Collaboration costs!

Jens Geneke
COLLABORATION COSTS!

JENS GENEFKE
Department of Management
School of Economics and Management
University of Aarhus, Denmark
Tel: int + 45 8942 1562
e-mail: jgenefke@econ.au.dk

Word count: 2315

0. Purpose:

Mostly the advocates of collaborative arrangements focus on the possible benefits while a discussion of equally possible costs and inconveniences is postponed to 'later negotiations'. An unbalanced decision like that can easily give rise to later problems between the partners to the collaboration.

This paper combines elements from Management Theory, Organizational Behaviour and Transaction Cost Theory into a framework for identifying the risks and costs of joining a collaboration. It is shown how this framework could be used as a check-list for questions to ask before linking the fate of one organization to that of another.

1. Problem Identification:

At the core of every cooperative arrangement are coordination and risks. Coordination problems grow if the activities performed across the border between the collaborating organizations are complex and interdependent. Such operational interdependence is costly in terms of time, troubles and money and therefore gives rise to coordination costs.

Problems of Vulnerability arise if the partners dedicate economic, material or human resources to a collaboration that fails to succeed one way or another. These costs should be viewed as a premium for the risk involved in joining the collaboration. Thus: if this risk is high it is necessary to prepare for costs that could cover the possible risk(s). In the following, these costs are referred to as 'vulnerability costs'.

It is important to acknowledge that these costs are not only economic - they can be emotional as well. Troublesome coordination has irritation or stress as a corollary, and failure of any kind brings along feelings of despair and maybe ruined reputation.

It is also important to recognize that sharing the information necessary for coordination makes the operational planning easier and less costly (in economic terms at least) and that the even distribution of information reduces the probability of faulty or risky investments.

This means that 'information sharing' and 'information asymmetry' have significant influence on the costs incurred by the collaboration.
Figure 1: Connection of problem areas

Of course, this rather mechanical account is not all-embracing. In forming the attitudes towards the collaboration it is necessary to consider the trust between the partners. The extensive literature usually states that the risks (vulnerability) are smaller and the interaction (coordination) is easier if the partners trust each other (Zaheer et. al. 1998).

Figure 1, then, serves as an illustration: before forming an attitude towards a particular collaborative arrangement it will be expedient to form a cognitive picture of the collaborative design and its consequences for coordination and vulnerability. After this assessment it will be expedient to modify these consequences in the light of the affective influence of the inter-partner trust.

2. Coordination Costs:

The level of coordination costs is determined by the operational dependence between the activities performed by the partners.

Organization theorists have been occupied with the concept of dependence for at long time. A peak was reached in the 60's when Thompson established the connection between dependence between processes in the organization and the ensuing need for coordination (Thompson, 1967). He envisioned the three types of dependence depicted in Fig. 2 and argued that the more the coordinating parties had to adjust to each other, the greater the possibility of misunderstandings - and therefore the greater the need for the parties to be joined closely in the organization structure in order to secure the information necessary for the coordination. This is in line with the network theory of group-communication, which shows that many communication channels ought to be open if the group faces complexity.

![Figure 3: Antecedents of Coordination Costs](image)

This kind of reasoning results in Figure 3, which shows that a high degree of operational interdependence requires the dependent activities to be coordinated by information-sharing persons - if this is not the case 'responsibility scattering' will occur. On the other hand: a very low degree of dependence coordinated by information-rich persons could easily result in unnecessary planning activities, and thus lead to unwarranted bureaucracy.

This may seem a little old-fashioned - but Thompson's kind of reasoning stands today; it is almost impossible to find a textbook on management without extensive references to this kind of dependence (Daft, 1998).

3. Vulnerability Costs:

The modern complement to Thompson is found in the structural mechanisms of dependence in the 'Transaction Cost Theory' (Williamson 1996). This structural aspect of dependence arises when an organization makes irreversible adaptations to the other party in a collaborative arrangement. Transaction Cost economists talk about economic investments, but the considerations can easily be extended to include deployment of people under contract, changes in administrative procedures, giving up other partners and the like. These adaptations may not be as irreversible as building a pipeline to a prospective customer - but as they represent 'sunk costs' they are very likely to impose severe restrictions on the adapting organization.

This finds support in 'The Resource Based View of the Firm' (Prahalad & Hamel, 1990) which states that the more important a process/competence is for the organization, the stronger the need for securing it.

What is here called 'structural dependence' arises from placing resources at the disposal of the collaboration. The costs incurred can be several kinds,

- if the dedicated resources cannot be put to use outside the collaboration, which means that other activities suffer. The corollary is that we loose alternative incomes
or suffer additional costs
• if the dedicated resources are specific to a collaboration which fails, it represents an investment which is lost
• if the dedicated resources are specific to the collaboration and thus have no other use, the partner(s) will have the opportunity to renegotiate the partnership agreement with terms which are unfavourable to the 'investor'
• if the dedicated resources are 'core competencies', there is a risk that they may be copied with the result that competitive edge may be lost.

Collaboration, of course, involves a risk and it may be impossible to safeguard every contingency. But the risk is greater the more one has to depend on second-hand information. This is what 'information asymmetry' is all about: If the other partner(s) know(s) more than I do - the greater the possibility of making mistakes, and the greater the risk of being cheated.

Normally, the concept of asymmetric information refers to a situation where the partner knows more than I do - but it is more realistic to depict an array of situations from 'symmetric' to 'asymmetric' information as is done in Figure 4.

<table>
<thead>
<tr>
<th>Information equality:</th>
<th>Each partner has the same information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disjunct information:</td>
<td>Each partner needs the information of the other</td>
</tr>
<tr>
<td>Information overlap:</td>
<td>The partners share some information, but each of them needs some additional information from the other</td>
</tr>
<tr>
<td>Informational dominance:</td>
<td>One partner has more information than the other</td>
</tr>
</tbody>
</table>

**Figure 4: Stages from Information Symmetry to Information Asymmetry.**

Confronting the structural dependence with the information asymmetry tells us something about how risky it will be to join the collaboration. High structural dependence combined with information dominance reflects a situation where the organization has become highly vulnerable because it has committed valuable, scarce and maybe even unique resources to the partnership. At the same time, it depends totally on the information from the partner - a partner that has every possibility of cheating, squeezing or stealing.
4. Trust and Distrust as moderators:

The previous reasoning was based on Management and Economic Theory - both of which seem to make matters a little too mechanical. But collaboration between partners is not only mechanical, it also involves feelings. Especially the impact of trust on the formal arrangements has been mentioned: It is generally accepted that trust between partners acts as a substitute for contracts and other formal systems (Zaheer et al. 1998). It is the aggregate level of trust and formal control that determines a firm’s confidence in partner cooperation (Das et al. 1998). In other words: Trust makes both coordination costs and vulnerability costs lower than they would have been according to the analysis presented in the preceding sections, whereas distrust makes the costs - especially those stemming from vulnerability - higher.

Trust has been defined in various ways which are beyond the scope of this paper - the point here being that because trust and distrust ought to be considered independent, they deserve equal and separate attention (Lewicky et al. 1998).

It is the high degree of interaction in trust-situations that makes a relaxation of the formal systems possible. Although interaction takes time and time is money, this relaxation is supposed to make coordination cheaper. It is of additional benefit that the interaction can foster ideas for further developments. The corollary, of course, is that the organization will face cost-consuming penalties if the partner contrary to expectation should turn out to be an opportunist.

Correspondingly, situations with a high degree of distrust at the very least call for severe contractual safeguards and high monitoring costs to minimize the risk. In addition, it could be wise to seal off the interactive activities thus restricting the participation to a limited loss.

---

**Figure 5: Antecedents of Vulnerability Costs.**

<table>
<thead>
<tr>
<th>Information Asymmetry</th>
<th>Structural Dependence</th>
<th>Risk Level</th>
<th>Stakes</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disjunct</td>
<td>Low</td>
<td>NO RISK</td>
<td>Low Risk / Low Stakes</td>
<td>Normal Business Costs</td>
</tr>
<tr>
<td>Overlap</td>
<td>High</td>
<td>CALCULATED RISK</td>
<td>Small Risk / High Stakes</td>
<td>+ Contract Costs</td>
</tr>
<tr>
<td>Dominance</td>
<td>High</td>
<td>UNCERTAINTY</td>
<td>High Risk / Low Stakes</td>
<td>+ Monitoring Costs + Contract Costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DANGER</td>
<td>High Risk / High Stakes</td>
<td>+ Monitoring Costs + Contract Costs</td>
</tr>
</tbody>
</table>

Seen from the viewpoint of one of the partners
Figure 6: Attitudes Towards the Collaboration Shaped by Different Combinations of Trust and Distrust

The combined influence of trust and distrust is presented in Figure 6. The four depicted situations range from a market-like setting where you cooperate with a partner you do not know but who is reputed to be a good operator and a non-cheater to a position in which you trust the partner in some respects and distrust him in others. This is probably the most common situation - although many studies concentrate on the charming picture painted in the north-east corner of the table.

5. Attitude formation:

This kind of reasoning leads to the formation of attitudes towards the collaboration. Reflections on each of the three tables presented in Figures 3, 5 & 6 give three clues to the resulting attitude towards the collaboration. For example, consider that the analysis has placed

- Operational dependence / information centrality
- Structural dependence / information asymmetry
- Trust / distrust

in the high / low (north-east) corner of the tables. The resulting cognitive elements of the attitude can then be summarized as in Figure 7.

The coordination part of the example shows that the organization faces a type of collaboration where the inexpediency caused by dispersed information and the ensuing possibilities for confusion and blunder are counterbalanced by the high interaction level which stands a good
CONTINGENCY ANALYSIS | MODIFICATIONS BY TRUST / DISTRUST | RESULT
---|---|---
COORDINATION | RESPONSIBILITY SCATTERING  
• Information shortage  
• Costs of confusion and blunder | EXPLORE BENEFITS OF DEPENDENCY  
• High interaction  
• Normal safeguards | Coordination costs lower than shown by the contingency analysis

VULNERABILITY | CALCULATED RISK  
• Small risk / high stakes  
• Contract costs | EXPLORE BENEFITS OF DEPENDENCY  
• High interaction  
• Normal safeguards | Vulnerability costs lower than shown by the contingency analysis

Figure 7: An Example

A large number of elements have been connected here - and the combinations in the resulting analysis are many. Figure 8 presents a summary that could be recognized as a kind of check-list securing that the situation has been thoroughly analysed before the organization commits itself to a binding collaboration.

If, after the cognitive analysis the attitudes towards the collaboration are favourable, it will be reasonable to join. If they are unfavourable, a negotiation with special reference to redesigning the efforts should be encouraged.

If redesigning is not possible, the last resort (short of leaving the collaboration) should be a formal joining of forces. An independent, self-governing organizational unit containing ALL the elements necessary for the collaboration will

• eliminate the problems of vulnerability  
• eliminate the problems of information asymmetry  
• leave problems of information sharing to the internal organizational arrangements, and
• release the operational dependence from the problems of crossing organizational borders.

**Figure 8: Summary of contingency relations**

All these corollaries of joining the partners will make a contingency-model that shows all the good signs. But it will only work if the independent organization is really independent. It will not work if it depends on the mother-organizations for vital resources or information - and it will certainly not work if it is populated by transferred members from the mother organizations who bring low trust and high distrust along in their luggage.

**References:**

Hawkins, B.L. & Preston, P.: Managerial Communication, Scott, Foresman & Co., 1983
Thompson, J. D.: Organizations in Action; McGraw-Hill, 1967