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## Managing inter-organizational conflict: Efficient interaction strategies for buyer and seller organization

Manuskripte aus den Instituten für Betriebswirtschaftslehre der Universität Kiel, No. 92

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Nr. 92

*Hans Georg Geminden*

MANAGING INTER-ORGANIZATIONAL CONFLICT:  
EFFICIENT INTERACTION STRATEGIES  
FOR BUYER AND SELLER ORGANIZATION

PAPER PRESENTED AT THE TENTH ANNUAL WORKSHOP  
ON MARKETING RESEARCH OF THE EUROPEAN ACADEMY  
FOR ADVANCED RESEARCH IN MARKETING

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MANAGING INTER-ORGANIZATIONAL CONFLICT: EFFICIENT INTER-  
ACTION STRATEGIES FOR BUYER AND SELLER ORGANIZATION

Abstract.

*The transaction of a complex innovative capital good between a seller and a buyer organization is seen as a complex task being composed of two important subtasks: the development of a problem solution which is to be implemented into the buyer organisation, and the management of inter-organizational conflict. In this paper the author analyses how both parties can manage their inter-organizational conflicts and which efficiency effects will result when they choose a certain interaction strategy. A general efficiency hypothesis is deduced proposing a  $\cap$ -shaped relation between conflict handling intensity and buyer's and seller's efficiency. More precisely two  $\cap$ -shaped relation are developed, stating that the seller will reach its maximum efficiency at a quite low level of conflict handling intensity whereas the buyer will reach its maximum efficiency at a quite high level of conflict handling intensity. To test this hypothesis empirically a concept to measure the transactional efficiency of buyer and seller organization and a typology of conflict handling interaction strategies are developed and applicated to 195 transaction processes where computers were bought or leased for the first time.*

1. MARKETING FOR COMPLEX INNOVATIONS - A CHALLENGING INTER-ACTION PROBLEM FOR BUYER AND SELLER ORGANIZATION

Although Industrial Marketing has received great and rapidly growing attention<sup>1)</sup> it is still strongly neglected relative to its economic importance and relative to the complexity and heterogeneity of its problems. This is especially true for the exchange process of an innovative capital good, which is analysed here. Such an exchange raises a crucial marketing problem for both parties: seller and buyer organization.

For the *seller* it offers the chance

- to make a great deal, selling a substantial portion of his output
- to find a model client accepted as an opinion leader who may give excellent references for his product to the potential clients in the new market
- to gain useful experiences how to implement his product and how to overcome barriers to innovate

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<sup>1)</sup> See: Bonoma/Zaltman/Johnston (Industrial Buying 1977), Hill/Hillier (Organizational Buying 1977), Kirsch/Lutschewitz/Kutschker (Investitionsgütermarketing 1977), Sheth (Recent Developments 1977), Pingry/Bird (Annotated Bibliography 1978) and Gemünden (Innovationsmarketing in press) where the explosion of the literature is documented.

and last not least

- to break well-established business-relations<sup>1)</sup> between competitor organizations and buyers by means of his new product concept and to establish an own again long-lasting relationship with that new customer firm.

For the *buyer* it offers the chance

- to get a qualitatively better solution for his actual problem
- to find a more economic, cost-saving method

and last not least

- to find a solution, which can satisfy completely new needs discovered during the innovative decision process.

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<sup>1)</sup>The occurrence of long-lasting relationships and their strong influence on buying decisions is well documented. See the following empirical findings:

Klass (Industrial Buying 1961) 34, Sundhoff/Pietsch (Lieferantenstruktur 1964) 69-83, Harding (Purchasing Decision 1966) 79 p., Buckner (British Industry 1967) 90, DER SPIEGEL (Industrielle Einkaufsentscheidung 1967) 28, Robinson/Faris/Wind (Industrial Buying 1967) 106-109, Wind (Source Loyalty 1970) 452-454, Cardozo/Cagley (Industrial Buyer 1971) 331, 334, Bubb/van Rest (Loyalty 1973) 29, Baumberger/Gmür/Käser (Ausbreitung 1973) 837 p., Luffman (Search Process 1974) 99-104, Cunningham/White (Choice of Supplier 1974) 196, Kratz (Interaktionsprozeß 1975) 151 p., Guillet de Monthoux (Organizational Mating 1975) 26-30, Cunningham/Kettlewood (Source Loyalty 1976) 71-77, Kelly/Coaker (Choice Criteria 1976) 322, Mattson (Stability and Change 1976) "Table 1" to "Table 4", Stoneman (Diffusion 1976) 103 p., Newall (Risk Handling 1977) 199-201 and Dempsey (Vendor Selection 1978) 258.

The transaction requires big efforts from both parties, and it bears large risks for both:

The *seller*

- may not get his customer, his efforts may be in vain
- he may get a bad word-of-mouth if his customer is dissatisfied with the solution  
and
- he may lose some of his technical advantages if his know-how is diffused by a lost customer to his competitors.

The *buyer*

- must invest a lot of his scarce time to learn the innovative technology

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Especially for EDP see:

o.V. (Wettlauf der Tiger 1966) 58 p., Beßler (Elektronik 1967) 4, Diebold (Computereinsatz 1969) 871-876, Geiger (Wirtschaftlichkeit 1969) 104, Pettigrew (Power Resource 1972) 195-202, Zuberbühler (EDV 1972) 109-112, Taylor (IBM's 370 1972) 16 p., Peters/Venkatesan (Industrial Product 1973) 314, Büttner (Wechsel des Computerherstellers 1976) 605 p., Grøhaug (Complex Buying Decision 1977) 443, Wintsch (Kauf von Computern 1979) Band II 40 p., 153, 21/ and 218, and Strothmann (Imagewirkung 1980) 14.

There are many reasons beyond inertia and simple repeat purchasing behaviour, which may lead to a mutual adaption of buyer and seller organization. For a more intensive discussion of these critical system interdependencies see:

Pfeiffer (Integrale Qualität 1965), Wind (Source Loyalty 1970), Guillet de Monthoux (Organizational Mating 1975) 26-36, Mattson (System Interdependencies 1975), Mattson (Systems Selling 1975), Mattson (Stability and Change 1976), Jarvis/Wilcox (Vendor Loyalty 1977), Ford (Stability Factors 1978), Wagner (Lieferzeitpolitik 1978) 121, 280 pp. and Günter (Großanlagen 1979) 217-259.

- he must succeed over barriers against the innovation, if the new solution will induce major organizational change
- he runs the risk that the seller may not support him in case of difficulties in the way it was promised when signing the contract  
and
- he runs the risk that the innovation will be failure at all.

*Thus for both parties the transaction of a complex innovative capital good bears great chances and risks, it is a challenge for buyer and seller.*

How this challenge is managed is last not least a question of the development of the interaction behaviour of buyer and seller organization during the exchange process:

With transactions of innovative capital goods major parts of the problem solution are not developed before but during the transaction process. What each party shall give and take, perform and receive may often be precised through bargaining activities during the transaction process. Thus the course of this interaction process may strongly influence the quality of the implemented problem solution, the distribution of the problem solving contributions of buyer and seller organization, conditions and the development of mutual trust and respect and these results again may influence the long-lasting relationship between buyer and seller organization.



I am analysing such an exchange process as an *interaction problem* between buyer and seller organization. This analysis includes the following steps:

1. Outlining a basic model for the interaction of buyer and seller organization, and deducting a general efficiency hypothesis for the conflict handling interaction which is analysed in this paper.
2. Developing a concept to measure the efficiency of buyer and seller organization and applicate it to our empirical example: EDP-machines, which were bought or leased for the first time.
3. Determining different interaction strategies for buyer and seller which are ordered according to their intensity of carrying out conflicts.
4. Formulating specific efficiency hypotheses for these strategies.
5. Testing these hypotheses for our 195 transaction-processes.

With this analysis I want to test empirically the usefulness of the so-called "interaction approach".<sup>1)</sup> It has become a fashion to propose such an approach, but the hard work of empirically testing it, has often been delegated to other researchers. So let me try a first tentative application of an *organizational inter-action approach* and accept my simple model as an *input* for further *empirical* research, which we really need.

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1) The so-called "interaction-approach" has been stressed with emphasis by many authors in Germany, Scandinavia and the Anglo-American countries. To quote only the most prominent proponents of an organizational interaction approach:

- a) German authors: Kutschker (Verhandlungen 1972) 62-77, Kratz (Interaktionsprozeß 1975) 12-17, Backhaus/Günter (Interaction Approach 1976) 265-269, Engelhardt/Backhaus/Günter (Investitionsgüter-Marketing 1977) 162-166, Günter (Anbieterkoalitionen 1977) 156-172, Kirsch/Kutschker (Marketing 1978) 29 pp., Kutschker/Kirsch (Verhandlungen 1978), Schuster (Bartering Process 1978), Günter (Großanlagen 1979), Kutschker/Kirsch (Deutschlandstudie 1979), Rogwalder (Marketing v. Kernkraftwerken 1979) u. Gemünden (Interaktionsstrategien 1980)
- b) Scandinavian authors: Mattson (System Selling 1973), Guillet de Monthoux (Organizational Mating 1975), Hakansson/Östberg (Organizational Problem 1975), Hakansson/Wootz (Interaction Model 1975), Mattson (Stability and Change 1976), Mattson (Supplier-Buyer Relations 1976), Hakansson/Johansson/Wootz (Influence Tactics 1977) and Hakansson/Wootz (Framework 1979)
- c) Anglo-American Authors: Bonoma/Zaltman/Johnston (Industrial Buying 1977), Johnston/Bonoma (Research Approaches 1977), Nicosia/Wind (Emerging Models 1977) and many contributions to Bonoma/Zaltman (Organizational Buying 1978).

For a more complete listing of interaction proponents, including personal interaction approaches, see Gemünden (Innovationsmarketing in press).

2. BUYER-SELLER INTERACTION AND CONFLICT HANDLING INTENSITY:  
A GENERAL EFFICIENCY HYPOTHESIS

Transactions of innovative capital goods are: *Complex work processes* during which many persons from different organizations, different hierarchical positions and functions have to solve a variety of problems by means of many time and energy-consuming activities. Therefore exists an *organizational problem* concerning the division of labour: what activities should be performed and by whom?

Transactions of innovative capital goods are *social influence processes* during which two or more parties bargain with each other upon the conditions of a manifold exchange of information, services, money, payments in kind and social rewards and punishments. Therefore exists a problem how to reach *consensus* upon diverging interests.

It follows that the transaction can be seen as a complex task being composed of two important subtasks:

- the development of a problem solution  
and:
- the management of inter-organizational conflicts.

Since both tasks require interaction processes between buyer and seller organization we distinguish a *problem solving interaction process* from a *conflict handling interaction process*. This paper analyses how buyer and seller manage their inter-organizational conflicts.<sup>1)</sup>

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<sup>1)</sup>The problem solving interaction strategies and their efficiency are analysed in Gemünden (Interaktionsstrategien 1980). For a detailed analysis of both processes, and for an analysis of coalitions from important buying-center members with seller-persons see Gemünden (Innovationsmarketing in press).

Conflicts between buyer and seller cannot be "resolved" definitely once and for all, they have to be regulated and tolerated permanently. Conflicts should not be seen as an annoying, pestering plague, they should be accepted as potentially productive tensions, as challenges which can motivate to action and clarify the good structure.

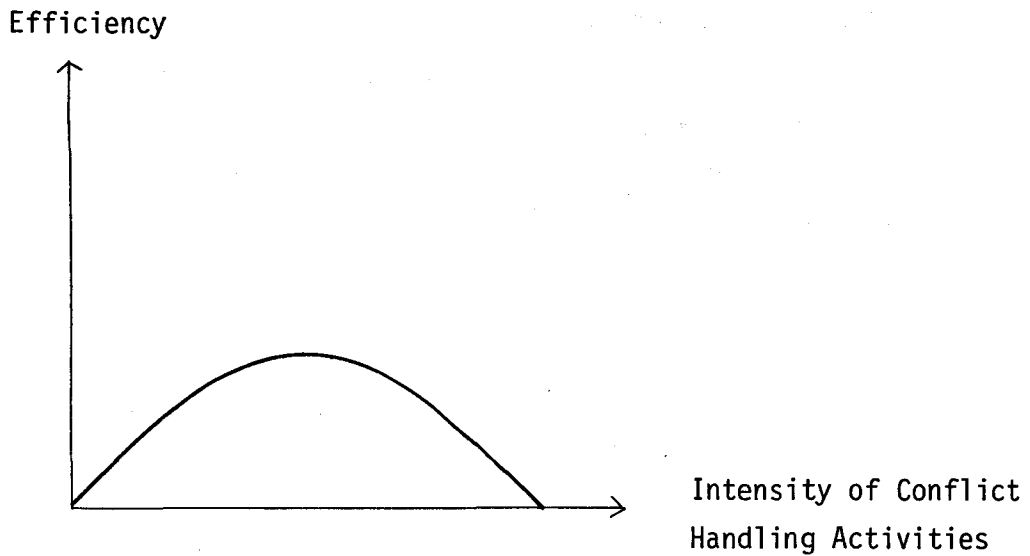
The problem is then to find the right answer for the conflict induced challenge. It is this a problem to find the right course between *Skylla* and *Charybdis*:

- *Skylla*, that is the smoothing-over-conflicts-policy<sup>1)</sup> which denies existing conflicts and leads to unresolvable problems during the implementation phase.
- *Charybdis*, that is the escalation of fighting out conflicts which denies to regulate and reduce conflicts and which may lead to time and energy consuming endless decision and implementation processes.

Between both intensities of engaging in conflict handling activities lies an intermediate level which leads to better results for buyer and seller. We assume a  $\cap$ -shaped relation between the intensity of conflict handling and the efficiency of buyer and seller:

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<sup>1)</sup>Lawrence and Lorsch (Organization and Environment 1967) 73



The general hypothesis can be derived from the following statements:

1. The intensity of fighting out conflicts is not manipulated by experimental conditions. It is the result of an interaction process between buyer and seller, of a mutual, process-dynamic influence process. It is therefore possible that this process may *escalate* and cannot be controlled anymore by the contracting parties.

Dysfunctional effects like:

- drastical deteriorations of the interaction climate
  - major corrections of the chosen solution
  - high implementations expenditures
- may then result.

2. On the other hand the fear of such an escalation may prevent a necessary open confrontation between buyer and seller.

This is the case which *March* and *Simon* predict:<sup>1)</sup>

"...we predict that the initial reactions to conflict will be problem-solving and persuasions that such reactions will persist even when they appear to be inappropriate ... and that bargaining (when it occurs) will frequently be concealed within an analytic framework."

We therefore assume that smoothing over conflicts with its negative consequences may occur quite often.

We see: escalation and smoothing over conflicts are possible and perhaps probable forms of handling interorganizational conflicts. We postulate positive consequences if both, buyer and seller are conflict-conscious, and if it comes to a dialectical, mutual challenging process where both parties bring in their ideas and where an open confrontation of diverging interests takes place.

To test these assumptions it is now necessary to specify, what is meant by "efficiency" here.

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<sup>1)</sup>March/Simon (Organizations 1958) 131. See also the empirical findings from Hauschildt (Organisation 1970) 77, 81, 94, 97 which confirm the prediction.

3. THE EFFICIENCY OF BUYER AND SELLER ORGANIZATION: A MEASUREMENT CONCEPT AND ITS APPLICATION

3.1 The Measurement Concept

Our measurement concept comprises the following steps:

1. The theoretical derivation starts with the formal definition of "efficiency". We define efficiency as a summarising statement upon the attainment of several efficiency dimensions.<sup>1)</sup>
2. To clarify the meaning of efficiency, the next step requires a specification of several efficiency dimensions for concrete objects and one or more evaluating parties.
3. These dimensions are theoretical terms, they have to be operationalised by empirical indicators in the next step.

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<sup>1)</sup> This general formulation leaves it to each researcher and practitioner which dimensions he wants to specify and how he comes to a summarising statement. For a discussion of different approaches and different meanings of "efficiency" and "effectiveness" the reader is referred to Gzuk (Efficiency 1975), Knopf (Dimensionen 1975), Steers (Organizational Effectiveness 1975), Spray (Organizational Effectiveness 1976) Goodman/Pennings (Organizational Effectiveness 1977), Steers (Effectiveness 1977) Staehle/Grabatin (Effizienz 1979) and Welge/Feßmann 1980).

4. By this procedure we get several dimensions to which are assigned one or more efficiency indicators. To come to a summarising judgement we must now condense this system of efficiency indicators. We used factor analysis to reduce our many efficiency indicators to some efficiency factors which can be interpreted as empirical efficiency dimensions. This reduces the weighting problem from many indicators which measure overlapping efficiency aspects to some linear independent factors which represent distinct basic dimensions. Besides, we can test if our assignment of empirical indicators to theoretical dimensions was correct.
  
5. Since this step produced several empirical dimensions, a next summarising step was required. We therefore used cluster analysis to find transaction processes with similar efficiency profiles. This last step reduced our weighting problem from many distinct transaction processes to some similar types of solutions.



### 3.2 Applicating the Concept

The empirical object for the applications of our measurement concept is a random sample of 195 transaction processes completed until June 30, 1966 to obtain an EDP system for an organization with no previous EDP equipment.

The data was collected by *Witte* and his research team by means of a systematic content analysis of about 147.000 documents filed by the four major EDP manufacturers<sup>1)</sup>. Each transaction process was coded twice. For questionable codings a senior researcher was consulted. The investigators, all at least diplomed were trained during a large pretest, in which 73 processes were coded.

The analysed documents included:

"... correspondence, offers, system proposals, contracts, estimates of the data volume and of the cost effectiveness, complaints, invoices, internal statistics, and internal memos concerning the enterprises in the sample".<sup>2)</sup>

Eight additional examinations of user decision processes showed that there were no reasons to distrust the information stored in the seller's files: They were in no case contradictory to the

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1) For a detailed description of the object and methodology of the investigation see Witte (Phase Theorem 1972) 158-164. Our 195 processes are a sub-sample of Witte's 233 decision processes. We have omitted those 38 processes, that had not completed their implementation process during the investigated period, since we wanted to include the efficiency indicators of the implementation process. For further details see Gemünden (Innovationsmarketing in press).

2) Witte (Phase Theorem 1972) 161 p.

data found in buyer's documents, but especially the activities of higher ranked persons, were often better documented in the seller's files.

To gain our *theoretical efficiency dimensions* we now put two questions:

1. Which object is to be evaluated as efficient or inefficient?
2. From whose perspective is something called efficient or inefficient?

Ad 1

The objects which are evaluated here, are:

- the activities of the *decision process* reaching from the initiative<sup>1)</sup>, where a competent member of the buyer organization decides to allocate resources to the decision process, to the final choice of an EDP configuration when the (first) contract is signed

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<sup>1)</sup>For this definition Schulz (Initiative 1977) 27, compare also Dumont du Voitel (Initiierung 1976).

- the *chosen solution*, at the end of the decision process
- the activities of the *implementation process*, reaching from the formal choice of an EDP-configuration to the (first) installation of an EDP-configuration.

From this temporal definition of the transaction process follows that the quality of the initiative process which leads to the decision process, and the quality of the using process which follows the implementation process, are not evaluated by our efficiency indicators.

#### Ad 2

The *perspective* of evaluation comprises three categories:

- the viewpoint of the *buyer organization*
- the viewpoint of the *seller organization*, and
- the *common perspective* of buyer and seller organization

With this classification we want to make a pragmatic distinction between efficiency aspects dominantly related to the buyer organization, to the seller organization, and those aspects related to both organizations. Mutual trust e.g. is an aspect that describes the relationship between representatives of buyer and seller organization, and that is not dominantly related to buyer or seller persons.

Combining these two criterias gives us nine efficiency dimensions which are shown in the following figure:

	Buyer	Seller	Common
Decision	Buyer's Decision Efficiency	Seller's Decision Efficiency	Decision Climate
Chosen Solution	Buyer's Solution Efficiency	Seller's Solution Efficiency	Satisfaction with Solution
Implementation	Buyer's Implementation Efficiency	Seller's Implementation Efficiency	Implementation Climate

*Figure 1: Dimensions of Transaction Efficiency*

These nine dimensions were now operationalised by 40 indicators. The following figures show the results of this scaling procedure:<sup>1)</sup>

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<sup>1)</sup> Many of these indicators were scaled by Gzuk, and are described in detail in Gzuk (Efficiency 1975). For indicators which were scaled by the author see Gemünden (Innovationsmarketing, in press). See also Gemünden (Effectiveness 1978), where some scaling procedures are explained in English.

Indicator	Measurements
<b>Buyer's Decision Efficiency</b>	
<p>Width of the problem definition</p> <p>Equality of the problem solving activities</p> <p>Willingness to decide</p> <p>Degree of transparency</p> <p>Degree of rationality</p> <p>Thoroughness of decision</p> <p>Width of the decision goals</p> <p>Deepness of the decision goals</p> <p>Decision expenditure of the buyer-organization</p>	<p>Weighted sum of the problem objects considered by the decision-makers</p> <p>Entropy measure of the distribution of the problem solving activities over various problem components</p> <p>Weighted sum of problem objects for which choices were made before the final choice</p> <p>Number of alternative EDP-systems considered during the decision process, relative to the offer of the EDP-market</p> <p>Counts how many kinds of typical rational activities have been performed during the decision process</p> <p>General rating from the data collectors reaching from (2) superficial to (6) meticulous</p> <p>Number of goal sections considered by the decision-makers</p> <p>Number of goal attributes considered by the decision-makers</p> <p>Time consume of buyer organization members during the decision stage</p>
<b>Buyer's Solution Efficiency</b>	
<p>Degree of innovation</p> <p>Technical novelty of the EDP-system</p> <p>Adequacy of solution components</p> <p>Quantitative flexibility</p> <p>Qualitative flexibility</p>	<p>Summarizing expert judgement considering chosen hardware, software and utilization of the computer relatively to the firm's historical situation</p> <p>Time lag between the firm's adoption and the adoption pioneers in the firm's branch</p> <p>Expert rating of the adequacy of the central unit and the peripherie devices</p> <p>Number of capacity steps (in a given computer family) without changing the type of the central unit</p> <p>Possibilities to connect external devices with the central unit</p>
<b>Buyer's Implementation Efficiency</b>	
<p>Adequacy of means-ends-changes</p> <p>Corrections related to reference objects</p> <p>Corrections related to focal objectes</p> <p>Major correction steps</p> <p>Stability of choice</p> <p>Definiteness of choice</p> <p>Uninterruptedness of the implementation</p> <p>Implementation expenditure of the buyer-organization</p>	<p>Ratio of changes related to the EDP-hardware and software, to the changes related to the EDP-application</p> <p>Number of EDP-applications designed during the decision stage minus supplementary EDP-applications designed and programmed during the implementation stage</p> <p>Ratio of considerations of the chosen EDP-configuration to all EDP-configurations considered during the implementation stage</p> <p>Weighted sum major corrections steps such as annulations of contracts</p> <p>Rating of the data collectors reaching form (2) great and many changes to (5) no changes of the chosen solution</p> <p>Similarity between the chosen and installed EDP-configuration</p> <p>Number of postponements of major implementing activities like installation, programming and training of buyer-organization members</p> <p>Time consume of buyer-organization members during the implementation stage</p>

Figure 2: Buyer's Efficiency Indicators

Indicator	Measurement
<b>Seller's Decision Efficiency</b>	
Improvement of volume (DP) Elimination of competitors (DP) Decision expenditure of the seller-organization Expenditure for the training of buying-organization members	Difference between volume of first offered and contracted volume, expressed in capacity units of the EDP-system Intensity of competitors' influence during the decision stage Time consume of seller-organization members during the decision stage Training time given to the buyer-organization members
<b>Seller's Solution Efficiency</b>	
Sales volume (monetary scale) Sales volume (capacity scale) contractual reservations	Measured on a monetary scale with 6 categories Measured on a capacity scale with 9 categories Rating, reaching from (2) many, and severe reservations to (6) no reservations at all
<b>Seller's Implementation Efficiency</b>	
Improvement of volume (IP) Elimination of competitors (IP) Implementation expenditure of the seller-organization	Difference between size of the contracted and installed EDP-system Intensity of competitors' influence during the implementation stage Time consume of seller-organization members during the implementation stage

Figure 3: Seller's Efficiency Indicators

Indicator	Measurements
<b>Common Decision Efficiency</b>	
Bargaining climate Style of the buyer-seller correspondence Duration of the decision process Major interruptions of the decision process	Data collector's rating from (2) extreme disputes to (5) kind and open atmosphere Data collector's rating ranging from (1) extremely cold to (7) extremely warm Date of the contract event minus date of the start-event Sum of the three largest interruptions of the decision process
<b>Common Solution Efficiency</b>	
Satisfaction with chosen solution	Data collector's rating of buyer's satisfaction with chosen solution ranging from (1) extremely unsatisfied to (7) extremely satisfied
<b>Common Implementation Efficiency</b>	
Complaint behavior Goal attainment evaluation Duration of the implementation process	Number and intensity of buyer's complaints during the implementation stage Positive and negative evaluations of the implemented solution by members of the buyer-organization Date of the installation of the EDP-configuration minus date of the contract event

Figure 4: Common Efficiency Indicators

These efficiency indicators were now factor-analysed using principal factoring without iterations and varimax rotations.<sup>1)</sup> 5 factors were extracted, explaining 50.4 percents of the common variance. Table 1 shows the resulting matrix of factor loadings.

We interpret the five factors in the following manner:

1. Our first factor, the "*rationality of the decision process*" comprises the efficiency indicators of the decision process. High factor loadings indicate a wide problem definition, with a high willingness to decide, a great degree of transparency, and a wide and deep goal structure. On the other hand high factor loadings also indicate high decision expenditures for buyer and seller organization and a long duration of the decision process. If we assume that the buyer organization has a prime interest in reaching a good solution, and that the seller organization prefers low decision expenditures, we may value high loadings positive for the buyer and negative for the seller.

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<sup>1)</sup> Factor analysis was performed by the subroutine "FACTOR" of SPSS. We used the following specifications: TYP = PA1, NFACTORS = 5, MINEIGEN = 1.0, and ROTATE = VARIMAX. See Kim (Factor Analysis 1975) 468-514 for a more detailed explanation. Principal factoring with iteration, oblique rotation, variations of included indicators, and variations of extracted and rotated factors widely replicated our factor loading matrix. A cluster analysis of the indicators by single and complete linkage method also confirmed the picture shown here.

Matrix of Factor Loadings of the Efficiency Indicators

Efficiency Indicator	Factor I	Factor II	Factor III	Factor IV	Factor V	Comm.
Width of problem definition	.79					.62
Equality of problem definition	.56					.32
Willingness to decide	.79		.15	-.17		.67
Degree of Transparency	.60		.20	-.15	.42	.61
Degree of Rationality	.79					.63
Thoroughness of the decision	.37			.14		.17
Width of the decision goals	.75			-.11		.58
Deepness of the decision goals	.77					.60
Decision expenditure (B0)	.78		.44			.79
Degree of innovation	.18	-.23			.11	.11
Technical novelty of EDP-System	-.16	-.15	.27		.47	.34
Adequacy of solution components		.18	-.27	.11	.37	.26
Quantitative flexibility		-.28			.45	.28
Qualitative flexibility		-.21			.74	.60
Adequacy of means-ends-changes		.10	.49	.13	-.19	.30
Corrections of reference objects	-.24	-.25	.36			.26
Corrections of focal objects		.53	.16	-.19	.45	.55
Major corrections steps		-.87	.10	-.13		.79
Stability of choice	-.18	.67		.14		.50
Definiteness of choice		.81		.14	-.16	.72
Uninterruptedness of implement.	-.16	.52	.41			.74
Implementation expenditure(B0)	.18	-.12	.88			.84
Improvement of volume (DP)				.38	.14	.17
Elimination of competitors (DP)	-.62		.31	.20		.53
Decision expenditure (\$0)	.76		.38			.73
Expenditure for training	.24	-.13	.66		.12	.52
Sales volume (monetary scale)	.24	-.12	.11	-.20	.70	.61
Sales volume (capacity scale)	.29	.17		-.29	.50	.45
Contractual reservations	-.23	.13	-.17	.26	.25	.22
Improvement of volume (IP)		.60			.14	.39
Elimination of competitors (IP)	-.23		.74			.60
Implementation expenditure (\$0)	.22	-.22	.82			.78
Bargaining climate				.69		.48
Style of correspondence				.67		.46
Duration of decision process	.68	-.13	-.12	.17	.38	.67
Interruptions of decision process	.37	-.21	-.22	.28	.41	.47
Satisfaction with solution				.59		.37
Complaint behavior	.11	-.10	.21	.71		.57
Goal attainment evaluation		.30	-.10	.61	-.10	.48
Duration of implementation proc.	-.10	.72	.28		.23	.66
Explained total variance	.17	.10	.10	.07	.07	



2. Our second factor, the "*stability of choice*" is characterised by high positive loadings on stability and definiteness of choice, and uninterruptedness of the implementation process. The negative loadings show that a low stability of choice is empirically equivalent with many major correction steps, many correction of focal objects, i.e. of the chosen EDP-configuration, and a long duration of the implementation process.

The high loading of improvement of volume during the implementation process shows that the seller can only sell a greater configuration, if he is willing to accept a longer implementation process. Since the average improvement was quite low in our sample, we assume that both parties prefer a short implementation process and evaluate a process with a high stability of choice better than one with a low stability of choice.<sup>1)</sup>

3. High loadings on the third factor indicate high implementation expenditures. We multiply the factor loadings with -1 and name our new factor "*economy of implementation*" since it indicates cost savings, as compared to other transaction processes. This is evaluated positive by buyer and seller.

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<sup>1)</sup> That means we are evaluating the performance relative to other comparable transaction processes. The fact that the correction has brought an improvement as compared with the hypothetical situation that no correction would have been made, cannot be evaluated here.

4. Our fourth factor comprises the efficiency indicators of our common perspective. High positive factor loadings announce a good bargaining climate, a friendly style of correspondence, high satisfaction with the chosen solution, and positive evaluation of goal attainment. Negative loadings are symptomatic for many and severe complaints. We will therefore label this factor "*harmony of interaction*". If we assume that both parties are interested in a long-lasting relationship, requiring mutual trust, and if we assume that a high satisfaction with the chosen solution is justified,<sup>1)</sup> we may evaluate high factor loadings positive for both parties.
  
5. Our fifth and last factor shows high loadings for the qualitative flexibility and the sales volume (monetary scale). The substantially positive loadings of quantitative flexibility, technical novelty and sales volume (capacity scale) indicate that a certain "flexibility slack" may have been paid by the buyer organization. This assumption is confirmed by a substantial negative loading of the adequacy of solution components. Leaving the question open if some over-selling has taken place or not, we can state that higher factor loadings indicate a higher sales volume and label our fifth factor therefore "*sales success*". From the seller's per-

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<sup>1)</sup> We have generally restricted our efficiency measurement on the transaction process reaching from initiative to installation. This temporal restriction was violated for the indicator goal attainment. Here positive and negative evaluations *after* the installation are taken into account. Since this indicator has also positive factor loadings we do not assume that the interaction climate will change suddenly and drastically soon after the implementation stage.

spective higher values deserve positive evaluation, whereas for the buyer a negative evaluation should be taken into account.

The next and last step of our scaling procedure was a cluster analysis,<sup>1)</sup> of the transaction processes and their efficiency factor values which produced the following solution:

1. Three clusters which are all *inefficient for buyer and seller*. They comprise solutions with a very low stability of choice, or a very bad interaction climate, or very high expenditures during the decision and implementation process.
2. One *seller-efficient cluster*: It has a very low decision expenditure, a high stability of choice and average values for the other factors.
3. One *buyer-efficient cluster*: It is characterised by a low sales volume and average values for the other factors. This means that the buyer has got a very good service/price relationship.
4. One cluster which is *efficient for both parties*. This cluster has positive values on all five factors.

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<sup>1)</sup> Ward's hierarchical method with euclidian distances performed by YHAK and KDIAG, two cluster-programmes written by H. Forst and F. Vogel.

We will use the relative frequencies of these clusters<sup>1)</sup> occurring at different interaction strategies to test our hypothesis. Therefore it is now necessary to distinct and measure different interaction strategies of carrying out conflicts.

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<sup>1)</sup>For a more detailed test procedure also using the values of the 5 efficiency factors see Gemünden (Innovationsmarketing in press)

4. CONFLICT HANDLING INTERACTION STRATEGIES FOR BUYER AND SELLER ORGANIZATION

The members of the buyer organization can choose two different approaches to manage their inter-organizational conflicts with a given seller-organization.

1. Using a *direct approach* the decision makers of the buyer organization will enter into negotiations with the representatives of that specific organization.
2. Using an *indirect approach* the decision makers of the buyer organization will consult representatives of *other* seller organizations.

Of course, both approaches can be combined, and we expect that decision makers who perceive strong inter-organizational conflicts will interact with the representatives of different competing seller organization. They will try to specify technically comparable proposals with the competing sellers and will then bargain upon the exchange conditions.<sup>1)</sup> But it is an empirical question if the buyers will behave in that way. The decision makers may also enter into direct negotiations trying to get substantial concessions which let become time-consuming interactions with other sellers obsolete.

Before investigating the question how the decision makers do combine these approaches to certain strategies, let us first analyse them as independent options.

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<sup>1)</sup>See Klein/Obel/Holm (Complex Item 1979) for an application of such a strategy

#### 4.1 The Direct Approach to Carry out Conflicts: Negotiations between Buyer and Seller Organization

We define *negotiations* as meetings during which the competent representatives of buyer and seller organization attempt to settle the commercial conditions of the exchange.

To identify these activities *empirically* a meeting was called a negotiation if three criterias were satisfied:

1. The participants discuss at least one of the following items:
  - price, terms of contract
  - time of delivery
  - software and special supports (standard programs from the system library, computing time, programmers and systems engineers placed at the buyer's disposal)
  - offers from competing seller organizations.
  
2. The meeting satisfies at least one of the following relevance criterias:
  - attendance of top managers of the buyer organization
  - attendance of top managers of the seller organization
  - attendance of representatives of competing seller organizations
  - attendance of three or more persons
  - the meeting lasted longer than one week
  
3. The meeting takes place before the first contract to lease or buy an electronic data-processing configuration is signed.

Table 2 shows how often buyer and seller representatives did negotiate for a certain item:

Negotiated Item	Relative Frequency
Price, terms of contract	15,4 %
Time of delivery	9,7 %
Software and special supports	7,2 %
Offers from competitors	2,1 %

*Table 2: Relative Frequency of Negotiated Items*

*We see that buyer and seller did negotiate very seldom: None of the coded objects was negotiated for in more than 20 % of our 195 transaction processes.*

This finding does not change very much when we look at the *bargaining intensity* of each transaction process. We therefore count:

- *how often* the representatives of buyer and seller organization did negotiate for a certain item  
and
- *how many different items* were discussed in one interaction process.

Table 3 and 4 show our empirical finding:

Number of different objects which were negotiated for	Relative Frequency
0	76.4 %
1	16.4 %
2	4.1 %
3	2.6 %
4	0,5 %

*Table: 3*

*Negotiation Intensity Operationalised by the Number of Different Objects which were Negotiated for During a Decision Process*

Number of negotiations	Relative Frequency
0	76.4
1	13,3
2	3,1
3	2,1
4	1,5
5	0,5
6	1,0
7	0,0
8	1,0
9	0,5
10	0,5

*Table 4:*

*Negotiation Intensity Operationalised by the Number of Negotiation Activities During a Decision Process*



We see: Only in each fourth buyer seller interaction negotiations were documented. Leaving aside all those negotiations which have happened but were not documented we can state: *In three out of four transaction processes no attempts were made by the representatives of buyer and seller organization to negotiate for the commercial conditions of the exchange.*

This is a very surprising finding which is contrary to popular belief that the representatives of buyer and seller organizations in industrial markets do normally negotiate for the commercial conditions of the exchange. Our finding is marked so strongly that we cannot reject it for formal methodological reasons alone, we have to look for theoretical arguments which can explain our observation. But let us first discuss some methodological objections.

Our observations rely on *the documented* meetings of buyer and seller persons: meetings which did happen but were not documented are excluded from our analysis. Our observation must therefore be evaluated as a *minimum statement*. But one should not throw out the baby with the bathwater: There is no applicable data collection method which can warrant completeness - and: All tests had shown that the decision makers could not tell all the things which were stored in the documents, especially quantitative information like calendar dates, number of persons which participated in certain activities, etc.<sup>1)</sup>

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<sup>1)</sup>Witte (Komplexe Entscheidungsverläufe 1968) 591 p.

I cannot control which portion of activities has been documented. This is an empirical question. It should perhaps be answered by all those researchers which on one hand propose an interaction approach and which on the other hand rely on questionnaires and interviews where *perceptions* and not *activities* are measured. I can only suppose that in a decision process which lasted about 14 months and during which about 38 different activities were documented<sup>1)</sup> the probability that *all* buyer-seller-negotiations should not be documented, should be quite low.

A second methodological objection concerns the definition of a *negotiation activity*. It depends on the research question and the data collecting procedure which *level of analysis* one chooses:

- for the investigation of inter-*national* conflicts such complex activities as wars have been used<sup>2)</sup>
- for the investigation of inter-*organizational* conflicts the occurrence and the characteristics of negotiations in my sense have been used<sup>3)</sup>

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1) Grün/Hamel/Witte (Felduntersuchungen 1972) 132 and 142 where the full sample of 233 decision processes was analysed.

2) By Rummel: quoted by Crott/Kutschker/Lamm (Verhandlungen II 1977) 99.

3) Compare therefore the following scaling procedures and empirical findings:  
Hausschildt (Verschuldungsgrad 1970) 438-440, Roth (Anlagenbeschaffung 1974) 159 p., Kratz (Interaktionsprozeß 1975) 14-17, A12-A15, Englert (Standard-Anwendungssoftware 1977) Anhang III: Herstellerfragebogen 22, Anhang IV: Verwenderfragebogen 10, Kirsch/Kutschker (Marketing 1978) 63 p., and Wintsch (Kauf von Computern 1979) Anhang I Fragebogen 39, where properties of the negotiating delegations and number, duration and kind of the conferences were analysed.

- for the investigation of inter-*personal* conflicts acts of persons such as promises, threats, recommendations and warnings have been used<sup>1)</sup>

I preferred a more holistic, macroscopic level of analysis since I wanted to analyse the whole transaction process, including the problem solving interaction, the efficiency indicators, and the relations between these variables. But future research should analyse the *bargaining process* which comprises *all* activities "whereby two or more parties attempt to settle what each shall give and take, or perform and receive, in a transaction between them",<sup>2)</sup> on a more individualistic, microscopic level of analysis using the powerful coding schemas which the social psychology has developed.

This recommendation still leaves the question unanswered why the specific activity<sup>3)</sup> "negotiation" did occur so seldom in our sample. We see three main reasons:

1. The innovativeness of the transaction problem.
2. The development of the new market
3. The standardised hard-ware component of the exchanged capital good.

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1) See e.g. the elaborate coding scheme used by Angelmar/Stern (Content Analytic System 1977) or the simple schemes used by Pennington (Customer-Salesman Bargaining 1968) and Taylor/Woodside (Exchange Behaviour 1978)

2) Rubin/Brown (Bargaining 1975) 2.

3) We did perform a correlational analysis to check the validity of our operationalisation. This revealed significant correlations between our coded items and insignificant correlations with the residual category "other objects". So it did not appear advisory to broaden our operationalisation

Ad 1

"An innovative decision problem confronts the decision maker with a new, unexpected and inconvenient task. In this situation they find that familiar patterns of thought and proven problem solving techniques are no longer applicable. The managers are found to find new bearings. The principles and standards of performance used in solving *day to day* problems are not adequate for the *innovative* problem. It becomes necessary to consider 'what essentially is wanted'."<sup>1)</sup>

In our case this meant that the managers of the buyer organization had to learn a lot of technical details as potential decision criterias. Based on an examination of 18 empirical studies where the decision criterias for leasing or buying a computer were analysed, we can summarise that technical criterias were always ranked on the first places whereas pure economic criterias were always ranked on the second or third place.<sup>2)</sup> An additional analysis of 15 empirical studies where the criterias for other industrial buying decision were investigated confirmed this finding.<sup>3)</sup> We must therefore conclude that there do exist *substantial barriers for the decision makers to express all decision relevant facts in pure economical terms. Especially for innovative buying decisions one must detect which technical criterias are relevant and what trade-off does exist to economic criterias.*

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1) Hausschildt (Impact 1976) 27.

2) For the details see Gemünden (Innovationsmarketing in press)

3) For the details see Gemünden (Innovationsmarketing in press)

We therefore assume a quite high dependence from the representatives of the seller-organization who know these criterias<sup>1)</sup> and can evaluate their importance for a specific case. It may be for this reason that the seller's representatives could successfully play the roll of consultants<sup>2)</sup> and could prevent their partners from negotiating with them.

#### Ad 2

The computer market grew very fast in our investigation period, especially in the early sixties when the so-called "third generation" came on the market. The analysed EDP-manufacturers had a strong position and in general made no price concessions. So there existed few possibilities for the buyer representatives to negotiate, especially for price concessions.<sup>3)</sup>

#### Ad 3

The transferred good which is analysed here has two components: the technical product with a standardised hardware and a standardised system-software and a lot of very different services which comprise such things as the development of pro-

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1) The recent investigations from Wintsch (Kauf von Computern 1979) and Strothmann (Imagewirkung 1980) confirm this hypothesis, since in their computer buying decisions, the firms did frequently use consultants in order to get to the necessary technical know how. On the other hand numerous buying studies confirm the hypothesis that such technical experts buy very much stress on technical decision criterias.

2) Empirical findings presents Wintsch (Verkaufsvorgang 1979) 392-420.

3) Compare therefore Zuberbühler (EDV 1972) 117, Büttner (Wechsel des Computerherstellers 1976) 606, and Wintsch (Kauf von Computern 1979) Band II, 219.

posals for the EDP-application, the organization of the transaction process, the training of the users, the implementation of the chosen solution etc. For the standardised product the sellers could calculate their costs and were able to demand a standardised price, and this demand was justified since all customers should be treated in the same way.<sup>1)</sup>

If the hardware is not standardised, we would expect much more negotiations, since the seller must specify an individual price demand under conditions where costs are unclear and comparable market prices do not exist. It is this the typical bidding-situation, where specific tenders are made and negotiations are usual. Future research should distinct this case precisely from our case and perform a comparative analysis to get further insights into the determinants of the negotiation process.

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<sup>1)</sup> For the services this was not true. The problem solving support a customer got, did vary considerable. But this is more a question of the problem solving interaction process: How much problem solving support a customer gets does last not least depend on his own activities, on his own willingness and abilities to interact with the seller. For a detailed analysis of this interaction process see Gemünden (Innovationsmarketing in press)

4.2 The indirect Approach: to carry out Conflicts Consulting Competing Seller Organizations

A *consultation* of a competing seller organization was scaled if the participation of a representative of a competing seller organization was mentioned in the documents. We distinguish four different modes of consultation:

- competitors are consulted *only* during the *decision process* i.e. only before the final choice is made
- competitors are consulted *only* during the *implementation process* i.e. after the final choice and before the installation
- competitors are consulted during the *whole transaction process*, i.e. before and after the final choice
- *no* competing seller organization has been consulted

Table 5 shows the relative frequencies of these consultation modes:

Mode of Consultation	Relative Frequency
Decision Consultation	33.3 %
Implementation Consultation	8.2 %
Decision and Implementation Consultation	8.7 %
No Consultation	49.7 %

Table 5:  
*Relative Frequency of Consultation Modes*

We see:

- in nearly one half of all transaction processes, *no* representatives of competing seller organizations were consulted
- *before* the final choice was made, even in less than 42 % of all transaction processes, the members of the buyer organization did not consult competing sellers.

Which reasons can explain this surprising finding? Did there exist *barriers* which lead to such an exclusion of potential competitors?

*Methodological objections alone cannot explain our finding: an examination of 13 empirical studies revealed that in about 25 to 35 percent of all decisions only one seller organization was consulted.*<sup>1)</sup>

We see two main theoretical reasons for this finding:

1. Source loyalty
2. Interaction barriers

#### Ad 1

The decision to buy a complex innovative capital good is not made free of historical influence. In the contrary: Many empirical investigations especially in the EDP-market document a strong influence from previous to future business relations. Therefore a high satisfaction with the seller in the punch card area gave many manufacturers a great lead over his competitors<sup>2)</sup>

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<sup>1)</sup>For the details see Gemünden (Innovationsmarketing in press)

<sup>2)</sup>Compare therefore footnote 1 on page 3 especially Pettigrew (Politics 1963) where the political dimension of these influences is illustrated.



Future research which is concerned with the problems of marketing an innovative good should therefore not only look at the buyer. The simple trichotomy straight rebuy situation - modified rebuy - new task does not suffice anymore. One should at least take into account the following three elements:

- degree of innovativeness for the buyer organization
- degree of innovativeness for the seller organization
- degree of innovativeness of the business relation between buyer and seller

to classify the degree of innovativeness of a *transaction problem* correctly.<sup>1)</sup>

#### Ad 2

*Witte* has pointed out that there do exist two kinds of barriers to innovation: barriers of will and barriers of capability. Therefore exists a need for promoters by power and promoters by will to overcome these barriers. *Witte* has proven empirically that these promoters do exist, especiall that a *tandem structure* of a promotor by power and a promotor by capability will lead to a very efficient result.

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1) Further refinement is needed: Since there are many persons in the decision centres of buyer and seller organization and since the innovative good is very complex, comprising different objects, it is clear that these three dimensions should be operationalised by a *system* of indicators.

2) For the details see *Witte* (Power 1977)

Based on his model, I derived a catalogue of common interests which the promoters and the seller's representatives share. The empirical test confirmed these assumptions:<sup>1)</sup>

- If *no* promoters were present negotiations took place in only one out of six processes, competing sellers were consulted in only one out of five cases.
- If a *tandem structure* of promoters did exist negotiations took place in one out of three processes and competing sellers were consulted in two out of three cases.

It thus depends on the buyer and his ability and will to overcome the interaction barriers.

Let us summarise our findings:

- 1 a) *Negotiations for commercial conditions like price, terms of contract, delivery data, EDP-software and special supports are by no means obvious activities to carry out conflicts, they occur only in one out of four transaction processes.*
- 1 b) *Consultations fo competing seller organizations are also no activities which are usually performed: Only in about 42 percent of our sample processes competitors are consulted before the final choice.*

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<sup>1)</sup>For the details see Gemünden (Innovationsmarketing in press)

2 a) *Methodological arguments alone cannot explain our findings. We assume that there do exist severe barriers which prevent an intensive fighting out of conflicts. Future research should analyse these barriers and their determinants in depth. It should analyse transaction problems with different degrees of innovativeness and it should take into account different market conditions.*

Accepting the conclusion that there do exist substantial barriers to carry out conflicts in a open manner as *Simon* and *March* have predicted, we will now analyse the question: *Is it really worthwhile to overcome these barriers? Should the buying centre members really engage themselves in time-consuming conflict handling activities? And: Does there exist an optimal combination of the different handling instruments?*

To answer these questions we will now construct a typology of conflict handling strategies and order them according to their intensity of carrying out conflicts.

#### 4.3 Combining both Approaches: A Typology of Conflict Handling Interaction Strategies

Negotiations and consultations of competing sellers have been presented as isolated options, but they are only different instruments which can be combined to interaction strategies of carrying out conflicts. We would especially expect that a buyer will use offers from competing sellers to negotiate for better commercial conditions. So if our operationalisation is valid there should exist an empirical contingency between the occurrence of both activities.

Table 6 shows our empirical finding:

There does exist a statistically significant relationship between both instruments.<sup>1)</sup> The detailed analysis shows that if buyer and seller negotiate for the commercial conditions then competing sellers are consulted more frequently than expected, and the "no consultation"- mode occurs less frequent than expected.<sup>2)</sup>

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<sup>1)</sup>Chiquare = 10,9,  $p < 0,05$ . The chiquare-test is not so reliable here, since we have only three degrees of freedom and two cells with expected frequencies less than five. But since the chiquare test "consultation before final choice" as "no consultation before final choice" which is more reliable and suited to our prediction that sellers are consulted *before* the final choice, shows the same result, we may reject the independence assumption.

<sup>2)</sup>These two cells explain 76.5 % of the tables chiquare.

Consultation Negotiation Mode	No Consultation	Decision Consultation	Implementation Consultation	Decision and Implementation Consultation	Sum
Without Negotiation	55.7 % 83	27.5 % 41	8.1 % 12	8.7 % 13	100 % 149
With Negotiation	30.4 % 14	52.2 % 24	8.7 % 4	8.7 % 4	100 % 46
Sum	97	65	16	17	195

*Table 6: Relationship between Negotiation and Consultation Mode*

After these preparations we are now ready to construct a typology of interaction strategies which are ordered according to their intensity of carrying out conflicts so that we can empirically test the validity of our general efficiency hypothesis.

Our efficiency hypothesis was deduced from two postulates:

1. Don't smooth over conflicts!
2. Don't let conflicts escalate!

The first postulate is satisfied if conflicts are carried out *before* the final choice i.e. that either negotiations or consultations of competing sellers take place before the final choice.

The second postulate is satisfied if *no* conflicts are carried out *after* the final choice i.e. no consultations of competing sellers take place after the final choice.<sup>1)</sup>

Using these two operationalisations gives us the following definition matrix of conflict handling interaction strategies:<sup>2)</sup>

- 
- 1) We restricted our definition of negotiations on *pre-decision* activities, since after the final choice was made, it appeared questionable if a meeting where conflicting items were discussed, was a "negotiation" or not
  - 2) The seldom occurrence of negotiations and post-decisional consultations of competing sellers made it necessary to combine some cells. We combined the modes "implementation consultation" and "decision and implementation consultation" since in both cases the second postulate was *not* satisfied.

Consultation Negotiation Mode	No Consultation	Consultation only before the final choice	Consultation after the final choice
Without Negotiation	Tolerated Conflict	Considered Confrontation	Smoothing over Conflicts
With Negotiation	Prevented Confrontation	Open Confrontation	Escalated Confrontation

*Figure 5: Definition Matrix of Conflict Handling Interaction Strategies*

These strategies are now ordered on an ordinal intensity scale of carrying out conflicts:

1. The lowest rank is given to the "*smoothing over conflicts*" strategy. We suppose that the renunciation at negotiations corresponds to a conscious denial of conflicts: as the post-choice consultation of competitors shows existing conflicts have only been postponed but not resolved.
2. The second lowest rank is assigned to the "*tolerated conflict*" strategy where also neither negotiations nor consultations of competing sellers did occur before the final choice. But in contrast to the smoothing over-conflicts strategy *no* competing sellers are consulted after the final choice. We assume that at least a rudimentary discussion about conflicting interests has taken place in this case.
- 3/4. The "*prevented*" and the "*considered confrontation*" are characterised by the fact that only one instrument for carrying out conflicts has been used. We assign a lower rank to the prevented confrontation, since we assume that the seller could prevent the buyer from consulting competitors by early concessions. Such a limitation of the conflict handling intensity is not given in case of the considered confrontation. It is more likely that the perception of a new offer intensifies the inter-organizational conflicts.
5. The "*open confrontation*" gets the second intensity rank because two conflict handling instruments are used during the decision stage.
6. The highest rank is given to the "*escalated confrontation*" since the high intensity of carrying out conflicts is not restricted to the decision process but continued during the implementation process.



5. MANAGING INTER-ORGANIZATIONAL CONFLICTS: SPECIFIC EFFICIENCY HYPOTHESES AND THEIR EMPIRICAL REST

5.1 The Efficiency Hypotheses

We predict the following effects:

- *A low efficiency for buyer and seller if they choose a smoothing over conflicts strategy or an escalated confrontation, i.e. if they do not restrict their activities for carrying out conflicts on the decision process.*
- *A high seller efficiency for the tolerated conflict strategy where no conflicts are carried out during the decision process and where these conflicts can be tolerated later on.*
- *A high buyer efficiency for the open confrontation, where conflicts are not denied, but carried out consciously and where they are limited to the decision process.*
- *An average efficiency for buyer and seller for the prevented confrontation, where the seller makes concessions and the buyer renounces to consult competitors.*
- *An average efficiency for buyer and seller for the considered confrontation where the buyer expresses substantial interest for offers of competitors but is not determined enough to negotiate for better commercial conditions. So he may also be a secured but sceptical customer for the seller.*

The following figure summarises our predictions:

Intensity Rank	Interaction Strategy	Seller's Efficiency	Buyer's Efficiency
6	Smoothing over conflicts	low	low
5	Tolerated conflict	high	average
4	Prevented Confrontation	average	average
3	Prevented Confrontation	average	average
2	Open Confrontation	average	high
1	Escalated Confrontation	low	low

*Figure 6: Predicted Efficiency Values for Buyer and Seller for different Interaction Strategies*

The figure shows that we postulate a  $\cap$  shaped relationship between conflict handling intensity and efficiency for both parties but that we also expect that the seller organization reaches its maximum at quite low level of conflict handling intensity whereas the buyer organization will reach its maximum at a quite high level of conflict handling intensity.

## 5.2 The Empirical Test

To test our predictions we determine the relative frequencies of our efficiency clusters for each interaction strategy. So we can see in how many percents of all transactions processes for which a specific conflict handling strategy was chosen buyer and seller come to favourable solution and in how many cases they come to an unfavourable solution. Our design thus shows the distribution of chances and risks each interaction strategy offers.

To clarify the picture which the somewhat entangling graph exhibits let us summarise its content by evaluating the different interaction strategies:<sup>1)</sup>

1. *Inefficient are the smoothing over conflicts policy and the escalated confrontation.* The great majority of transaction processes where these strategies are chosen come to a solution which is inefficient for both parties. This confirms our theoretical derivations. The very seldom occurrence of buyer efficient solutions let these strategies appear distinctly inferior for the buyer organization. But with regard to the high expenditures of the inefficient solutions the seller should also avoid to smooth over existing conflicts or to let conflicts escalate.

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<sup>1)</sup> According to the chisquare-test the nul-hypothesis that the relative frequencies of the efficiency clusters are equal for all strategies, may be rejected. ( $p < 0,01$ ). Since the expected cell frequencies are less than five in one out of three cases, the test is not very reliable. But since for different combinations of seldom occurring strategies, the results are the same, we may conclude that there do exist real differences. Besides our interpretations are strongly confirmed by analyses of variance which we have performed for all five efficiency factors. For the details see: Gemünden (Innovationsmarketing in press)

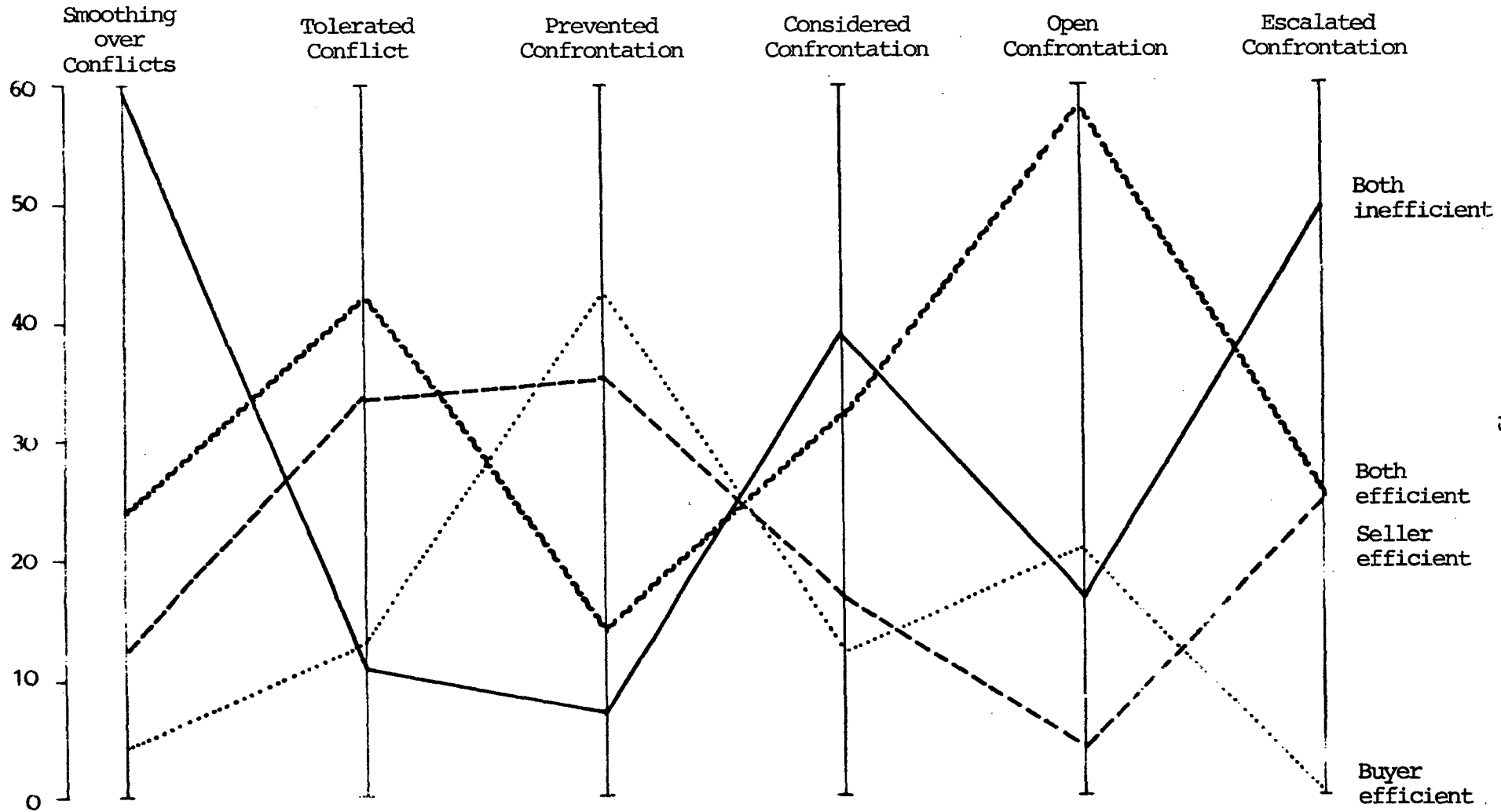


Figure 7: Efficiency Values for Buyer and Seller Organization for different Conflict Handling Interaction Strategies

2. *A quite inefficient strategy is the considered confrontation.* Transaction processes with this interaction pattern often come to a solution which is inefficient for both parties. It does not repay to consult a competing seller if one is not willing to negotiate also with the preferred seller. The quite seldom occurrence of seller efficient solutions corresponds to his high expenditures to entice away his customer from a competitor. In this rapidly growing market the seller would perhaps have better concentrated his efforts on another customer which had not contacted competitors.

This may be another explanation for our finding that many did not consult competing seller organizations. It were the *seller's* representatives who avoided to engage into an intensive time-consuming interaction with these buyers because they preferred other customers where they believed to be in an unrivaled situation.

3. *The prevented confrontation appears to be a quite efficient strategy for the buyer organization:* In transaction processes where these interaction pattern was chosen, buyer efficient solutions occurred three times as much as in the average of our sample. But the *seller may also keep up his position:* seller efficient solutions do occur in one out of three transactions which is about 150 percent of the sample average. And last not least: solutions which are inefficient for both parties occur very seldom.

*Thus a conscious elimination of competition and a quick agreement upon a simple solution<sup>1)</sup> offers for both parties the chance for an advantageous solution and it minimises the risk to get a solution which is inefficient for both parties.*

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<sup>1)</sup> This is proven by another finding which shows that processes with this interaction pattern had a low degree of innovation. See Gemünden (Innovationsmarketing in press)

4. *The tolerated conflict strategy proves to be an efficient interaction pattern for the seller organization. Since transaction processes where this strategy is chosen, either come to a seller efficient solution or to a solution which is efficient for both parties, the seller will reach a favourable solution in two out of three cases. But since buyer efficient solutions occur as much as in the average of our sample the buyer will also reach a beneficial solution in 60 percent of the transaction. Correspondingly to these findings solutions which are inefficient for both parties occur very seldom. If buyer and seller will avoid the risk to let the conflicts escalate, then one can advise: avoiding to carry out conflicts, means to avoid inefficient solutions, if the conflicts may be tolerated later on.*

Since this quite successful strategy was chosen in nearly 43 percents of our sample cases and since the escalation of conflicts did occur in only 4 percents we may conclude that the decision makers had a pronounced fear that conflicts could escalate.<sup>1)</sup> On the other hand the inefficient smoothing over conflicts policy did occur in nearly 13 percent of our sample cases. This means that in about one out of four cases where no conflict handling activities were performed during the decision process the decision makers did *not* tolerate their conflicts later on.

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<sup>1)</sup> This strongly confirms the already quoted predictions made by March/Simon (Organizations 1958) 131 and the findings from Hauschildt (Organisation 1970).

5. *The open confrontation markedly proves to be a favourable solution for both parties: The majority of cases where this strategy is chosen, results in a solution which is efficient for both parties. Since seller efficient solutions occur quite seldom, and buyer efficient solutions come out more frequently than in the average of our sample, the open confrontation is especially advantageous for the buyer organization.*

*The time consuming activities of consulting competing seller organizations and preparing oneself for negotiations with the seller's representatives do repay for the buyer: It is worth to overcome one's barriers and engage into an intensive process of fighting out conflicts. But one should also consciously restrict these activities to the decision process and commit oneself to the mutual agreement which has been reached through intensive negotiation.*

In our last figure we have summed up the solutions which are favourable for buyer and seller. Thus we can easily test if the predicted  $n$ -shaped curves exist:

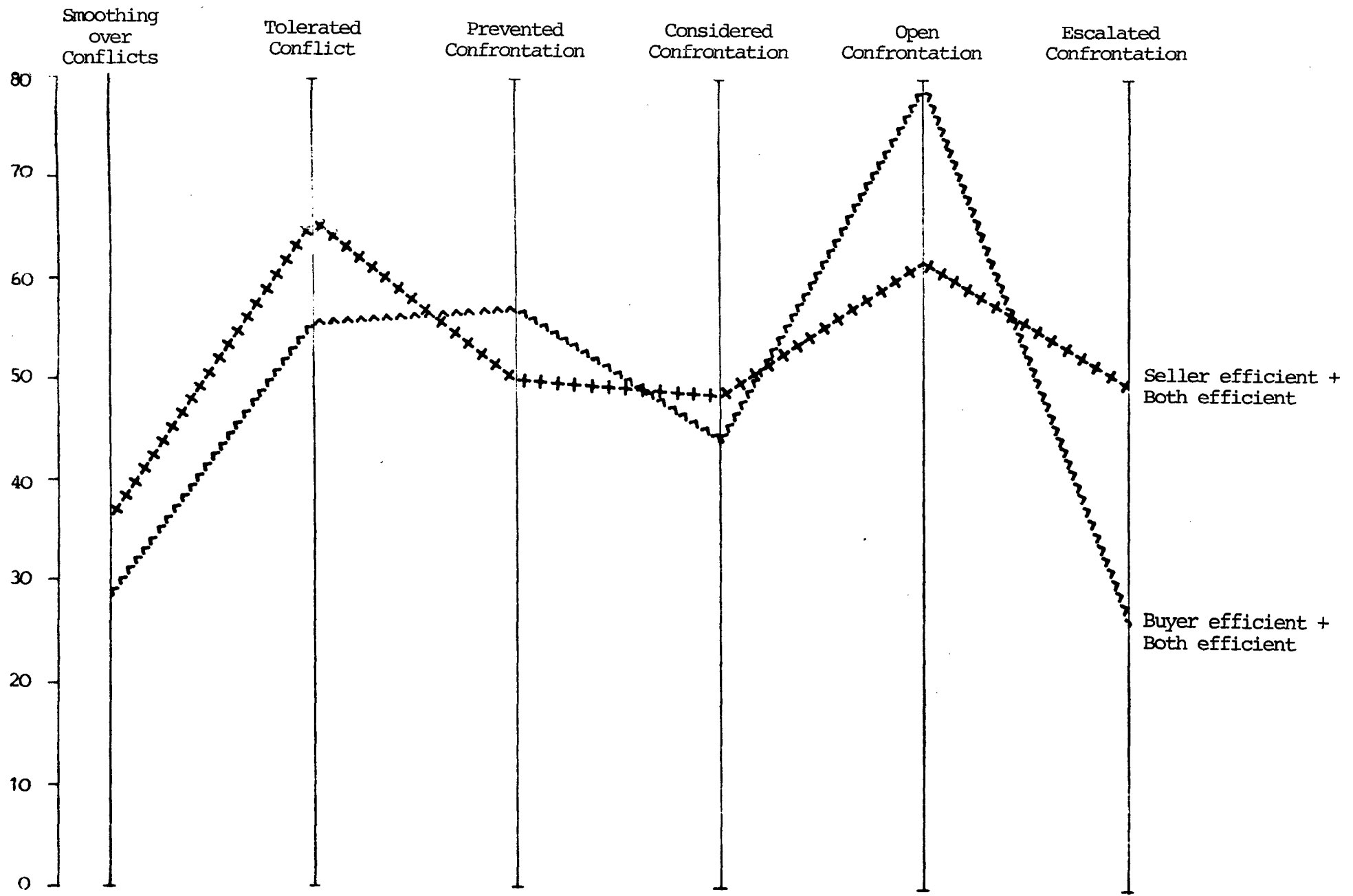


Figure 8: Aggregated Efficiency Values for Buyer and Seller Organization for different Conflict Handling Interaction Strategies



The graph confirms our predictions: a very low and a very high intensity of conflict handling activities lead to an inefficient solution, the seller reaches his maximum efficiency at a low level of conflict handling intensity, whereas the buyer reaches his maximum at a high level. But the optimal solutions also appear to be second-best solutions for the partner-organization. So there do exist two strategies which are favourable for *both* parties. *Which of both interaction pattern is chosen, seems to be of secondary importance, it appears to be of primary importance that the parties agree to choose one good solution, and to avoid their inefficient neighbours.*

6. CONCLUSIONS

*Buyer and seller should neither smooth over existing conflicts nor let them escalate. They should either renounce at conflict handling activities and strive for a modest solution which can be tested soon and improved in further transactions or they should consciously fight out these conflicts in an open manner, and restrict these activities to the decision stage. The latter interaction strategy seems promising when a high level of aspiration is intended. Then it will pay back to engage into time-consuming activities for carrying out conflicts. It depends on buyer and seller which strategy they choose. According to our findings their marketing task is to come to an agreement with each other upon the level of aspiration of their innovative solution and to choose an interaction strategy which corresponds to this goal.*

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