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Does it pay to acquire technological firms? Motives, process and success of corporate acquisition ; experience of German-American firms

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No. 288

**Does it Pay to Acquire
Technological Firms?**

Motives, process and success of corporate acquisition -
experience of German-American firms

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March 1992

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Does it Pay to Acquire Technological Firms?

Motives, process and success of corporate acquisition - experience of German-American firms

1. Introduction

Acquisition of corporations has always been an important activity in the U.S. and other countries. Many large companies have been able to reach their target goal of growth through acquisition of smaller firms. In the early 1900's, firms such as General Motors, General Electric, United States Steel, etc. were born through mergers and acquisitions. (Nelson 1959).

During the late 1970's and the 1980's, we have seen an increased level of mergers and acquisitions. Not only the total number of acquisitions went up during this period, but also the average value of the transactions. Examples of megamergers, involving billions of dollars, are acquisition of

- Conoco Oil by Dupont
- Bendix Corporation by Allied Chemical
- Beckman Instruments by Smithkline
- Celanese by Hoechst
- Inmont by BASF
- Miles Laboratories by Bayer
- Smithkline by Beecham.

Table 1 provides the data on mergers and megamergers in the U.S. during the period 1978-1988.

Here Table 1

German firms have also been active in mergers and acquisitions. Table 2 provides the data on the level of mergers and acquisition activity in West Germany. With the growth of the economy, mergers and acquisitions have become an important part of the economic functions of the firm (table 2).

Here Table 2

The motives for mergers have changed over time. The analysis of the merger movements in the U.S. shows that the early mergers were primarily horizontal in nature, consolidating the monopoly power of the acquiring firm. With increased enforcement of anti-trust regulations, the nature of mergers changed. The mergers in the 1920's and 1930's involved firms with less dominant market power (see Stigler 1950, pp.23-34).

In the late 1960's and the 1970's, we have seen an unprecedented rate of merger activity. During this time mergers and acquisitions have been viewed as the desired means for rapid growth in market, technology, profit, and profitability. Rise of acquisitive conglomerates, such as W. R. Grace, IT&T, United Technologies, Mannesmann, Daimler etc. marks the corporate philosophy of growth via acquisitions. The financial motive to increase profit and profitability through acquisitions has become so dominant in large firms that many have made acquisitions as routine staff functions.

Acquisition has also become an important and quick means to gain access to technology and technical know-how. One can view acquisition as an alternative to in-house technology development through research and development departments.

Acquisition of foreign firms has been an important instrument for foreign investment. Firms in both Germany (West) and the United States have been active in acquiring firms in other countries (see table 3). Although the literature on mergers and acquisitions is vast, it is primarily concerned with financial aspects. Very little attention has been paid to strategic issues related to marketing and technology, and no attention has been paid to cross-national acquisitions. (Kitching 1973).

Here Table 3

In this context this paper focuses on several research questions:

- (a) How do the firms differ in terms of their strategic objectives for foreign acquisitions?
- (b) What are the differences in the characteristics of firms following different strategies for acquisitions?
- (c) What are the determinants of "success" of acquisition when it is aimed at getting access to technology and know-how?

Table 1: Mergers in USA > 100 Mio \$

Index		
1978	80	100
79	83	104
80	94	118
81	113	141
82	116	145
83	138	173
84	200	250
85	270	338
86	346	432
87	301	376
88	369	461

Merril Lynch 1988, p.45

Table 2: Mergers in FRG

Index		
1978	558	100
79	602	108
80	635	114
81	618	111
82	603	108
83	506	91
84	575	103
85	709	127
86	802	144
87	887	158
88	1159	207

Deutscher Bundestag 1989, p.115

Table 3: Industrial mergers in USA and West Germany

Year	Number of U.S firms acquired by German firms	Number of German firms acquired by U.S. firms
1978	14	7
1979	19	7
1980	21	10
1981	15	17
1982	9	21
1983	3	22
1984	5	29
1985	11	31
1986	13	30
1987	10	31
Total	120	205

Süverkrüp (1991) p.14.

Table 4: A survey of the studies
(a) Empirical studies on the goals of direct investments

No. Names	Firms/Investments examined	Results
(1) J.N. Behrmann (Foreign Associates) 1959	115 US firms, direct investments, <u>Time period:</u> mid 50's, various branches of industry, (e.g., processing industry, oil and mining industries)	<u>Frequency distribution of 14 goals</u> By far the most important were: <u>Rank Motive</u> 1 Increased profits 2 Expanded foreign demand or market 3 Nationalism and foreign materials 4 To obtain raw materials 5 Lower costs abroad (labor and better technology)
(2) H.J. Robinson (Motivation) 1961	348 direct investments (including 67 acquisitions) of 178 US firms, 19 European and 8 Japanese firms in 67 countries (apart from the USA) <u>Time period:</u> 1955-1961 26 branches of industry (mostly, processing industry)	<u>Ranking of 18 goals</u> The nine most important motives are: <u>Rank Motive</u> 1 Penetration into a new foreign market 2 Export base for neighboring markets 3 Anticipation of relatively higher profits 4 Availability of skilled labor 5 Maintain sales in the face of tariff barriers or exchange restrictions 6 Lower labor costs 7 Availability of managerial personnel 8 Banking facilities 9 To match or forestall a competitor's move
(3) R.S. Basi (Determinants) 1963	160 US direct investments <u>Time period:</u> End of 50's, various branches of industry	<u>Ranking of 15 goals</u> The five most important motives are: <u>Rank Motive</u> 1 Extent of the potential market 2 Political stability in the foreign country 3 Favorable attitude of the foreign government 4 Expected higher profitability 5 Present extent of the market
(4) D.J.C. Forsyth (US Investment) (1972)	Direct investments of 118 US firms in Scotland. <u>Time period:</u> End of 60's, various branches of industry	<u>Ranking of 16 goals</u> , the dominating motives being: 1-3 Market growth 4 Barriers to trade
(5) J.D. Daniels (Manufacturing Investment) 1971	Direct investments of 40 firms (among them 6 from the FRG) in the USA, <u>Time period:</u> 1954-1967	<u>Important Motives for investment, no ranking</u> - Government restrictions prohibit importation - Consumer pressures to manufacture in the United States - Different product needed for the U.S. market - Cost advantages of U.S. production

No. Names	Firms/Investments examined	Results
(6) E. Pfeil (Deutsche Direkt-investitionen) 1981	76 German direct investments in the USA. <u>Time period:</u> 1951-1979, chemical industry, mechanical engineering, and banks	<u>Ranking of 24 goals</u> The most important are: <u>Rank Motive</u> 1 Sales protection through greater nearness to the market * in the USA and on third markets 2 Size and growth potential of the US market 3 Distribution of risk for the following reasons: * managerial reasons * political reasons * politico-economical reasons * economic reasons 4 Relative stability in the USA 6. US import barriers
(7) B.N. Kumar (USA) 1987	13 direct investments of German middle-sized firms. <u>Time period:</u> not mentioned.	<u>Ranking of motives:</u> <u>Rank Motive</u> 1 The large market potential in the USA 2 Greater possibilities of influencing the market 3 Chance of a better product acceptance 4 Favourable climate for investments 5 Lower costs in the USA than in Germany

(b) Empirical Studies on the goals of acquisitions

No. Names	Firms/Investments examined	Results
(1) G.D. Newbould (Merger Activity) 1970	38 horizontal acquisitions in Great Britain <u>Time period:</u> 1967-1968	<u>Ranking analysis of 12 motives</u> The most important motives are: <u>RankMotive</u> 1 Market dominance 2 Defensive 3 Re-enforcement 4 Diversification
(2) H.I. Ansoff et al. (Merger Activity) 1970	299 national acquisitions of 93 US firms in processing industry <u>Time period:</u> 1946-1965	<u>Ranking of 19 motives</u> The most important motives are: <u>RankMotive</u> 1 to complete product lines 2 to increase market share 3 to utilize existing marketing capabilities, contacts, channels 4 to offset unsatisfactory sales growth in present market 5 to capitalize on distinctive technological expertise 6 to obtain patents, licenses, or technological know-how
(3) B.E. Weber (Übernahme) 1972 (Acquisition)	13 acquiring Swiss industrial companies, <u>Time period:</u> 1965-1970	<u>Ranking of 5 motives:</u> <u>RankMotive</u> 1 Cost reduction 2 Strengthening of market position 3 Product development 4 Growth, scarcity of personnel, common distribution system 5 Common R&D

No. Names	Firms/Investments examined	Results
(4) E. Gimpel-Iske (Vorteilhaftigkeit) 1973 (Advantageousness) 1973	100 predominantly horizontal acquisitions in the FRG, branches of industry: food, textiles, chemicals, mechanical engineering, brewery <u>Time period:</u> 1970-1972	<u>Ranking of three groups of motives</u> <u>RankMotive</u> 1 Cost reduction 2 Product line expansion, diversification 3 Common investments, R&D, increasing financial strength, acquiring know-how
(5) U. Lindgren Foreign Acqui- sitions) 1982	Combination of data from three research projects: a) 26 Subsidiary companies in 12 countries b) two "companies" c) 5 Swedish multinational companies and 11 acquired companies (no further details given)	<u>Ranking of 6 motives</u> <u>RankMotive</u> 1 Market share 2 Growth 3 Distribution network 4 Technology 5 Brand name 6 Cash flow
(6) W.-P. Möller (Erfolg von Firmenzusammen- schlüssen) 1983 (Success of Firm Mergers)	100 acquisitions in the FRG <u>Time period:</u> 1970-1979	<u>Ranking of 17 motives</u> <u>RankMotive</u> 1 Product line completion 2 Increasing market share 3 Entering market with higher growth rates 4 Finding new markets 10 Exploiting specific know-how 11 Keeping in touch with technological development 13 Maintaining a critical mass in R&D
(7) A. Grimm (Motive) 1986	4 national US acquisitions <u>Time period:</u> 1976-1979 Conglomerate mergers, various branches of industry	<u>Identification of four motive groups</u> - Cost reduction - Diversification of risk - Power - Management orientation
(8) A.K. Chakrabarti W.E. Souder (Corporate Mergers) 1987	31 national US acquisitions <u>Time period:</u> 1970's, various branches of industry	<u>Ranking of 10 alternative motives</u> <u>RankMotive</u> 1 to increase profitability 2 to acquire new business
(9) A.L. Link (Acqui- sitions) 1988	146 US Manufacturing firms	Acquisitions are an important source of innovations
(10) G.A. Walter, I.B. Barney (Objectives) 1990	Vague: Without reference to any particular case of acquisitions, respondents were asked to assess the relevance of 20 acquisition goals for "general", vertical, horizontal, concentric and con- glomerate mergers and acquisitions respectively.	Identification of 5 clusters Cluster 1 Mergers are a way managers obtain and exploit economies of scale and scope Cluster 2 Mergers are a way managers deal with critical and ongoing interdependencies with others in a firm environment Cluster 3 Mergers are a way managers expand current product lines and markets Cluster 4 Mergers are a way managers enter new business Cluster 5 Mergers are a way managers maximize and utilize financial capability

- (d) What are the differences between the American and German firms in terms of their acquisition strategies and successes?

Acquisitions have become part of the manager's daily work. Most managers will have to actively solve the acquiring process. But many of them must also be prepared to be acquired. So a closer look into the process and the results of the acquiring process is a new focus for business administration theory.

2. The literature

Literature analysis shows the dominant motives for acquisition that can be divided up into several classes:

- Market and marketing-related motives
- Cost reduction
- Technological know-how
- Financial reasons
- Political reasons

The reasons for investment in foreign countries are also many, as above. Distribution of political risks, opportunities for market growth, lower labour costs, less Union interference, and lower taxes appear to be the most important reasons for investments in the U.S. Table 4 summarizes the studies conducted on motives for acquisition and for investment:

Here Table 4

Our special interest was to get a closer look into the technological motive in the foreign acquisitions. The literature shows that technology is not unimportant, but it ranks only in the middle of the strategic considerations. (Chakrabarti/Burton 1983, pp.81-90). Since technological knowledge is a long-term strategic variable, it seems to be underestimated in the empirical investigations.

3. Data and methods

The empirical investigation of the technological motive needed a two-step procedure:

- The first survey had to identify those acquisitions which were motivated by technological interests.
- The second survey investigated the process and the results of the acquisitions with a special view on the role of research and development.

According to the files of the Bundeskartellamt (German anti-trust office) and to the journal "Mergers and Acquisitions" 325 German-American firm acquisitions could be identified from 1978 to 1987. In 120 cases American industrial companies were entirely or by majority sold to German buyers, in 205 cases German firms were acquired by U.S. companies. This was the basis for the first survey. (For details see Süverkrüp 1991, pp.67-69). A questionnaire was sent out. 86 firms responded: 41 American acquisitions in the FRG, 45 German acquisitions in the USA. Since acquisitions are confidential management activities, the response rate of 26.5 % is rather favourable. The questionnaire survey revealed data about the motives of acquisitions. A cluster analysis resulted in four groups of firms, differentiated by dominant motives (see part 4).

To have a closer look into the process and results of the acquisition, an interview survey was conducted with 30 acquisitions. The basis of selecting these cases involved two criteria: (1) Both companies have R&D units and (2) "Getting access to new technology or know-how" was a prominent motive. In each case there was a dyad of respondents, one in the acquiring unit, the other in the acquired. (Süverkrüp 1991, pp.177-181).

The interview was focused on three types of data: (1) situational factors, (2) management of the acquisition process and (3) the perceived level of success. A factor analysis procedure was used to condense the large number of items.

Table 5

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. Name of cluster	market-oriented entrepreneur	short-term profit seeker	technology acquirer	preemptive market protector
2. Number of firms	$n_1 = 24$ (28.2%)	$n_2 = 22$ (25.8%)	$n_3 = 24$ (28.2%)	$n_4 = 15$ (17.7%)
3. Characteristics	<ul style="list-style-type: none"> - proactive marketing strategy - diversification - proactive response to trade restrictions - take-over of marketing channels - acquisition of new customers - long term growth of market share 	<ul style="list-style-type: none"> - short run sales growth - profitability - low emphasis on technology and marketing 	<ul style="list-style-type: none"> - access to new technology or know-how by cooperation with the R&D department acquired - know-how exchange - use of scientific environment - transfer of R&D activities - availability of scientific personnel - high research productivity 	<ul style="list-style-type: none"> - protection of market position - better defense of technological position through technological transfer
4. Origin of acquiring firms	87.5% German firms 12.5% US firms	27.3% German firms 72.7% US firms	37.5% German firms 62.5% US firms	60% German firms 40% US firms
5. Size	acquiring firms and acquired firms relatively small	acquiring firms and acquired firms relatively small	acquiring firms and acquired firms relatively large	acquiring firms relatively large, acquired firms relatively small
6. Type of industry	low-tech	low-tech	high-tech	high-tech
7. Other remarks		acquiring firms are relatively often conglomerates	variance of size is high. Large firms (chemical industry) were acquired by German firms, small firms by US firms	

4. Results

a) Motives for acquisitions

Table 5 shows the result of the cluster analysis.

Here Table 5

There are four classes of companies that are clearly distinguished by dominant motives for acquisitions:

- Cluster 1, the "market oriented entrepreneurs" are motivated by pro-active strategic marketing and by a political climate providing a greater degree of freedom to pursue entrepreneurial activities. This seems to be a very strong motive for German firms to engage in the USA. Maybe this will be a strategy for American firms with respect to the development of the European common market in the 1980's. The acquiring and the acquired firms are relatively small. The type of industry was mostly characterized as low-tech.
- Cluster 2, the "short-term profit seekers", seek financial growth through increased profitability and sales volume. Compared with the firms of the other clusters they do not emphasize market and technological factors as much. This is a strong motive especially for American firms. Here we find relatively more often the type of a conglomerate acquisition. The acquiring and the acquired firms are relatively small. The type of industry was predominantly rated as low-tech.
- Cluster 3, the "technological acquirers" want to get access to a new technology and know-how. (See Wortmann, 1990, pp.179-181). They want a close cooperation between their R&D departments. They try to develop a common scientific culture. Evidently they do not stress the marketing orientation compared with the other clusters. On first glance the U.S. firms seem to dominate this cluster. But the acquiring and acquired firms differ very much in size. The smaller ones were acquired by smaller American firms, the bigger ones by bigger German firms. The industries were rated as high-tech in a majority of cases.

- Cluster 4, the "preemptive market protectors" want to keep their market position and status ("Besitzstandswahrer"). They have a very clear profile. They invest to keep out the competitors and try to defend their technological position abroad. This is a motive which is more typical for German firms. The acquiring firms are relatively big, the acquired ones small. The industries of acquisitions were generally high-tech.

To sum it up: Our study confirms the finding of the other studies that there are multiple reasons for acquisitions. But compared with the other studies our procedure confirms the orthogonality of the clusters for the first time. Financial reasons are important. But marketing and technological reasons were more important in about 75 % of the cases. We also find that marketing motives should be differentiated between pro-active and re-active categories.

It is interesting to note that the Germans and the Americans differ in these dominant motives for their investment. About three quarters of all the American companies were motivated either by financial or technological reasons. On the other hand, the Germans were more motivated by marketing reasons: two thirds of the German firms belong to the pro-active or re-active marketing clusters.

b) The success of acquisitions

1. Measurement

The success of acquisition was measured in terms of the respondents' perception of performance of the following 5 functions:

- | | | |
|--------------------|---|---------------------|
| - Applied research | } | "technical success" |
| - Development | | |
| ----- | | |
| - Production | } | "economic success" |
| - Marketing | | |
| - Finance, | | |

each ranked on a five-point-scale. The data were factor-analysed and two factors were extracted: One for technical success (Applied research and development) and one for economic success (consisting of the other functions). The two factor scores were used in the correlation and path analysis.

Table 6: Correlations with technical and economical success (direct effects, indirect effects of path-analysis in brackets)

CONTEXT	Success	
	tech.	ec.
<u>General context</u>		
Technological uncertainty	-.32	
Cultural differences	-.30	(-.13)
<u>Specific acquisition context</u>		
Acquisition in the presence of a crisis	(-.23)	
Differences in structure of production	(-.16)	
Buyer's acquisition experience	(-.23)	-.24
Size of both firms	+.40	(-.11)
ACQUISITION PROCESS		
<u>Pre-acquisition activities</u>		
Systematic and intensive search for alternatives	(+.15)	(+.10)
Clarity of objectives and support by experts	(-.06)	+.37
<u>Post-acquisition activities</u>		
Autonomy of acquired firm		(+.19)
Degree of formalization	-.40	
Personal communication		(+.17)
EFFICIENCY OF THE ACQUISITION PROCESS		
Timeliness of integration	+.30	
Quality of interaction between the partners	-.26	
Satisfaction about feedback	+.31	
Conflicts about technological philosophy		-.45

There are many reasons to explain the success or failure of acquisitions as it has been borne out by several studies (Kitching 1967, Ansoff et al. 1971, Sinh/Montgomery 1987, Chakrabarti 1990). We have focuses on five classes of variables which are used to explain the success. These are

- general contextual variables,
- contextual variables specific to the acquisitions,
- pre-acquisition activities which refer to the decision-making process,
- post-acquisition activities involving the implementation and integration,
- efficiency variables of the acquisition process which can be considered as precursors to the final success.

The first four classes of variables were developed through factor-analysis of multi-item scales. The variables of the fifth class were measured directly.

Table 6 shows the significant results. The direct effects are more important. The indirect effects result in interactions between these variables and others which have no direct effects.

Here Table 6

2. The causes of technical success

As table 6 shows, technical success is negatively influenced by the technological uncertainty of the scientific and technical field in which the partners of the acquisition are involved.

The second of the general context variables which is very important is cultural differences. This variable refers to the difference in mentality and attitudes of the employees. Our procedure of sampling and using the dyad-interview technique made it possible to detect the influence of this variable. It is astonishing that this variable is so important even between two countries which belong to the Western economic culture.

The size of both partners of the acquisition is the most important variable in the specific acquisition context. Larger firms are more likely to have technical success because they seem to be better prepared to manage the acquisition decision. Larger firms are also likely to possess critical levels of resources, both financial and human.

There are three additional variables of the specific acquisition context which indirectly influence the technical success. Their influence is comparatively weak. But they give some hints for closer investigation in further research:

- Acquisition of a firm in crisis may appear to be cheap - but as we see, the acquiring firm can also inherit the crisis.
- If there are differences in the technology of the production the firms try to bridge the differences by a higher degree of formalization. This will decrease the probability of technical success.
- Firms with prior acquisition experience may tend to develop a "standardized" approach to solve the integration problem. This leads to higher formalization without appreciating the individual and situational challenges.

There are only two indirect effects in the pre-acquisition phase which contribute a rather small explanation of the variance. Moreover, they seem to be ambiguous, because the rationality of problem solving would not only ask for a systematic search of alternatives (which is confirmed) but also for clear objectives and expertise (which is not confirmed).

The degree of formalization has a direct negative impact on technical success. This seems to be the key factor for success or failure of acquisitions. Increased level of formalization moves away the locus of decision-making authority from the locus of technological creativity. In case of acquisitions involving people situated at opposite sides of the Atlantic the problem becomes irreconcilable. Bureaucracy will induce the creative genius to leave - at both sides of the Atlantic.

The quality of integration is measured in terms of "timeliness", that is the degree of fulfilling the expectation on a time scale. This process variable corresponds with the final results - at least at the technical level.

The satisfaction with the scientific feedback could be understood as a proxy-variable for success. But it indicates more: It is an indicator for an open, confident, and permanent interaction of both R&D teams.

It is surprising that the inter-firm communication is negatively related with technical success. We suspect that the respondents might have interpreted the quantity of communication as quality. This variable might have overly emphasized formal interaction.

Our study gives us more information about negative than about positive impacts of technical success. It seems that we know more about what should be avoided rather

than what should be done. And last not least: The strong positive influence of size is beyond the acquisition manager's disposal.

3. The causes of economic success

The causes of economic success are closely related to the acquisition process. Out of the general context variables cultural differences have the same expected negative influence on the economic success as on the technological success.

The experience with prior acquisitions also has a negative impact on economic success. This may be due to a specialization through which "... many operating executives who will manage post-merger integration are not included in the analytical process." (Haspeslagh/Jemison 1987, p.56). Once again one may argue that the experience with a certain acquisition is not transferable to the next one. Each acquisition needs its own attention. It is not a routine job.

It is surprising that the size of the firm which has a positive influence on technological success has an indirect negative influence on economic success. Although the financial and organizational capacity of big firms might help to increase the technological success, it can be shown that the probability of having other types of conflict including the technological ones will rise.

It is striking that the good old postulates in the decision-making literature - the clarity of objectives and the expertise - have such a strong relationship to economic success. It is important to note that the events in the beginning of the acquisition are critical for its subsequent success (Jemison/Sitkin 1986, pp.145-163). Deficiencies in the first phase cannot be compensated in later phases. This finding contains a clear warning against spur-of-the-moment chances: A favourable exchange rate does not substitute careful analysis. The indirect effect of the search for alternatives points into the same direction.

With increasing autonomy of the acquired firm the economic success of the acquisition will grow. This goes back to a reduced level of conflicts about the technological philosophies. Datta/Grant (1990) argue that the "... autonomy ... can help keep alive the commitment, enthusiasm, and creativeness among acquired firm managers - factors that might have made the firm attractive in the first place." (p.40) As we see, the personal communication between the two partners of acquisition may lead to the same effect.

Table 7: Success of acquisition by nationality of acquirer

Technological success

	low	high	
US firms	6	6	12
German firms	6	12	18
	12	18	30

Economic success

	low	high	
US firms	5	7	12
German firms	10	8	18
	15	15	30

Conflicts of technological philosophies between the partners of the acquisition have the strongest negative impact on economic success. We note that these conflicts have little effect on technological success. This anomaly can be explained by the argument that these technological conflicts have a delayed impact on the economic success. The profit is manifested economically in a later stage. This is the time when the production and marketing managers take over from their R&D colleagues and closer integration is required.

4. National differences

Do the American or the German acquirers perform differently? Table 7 shows the results:

Here Table 7

The general answer is: No. However, the German firms seem to be more likely to be technologically successful, whereas the American firms have a slight tendency towards economic success. But the χ^2 -test is not significant. Discriminant analysis indicates the same result.

The management of acquisition appears to be equally difficult on both sides of the Atlantic. No nation holds the exclusive right to better manage the process. The quality of management itself is more important than the nationality of the acquiring firm. It confirms the finding of Chakrabarti (1990, p.) that one should treat acquisitions as a "patient investment" to realize success in the long run.

5. Summary and conclusions

Acquisition business is growing in importance as well in numbers of cases as in size of firms. External growth has become an accepted corporate strategy. Globalization has changed to acquisition of foreign firms on both sides of the Atlantic Ocean.

According to economic theory the reason for going abroad is profit. Are there other reasons, more or less related to profit, to acquire firms abroad? How successful is the acquiring business? How should the acquiring process be managed to be successful? To find some answers to these questions our survey had to go into both countries and to investigate both acquiring and acquired firms.

In the first research step 86 companies responded to a questionnaire which provided us with information about the motive-structure. Four types of firms could be identified: Market oriented entrepreneurs, short-term profit seekers, technological acquirers, and preemptive market protectors. Compared to the existing literature our findings go beyond the ranking lists of motives and give detailed information about the strategic differences among firms.

Obviously, the American acquirers are guided by financial motives to a much higher extent than the Germans. The Germans, on the other hand, pursue pro-active marketing objectives. According to Miller (1990, pp.11-15) emphasis on short-term results is much more severe in the 1990's than it has been a decade or two ago. The r&d managers in large companies see the greatest penalty from that emphasis falling on r&d projects of a long term nature. Is this the reflection of the typical MBA-culture of the American management of the 1980's? On the other hand: Were the German firms in an anti-business atmosphere stimulated by desire to pursue their entrepreneurial activities in a politically less restricted environment in the early 1980's?

Acquiring of technology is important for firms of both nations, for the American firms in terms of number of acquisitions, for the German firms in terms of the size of acquisitions. The technological motive is evidently growing in importance and it is not a national privilege.

The protective group is the smallest cluster, there are no significant national differences.

In a second research step, we investigated more closely those acquisitions in which the access to technology was one of the main motives. 58 interviews involving 30 cases focused on context, process, and success of the acquisition. The first impression is that the differences and the uncertainties in culture, technical philosophy, and structure of production are important barriers against technological success. These barriers can be overcome especially by large firms with strong financial, organizational, and personal capabilities. But if these large firms impose a restrictive formalization on the acquired firms the technological success will be in danger again.

The economic success is only partly connected with technical success. Profit will appear later and under other circumstances than technical success. If the

cooperation reveals differences in the technological philosophy, the success will decrease. These negative effects can be overcome through deliberate development of clear goals, use of internal and external experts, and to a certain extent through careful decision-making. But this does not mean that there is a standardized procedure for managing acquisitions universally applicable.

Autonomy of the acquired firms is a favourable condition for economic success. It can be supplemented by open, confident and mutual communication.

It is appropriate management which makes an acquisition successful, not the nationality of the acquiring unit. At most there is a slight tendency for the German companies to achieve a better technological success.

Caveat: Our investigation on success is based on personal perceptions in retrospect. We tried to confirm the validity through dyad-interviews in the acquired and the acquiring firms. But this procedure leaves open whether other members of these firms perceive and evaluate the acquisition in the same way as the interviewee.

Acquisition is a very sensitive and confidential activity. It is difficult to have the managers to cooperate. It is even more difficult when a study involves two different countries across the Atlantic. So, a 58 cases investigation is a reasonable number for an explorative study. One needs to follow up with a larger sample size to test the hypotheses.

6. Literature

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Does it Pay to Acquire Technological Firms?

Motives, process and success of corporate acquisition - experience of German-American firms

Abstract

Acquisition of corporation has always been an important activity in the U.S. and other countries. The motives for mergers have changed over time. Acquisition has become an important and quick means to gain access to technology and technological know-how. Acquisition of foreign firms has been an important instrument for foreign investment. Very little attention has been paid to strategic issues related to marketing and technology, and no attention has been paid to cross-national acquisitions.

The paper focuses on several research questions:

- How do the firms differ in terms of their strategic objectives for foreign acquisitions?
- What are the differences in the characteristics of firms following different strategies for acquisitions?
- What are the determinants of "success" of acquisition when it is aimed at getting access to technology and know-how?
- What are the differences between the American and German firms in terms of their acquisition strategies and successes?

Our special interest was to get a closer look into the technological motive of the foreign acquisitions. The literature shows that technology is not unimportant, but it ranks only in the middle of the strategic considerations. Since technological knowledge is a long-term strategic variable, it seems to be underestimated in the empirical investigations. To find out about the technological motive we needed a two-step procedure:

- A first survey had to identify those acquisitions which were motivated by technological interests through a questionnaire survey of 86 firms.

- A second survey investigated the process and the results of acquisitions with a special view on the role of research and development through interviews in 30 acquisition cases in both acquiring and acquired units..

There are four classes of companies that can be clearly distinguished by dominant motives for acquisitions:

- Market oriented entrepreneurs
- Short-term profit seekers
- Technological acquirers
- Preemptive market protectors.

It is interesting to note that the Germans and the Americans differ partly in these dominant motives for their investment.

The success of acquisition was measured in two dimensions: technical success and economic success.

There are five classes of variables which are used to explain the success. These are

- general contextual variables,
- contextual variables specific to the acquisitions,
- pre-acquisition activities which refer to the decision-making process,
- post-acquisition activities involving the implementation and integration,
- efficiency variables of the acquisition process which can be considered as precursors to the final success.

The results are shown and discussed.