Eindhoven, the Netherlands, g.j.maas@bwk.tue.nl
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1. INTRODUCTION

The building sector is a network of different companies and cooperation is a key element of construction. Changes in society and technology influence the construction market. Increasing international competition and changes in the sector are making it necessary for parties to work together. Strategic partnerships can improve companies’ competitive position. This article takes an in-depth look at the concept of cooperation in general and strategic partnerships more specifically. As cooperation originates with a purchasing decision, attention will also be devoted to the purchasing strategy that can be employed.

2. OBJECTIVE AND PROBLEM DEFINITION

Based on the above, it is obvious that selecting the right subcontractors and suppliers is very important. But what are the deciding factors in that selection process, apart from the traditional factor of lowest price? When an accurate supplier database is available, a more targeted selection can be made based on assessments of subcontractors. The objective of this research is therefore to develop an assessment system to facilitate the selection of the best subcontractors from a supplier database to enable purchasing departments to develop strategic partnerships.

This objective leads to the following problem definitions:
1. What selection aspects are used to assess subcontractors for strategic partnerships?
2. What performance indicators correspond to the selection aspects?
3. How can the selection aspects and performance indicators be made comparable?
4. How can the selection aspects and performance indicators be converted into an assessment system?

3. RESEARCH METHOD

A literature study was conducted on the subject of strategic partnerships. A case study was done for the assessment system and the problem definitions based on the objective. The selection aspects and performance indicators must be identified based on the first two problem definitions. The goal of the first is to identify selection aspects.
The goal of the second is to subdivide the selection aspects into comparable performance indicators. This was accomplished by means of interviews and a brainstorming session. The KJ method was used to identify performance indicators for the selection aspects.

In order to convert the selection aspects and performance indicators into a measurable system each selection aspect and performance indicator must be weighted.

The weight of each selection criterion is determined using weighting factors, which are assigned a value from 1 to 5.

4. LITERATURE STUDY

4.1 Cooperation

Cooperation can be described as follows: “Different parties joining forces to work on the same project with the desire to bring the project to a good conclusion.” In the building sector, cooperation between parties is often related to specific projects. Types of collaboration such as traditional cooperation, the building team and the turnkey project are widely known. As soon as a building project is completed, the parties go their separate ways. As a result, knowledge and experience are lost. Therefore, cooperation that is not bound to a specific project is better. When parties work together for a longer period of time, they have a chance to get acquainted and strengthen their competitive position together. The strategic partnership is a form of cooperation that is not based on a specific project. In this type of partnership, a party works with companies in its own branch, but also with other businesses that can make an additional contribution to the building process. This is necessary to further reinforce the competitive position.

4.2 Strategic partnership

Besides being a network of different companies, the building sector is also a chain of various processes. In order to control these processes within the various links in the chain they must be viewed from the perspective of Supply Chain Management. Supply chain management encompasses the process and techniques for steering, controlling and optimising the flow through all the process chains.[3] From this perspective, the next step is the World Class Supplier concept, which is logically followed by the step to Strategic Partnership. In this process, a supplier first becomes a preferred supplier, then a world-class supplier and finally a strategic partner. What is a strategic partnership? Partnership is a type of long-term collaboration in which the parties learn for and from each other and make improvements in a range of areas. Resources are shared to increase each party’s
opportunities. The objectives of the collaboration should be known to both parties so that they can pool their strengths. Several common elements are found in most collaborations of this nature. 

- A long-term relationship
- Mutual trust
- Limited number of suppliers
- The win-win principle
- Mutual trust is considered the most critical success factor for a partnership. Three kinds of trust can be distinguished:
  - contractual trust: the expectation that the partner will comply with specific written or oral agreements
  - competence trust: the expectation that the partner has sufficient technical and management competence
  - goodwill trust: the mutual expectation that each party is willing to do more than has been formally agreed.

In order to be successful a company needs partners. The creation of a win-win situation for all the parties involved is a very important driving force for partnership. Other advantages for the parties are:

- the ability to deliver products faster
- improvements in design
- improvements in quality
- faster response to developments
- flexibility
- higher earnings

A strategic partnership requires seven support pillars to sustain an effective customer-supplier network.

- Superior quality
- Continuity
- Good communication
- Flexibility
- The will to improve continuously
- The habit of working together
- Trust

The path to creating a partnership has four phases:

1. Confrontation with the supplier
2. An arm’s-length relationship in which an adversarial stance gradually evolves into a cautious experimental approximation of a working relationship
3. Coalition of mutual goals
4. Full partnership

Cooperation between the parties should be shaped gradually by proceeding through a series of steps.
Step 1 Recognition of suppliers as sources of added value
Step 2 Rationalisation of the supplier database
Step 3 Streamlining and improving the relationship with best-in-class or world-class suppliers
Step 4 Involving the supplier in the development process
Step 5 Integration: the boundaries between the customer and supplier fade

There are a number of basic conditions for good cooperation which must be met.
These conditions are related to the following elements:
• Vision and strategy: expectations concerning the course the company is to take
• Commercial organisation: the organisation must be organised in such a way that it allows for cooperation
• People: cooperation is all about people working together
• Knowledge and information: exchanging information and knowledge
• Relations management: the relationship requires continuous attention. Cooperation always begins with a purchasing decision.

4.3 Purchasing strategy

Report 106 by RRBouw[6] shows that a 5% reduction of integral costs has the same effect as a 30% rise in turnover. It is therefore peculiar that cost
control in cooperation with suppliers is not the highest priority. A well-
considered purchasing strategy is indispensable.

The purchasing process can be broken down into six steps [1]:

1. Purchase order itemisation
2. Supplier selection
3. Purchasing contract
4. Ordering
5. Monitoring
6. Aftercare and assessment

The purchasing department can be charged with making a strategic
purchasing decision based on a good choice of suppliers. Supplier
selection is Step 2 of the purchasing process. Step 6 involves aftercare and
assessment. The aim of this step is to acquire accurate data for the
supplier database so that the purchaser can choose the right supplier from
the list. Kraljic’s purchasing portfolio matrix is an effective way of
categorising suppliers and can be used to determine a strategy.

Figure 2: relationship, steps from the purchasing process, the suppliers
database and cooperation between the parties.

In this purchasing portfolio matrix, there are four conceivable supplier
categories, power positions and related purchasing strategies for the four
discrete segments.

The purchasing portfolio matrix also offers the supplier leverage
points for developing strategies. The supplier will always strive to maintain
the best possible relationship with the customer. The nature of its
relationship with the customer will lead to differences in the commercial
approach.
Partnership is appropriate when the supply risk is high and a building process is dominated by high financial impact. In addition, the customer and supplier have a balanced power relationship.

Figure 3 purchasing portfolio matrix by Kraljic

5. RESULT OF THE CASE STUDY

5.1. Selection aspects

The assessment criteria are divided into selection aspects and performance indicators. Selection aspects are general terms that designate an area to be evaluated. They are broken down into measurable components, i.e. performance indicators.

The selection aspects were identified in a case study by means of brainstorming. During the brainstorming session, use was made of pre-existing assessment lists of various offices and a list of indicators. The following selection aspects were identified for the execution:

1. Quality
2. Planning
3. Health, safety and environment (HSE)
4. Service and guarantee
5. Wages and Salaries Tax and Social Security Contributions (Liability of Subcontractors) Act (Wet keten aansprakelijkheid), referred to as the Subcontractor Liability Act below.
5.2 Performance indicators

Figure 4 lists the performance indicators for each selection aspect. In order to transform the selection aspects and performance indicators into a working system, each aspect and indicator must be weighted.

5.3 Comparing indicators

During the case study the participants were asked to give points to the different selection aspects and performance indicators individually by filling out a questionnaire. They were instructed that the point depends on the interrelationship of the various selection aspects and performance indicators. This produced the following values: 0.3 for quality, 0.25 for planning, 0.19 for HSE, 0.13 for guarantee/service and 0.12 for the Subcontractor Liability Act. After the selection aspects and performance indicators were identified, questions were formulated based on the performance indicators and incorporated into a questionnaire.

5.4 Assessment system

The assessment system is a set of three automated forms that generate a point by means of internal calculations.

*Execution form*
On this form each question is answered with a value between 1 and 4, where 1 means ‘poor’ and 4 means ‘good’. The form is filled out by the site manager, alone or with the project leader. Space is provided for extra comments about the work carried out. Questions that are not applicable may be left blank.

*Weight factors form*
This form is used to enter the weight factors for the selection aspects and the performance indicators. In this form, the point given and the weight factors are combined to generate a final point. Here, too, questions that are not applicable may be left blank and will not be included in the calculation.
In this form a rating is given for each selection aspect. The ratings for the selection aspects are then taken together with the relevant weight factor to calculate a total below.

Once the assessment system is in place, the data obtained must be stored effectively.

By setting up an automated database all the data can be processed easily and made accessible. The assessment form is filled in online by the evaluator and the site manager, alone or with the project leader. Once that is done and the form has been sent, it is processed automatically in the supplier database in order to generate a point.

6. CONCLUSIONS AND RECOMMENDATIONS

This assessment system is intended as the basis of an efficient flow of data for the supplier system from which purchasers can select suppliers and subcontractors.

The supplier database is not only a kind of directory for the company. It is also an active resource that facilitates strategic choices when the company decides on potential strategic partnerships with suppliers and subcontractors.

Because the building market is changing, improving cooperation will have to become a priority if companies are to remain competitive and
continue offering high quality. Kraljic’s purchasing portfolio matrix shows that the two upper segments are of particular importance when it comes to a company’s financial risk, so it is in these two segments that companies will need to look at how they can improve cooperation. The assessment system offers organisations several benefits.

- Speed: the assessments can be filled in online and processed immediately. Retrieving assessments takes just seconds.
- Cost savings: the administrative burden is reduced as there are no paper forms to file. Costs can also be reduced during the execution phase by working with the best scoring supplier.

Other benefits of an improved assessment system are:

- Subcontractors have an incentive to perform better.
- Assessments can no longer be contentious.
- Subcontractors are ruled out due to a single poor assessment.

In a follow-up to this study, research can be done to identify possibilities and restrictions in the law that affect strategic partnerships. In addition, the possibilities for establishing a standard contract form with general agreements could be explored. It is also possible to study how the assessment system can best be implemented within an organisation. Only time will tell how well the system works and an assessment study will need to be carried out after implementation.

This paper shows an example of the benefits of the combination of the purchasing theory with the original project management theory.

7. REFERENCES


