

# **ANALYSIS OF THE SATISFACTION FACTORS IN INTERNATIONAL COOPERATION ACTIVITIES WITH AND WITHOUT CAPITAL INVESTMENT IN SMEs**

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**Abstract.** *The paper analyzes international medium and long-term cooperation by legally and economically independent SMEs. In a frame of reference using decision and contingency theory, a model is constructed for two phases of cooperation activity. It is postulated that the success of cooperation activity depends on whether the system variables structure, strategy and culture are consistent during realization. At the same time, the decisions made in the initiation phase of cooperation activity are modeled directly and indirectly on its success. An empirical examination on the effect relationships from the point of view of 164 SME managers provides tentative proof of the effect relationships postulated, namely in a comparison of cooperation activities with and without capital investment. An overall model is proposed for phase observation of cooperation activities.*

**Keywords:** capital investment, international cooperation, satisfaction factors, small or medium size enterprise (SME).

## **1. Introduction to the topic under consideration**

International cooperation activities are forms of transaction between market and hierarchy or strategies between export and classic direct investments (Morschett, 2005). The broad research on cooperation activities, alliances or networks (Zentes et al, 2005) is influenced by the viewpoint of multinational corporations (MNCs). Small or medium-sized enterprises (SMEs, i.e. independent companies with less than 500 employees) are investigated less frequently. On the other hand, SMEs are important in many countries, and international cooperation activities open up new potentials, e.g. access to markets and resources without or with a relatively small capital investment. In this respect, SMEs, which have higher growth thresholds than MNCs (OECD 1997a and OECD 1997b), are interested in how to achieve successful alliances.

In particular, surveys investigate when cooperation activities are given preference over exports and affiliates. Such strategies as the Joint Venture (JV) are advantageous from the point of view of transaction cost theory when the factor specificity of the investment is high, the frequency of transaction is low, the uncertainty factor is average,

and the behavior risk is controllable, *ceteris paribus*. From the viewpoint of strategic management, the JV offers strategic benefits, e.g. economies of scale and scope, time savings in developing new markets, fending off competitors, lowering capital costs and risk, *ceteris paribus*. Disadvantages arise relating to integration and controllability of these activities (Kutschker, 1992). It is well-known that advantage conditions of this kind either gain or lose significance in the presence of certain context factors. The characteristic features of the guest country (e.g. national standards, competitive environment) or of the company and the decision-makers (e.g. resources, risk tendency) determine the choice of strategy.

Our analysis extends beyond the choice of strategy. We look at the success factors of international cooperation activities that have been realized. Since alliances are rarely listed separately in the relevant statistics – unlike exports or classic direct investments – and SMEs are often not under any obligation to publish such information, we have to rely on field research in order to obtain empirical evidence of the success factors. In addition, SMEs are different from MNCs, for example in terms of capital availability, capacities for strategic planning, the largely incremental internationalization process and, above all, in the centralized nature of decision-making.

The ex-post analysis, which is of an exploratory nature due to the limited knowledge available, is structured in three stages. In terms of concept, a frame of reference is developed modeling two phases of cooperation activity. Central relevance for success is attributed to the activities in the realization phase. Based on the contingency theory, the paper postulates that the success of a company depends on the extent to which the management system factors of structure, strategy and culture are consistent. At the same time, the decisions in the initiation phase of cooperation activity are modeled directly and indirectly on its success. The effect relationships from the point of view of SME managers are checked empirically. A proposal for an overall model concludes the discussion.

## **2. Theoretical basis and hypotheses**

### **2.1. Phase-oriented frame of reference**

The many forms of alliances are structured in morphological patterns, according to direction (horizontal, vertical etc.), value-added functions, contractual obligation, etc. In the empirical study, we differentiate between cooperation activity without and with capital investment. The former are, for example, contract-free alliances, as well as sales, license, management, system, and franchising agreements. The largest number of contributions deal with JVs, these being forms of alliance with capital investment and the greatest intensity of commitment (80 articles in the past decade in the leading international management journals alone - JIBS, MIR, IBR, Zentes et al, 2005, p. 16). At the same time, there are many theoretical approaches to explaining the preliminary requirements and the effects of cooperation activities.

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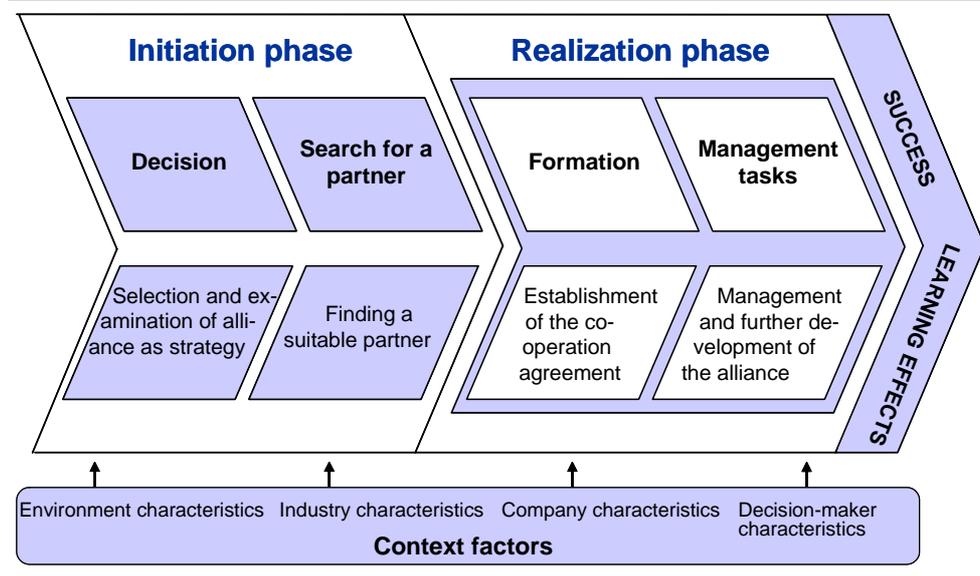
Swoboda (2005) deals with the industrial and institutional economics, the game theory, the resource-based view, and with equity and network theories, among other things. A review of the literature shows that none of the theories predominate. In most cases, several theories are combined in one frame of reference. At the same time, however, there are numerous findings available to SMEs on internationalization (Bilkey and Tesar, 1977; Boter and Holmquist, 1996; Johanson and Vahlne, 1977; Coviello and McAuley, 1999; Fillis, 2001) and on the conditions for embarking on cooperation activities as an internationalization strategy, but very few on the management and success factors (Contractor, 1985; Buckley and Casson, 1989; Donckels and Lambrecht, 1995; Henriques and Nelson, 1997; Ming Au and Enderwick, 1994; Tallmann and Shenkar, 1990).

With this background, the authors draw upon approaches that contribute towards answering the question of how to achieve successful implementation and management after the initiation phase of alliances, and this from the point of view of the decision-maker. It is not the aim to set up a specific model for the individual forms of cooperation activity. The authors rather follow general, cross-cooperation form patterns (Schrader, 1993; Staudt et al, 1995) as a basis for developing the frame of reference (see Figure 1).

From a decision-oriented viewpoint, there can be distinguished between two phases in the alliance decision - the initiation and the realization phases. These phases are separated from one another by the beginning of the cooperation activity:

◆ In the initiation phase, the first action taken is the strategic decision to select and examine the alliance as an internationalization strategy. In terms of content, the advantage conditions already mentioned from the theories of strategic management can be examined here. This phase, however, also includes the search for a partner, i.e. finding a suitable partner, as well as conducting negotiations with this partner.

◆ In the realization phase of the alliance, a distinction can be made between formation and management tasks. The formation includes establishing the cooperation agreement, e.g. subject terms of alliance, form of contract etc. The management tasks additionally designate the scope of day-to-day cooperation between companies. This includes the constitution, but also a later check on the suitability of the organizational structure, strategy, and culture, as well as considering any adjustments required. Our assumption is that these three management factors primarily determine the level of success.



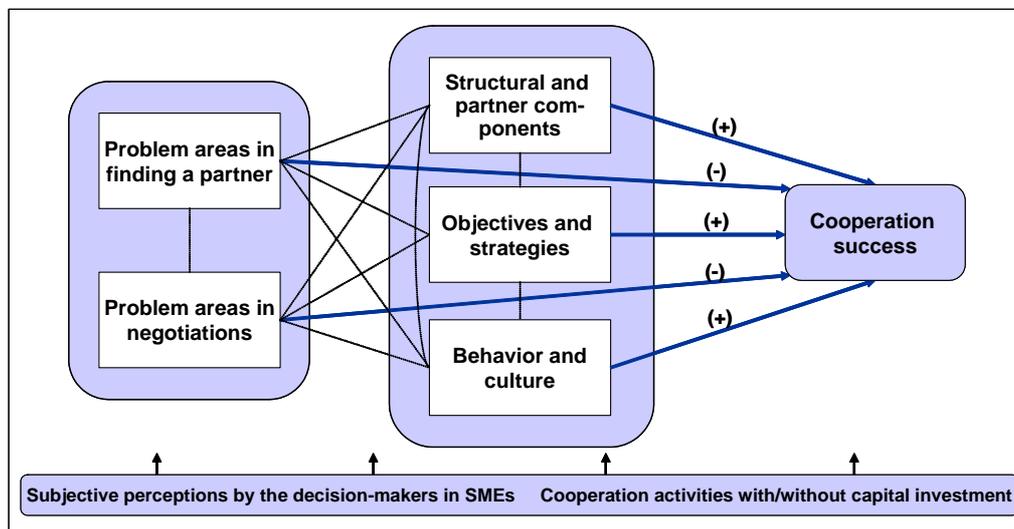
**Figure 1.** Decision-oriented phase observation of cooperation activities

The phases or tasks build on one another. Thus, the problems in the initiation phase of an international alliance may extend into the realization phase – formation and day-to-day management – and affect the success of the cooperation activity as a whole. In addition to success, the resulting learning effects from the dynamic viewpoint determine the initiation of new or the realization of existing alliances „effects of performance dissatisfaction on future alliance intensions” ( Lohrke et al, 2006; Cegarra-Navarro, 2005). The entire system is ruled by context factors, such as environment, industry, company and decision-maker characteristics. These may be of determining or moderating significance for the decisions in the individual phases, as already implied at the beginning for the advantage conditions in the choice of strategy.

In the frame of reference for the analysis, the two phases are separated for reasons of argumentation logic. Figure 2 illustrates the relationships to be specified below. The inter-relationships between factors in the initiation phase, implementation phases and the success of international cooperation activities are positioned in the foreground here. These factors relate to problem areas in search for a partner and to three management system factors. The context factors taken into account are the subjective perceptions by the decision-makers in SMEs and the form of international alliances with and without capital investment.

## 2.2. Factors in the initiation and realization phases: A contingency perspective

In the literature, various factors are proposed for the initiation and, especially for the implementation of alliances; Schrader (1993) and Meckl (1993), for example, suggest subject terms of alliance (e.g. cooperation direction, functions and investment), form of contract (e.g. legal form, financial contribution, influence by partners), the organizational design (e.g. legal framework, formalization, communication), and behavior patterns (e.g. readiness, trust, information behavior). These factors permit, among other things, systematization of the formation variables of cooperation activities. For those factors relevant to us, the contingency theory offers a fruitful basis for explanation and systematization.



**Figure 2.** Frame of reference for the empirical analysis

As part of the contingency theory, reference is made to the fit approach, which is not new. The fit approach was already described by Nadler and Tushman (1980) as being the degree of congruence between the needs, tendencies, aspirations, aims, and structures of companies. Miles and Snow (1994), and Lawrence and Lorsch (1967) argued that building up effective organizations involves a well-balanced package of strategy, structure, processes, and management ideology, and that it depends on the context factors. Today, reference is still made to the importance of such fits of management system variables, i.e. between company strategy, culture, system, and environment. The intra-organizational fit approach was first applied in the context of mergers & acquisitions as a principle for the analysis of alignment between companies (Rumer 1994; Zentes and Swoboda 1999; Douma et al, 2000). This approach thus

assumes that a company or alliance is successful if the system formation corresponds to the internal and external context factors, i.e. if it fits.

As to the question of what must fit, we find various different perceptions. Situative explanation attempts place the fit between internal and external environment and the organizational structure in the forefront. The fit between organizational structure and employees is regarded in more detail. There is a well-known discussion on the connection between organizational structure and strategy, where here it is not so much the fit that is disputed, but rather the question of whether the structure must adhere to the strategy or the strategy to the structure, or also the 7-S concept, which assumes that the management system variables "super-ordinate objectives, strategy, skills, staff, cultural style, systems and structure" must fit one another in order to achieve substantial company success (Chandler, 1962; Pascale and Athos, 1981; Donaldson, 1987). Irrespective of this controversy, we can distinguish between two levels of congruences relevant to success for our investigation on alliances:

- ◆ Fit between the management system variables and the realization factors of a cooperation activity, or of a cooperative venture, in its context if applicable;
- ◆ Fit between the partner companies entering into a cooperative venture (Zentes and Swoboda, 1999; Douma et al, 2000).

Various types of success-oriented congruences can be distinguished at both levels: Strategic and operative, organizational and cultural fits, or factual-rational (corporate policy) fits and socio-emotional (corporate culture) fits (Niederkofler, 1991; Douma et al, 2000; Kogut, 1988). For this reason, "soft factors" are also investigated and it is emphasized that fit in factual issues only is not sufficient to promise successful formation of alliances. In extreme cases, cultural fits could predominate over the importance of corporate policy fits.

Of course, we can not assume without reflection that there is a full and all-embracing need for harmony in setting up successful alliances. There may well be conflicts that are not only solved in constructive form at negotiation level, but also impulses for success-oriented further development of the cooperation activity. Still, this kind of "productive conflict", which is caused, for example, by changed context factors or one-sided partner interests, can also be taken as a basis for adapting cooperation activities accordingly. Thus, the reasons for the individual effects of structural, strategic and cultural factors on the success of international alliances by SMEs will be discussed in the following chapters.

### *Structural and partner components*

The structural and partner components can be assigned to the company policy category of alliances. Here, the organizational structure's importance for success is undisputed, as it is in international cooperation research (Douma et al, 2000). On the basis of previous work, we have also looked into the partner component, i.e. the reciprocal significance factors in the organization (Zentes and Swoboda, 1999; Lubritz, 1998). The structural and partnership factors of alliances include the resources

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invested, the perceived significance of the alliance, the exit barriers, as well as the negotiating position and the controlling possibilities by the SMEs participating. The contingency theory and the following single empirical findings allow us to formulate

*Hypothesis 1*, which states that *congruence in the structure and partner components, respectively, has a positive effect on the success of international alliances in SMEs.*

Thus Gemünden and Schaettgen (1993), for example, demonstrate that the stability of the cooperation is enhanced by having comparable sustainability of resources, while a partner's obligation to make an additional contribution leads to asymmetrical costs. Meckl (1993) shows that the array of resources is of direct importance for the cooperation activity's success (see also Harrigan, 1986). The negotiating position circumscribes a partner's potential for influencing implementation of his own interests on the basis of his strength. Here, too, investigations confirm that cooperation activities where both partners exert equal influence tend to be more successful (Killing, 1980; Harrigan, 1989). In addition, research has shown that managers are more dissatisfied in alliances if the partner has a more dominant position rooted formally in the contract wording. This corresponds with the perceived reciprocal significance of the cooperation activity for the partners and also with the two-way exit barriers.

#### *Objective and strategy factor*

The strategy factor can also be considered as a policy aspect. This factor relates to the congruences in the business sectors connected with the cooperation activity, i.e. strategic, long-term objectives of alliances (e.g. Douma et al, 2000), but also to the strategic embodiments. As a result, strategic attributes such as understanding of quality, market orientation and flexibility, and innovation orientation are relevant in SMEs. Here, too, the contingency theory and empirical findings allow us to formulate

*Hypothesis 2*, which states that *congruence in the objectives and strategies, respectively, have a positive effect on the success of international alliances in SMEs.*

Kogut (1991) demonstrates, for example, that JVs collapse after six years in 80% of cases, one of the reasons for this being the objective congruence. The congruence in strategic objectives and strategies is said to make a direct contribution towards success right away in the initiation phase of the alliance (Lasserre, 1984). Alliances also enjoy greater success, the lower the exchange of goods in the JV to the mother companies, which suggests that the cooperation activity has autonomy of objectives (Killing, 1980). As mentioned, strategies do indicate connections to the structure. In inter-company cooperation, this is related to the coordination regulations in the literature. These may be legal regulations, but also contact between the partners or the degree of formalization, communication, etc. (Schrader, 1993). In this context, Meckl (1993) also looks into the human resources component, i.e. the interweave of personnel. This can extend from a management contract to loose contacts at management level.

### *Behavior and cultural factor*

Company culture aspects include basic assumptions, values, standards and behavior principles of the partners and/or managers. The basic assumptions relating to the attitudes of the cooperating companies in terms of basic ethical and moral values (e.g. the type of economic action) very much reflect the basic attitude in dealings with foreign cultures or partners. The value perceptions comprise, for example, the ratio of material (e.g. growth orientation) and immaterial values (e.g. safety orientation) or also value attitudes relating to the cooperation (e.g. trust, openness). Views on standards and rules on social behavior relate, for example, to the culture-specific characteristics of the partners, for instance in terms of company or human resources management. Here, too, the contingency theory and empirical findings allow us to formulate

*Hypothesis 3, which states that congruence in behavior and in culture, respectively, has a positive effect on the success of international alliances in SMEs.*

This factor appears to be relevant in SME alliances in particular (Stratos Group, 1994; Cui et al, 2002). The management of an SME generally acts on the basis of experience and tends to change its attitudes or basic principles rather slowly. In this context, Anderson and Narus (1986) have already demonstrated that co-operative behavior promotes trust and success. In addition, SMEs often cooperate with companies the same size as their own or smaller, and which may have a comparable culture specific to SMEs. The interdependencies between behavioral principles and culture, respectively, on the one hand, and the other two factors on the other hand, were broached above to the extent that factual and cultural issues have to be highlighted in an alliance with a promise of success (Zentes and Swoboda, 1999).

### **2.3. Partner search and negotiations as initiation decisions**

Decision-oriented phase examination suggests that the decisions in the initiation phase of alliances bear relevance for its success. The findings in this respect are fragmentary. It has been proved empirically that the search for a suitable cooperation partner is a difficult matter for SMEs. For example, the most important bases for SMEs in their search for a partner are existing business relationships or personal contacts, while a systematic search for partners or initial contacts, through trade fairs or chambers of foreign trade or commerce, are of lesser significance (Kaufmann, 1993; Lubritz, 1998; Stratos Group, 1994, and compare with the role of social networks in SMEs BarNir and Smith, 2002). This is also the basis of the argumentation that SMEs experiencing problem areas in finding a partner or in negotiations do not enter into cooperation activity. This means that they do not fulfill their basic commitment or their decision in favor of cooperation activity as an international strategy after all. Thus, a level observation is supported here, i.e. the search for a partner is discontinued as from a certain problem level.

On the other hand, empirical proof can be provided that these problem areas were also considered ex post as being substantial in existing SMEs (Lubritz, 1998;

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Schrader, 1993; Stratos Group, 1994). This argues against a level observation. It is undisputed that it is mainly those SMEs with little cooperation experience that only conduct ex post assessments of the problem areas in negotiations and finding a partner, as well as only judging their scope correctly with hindsight. Such late estimates, i.e. made after initiation and constitution, can necessitate adjustments to structures, strategies and culture, and thus have an indirect effect on success. A direct adverse effect on cooperation success is also conceivable here. Two hypotheses can be formulated:

*Hypothesis 4* postulates that *problem areas in finding a partner and in negotiations with partners have a direct negative effect on the success of international alliances by SMEs.*

*Hypothesis 5* postulates that *problem areas in finding a partner and in negotiations with the partner affect the realization phase and thus influence indirectly the success of international alliances by SMEs.*

### **3. Results of the empirical study**

#### **3.1. Random sample**

According to the Institute for Small and Medium-sized Business Research, one in five small SMEs (less than 50 employees) in Germany participates in alliances internationally, as do close to one in three SMEs with between 200 and 499 employees. While these activities are not measured in generally available statistics, a survey of German SMEs involved in international alliances was conducted in field research. For the ex-post survey, 600 SMEs with international cooperation activities, not linked to a corporate group and mainly family-run, in the production and processing sectors and with not more than 500 employees, were selected at random from the database of the Consulting Association for Medium-sized Businesses. The pre-test comprised five face-to-face discussions. Then the top management of the SMEs were requested in a questionnaire to provide an assessment of an alliance they considered strategically important. These alliances were not to be more than five years old. Of the questionnaires returned, 164 were suitable for the study, i.e. largely completed as requested. A further 28 questionnaires could not be used.

Table 1 shows the nature of the random sample. 80% of the companies surveyed are family-run and have an average of 17 years' export experience and 90 foreign customers abroad. The main focus of their foreign activities is in Europe. Two thirds of the companies are from the following sectors: electrical/precision engineering, optics, mechanical engineering/vehicle construction, and chemicals. Similar to other studies, JVs (33%) and licenses, distribution/production agreements (25% each) predominate. One in eight cooperation activities is not contract-based.

**Table 1. Selected random sample characteristics – frequency of occurrence**

	Employees		Sales in Euros		Export share in sales			
	No.	in %	No.	in %	No.	in %		
< 100	69	42.1	< 10 mill.	64	39.0	< 10 percent	36	22.0
100 < 200	33	20.1	10 < 50 mill.	74	45.1	10 < 40 percent	77	47.0
200 ≤ 500	60	36.6	≥ 50 mill.	20	12.2	≥ 40 percent	41	25.0
missing	2	1.2	missing	6	3.7	missing	10	6.1
Total	164	100.0	Total	164	100.0	Total	164	100.0

### 3.2. Measurement and descriptive findings

This chapter deals with some descriptive reports as there are few findings available on this topic. In this connection, information will also be provided on measurement.

#### *Cooperation objectives and success measurement*

According to Table 2, market development, market penetration and the cost advantages are the three main objectives of international cooperation for the SMEs surveyed. The majority of these objectives relate to sales activities. Two thirds of the cooperation fields relate to sales/distribution and one half to production (multiple entries). Such objectives as capacity utilization, synergies, achievement of time advantages, etc., have lower priority.

The right-hand columns show that safeguarding and extension of existing markets has significantly more relevance in the cooperation activities with capital investment. We asked the SMEs whether they had made (substantial) investments in the cooperation activity. This tends to back up the findings relating to incremental internalization of SMEs. Evidently, foreign investments are made following a different, possibly export-oriented form of foreign activity.

These assessments of priority form the basis of our success measurement. In the literature, the success of international alliances by SMEs has only been surveyed and measured in general terms to date. Most of the research reports positive reactions: SMEs are dissatisfied with the achievement of objectives in only one in ten cooperation activities (Kaufmann, 1993; similar to Lubritz, 1998). Satisfaction is often considered a dimension of success, either as complete satisfaction or as satisfaction with qualitative or quantitative business objectives. In our study, we tried to combine these qualitative and quantitative satisfaction factors on a five-point scale (1 = not at all to 5 = to a large extent) and integrated in a combined satisfaction factor. The result is an index of the satisfaction-orientated, foreign success of alliances. This reflects the subjective perception of satisfaction of the managers interviewed.

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**Table 2. Priority of objectives for cooperation activity – t-Tests**

	Relevance of ..		Relevance in cooperation activities	
	Average	Rank	with capital investment (n = 70)	without capital investment n = 92)
Development of new markets	4.09	1	4.03	4.17
Safeguarding/extending existing markets	3.48	2	3.86	3.19*
Cost advantages	3.31	3	3.52	3.14
Utilization of capacity	2.80	4	3.14	2.54*
Experience abroad	2.60	5	2.54	2.64
Synergies	2.51	6	2.54	2.49
Achievement of time advantages	2.44	7	2.43	2.45
Reaction to competition	1.96	8	1.91	2.00
Avoiding restrictions on investment	1.67	9	1.99	1.43*

Key: Assessment on a five-point scale from 5 = to a large extent to 1 = not at all; n = 164. Significance level: \*\* = 0.001; \* = 0.05; + = 0.1.

The correlations to financial success variables is 0.51 and 0.61, respectively, and to the overall success assessment it is 0.71. In our case, the correlations to estimated degrees of satisfaction with the qualitative and quantitative cooperation result overall are similar.

*Problems in initiating cooperation activity*

Also in the present study, existing business relationships and personal contacts are the most common basis for initiating alliances. This tends to confirm that SMEs are less uncertain in alliances with partners they already know. Results relating to the size of partner companies also point in this direction. In two cases out of three, the SMEs cooperate with companies that are smaller or the same size as they are. Nevertheless, the problem areas experienced in finding a partner are rated high in relation. The left-hand columns in Table 3 show significant differences depending on whether or not the company was well acquainted with its cooperation partner beforehand. Finding and assessing a partner and building up a basis of mutual trust is considered less of a problem if the partners know each other well. Knowledge of the partner, however, does not simplify conducting negotiations throughout. Only in the case of negotiations on the form of contract were there significantly fewer problem areas when partners were well acquainted.

The middle columns in Table 3 imply that the differences between alliances with and without capital investment are only slight. Only problem areas in the negotiations had significantly higher ratings in alliances with capital investment.

**Table 3. Problem areas in the initiation phase of international cooperation activities – t-Tests**

	Partner		Cooperation activities		SME	
	well known - yes (n = 92)	well known - no (n = 72)	with capital investment (n = 70)	w/o capital investment (n = 92)	more successful (n = 74)	less successful (n = 84)
<b>Problem areas in finding a partner</b>						
Identifying potential partners	2.84	3.37**	3.13	3.03	2.97	3.21
Assessing potential partners	3.03	3.68**	3.24	3.37	3.16	3.49*
Forming a basis of mutual trust	2.96	3.58**	3.14	3.30	2.99	3.49*
<b>Problem areas in negotiations</b>						
Negotiations on form of contract	2.67	3.30**	2.99	2.91	2.72	3.19**
Negotiations on investments	3.51	3.61	3.80	3.36*	3.54	3.63
Negotiations on assignment of functions	3.80	3.94	3.90	3.84	3.80	3.99

Key: Assessment on a five-point scale from 5 = very many to 1 = no problems at all; n = 164. Significance level: \*\* = 0.001; \* = 0.05; + = 0.1.

First of all, two groups of companies were formed for an initial investigation of the connections between the problem areas in finding a partner and in the negotiations and the success of cooperation activity. Based on the mean in the index values of cooperation success, we can make a comparison of more successful and less successful companies. The mean value was 3.5 on the five-point rating scale. The right-hand columns in Table 3 show that more successful companies have fewer problems in initiating cooperation activities. The mean differences, however, are not particularly high.

*Fit factors and management system factors in cooperation activity*

As part of implementing cooperation activity, SMEs mentioned problems such as clearly assigned functions, smooth coordination or informal extension of cooperation areas. In the survey, the fit factors with the variables stated were queried in two different ways.

First of all the managers were asked about the relevance of the variables when structuring their international alliance. The results are illustrated in the left-hand columns of Table 4. The greatest relevance for fit in alliances is assigned to objective and strategies variables, such as a concordant understanding of quality, market orientation and flexibility, and the long-term objectives. These are followed by structural and partner variables, particularly the importance of the alliance for the partner. Less priority is assigned to the "soft" factors, such as basic values, risk orientation or form of leadership.

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**Table 4. Relevance and perceived realization of fits in international cooperation activities – t-Tests**

	Relevance <sup>1)</sup>		Relevance in cooperation activities <sup>1)</sup>		Perceived realization in SMEs <sup>2)</sup>	
	Average	Rank	with capital investment (n = 70)	w/o capital investment (n = 92)	more successful (n = 74)	less successful (n = 84)
<b>Structure and partner components</b>						
Input of resources	3.28	7	3.49	3.12*	3.46	3.09*
Relevance of cooperation activity	3.61	4	3.88	3.40*	4.00	3.02**
Exit barriers	3.10	8	3.44	2.84**	3.38	2.61**
Negotiating position / control	3.46	6	3.74	3.25**	3.74	3.18**
<b>Objectives and strategies</b>						
Innovation orientation	3.60	5	3.67	3.55	4.12	3.18**
Understanding of quality	4.22	1	4.26	4.18	4.28	3.46**
Market orientation/flexibility	4.01	2	4.29	3.79*	4.03	3.44*
Strategic/long-term objectives	3.78	3	3.94	3.65+	3.95	3.44*
<b>Behavior and culture</b>						
Trust / openness	2.93	9	3.07	2.58**	3.30	2.46**
Risk orientation / security orientation	2.68	12	2.94	2.47*	3.20	2.46**
Basic ethical and moral values	2.94	10	3.20	2.74*	3.53	2.78**
Management / Leadership	2.83	11	3.11	2.61*	3.15	2.52**

Key: <sup>1)</sup> Assessments on a five-point scale from 5 = very important to 1 = not important at all; n = 164.

<sup>2)</sup> Assessments on a five-point scale from 5 = very much to 1 = only slightly; n = 164.

Significance level: \*\* = 0.001; \* = 0.05; + = 0.1.

As the middle columns of Table 4 show, all aspects are of significantly greater relevance to those SMEs that have invested their capital in the alliance. There are significant differences, above all in the structure and partner variables, as well as in those relating to behavior and culture.

In addition to relevance, the companies were also asked how far they perceived realization of the twelve system variables in the alliance in order to obtain statements on their realization and later embodiment (see the two right-hand columns in Table 4). More successful companies always rate the consistency of the variables higher than less successful companies. The differences between the mean values are significant.

### 3.3. Hypotheses tests

The descriptive results do not allow us to make a statement on how intensely the individual factors affect cooperation success. Similarly, the direct and indirect effects on success postulated in Hypotheses 4 and 5 are yet to be investigated. Appropriate tests were conducted differentiating between alliances with and without capital investment.

Figures 3 and 4 show the findings on the basis of multiple regressions for direct success relationships (the "standardized  $\beta$ -coefficients" are shown here) and based on Pearson correlations for indirect effects. Included in the analyses were the variables of the assessments on the status quo of the three management system factors, reduced to a simple average index value, as well as the assessments of the problem areas in finding a partner and in negotiations, i.e. the single assessment on each of the five factors were added together and then divided by the sum of the single assessments.

#### *Success factors in alliances with capital investment*

A substantial direct effect on success of alliances with capital investment is attributed to the structural and partner components, followed by behavior and culture. A non-significant factor is objectives and strategies. Directly relevant to success, but in a negative manner, are also the problems in the negotiations in the initiation phase. The greater the problems perceived in this field, the less successful the cooperation will be. In contrast, the direct effect of the problem areas in finding a partner on success of the alliance is not significant in cooperation activities with capital investment. The quality of the regression analysis can be rated highly.

The relevance of indirect effects underlines the mean bivariate correlation relationships between the problem areas perceived, as well as the three management factors. For example, the problem areas in finding a partner may not affect success directly, but do have significant influence on the objectives and strategies factor, and, above all, on the behavior and culture factor. There are also significant interactions between the problem areas in the negotiations and the behavior and culture factor, followed by the structural and partner components.

The correlations between the three management system factors are remarkable. It was not possible to extract three independent factors. It is much more the case that there are inter-dependencies between structure, strategy and culture. Nevertheless, Hypothesis 2 postulated can be falsified overall for alliances with capital investment in SMEs.

#### *Success factors in alliances without capital investment*

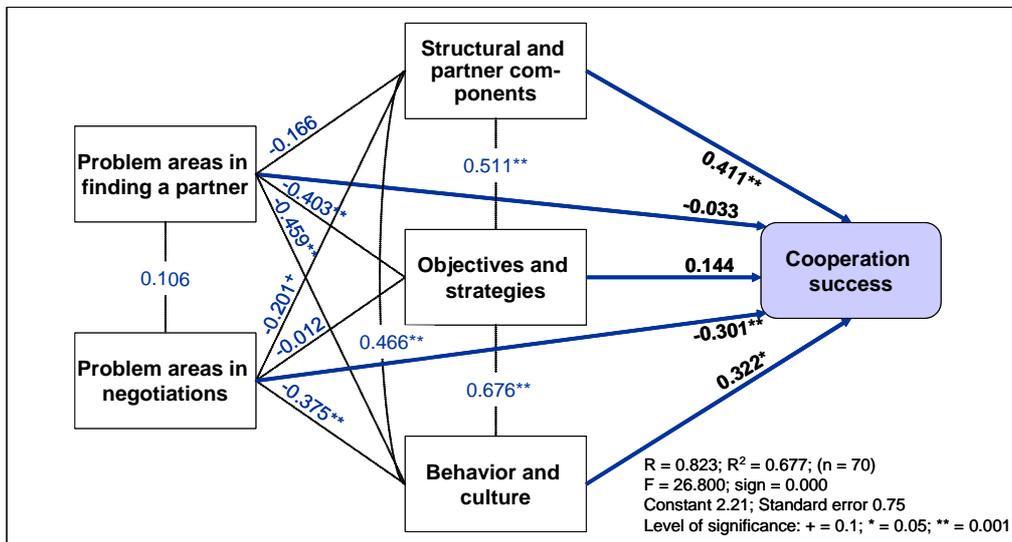
For alliances without capital investments, the success relevance of the structural and partner components predominate. Although, the objectives and strategies and the behavior and cultural factor, respectively, make no significant direct contribution to success. This appears plausible to the extent that no capital investment is made in the alliance so that objectives can differ, and no mutual company culture is

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developed. This also points to threshold effects of the behavior and culture when the cooperation activity was established. The direct contributions to success made by the problem areas in finding a partner and the effect of these problem areas in the negotiations are significant.

A further look at the indirect effects shows correlation relationships between the problem areas perceived in finding a partner and, above all, in the structural and partner components. There are fewer correlations to the behavior and culture factor. In contrast, negotiation problems do not indicate any significant correlations, and thus also fewer indirect effects on the success of alliances without capital investment. In this case, the problems are possibly taken into account in the initiation phase or, in extreme cases, they may lead to the cooperation relationship never materializing at all.

The correlations between the three management factors are high. Hypothesis 2 and 3 can be falsified for alliances without capital investment in SMEs.



**Figure 3.** Success factors in alliances with capital investment

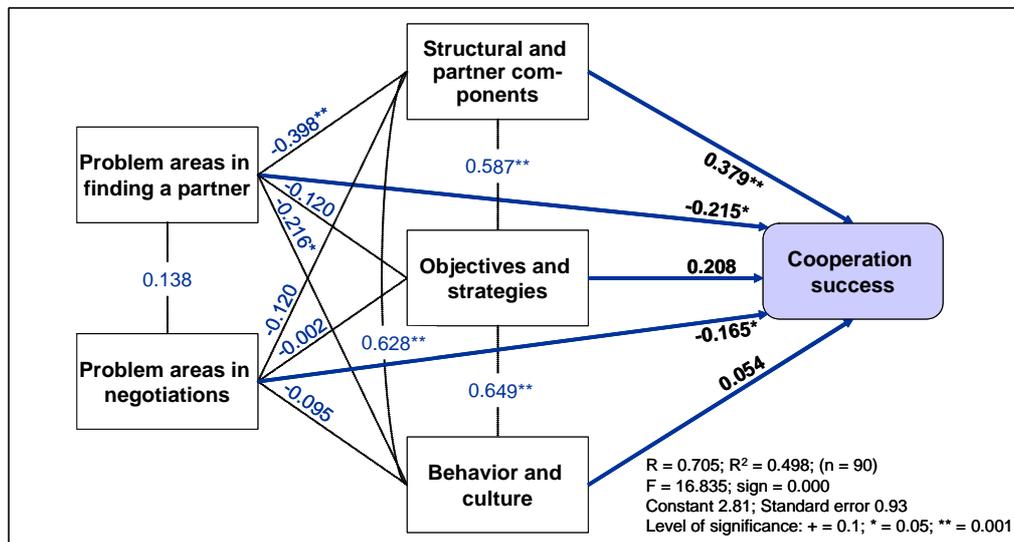


Figure 4. Success factors in alliances without capital investment

#### 4. Discussion of the results and future prospects

With its focus on the relevance of initiation and realization factors for the success of international alliances by SMEs, the present paper attempted to expand the findings on this research complex. In conclusion, the core results and their limitations will be broached and an attempt made to outline an overall model.

##### *Core results and limitations*

With regard to the management system of SME cooperation activities, the contingency-based fit approach proved to be an interesting explanation basis for identification and structuring of the success factors in international alliances. The frame of reference allowed statements to be derived on the success determinants in the initiation and realization phases of SME alliances. The relevance of factors relating to company structure, strategy and culture for achieving the objectives of the alliances were illustrated. At the same time, direct and indirect success effects emanate from the problems in the initiation phase, such as partner search and negotiations. Problem areas in finding a partner have a negative direct effect on success in alliances without capital investment and problem areas in negotiations both on success in alliances with and without capital investment. This could be an argument in favor of SMEs entering into alliances although there are problems in initiation. It is likely that these problems will be identified later and their scope assessed with the benefit of hindsight. Their effect on factors relating to company structure, strategy, and culture is negative.

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The comparison of alliances with and without capital investment leads to high quality of regression in both cases. The differences appear to be plausible.

◆ In the former, the success effect in the model is determined significantly by the structural and partner components, behavior and culture, and negatively by the problem areas in the negotiations on form of contract and investment and on the assignment of functions, i.e. the embodiment decisions. The latter is not surprising, for example in JVs. At the same time, success effects of objectives and strategies, as well as the problem areas in finding a partner, are not significant. The latter is possibly subject to the level observation mentioned, i.e. we are looking here at alliances that had fewer problem areas in finding a partner. The t-Tests indicate this.

◆ In contrast, it is other success factors that dominate in alliances without capital investment. Once again the structural and partner components have a positive effect, followed by a negative effect of problem areas in finding a partner, as well as the negative effect of the problem areas in negotiations. The effect of objectives and strategies, and behavior and culture are not significant. This also appears plausible for licenses or loose cooperation activities. Here, too, minimum level decisions could predominate. This means that, in extreme cases, harmonious objectives and strategies and a harmonious company culture are examined only once when an alliance is initiated, e.g. license-based cooperation. In day-to-day management, this factor is only decisive for critical events and may lead to the end of alliances.

In terms of findings, the limitations should be discussed. As already explained, it would certainly be useful to conduct an ex-post study in this application area on the basis of the subjective manager assessments. In view of the relation between progress in knowledge and economic feasibility, only one manager was asked in each SME and the viewpoint of the partner company was not taken into consideration. Reliability would increase if two managers and dyadic partnerships were surveyed. Limitations relate to the operationalization of variables that are based on only a small number of studies. Compression of the variables into factors proved to be fundamental, for example in the indices, particularly for the fit and problem factors. Here, factor analyses did not provide satisfactory results. In the end, the research reverted to statistical methods with a medium range. Thus, there is still a need to examine the overall model.

Nevertheless, the given modeling can provide a starting point for future research. Further interesting research topics can be formulated, perhaps regarding individual forms of cooperation by SMEs, such as licenses, management contracts, etc. The present analysis provides a basis for venturing a proposal of an overall model.

#### *Overall model for initiation and realization of international alliances in SMEs*

As elaborated in the introduction, many theories provide explanations to analyze partial aspects of cooperation. Besides those mentioned, we should perhaps consider information economics in information management beforehand and during cooperation activities, as well as the games theory when conducting negotiations, and

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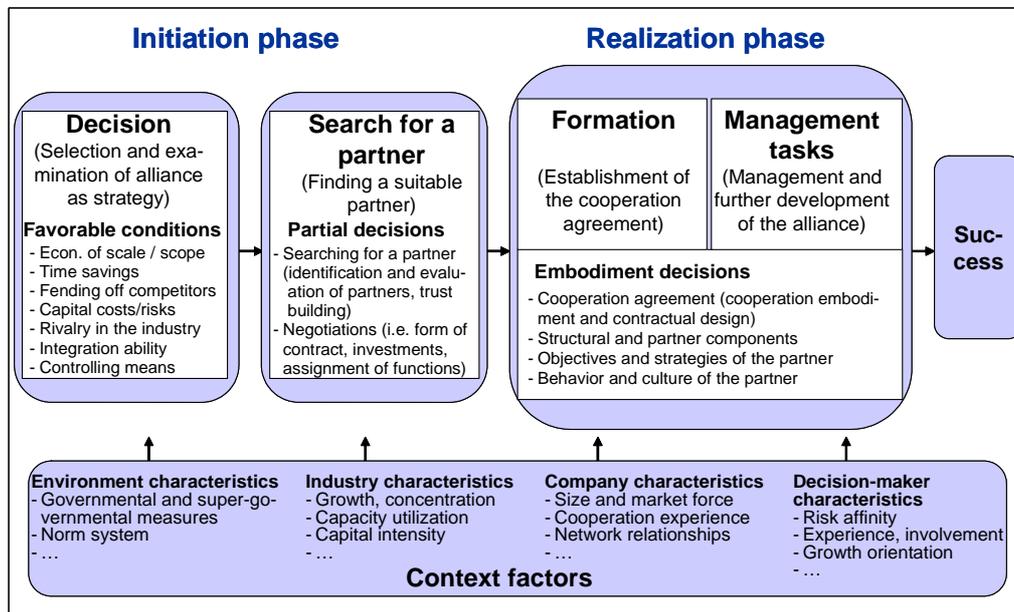
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the agency theory or the theory of social exchanges when considering trust aspects, etc. The following proposal for a phase-oriented international observation is not based strictly on one theory. For reasons of logical argumentation, partial decisions are reviewed once again in the knowledge that these need not always be highly selective (see Figure 5).

As is already evident, the decision to examine alliances as a strategy is ascribed to the theories of strategic management. These advantage conditions were mentioned at the beginning of the present paper. The subsequent partner search was dealt with in this paper in terms of the two partial decisions illustrated. Here, it would be conceivable to investigate further partial decisions, such as the risks and dangers involved in cooperation activity. Theoretical approaches deal with this topic. In addition, the effect of earlier decisions, sources of information, etc., could be investigated from the perspective of learning theory or information economics. Another basis is the mutual trust that should be formed in the forefront between the partners. Finally, it is also conceivable that finding a partner be considered as an integral part of the advantageous conditions in companies when examining cooperation as a strategy.

In the realization phase, the main emphasis is placed on formation and management tasks. Nevertheless, the structural and partial decisions are listed together in Figure 5. This should indicate that the formation and management of cooperation activities are not static, but interact dynamically. While the formation tasks comprise the initial establishment of the cooperation agreement, the structures, strategies and possibly the culture, the management tasks include day-to-day analysis, planning, performance, coordination and control of inter-company cooperation. The present study focuses on congruence of the organizational structure, strategy and culture. As elaborated, initial establishment of the cooperation agreement as a formation task was omitted from the present contribution. This phase comprises subject terms of alliances (e.g. direction and function of cooperation activity, etc.), as well as the contractual form (e.g. the legal framework, financial involvement). In a dynamic perspective, it would be worth taking a closer look at the interrelationships. The fit approach only referred to these changing consistency requirements to a limited extent.

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**Figure 5.** Overall model for phase observation of SME cooperation activities

The significance of context factors was elaborated at the beginning, looking at SMEs and in contrast to MNCs. In terms of content, the ambient factors of a particular market, extending beyond the boundaries of national markets, are of primary relevance in international markets. The examples in Figure 5 include, for example, grant and support programs by various institutions that are tailored to SMEs or linked to specific regions (e.g. developing countries, Audretsch and Elston, 1997). Specific industry characteristics are known that can promote or restrict the tendency towards an alliance and/or generate a need for changes in the management. The two further context factors outline several perspectives. In the company characteristics, it would be possible to distinguish between the perspectives of partnerships and decision-makers, if, for example, several SME owners do not wish to relinquish any controlling and supervisory rights over their company. In contrast, the lack of reputation on the financial markets is often a barrier to raising capital and to international strategies involving substantial capital resources, e.g. acquisitions. Reference is also made to further limited capacities, for strategic planning for example, or gathering and processing information, which are often a hindrance to identification of new markets and opportunities, as well as to more careful calculation of risks. This is particularly serious in small companies that are unable to bear large risks due to their low level of diversification.

All in all, the elaborations should take account of the increasing significance of international cooperation activities for SMEs. Behind the considerations presented,

it is the operative aspects, such as procurement of country information, free management capacity for internationalization, conducting of negotiations, generating trust, etc. that decide these ventures in the end. These aspects are relevant both practically and academically. Many SMEs are lacking these important "tools" to develop and implement an international cooperation strategy.

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