Value-adding partnerships and co-opetition models
in the grocery industry

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Abstract Leading representatives of the European grocery industry formed the European Efficient Consumer Response (ECR-)Initiative in 1995. The goal of this strategic alliance is set to reengineer the way business is done in the industry by implementing cooperative strategies between retailer and manufacturer in order to fulfill consumer wishes better, faster and at less cost. ECR appears thereby in many facets, from a ‘simple’ dyadic value-adding partnership to a sophisticated form of co-opetition, where Supply Chain members have both relationship types – competition and cooperation – at the same time. Our paper discusses these issues first on theoretical bases and then presents empirical results of a comprehensive analysis within a selected European ECR-initiative showing the success factors of managing ECR-partnership relations.
Introduction

The European grocery industry is embedded in a dynamic environment, where product managers are facing changing markets affected by the information age, more demanding consumers, and new retail formats (Price Waterhouse Cooper, 2000 or Clarke, 2000).

Consequently, the interface between manufacturers and retailers in the grocery industry has also changed (Fernie, 1999). That can be observed by a remarkable power shift within the various distribution channels in the worldwide retail industry. Today’s channels are far more concentrated and consolidated than 20 years ago. This is due to factors such as better access to valuable information by using POS-data, the replacement of manufacturer brands by store brands and sophisticated retail logistics systems (Kotzab and Schnedlitz, 1999). Nevertheless, all players within this industry are confronted with extreme rivalry, primarily resulting from aggressive price competition. However many players are not performing well and have faced a loss of productivity and market share (Seth and Randall, 1999).

In this atmosphere, different organizations such as the Food Marketing Institute (FMI) or the Coca-Cola Retailing Research Group have proposed new business models that should help to enhance the performance in the grocery supply chains in the US and European markets. These approaches are known as Efficient Consumer Response and Supplier-Retailer
Collaboration (CCRRGE, 1994; Salmon, 1993). The models suggested collaboration amongst competitors on a manufacturer as well as on a retail level (Svensson, 2002). Bengtsson and Kock (2000) refer to arrangements such as co-opetitive relationships where companies within a supply chain compete and collaborate at the same time.

The paper at hand focuses on ECR and discusses this approach as a co-opetitive arrangement for the grocery industry. We therefore expand on the original proposal of Brandenburger and Nalebuff (1993) and validate our proposition on the bases of a case analysis within one European ECR-initiative.

**Value adding partnerships and co-opetition models**

Any relationship between manufacturers and retailers can be designed through a party-controlled coordination mechanism in order to meet any partnership need. Thereby either retailers or manufacturers are, depending on the power structure in the market, the dominating part. However the involved partners can also agree on the strength of harmonization, and might organize their interactions on different modi vivendi (Meffert, 1999) such as

- Value-adding partnerships, which could occur through intensified dependence structures (Johnston and Lawrence, 1988);
- Co-opetition models where the optimization of a single system is only possible by optimizing the total system (Brandenburger and Nalebuff, 1996).

Both concepts refer to the idea of integrating different marketing flows of independent organizations that can be seen as an extension of Porter's (1985) competitive advantage concept.

**Value-adding partnerships**

Value-added partnerships were first discussed by Johnston and Lawrence (1998), and received an update by Hines (2000) who suggested the creation of value-networks by outsourcing competitive advantages. Therefore all partners can achieve advantages by leverage knowledge and skill within the complete supply chain (Hines, 2000).

Such arrangements focus on vertical collaborations by diminishing non-value-adding and increasing value-adding activities between supply chain partners. The successful integration of activities creates the competitive advantage of the total chain.

However, the direction of the collaboration is strictly vertical and can be reduced to the integration of certain processes of only two players, thus meaning the management of dyadic relationships (Swoboda, 1997). The results of such partnerships are described as win-win, because the effort of optimization is centered on the interface between manufacturer and retailer.
Co-opetition

Co-opetition is “a revolutionary mindset that combines competition and cooperation” (Brandenburger and Nalebuff, 1996) and is based on the belief that “You can’t do it alone” (Moore, 1997) and on the principles of game theory.

Contrary to value-adding partnerships, co-opetition includes also horizontal collaborative relations as well as at the same time competitive relations in vertical and horizontal directions. Brandenburger and Nalebuff (1996) suggest therefore the concept of value net, which places a single company between customers and suppliers (= vertical dimension) who can be either complementors or competitors (= horizontal dimension). The goal is to identify the symmetries between the vertical and horizontal dimension. Thereby the players can obtain different roles, thus allowing us to put this logic into a supply chain context by adding one another dimension to Brandenburger and Nalebuff’s (1996) value net (see figure 1).
Figure 1: Multidimensional and –directional view of Brandenburger and Nalebuff’s (1996) value net – integrating a supply chain perspective from a retailer’s point of view

As illustrated in figure 1, the supply chain perspective overcomes the static categorization of market players into competitors and partners, and promotes the idea of differing between competitors and complementors on a situational, functional and indifferent role allocation in a vertical as well as in a horizontal direction.
According to Tsai (2002) this allows a multi-directional learning and benefiting from each other, while at the same time competing with each other for internal resources and external market shares. Such a result has been testified by Bengtsson and Kock (2000) within the Swedish brewery industry. In this case, the market players cooperated on the ‘invisible’ logistics side (= e.g. common packaging standards or return channels) and competed at the ‘visible’ marketing arena (= e.g. heavy promotion spending).

Overall, the paradox or ‘schizophrenic’ notion of collaborating with competitors has been regarded since Hamel et al.’s (1989) article as a vivid form of competition and a ‘win-proposal’. The traditional win-lose or friend-foe paradigms have been becoming obsolete in collaborations, which to some extent seems to be the result of the rising complexity and dynamics, especially in fast moving consumer goods markets.

In some markets, a number of industry players started collaboration programs aiming for win-win or un-traditional win-proposals, which are known as Efficient Consumer Response (ECR) in order to re-gain profitability. While many logistics researchers define ECR as a special supply chain management approach, we make the effort to discuss ECR from our suggested supply-chain value net point of view, thus assuming that ECR is one co-opetition model for the grocery industry.
**Efficient Consumer Response – Co-opetion in grocery industry**

ECR can be understood as a customer oriented reengineered value-added management strategy for the grocery supply chain. Its basics refer to harmonization and cooperative adaptation of commonly agreed business processes as well as standards that can help to avoid the duplications of costs and to improve the service. This results in so-called win-win-win-situations, where all partners within the supply chain (producer – retailer – end user) can gain profitability by doing more with less (e.g. Svensson, 2002).

Owing to these effects, many proponents among logistics and marketing researchers promote ECR as one of the best strategic and collaborative initiatives within the grocery industry (Bowersox and Closs, 1996; Kotzab, 1999). The vision of ECR according to the first promoters of this concept (the Food Marketing Institute and Kurt Salmon Associates) is to set up a consumer-driven distribution system in which replenishment and production is permanently managed by the consumers’ POS-activities (Salmon, 1993).

The harmonization of the supply chain activities among the supply chain partners is based originally on four pillars (Salmon, 1993):

- Efficient Store Assortment, meaning to provide a complete and easy-to-shop assortment of products wanted by the consumers;
- Efficient Promotion refers to the harmonization of the promotion activities between manufacturer and retailer by communicating benefits and value;
- Efficient New Product Introduction focuses on the development and introduction of new products, best placed to satisfy current and prospective consumer wants;
- Efficient Replenishment through maintaining high in-stock levels of the required assortment.

By realizing these ideas in a supply chain wide setting, the total chain can profit.

This ECR-approach has been ‘customized’ for the European market into the two strategic blocks called ‘demand side’ and ‘supply side’. While the supply side represents the logistics interests of the channel, the demand side should guarantee the focus on the consumer. Their implementation suggests the loss of functional and organizational borders within and between firms. The transformation from departmental completion to inter-organizational solutions eliminates financial and procedural waste from the channel. This structure encourages team members to work for an increase in the performance of the entire channel (ECRE, 2002).

The total savings by applying ECR-tools and techniques result mostly from total-chain reduction of inventory by speeding up cycle-time. The typical trade off between quality, time and costs will be eliminated (according to
Salmon, 1993; ECRE, 1996; Kotzab 1999). The savings were calculated with USD 30 billion for the US-market and EUR 25 billion for the European grocery industry. Other scientific studies on inter-firm coordination within supply chain relations have confirmed the benefits of ECR-like arrangements for the involved companies (e.g. Stank et al., 1999).

**Co-opetition beyond market exchange and hierarchical mechanisms**

The implementation of channel-wide collaborative standards and processes replaces the philosophy of market exchange by hierarchical mechanism (Picot et al., 2001). Thus, collaborative coordination of different activities between the market partners and the harmonization by vertical integration is regarded as a performance driver to overcome the unsatisfactory profit situation of the stagnant grocery industry (Ahlert, 1999).

In that sense, ECR can be characterized as a hybrid-integrative governance structure which is placed in-between markets and hierarchies. Setting up a hybrid-integrative governance structure means that the partners recognize mutual interests in establishing certain norms and rules. This set of policies controls a certain behavior and rewards it positively and negatively (Heide, 1994).

In such a case, strategic trust-based alliances govern the dependency of the involved parties which can then be seen as a variation of Williamson’s (1987) “credible commitments” or Heide’s (1994) suggestion of non-market
governance structures. Consequently, ECR helps to increase opportunistic behavior in the chain, and also allows to maintain the relationships between the partners (Whipple et al., 1999).

From a supply chain perspective this implies that the characteristics of competition might change, which is discussed within literature as changing from single company vs. single company to supply chain vs. supply chain (e.g. Christopher, 1992).

Corsten (2000) thereby introduced the notions of collaboration/competition on different levels, whether companies agree on common standards/processes, assets or capabilities. The idea is to gain first critical mass on an industry level by agreeing on general valid standards (e.g. EDI) that are relevant for the total chain. These standards can than be further applied to specific partnerships (e.g. Collaborative Planning, Forecasting and Replenishment) which are set up between capable players. The quality of competition could so be driven by the ability of players to set up such partnerships and not based on prices.

**A case on collaboration with competitors in the Austrian grocery industry**

In this chapter we present results from an ongoing case observation of ECR within the Austrian grocery industry. Both authors are actively involved in the ECR-academic partnership in Austria and have performed various
research projects within the Austrian ECR-setting. Our findings refer to a methodological ‘conglomerate’, consisting of quantitative and qualitative methods for analyzing secondary and primary data. The data was gathered by a number of surveys amongst ECR-member companies, personal interviews with managers involved in ECR at several national and international ECR-conferences and group meetings.

A characterization of the Austrian grocery market

The Austrian grocery industry is a highly concentrated market where the two largest retail players account for approximately 70 % of the total volume of EUR 11 billion (AC-Nielsen, 2001). The number of retail outlets diminished in the last 30 years from more than 20,000 (late 1960s) to fewer than 8,000 outlets in 1996 (AC-Nielsen, 1996) and now holds on to a level of 6,656 outlets (AC-Nielsen, 2001).

The market also experienced a shift from smaller outlets to large store formats (e.g. hyper markets), where outlet-sizes between 400 and 1000 m² and store formats between 1000 and 2500 m² account for 43% and 28% of the total sales volume resp. (AC-Nielsen, 2001). The grocery store density of 10 stores for every 10,000 inhabitants is much lower than the total retail store density of 81 for every 10,000 inhabitants and it’s decreasing is expected to continue (Schnedlitz, 1994).
Besides that, consumers’ spending on food is declining. While in 1976 17% of the total budget of private consume was used for this category, in 2000 the number was down to 13% (ÖSTAT, 2001, 48). Still, the share of food articles within the total range of products within a typical grocery assortment is more than 50%. Some discount retailers and hypermarkets are responding to these trends and are replacing food items with non-food items (Oehme, 2001; Liebmann and Zentes, 2001).

These developments are accompanied by heavy price competition. A study of GfK (2002) shows that the share of promotion articles is up to 60% and it seems that consumers expect the players to offer promotions. Taking the detergent category as an example where 44% of the products are promotion articles, 52% of all consumers are full or mainly ‘promotion clients’, meaning that these end users only buy a price promoted brand (Lever Fabergé, 1999).

In general, competition takes place not only on the manufacturers’ level (brand vs. brand) but also at the retailers’ level (retail format competition; e.g. discounter against supermarket, grocery store against drug store) leading to a decline of brand, product and retail format loyalty. This characterization shows why it would make sense to establish partnerships without reducing competition.
Initiating end-user driven value chain management in the Austrian grocery supply chain

Right after the formation of ECR-Europe (in 1995), representatives of the Austrian grocery industry formed the Austrian ECR-initiative in 1996. Within the past six years, ECR-Austria has attracted some 70 member companies and about 150 managers and in fact represents the most important players from the industry (e.g. Procter & Gamble, Unilever, Johnson & Johnson, Beiersdorf, Felix Austria, Masterfoods, etc.), retailing (e.g. Spar Austria, DM Drogeriemarkt, Tengelmann, Rewe Austria etc.) and logistics service providers (e.g. Kühne & Nagel, Rail Cargo Austria, etc.).

Despite having horizontal competitors within this arrangement, the group members have constructed, via several working groups, a basic ECR-business model that differentiates between four ECR areas, which are further subdivided into supply-side, demand-side, processes and standards categories (ECRA, 1997 and ECRA, 1999). The logical structure and interdependencies standing behind this national adaptation of the ECR-concept can be seen in figure 2.
Both supply-side and demand-side include the ‘involved’ departments (e.g., procurement, logistics, marketing and sales) at both retailer and manufacturer levels. Processes and standards represent the way in which business should be done in this special pipeline. The suggested standards are values that members agree to adopt and primarily concern various logistics and marketing activities among supply chain partners (ECRA, 1997):

- Efficient Unit Load (EUL) refers to logistics packaging standards supporting a steady flow of merchandise within the total grocery supply chain. In this instance, a cooperation between retailers and vendors in the fields of unit labeling (e.g. EAN-128 pallet label), application of generally accepted norms and sizes (e.g. ISO master module),
optimization of order quantities, avoidance of re-supplies and better logistical operations, is suggested.

- Electronic Data Interchange (EDI) refers to the implementation of electronic data exchange which enables the transfer of standardized and structured data between the various partners in the supply chain. The members have proposed certain EDI standards (e.g. ORDERS, DESADV, INVOIC) in order to minimize errors with regard to order management, order processing, invoicing, inbound logistics and the management of activity data.

- Efficient Replenishment (ER) aims at the ‘heart’ of the logistics process: the replenishment of merchandise within the supply chain. ECR-Austria proposes replenishment techniques (e.g. cross docking, continuous replenishment, forecast data exchange) in order to guarantee lower inventory levels, quicker replenishment processes, quick responses to fluctuation in demand, better use of transportation capacities and fewer returns.

- Category Management (CM) refers to a joint-planning process between retailers and vendors in order to offer a customized set of products to be managed as a strategic business unit. Within ECR-Austria, CM is expected to reengineer the dialogue structure between retailers and vendors, to increase product profits, to lower the lead-time from the distribution center (DC) to the stores and to increase inventory turns. Alvarado and Kotzab (2001) recognized this approach as a variation of Heide’s (1994) hybrid-governance structure.
The savings potential for the Austrian grocery industry has been evaluated at approximately EUR 73 million, which should result in 0.67% lower end-user prices (Franzmair 1999). It is precisely this small number which makes the motivation to join the ECR movement understandable. The trends in the Austrian market would make it almost impossible to gain market share via expansion or even by price reductions. In fact, the price levels have remained steady over the last 20 years. Improving results seemed only possible by rearranging the way business was being conducted in this industry (see Kotzab, Grant and Reutterer, 2002).

Compared with other international ECR-arrangements, the Austrian approach can be characterized as the most holistic one. It contains the integration of manufacturers, retailers and logistics service providers and aims for integration of other interest groups such as market research organizations, banks and advertising agencies in order to cover all network members of the industry.

**Evaluation of co-opetition in the Austrian grocery industry**

Figure 3 refers to the results of a recent survey research among 45 ECR member companies (= approx. 2/3 of all Austrian ECR member companies) and shows how these member companies have adopted the suggestions of ECR-Austria (Glavanovits and Kotzab, 2002).
First, we could confirm the hierarchical order of the Austrian ECR-concept (see figure 2 and 3). More than 90% of respondents stated that they use basic standards such as EDI and EUL together with norms like the EAN-Article Identification. Second, we could see a lower implementation level of all other advanced processes (CR, CM) and strategies (CPFR).

![Figure 3: Implementation level of ECR-standards and processes](image)

When looking at other dimensions characterizing the importance of standards compared with processes in Austrian ECR-partnerships, the same tendency can be observed (Teller and Kotzab, 2003):

- More than one in three respondents stated that more than 50% of their total transaction volume is guided by these standards (EDI: 60.7%, n=28; EUL: 34.6%, n=26), while this share of transactions operated by CM (25%, n=16) and ER (0%, n=27) is rather small.
- The majority of ECR business partners are found in the field of EDI and EUL, with more than 2 out of 5 respondents working with more than 15 partners according to ECR-standards (EDI: 64.3; n=28; EUL: 42.3; n=26). Compared to that, the number of CM partners is in most cases under 15 (CM: 82.2%, n=17).

These results confirm Corsten’s (2000) notions of different ECR-platforms (industry ECR with general standards, network ECR with common processes and partnership ECR with individual capabilities).

From a co-opetitive point of view, we see the results of Bengtsson and Kock’s (2000) study in the Swedish beer industry confirmed. It is also worth noting that in the Austrian grocery industry all supply chain members gain in the same manner by adapting collaborative logistics techniques that allow economies of scale. However, competition is continued on the marketing side, where some partners can adapt better category management solutions than others.
Managing vertical and horizontal partnerships in grocery industry

Alvarado and Kotzab (2001) have placed the Austrian ECR-movement in an early stage of a relationship portfolio. In such a position, most efforts aim to establish and to maintain the ECR-relationship.

Because both horizontal and vertical relationships have to be managed in a co-opetitive environment, it is expected that soft factors, such as trust and/or commitment, might dominate the successful launch of ECR-programs (Meffert, 2001). Issues such as these have already been introduced in the field of relationship marketing (e.g. Grönroos, 1994).

According to Bengtsson and Kock (2000), information and social exchange is the key to initiate co-opetition, especially for horizontal relationships. Our table I shows those success factors that had been considered by the members of ECR-Austria as most important while implementing and working with ECR arrangements.
Table I: Perceived importance of factors that ease the implementation of ECR (Likert scale; 1 = totally agree; 5 = totally disagree; the bold values are the most important ones, the underlined values the second most important (Glavanovits and Kotzab, 2002)

We could identify function/situation-specific factors, depending on which ECR-area has been chosen. While in the case of the standards implementation, respondents referred to the commitment of all partners to apply the standards, the implementation of processes seems to be rather goal-driven, thus inducing a shared vision of the involved partners.

Once again, we could confirm Bengtsson and Kock’s (2000) argument of social exchange being more important in such arrangements than economic exchange. However, competition might now be driven by the
Conclusion

The goal of our paper was to discuss value-adding partnerships and co-opetition in the field of the grocery industry. We therefore expanded Brandenburger and Nalebuff’s (1996) value net to a supply chain value net. We then defined Efficient Consumer Response as a co-opetition model and applied our theoretical conceptualization to the Austrian grocery industry. Our analysis has shown that competition and collaboration can be performed at the same time, even in the very competition intense atmosphere of the grocery industry. The case of ECR in Austria validates Bengtsson and Kock’s (2000) heterogeneity proposition in that sense that collaboration takes place ‘far away from the consumer’ – here in logistics – and competition is kept ‘near the consumer’ – here in marketing (e.g. category management) issues. Overall, ECR tolerates cooperative arrangements while pursuing economies-of-scale-oriented strategies in order to elude the stagnant development of the industry.

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