

Category Management: the State of Research

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Abstract The paper presents the current state of research in category management field based on structured literature review and defined three main domains for further research development. The first domain devoted to variety of marketing tools widely used in category management, their usability and effectiveness. The second analyzes retailer-supplier relationships in CM process. The third one considers the impact of CM practices on stakeholders while game theory is the key tool here for analysis.

Keywords: category management, relationship marketing, category captainship, retail.

1. Introduction

Category management (CM) as a new approach to retail sales management emerged in the early 1990s as a result of the ECR concept development. Traditionally the joint work of Procter & Gamble and the world's largest retailer Walmart in the 1990s is considered as the first CM case (E.C.R. Rus, 2009, p. 2). This project first time presented the idea of joint management of a category by a retailer and a supplier based on the assumption that a supplier knows consumers of goods of his category better, and therefore understands what they need.

After that ideas of category management have been actively spreading on the market and research companies are actively involved in such projects. So starting from 1992 the consulting literature on this topic has evolved presenting many of its theoretical foundations (Nielsen, 1992; Kurt Salmon, 1993). These works mainly have a practical orientation and focused on the development of a practical methodology for conducting category management projects, methods for evaluating its effectiveness and the tools used in them.

In 1994 the work of E. McLaughlin and G. Hawks (McLaughlin and Hawkes, 1994) an attempt was made for the first time to assess the distribution of category management, its future development prospects and existing and potential difficulties of its implementation based on a survey of players in the US retail market. The results of surveys cited by researchers showed that, despite of the generally excellent awareness of firms about the new practice of sales management, only a small part of them managed to put this principle into practice. Among the factors that prevented the implementation of the new approach were, among other things, the limitations of information technologies, the need for employee training and, importantly, the lack of verification of the concept itself.

Thus also the concept of category management, successes and failures of joint projects of retailers and manufacturers were actively discussed in this field on the pages of the American and European industry press (see, for example, American newspapers and magazines *Progressive Grosser*, *Discount Merchandiser*, *Convenience Store News* or the British magazine *The Grosser*).

However the CM has become an object of close attention of the researchers only in the late 1990s, when the first conceptual papers appeared (Hutchins, 1997; Dussart, 1998; Johnson and Pinnington, 1998). These papers describe the developing practice, evaluate the advantages and disadvantages of the new approach, attempt to formulate research questions that are relevant for the new field. At the same time, the first publications on separate tools of category management appeared (Walters and Bommer, 1996; Anupindi et al., 1998; Chen et al., 1999). Over the next twenty years CM steadily remains an actual topic, research on this subject appears annually in leading academic journals, discussed at numerous scientific and industry conferences, research centers dealing with category management are opened, and numerous monographs on this topic are published.

2. Literature review on Category management

To identify the most actively developing areas of research in this area we analyzed 60 papers in leading international academic journals over the past ten years (from 2006 to 2017). On the basis of the results obtained, three areas of research in this area were distinguished, differing primarily in the subject of analysis (see Table 1):

1. Marketing tools in category management.
2. A retailer-supplier relationships in the category management projects.
3. The impact of CM practices on stakeholders (retailers, category captains, other suppliers in the category and consumers). Constant interest from researchers as well as from the practitioners allows us to evaluate these areas of research as the most relevant and actively developing now. Consider briefly each of them.

2.1. Marketing tools in category management.

As CM involves the joint management of the retailer and the supplier of four marketing mix elements: the place as a retail space management, the product as an assortment management in the category, the price as a pricing policy in the category, the promo as a management of promotional activities in the category. Of course the tools of marketing mix management in the context of retail sales have been a scope of researchers for a long time. However these tools have been further developed within the framework of category management, as a new approach to meet the needs of the consumer based on a deep study of the buyers of a particular outlet.

Most research in this area is aimed at developing information solutions for category management that would allow more efficient use of the extensive marketing information available to retailers (see, eg: (Cortiñas et al., 2008; Hübner and Kuhn, 2012; Sinha et al., 2013)). Modern information systems allow collecting and storing a huge amount of data: the use of scan-systems and loyalty cards allows you to get a very detailed description of the buyer and his purchases. However, this information itself is not enough to determine on its basis what actions should be taken by the seller in the product category in order to make it more responsive to customer needs and, as a result, to ensure better business performance. To make such decisions, tools are needed that allow, based on available data, to model consumer behavior in a category and to predict its response to certain changes in the planning and design of retail space, pricing, assortment and promotional activities (see, for example: (Sloot et al., 2005; Sloot and Verhoef, 2008; Chen and Yuxin, 2012)).

2.2. A retailer-supplier relationships in the category management projects.

The unique case of the relationship between the retailer and the supplier as their joint category management has been of interest to researchers for a long time (see, e.g.: (Gruen and Shah, 2000; Azimont and Araujo, 2007; Lindblom et al., 2009). Indeed, interfirm relationships in the context of category management are characterized by significant operational and informational integration between partners, long-term cooperation, the need to organize crossfirm project groups, high requirements for the level of trust between the partners. Most often in these works are studied the factors influencing the results of category management projects (see, eg: (Morgan, Kaleka, Gooner, 2007)), as well as the organization of the work of the units involved in these projects, and their mutual integration (Castaldo et al., 2009; Pardo et al., 2013). Another actual research question in this area, which remains relevant for a long time, is the assessment of the possible opportunistic behavior of the manufacturer as a factor jeopardizing the effectiveness of the whole category management concept (Nijs et al., 2014).

A lot of works in this field were published by a group of Finnish researchers from Aalto University which analyze the role of a supplier in the implementation of category management principles in retail networks in Finland and Sweden, the degree of its influence on decision making in a category depending on various factors (Lindblom and Olkkonen, 2006; Lindblom and Olkkonen, 2008; Lindblom et al., 2009a; Lindblom et al., 2009b; Hyvönen et al., 2010).

2.3. The impact of CM practices on stakeholders.

Category management implies close cooperation of the retailer with one of its suppliers - the category captain in the management of a category while there are also other players in this category in addition to the category captain. The effects of this cooperation remain the object of close attention from antitrust authorities in many countries since the beginning of the 2000s. (Balto, 2002; Desrochers et al., 2003). The development of the "captain of the category" concept, when the retailer delegates to one supplier considerable power in decision making for the entire category as a whole, i.e. actually transfers control of competitors' products to the category captain, caused another round of discussion about category management and the consequences of its implementation and set many researchers questions. Does this practice hurt free market competition? How should the "category captain" be chosen? Will the category captain use the power given to him in his own interests? How does the implementation of category management affect the welfare of customers? Will other brands in the category suffer if they transfer control to the "category captain"?

All these questions are closely considered in the works of a group of American researchers consisting of M. Kurtuluş, S. Nakkas and L. Toktay (Kurtuluş and Toktay, 2011; Kurtuluş and Nakkas, 2011; Kurtuluş et al., 2014).

Table 1. Category Management: Main Research Areas

| Subject of research | Leading researchers | Key papers | Main research methods | Related research areas |
|---|---|--|--|--|
| Marketing tools in category management | D.M. Desrochers, A. Gürhan Kök, A.H. Hübner, S.K. Mathur, A. Sahgal, A. Sinha | [Sloot, Verhoef, Frauses, 2005] [Desrochers, Nelson, 2006] [Hall, Kopalle, Krishna, 2010] [Murray, Talukdar, Gosavi, 2010] [Gürhan Kök, Xu, 2011] [Hübner, Kuhn, 2013] [Sinha, Sahgal, Mathur, 2013] [Han, Ye, Fu, Chen, 2014] [Cox, 2015] [Hong, Misra, Vilcassin, 2016] | Mathematical modeling, experimentation, econometrics | Sales management, retail management, pricing, product promotion, brand management, consumer behavior, operational management, database marketing |
| A retailer-supplier relationships in the category management projects | C. Free, S. Hyvönen, R.A. Gooner, A. Lindblom, N.A. Morgan, R. Olkkonen, P. Ollila, | [Azimont, Araujo, 2007] [Free, 2008] [Morgan, Kaleka, Gooner, 2007] [Dewsnap, Jobber, 2009] [Lindblom, Olkkonen, Ollila, Hyvönen, 2009] [Gooner, Morgan, Perreault Jr., 2011] [Nijs, Misra, Hansen, 2014] | Case study, structural equation modeling, surveys | Relationship Marketing, Social Psychology |
| The impact of CM practices on stakeholders | S.K. Dhar, M. Kurtuluş, A. Nakkas, J.S. Raju, U. Subramanian, L.B. Toktay, Y. Wang | [Subramanian, Raju, Dhar, Wang, 2010] [Kurtuluş, Nakkas, 2011] [Kurtuluş, Toktay, 2011] [Kurtuluş, Nakkas, Ülki, 2014] [Kurtuluş, Toktay, 2015] [Yasin, Dotson, Kurtuluş, 2017] | Game Theory, Case Studies | Antitrust regulation, supply chain management, retail management |

3. Conclusion

The presented above brief literature review of CM illustrates three main areas of research, the relevance of each of which is supported by business practice. Thus, the growing competition of retail chains for consumers requires more and more subtle and individualized tools for managing retail sales. The use of category management as a platform for establishing a dialogue between retailers and suppliers makes the issue of managing inter-company relations in this area relevant, and the gradual spread of the practice of choosing a "category captain" necessitates a more careful analysis of its possible consequences.

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