
Implementation hurdles of ECR partnerships – the German food sector as an ECR case study

Stefan Borchert

The author

Stefan Borchert was a Research Assistant, Department of Distribution and Retailing at the Marketing Center of the University of Münster, Germany, and is a Category Manager at a leading European dairy company.

Keywords

Channel management, Consumer marketing, Food industry, Small to medium-sized enterprises, Marketing strategy, Germany

Abstract

In consumer goods distribution, cooperative strategies are increasingly being used with respect to logistics and marketing within the context of efficient consumer response (ECR) between manufacturers and retailing organisations. In practice, with the aid of an explorative factor analysis four barriers to implementation arise, which impact mainly on small and medium-sized companies, so that an industry-wide implementation of such cooperative strategies is not possible. A detailed empirical study, which spans the entire value chain of the German food distribution, reveals implementation problems and reasons for abandoning attempts at ECR partnerships. These factors exert a different impact on small and medium-sized companies as compared to the major food companies.

Electronic access

The research register for this journal is available at <http://www.emeraldinsight.com/researchregisters>

The current issue and full text archive of this journal is available at <http://www.emeraldinsight.com/0959-0552.htm>

Since 1994, it has been appropriate for the traditional distribution channels for consumer goods, in many instances, to be reconstructed radically under the name of efficient consumer response (ECR), to make it possible for businesses to overcome, in a cooperative venture, the existing confrontation between manufacturer and trade (see Ahlert and Borchert, 2000, p. 5; Friedrich and Hinterhuber, 1999, p. 2). Instead of negotiating prices, conditions and isolated sales promotion, the expectations of consumers could be satisfied faster, more effectively and less expensively by adjusting integrative marketing and logistical processes. In ECR cooperations, the legally and economically independent manufacturers and trading companies coordinate their efficient replenishment, assortment, promotion and product introduction. This vertical partnership is intended to prevent inefficiency resulting from uncoordinated or even conflicting tasks by reconstructing processes, organizational structures and job sharing within the distribution channel.

Even though the integrated concept of ECR partnerships in marketing and logistics in Germany was first initiated in food distribution, the effectiveness threshold of this sector does not yet seem to have been reached: In the sixth year of ECR implementation many food companies have participated in cooperative ventures, but their success has been only moderate according to empirical studies. The survey questioned food companies, producers and retailers (referred to the generic term “grocers” in the following sections), which offer food and non-food items as well as marketing (merchandising), logistics and IT service companies. It reveals that small grocers with a turnover of less than 200 million euros a year do not participate in ECR partnerships as frequently as large grocers in Germany and that they also evaluate the ECR partnerships very critically:

Particularly, firms small and medium-sized do not feel represented by the key players.

The revised English version of this paper was translated and edited by Brian Bloch. The author is also grateful to Dr Bloch for his comments and suggestions relating to the clarity and precision of the text.

This paper is based on his doctoral dissertation “Management of distribution networks”, published at Deutscher Universitaetsverlag, Wiesbaden, 2001.



ECR means a handful of dollars only for a handful of large firms. The others get nothing out of it (Hallier, 1999, p. 58).

Are large manufacturers and distributors of brands more heavily represented with respect to successful ECR participation?

SMEs as outsiders to cooperative distribution strategies such as ECR?

Some insight into the status quo of food distribution is provided by a sample of the 108 responding grocers mentioned in the evaluation. The sample includes 70 producing companies with a turnover of 54.2 billion euros in 1999, 27 retailers (58.6 billion euros turnover) and 11 marketing, logistics and IT service companies (13.8 billion euros turnover). Thus, 30 percent of Germany's turnover by manufacturers and merchants is included in the evaluation. Of the responding companies, 70.7 percent are ECR partners (ECR-participation). The employees of these companies give their views on the implementation problems, while the other companies give reasons for not realizing ECR partnerships. The participating companies can be divided into two specific groups of about the same size:

- (1) small and medium-sized companies with up to 200 million euros turnover a year; and
- (2) large companies with more than 200 million euros turnover a year.

Such a division only considers one characteristic of size, the yearly turnover, but it facilitates the observation of size factors influencing the decision for or against an ECR participation in all links of the grocery value chain.

Against the background of concentration tendency in German food distribution, it is not surprising that more of the merchants who completed the evaluation form are large companies (73.1 percent of all answering merchants), while for the manufacturers 40.3 percent are SMEs and 59.7 percent large. Figure 1 shows the ECR participation of grocers according to company size: compared with the total distribution of consumer goods the participation rates of grocers in ECR cooperations is 8–10 percent higher than the average (Borchert, 2000, p. 56). This also shows the initiative within the food industry in terms of ECR cooperations that have been established by

manufacturers and merchants since 1994 and have been extended to other fields of consumer goods distribution. While only about half of the SME grocers join ECR cooperations, 84.5 percent of the large companies do so.

Three out of four of the responding ECR experts state that they belong to the five leading companies in terms of competitive position among ECR grocer participants. A total of 53.3 percent of the non-participating companies are not among the ten leading companies in the market. These data show that ECR cooperations are achieved especially by large and leading companies within the German food distribution market.

Satisfaction status within ECR partnerships

The success rating of implemented strategy components by ECR experts with respect to goal achievement proves to be quite varied in all value-added stages of food distribution. Figure 2 shows that the success rating of operative strategy components is mostly positive, especially of the supply side (arithmetic mean of 2.4 to 2.7 on a scale of 1 = very successful and 5 = failure).

The more strategic-marketing-oriented instruments of sales promotion, product introduction and especially of product development, were only rated as average with a tendency towards failure (arithmetic mean of 3.1 to 3.5). Viewing the success rating in terms of size, one can see the evaluation of the ECR strategies by small and medium-sized grocers. The estimates of almost all partial strategy components prove to be more negative when judged by an SME agent than by an agent of a large company. Altogether, the ECR transformation in SMEs, with a mean of 3.3 and the tendency towards failure, is classified more negatively than in large companies (2.7), which reveals a tendency to succeed.

Size-based reasons for non-implementation of and for transformation problems in ECR cooperations

With respect to non-participation in ECR partnerships by grocers (ECR outsiders), even though one could expect potential for greater efficiency in distribution strategies and

Figure 1 Participation of grocers in ECR cooperations by company size (n = 99)

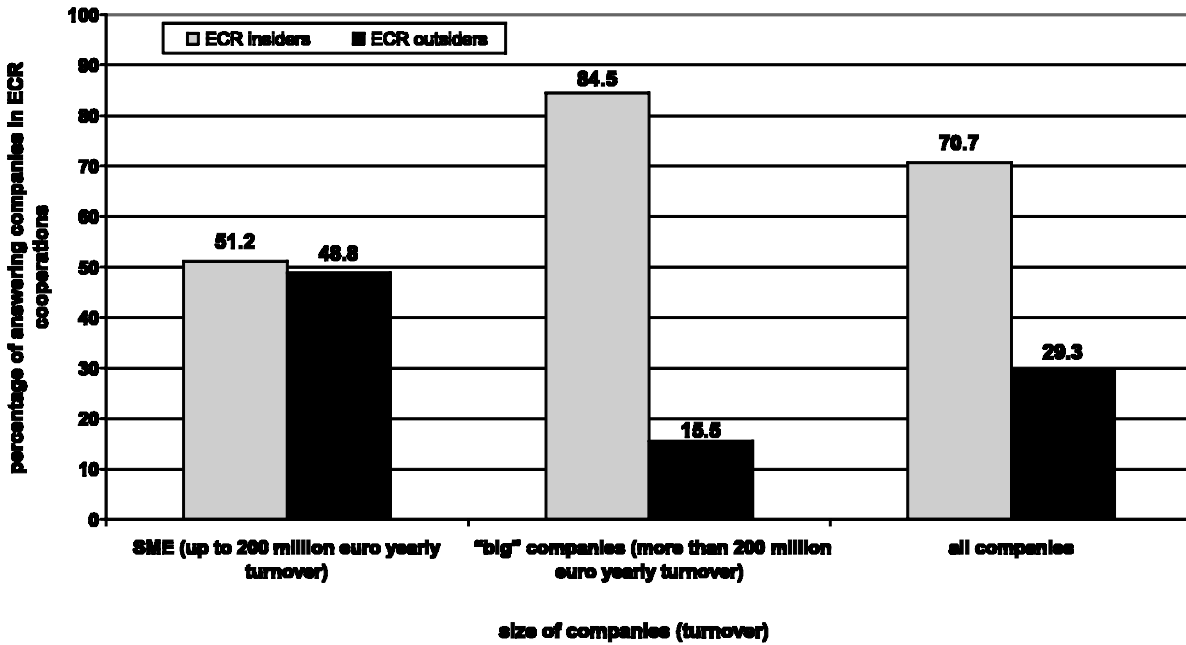
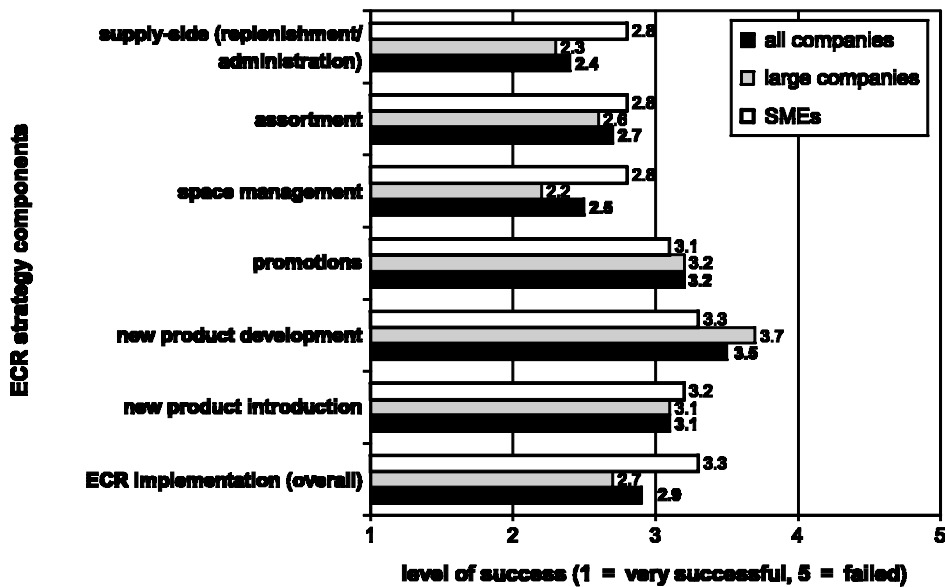


Figure 2 Success level according to ECR experts with respect to company size (n = 42-85)



channels because of industry concentration, we first of all consider the reasons for non-implementation and the transformation problems of ECR cooperations. We screened deficit items from the instrumental application of ECR partnerships, as well as the interorganizational coordination of the company units. The following information shows the values for deficiency items, based on the arithmetic mean on a scale of 1 = very strong to 5 = very weak. Therefore, a low mean indicates a high level of significance of

the deficit item for non-implementation or for implementation problems. This provides a ranking of various problems determined by the arithmetic mean and by the percentage of the rated aspects from high to very high significance (agreement on the first and second marking on the scale).

Reasons for non-implementation

Over all ECR cooperative ventures, one can stress five most important reasons for non-implementation and for transformation

problems: ECR partnerships are often not implemented, because of the coordination problems between the participating companies, experienced by ECR experts.

Table I shows, with regard to differentiating by business size, that the implementation hurdles for SMEs overlap with those for large companies and therefore with the implementation hurdles of all grocers. The fact that such problems show a level of significance of 0.6 scale units of the mean higher for SMEs than for large companies is, however, important. Yet, various reasons for non-implementation were accorded a high ranking by representatives of SMEs and large companies.

Table I explains that the main reasons for non-implementation given by SMEs are communication deficiencies within the corporate infrastructure. Also, organizational and instrumental coordination deficiencies rank high. The main reason for non-implementation of large companies is a lack of informal contact.

Other important reasons for non-implementation are the inclusion of all companies of the value chain in ECR cooperations as well as the exploitation of power imbalances by the cooperation partner. All in all, the size-dependent coordination and transaction-related problems among the companies are conspicuous reasons for non-implementation of ECR cooperation ventures.

Transformation problems of ECR partnerships

On the one hand, the transformation problems of companies in ECR cooperations relate to organizational coordination, lack of institutionalized interfaces, a lack of process-oriented category management organization and lack of standardized category management methods and tools (overall arithmetic mean 2.81–2.94, 40.3–48.5 percent agreement). On the other hand, one has to consider transaction problems between ECR cooperations, such as a lack of reciprocity (exploited, 2.88, 46.1 percent) and power imbalances between the partner (2.93, 45.3 percent). Almost every second grocer considers these problems to be significant in terms of implementing an ECR cooperation (for detailed information see Borchert, 2001).

Factors derived from implementation hurdles for ECR cooperations

The reasons for abandoning or encountering difficulty, which were discussed descriptively, can be coalesced or compressed into four implementation (problem) factors with the aid of an explorative factor analysis. How can the variables, loaded on one factor, be subsumed into a generic, overall component? This refers to the 25 investigated implementation and abandonment problems within ECR cooperations, which must be coalesced into internally homogeneous groups of deficit aspects, and can be

Table I The five most important reasons for non-implementation of ECR cooperations according to company size

	Arithmetic mean	Percentage of stated factors accorded the highest significance/agreement
<i>The five most important reasons for non-implementation of small and medium-sized enterprises</i>		
Insufficient standardization and communication infrastructure	2.10	59.9
Insufficient informal contacts among employees of companies in ECR cooperations	2.42	52.7
Inadequate process-oriented category management organization	2.47	58.8
Lack of standardization of methods/tools of category management	2.53	58.8
Lack of organizational institutionalization of the interfaces	2.63	52.6
<i>The five most important reasons for non-implementation of large companies</i>		
Insufficient informal contacts among employees of companies in ECR operations	2.0	88.9
Non-integration of all companies participating in the value chain into ECR cooperations	2.25	62.5
Disregard of the principle of confidence in ECR cooperations	2.38	62.5
Lack of organizational institutionalization of the interfaces	2.50	62.5
Exploitation of power imbalances by the cooperation partner	2.56	55.5

Note: (*n* - 83-104)

categorized with as definitive as possible an overall concept[1]. Table II, in the notes, shows the four factors and their loadings for the implementation and abandonment problems, characterized by the investigating variables:

Deficit aspects from the first derived factor:

- Lack of participation of additional suppliers/buyers (“critical mass problem”) (factor loading 0.776).
- Insufficient standardization of methods/tools for category management (factor loading 0.756).
- Unstable cooperation through lack of binding written agreement (factor loading 0.745).
- Lack of control of value-chain phases or levels (by a central coordinator) (factor loading 0.694).
- Inadequate “implementability” of category management concepts (factor loading 0.561).
- Lack of control and authority over partner enterprise/s (factor loading 0.463).

This first factor links deficit items which, in addition to the descriptive results from the previous section, can be regarded generally as

coordinative and organizational deficits of ECR cooperative agreements.

The second factor groups the following items with their respective factor loadings:

- Insufficient competence (skills) and know-how of partner enterprise/s (factor loading 0.825).
- Lack of top management commitment in partner enterprise (factor loading 0.727).
- Misuse of power (power plays) by cooperation partners (factor loading 0.590).
- Lack of process-oriented category management (factor loading 0.466).

This second factor groups, above all, those deficit items which are associated with the behaviour of a particular partner enterprise within an ECR cooperation. In the following section, it will be referred to as the partner deficit factor.

The third factor incorporates the following deficit aspects with their factor loadings:

- Insufficient integration of retail brand leadership within category management (factor loading 0.763).
- No communication of brand/product-assortment strategy of partner enterprise/s (factor loading 0.636).

Table II Rotated component matrix of factor analysis with respect to the deficit items

Deficit item (implementation problem or reason for abandoning from ECR cooperation)	Component (factor)			
	1	2	3	4
Lack of participation of additional suppliers/buyers (critical mass)	0.776			
Insufficient standardization of methods/tools for category management	0.756			
Unstable cooperation because of lack of binding written agreement	0.745			
Lack of control of value-chain phases or levels (by a central coordinator/focal firm)	0.694			
Inadequate “implementability” of category management concepts	0.561			
Lack of control and authority over partner enterprise(s)	0.463	0.459		
Insufficient competence (skills) and know-how of partner enterprise(s)		0.825		
Lack of top management commitment in partner enterprise		0.727		
Misuse of power (power plays) by cooperation partners		0.590		
Lack of a process-oriented category management-organization		0.466		
Insufficient integration of retail brand leadership within category management			0.763	
No communication of brand/product-assortment strategy of partner enterprise(s)			0.636	
No category-captain function by a particular enterprise			0.598	
Failure to integrate all enterprises that are part of the value chain	0.506		0.553	
Insufficient innovation potential of partner		0.513	0.533	
Lack of informal contact between employees of the cooperating enterprises			0.486	
Lack of competence and know-how on the part of employees within one’s own enterprise				0.855
Lack of top management commitment of own enterprise				0.805
Insufficient turnover or potential turnover of own enterprise				0.695

Note: Extraction method – principal component analysis; rotation method – varimax with Kaiser normalisation; the rotation was converged in seven iterations (Janssen and Laatz, 1999, p. 443)

- No category-captain function by one particular enterprise (factor loading 0.598).
- Failure to integrate all enterprises that are part of the value chain (factor loading 0.553).
- Insufficient innovation potential of partner, for example, with product or operational concepts (factor loading 0.533).
- Lack of informal contact between employees of the cooperating enterprises (factor loading 0.486).

These items indicate interaction deficits in the implementation of ECR cooperation, particularly in the category management area. This factor will be referred to as the ECR interaction deficit factor.

The fourth factor incorporates the following items with their respective factor loadings:

- Lack of competence and know-how on the part of employees within one's own enterprise (factor loading 0.855).
- Lack of top-management commitment of own enterprise (factor loading 0.805).
- Insufficient turnover or potential turnover by own enterprise (factor loading 0.695).

Those items which refer to deficits within one's own enterprise are loaded on to this factor. Thus, this final factor is referred to as the own-enterprise deficit factor.

These four factors which impede ECR cooperation can, in principle, be overcome by establishing distribution networks, particularly in the context of small and medium-sized companies. This is conceptualized in more detail in the mentioned dissertation (Borchert, 2001).

Conclusion

The study empirically demonstrated prevailing reasons for non-implementation and problems of implementation within ECR partnerships in the German food distribution industry. Closer observation of size-related issues shows the relative weakness of SMEs compared with major grocers. The size-related problems can be condensed into hindrance factors, as well as into coordination, interaction, partner and own-enterprise deficits. The majority of the problems discussed could be solved by entry of SMEs into distribution networks, which

deserves further academic and practical research in the field of multilateral cooperation management.

Management summary

In consumer goods distribution, cooperative strategies are increasingly being used with respect to logistics and marketing within the context of ECR between manufacturers and retailing organizations. In practice, barriers to implementation arise, which impact mainly on small and medium-sized companies, so that an industry-wide implementation of such cooperative strategies is not possible. A detailed empirical study, which spans the entire value chain, reveals implementation problems and reasons for abandoning attempts at ECR partnerships. These factors exert a different impact on small and medium-sized companies compared with the major food companies. In the context of an explorative factor analysis, these deficits can be allocated to the following implementation-barrier factors:

- *Network deficit factor.* Insufficient cooperation, control and authority at all stages of the process throughout the value-chain, as well as a lack of standardization and practical viability of ECR processes and strategy components.
- *Partner deficit factor.* ECR implementation factors caused by insufficient skills (competencies), know-how, top-management commitment, process organization and power plays by partners.
- *ECR interaction deficit factor.* Conceptual deficits within ECR partnerships such as failure to assume a category captain function or to communicate brand or product (assortment) leadership strategies to a partner enterprise and a lack of integration of all enterprises into the value chain affected by ECR processes.
- *Own enterprise deficit factor.* A lack of skills, know-how, top-management commitment and exploitation of turnover potential in ECR implementation.

The majority of the problems discussed could be solved by entry of SMEs into distribution networks, which deserves further academic and practical research in the field of multilateral cooperation management. For further research from this point of view see the dissertation by Borchert (2001).

Note

- 1 The following results, based on Table II, are derived from a factor analysis applied in SPSS with the following parameters to all food retailers:
- The selection of those variables which fulfil the Kaiser-Meyer-Olkin criterion as an evaluative magnitude with an $MSA \geq 0.5$ according to an anti-image correlation matrix.
 - Extraction method: principal component analysis.
 - Rotation method: rectangular varimax rotation with Kaiser normalisation, protected by the independence premises of the factors.
 - Determination of the number of factors by scree-plot (four factors) before the bend in the curve (Bortz, 1999, p. 528).
 - Evaluation of the validity of the factor analysis with the aid of the variance (62.6 percent) of the Kaiser-Meyer-Olkin criterion (KMO) over all factors (0.662) as well as the factor stability (FS):

$$FS = 1 - \left(1.10 \cdot \frac{1}{\sqrt{n}} - 0.12 \cdot x + 0.066 \right) = 0.84$$

where

- n = the number of integrated data items and
- x = the minimal loading value which is considered in the factor interpretation.

According to Backhaus *et al.* (1996, p. 205) as well as Bortz (1999, p. 507), factor analyses with a KMO = 0.5 and a factor stability of ≥ 0.8 are valid. With $n \geq 54$ according to the variable selection and accompanying data items, the following factor analysis reveals a middle value (Dziuban and Shirkey, 1974, p. 359; Stewart, 1981, pp. 56-9).

References

- Ahlert, D. and Borchert, S. (2000), *Prozessmanagement im vertikalen Marketing (Efficient consumer response (ECR) in Konsumgüternetzen)*, uaO, Berlin.
- Backhaus, K. *et al.* (1996), *Multivariate Analysemethoden*, 8th ed., uaO, Berlin.
- Borchert, S. (2000), "Mittelständler haben Nachholbedarf", *Lebensmittelzeitung*, June, p. 56.
- Borchert, S. (2001), "Führung von Distributionsnetzwerken", in Ahlert, D. *et al.* (Eds), *Unternehmenskooperation und Netzwerkmanagement*, Deutscher Universitätsverlag, Wiesbaden, at the same time dissertation at the University of Münster, Germany.
- Bortz, J. (1999), *Statistik für Sozialwissenschaftler*, 5th ed., uaO, Berlin.
- Dziuban, C.D. and Shirkey, E.C. (1974), "When is a correlation matrix appropriate for factor analysis?", *Psychological Bulletin*, Vol. 81 No. 6, pp. 358-61.
- Friedrich, S.A. and Hinterhuber, H.H. (1999), "Wettbewerbsvorteile durch Wertschöpfungspartnerschaft – Paradigmenwechsel in der Hersteller-/Handels-Beziehung", *Wirtschaftswissenschaftliches Studium*, Vol. 28, No. 1, p. 2-8.
- Hallier, B. (1999), "Wird ECR zum Club der Großen?", in von der Heydt, A. (Ed.), *Handbuch Efficient Consumer Response – Konzepte, Erfahrungen, Herausforderungen*, Munich, pp. 55-61.
- Janssen, J. and Laatz, W. (1999), *Statistische Datenanalyse mit SPSS für Windows*, 3rd ed., uaO, Berlin.
- Stewart, D.W. (1981), "The application and misapplication of factor analysis in marketing research", *Journal of Marketing Research*, Vol. 18, February, pp. 51-62.