Resource alignment in the category management of builders' merchants

Daniel Ellström, Linköping University, Department of management and engineering, SE-581 83 Linköping, Sweden, tel: +46 732541306, daniel.ellstrom@liu.se

ABSTRACT

Previous research on collaborations within networks report both positive and negative outcomes of collaborations. Resource alignment, or how resources of collaborating actors affect each other, has consequences for the utilization of the resources in a network. More research is however needed to determine how resource alignment works. Retailers' category management includes activities that span several actors and where the resources of the network become important. The main actors that contribute to category management are the central organization of the retailer, the individual stores and the suppliers of the products in the category. An interesting sector for understanding how resources contribute to the success of category management is the builders' merchants sector, where mainly professional builders buy the products they need for performing their trade. The aim of this paper is therefore to explore resource alignment among actors involved in the category management of builders' merchants. The paper is based on an interview study of top managers in four Swedish builders' merchants. Three propositions are formulated that suggest explanations for how supplementary and complementary resources are interrelated and how the network influences the need for supplementary resources.

Keywords: resource alignment, category management, supplier-retailer relationships, builders' merchants

Paper type: Competitive paper

INTRO

The increased attention given to relationship marketing during the last decades (e.g. Anderson et al., 1994; Morgan and Hunt, 1994; Weber, 2001) has created a general acceptance among marketing researchers of the importance of collaboration between firms in networks. There are however no fit-for-all solutions for how and with whom to collaborate. Previous studies have reported both positive and negative outcomes from different kinds of collaborations (see Vaart and Donk, 2008 for a review of collaborations in supply chains). Outdated but still cited articles indicates that most or at least half of alliances are unsuccessful (Beamish, 1985). An ongoing challenge for marketing researchers is therefore to create models that can aid us in suggesting how to collaborate with network partners.

One model that has been used for understanding collaborations emanates from a resource-based view and categorizes resources as complementary, supplementary, wasteful or surplus (Das and Teng, 2000). Complementary and supplementary resources are in this model both described as useful in the alliance, but complementary resources are dissimilar whereas supplementary resources are similar. Much of the work using this model focus on the necessity of complementary resources (e.g. Song et al., 2005; Lin et al., 2009), even though the original model also emphasizes the necessity of having supplementary resources in order for an alliance to be successful. To better understand how supplementary and complementary resources can contribute to a network of actors, the alignment of resources has to be understood.

Category management is a concept that became acknowledged in academic retailing literature during the 1990s. The meaning given to category management differs slightly in previous literature but there is a common understanding that with category management the product categories are strategic business units and retailers who adopt category management try to maximize the profitability of each product category. The alternative to category management is often described as brand-oriented or brand-centered management (Basuroy et al., 2001; Dupre and Gruen, 2004) where the brands of the suppliers are managed separately and with limited consideration to the consequences for competing brands within the same categories. With categories as strategic business units, category management also entails an integration of supply and demand related decisions such as procurement and merchandising (Harris and McPartland, 1993; Basuroy et al., 2001) instead of handling these decisions separately. According to Dhar et al. (2001), category management implies a focus on delivering customer value. This can be considered as a logical consequence of managing categories as separate business units and integrating supply and demand related decisions for the categories.

An integration of suppliers in the development of the category is often mentioned as an integral part of category management (Harris and McPartland, 1993; Gruen and Shah, 2000; Dhar et al., 2001; Dupre and Gruen, 2004). In some cases, suppliers can be granted a category captain role, meaning they function as an advisor in the management of a category (Dupre and Gruen, 2004; Bandyopadhyay et al., 2009; Gooner et al., 2011). With this description of category management, an important question to address for retailers is what role the different actors should take in category management. Category management is an activity that spans several actors and therefore the resources of the network also become important.

The conditions for collaboration in category management are different in different kinds of retailing. To understand how the resources of the different actors involved can shape the actors' roles, this study looks at builders' merchants (BMs) and their suppliers. Here, the suppliers hold important expertise about their products, while the BMs are far more knowledgeable about the market and their customers. In addition, the BM stores are often managed separately as franchises or members of a group, where the resources of the store greatly differ from the resources of the BM headquarter. Therefore, the division of roles and responsibilities between the suppliers, the stores and the BM headquarters is a relevant topic that can contribute to the understanding of resource alignment in networks. As a consequence, the aim of this paper is to *explore resource alignment among actors involved in the category management of builders' merchants*.

The remainder of the article is structured as follows; first, a theoretical investigation is made of the activities included in category management, Das and Teng's (2003) model of resource alignement and the effect of resource alignment on performance; second, the methodology and the interviews with top managers in BM headquarters are described; third, the results of the interviews are presented and backed up by illustrative quotes; lastly, the conclusions and condributions of the paper are discussed.

ACTIVITIES OF CATEGORY MANAGEMENT

Category management is often described as a specific management method or process that some retailers have adopted and some have not (e.g. Dussart, 1998; Cachon and Kök, 2007; Bandyopadhyay et al., 2009). What is included in this process differs between authors, but a common view is that categories instead of brands are used as the strategic business units. Category management is also associated with a number of ideas on how to work as a retailer. For example, close collaborations with suppliers (Basuroy et al., 2001; Dupre and Gruen, 2004; Aastrup et al., 2007) and strong customer focus (Harris and McPartland, 1993; Dussart, 1998; Gruen and Shah, 2000) are often mentioned as important parts of category management. The ideas of category management can however be implemented to a varying extent, regardless of whether researchers would classify the retailer's way of working as category management or not. It is not always apparent if a retailer uses brand or categories as strategic business units. This view of category management as an approach that all retailers apply to some extent is also reflected by other authors (Dhar et al., 2001; Gooner et al., 2011). In this paper, category management is therefore considered to be an array of activities that all retailers do to a varying extent. The literature on category management is helpful in determining what these activities are.

The activity of *assortment choice* is mentioned by several authors describing category management (Gruen and Shah, 2000; Campo and Gijsbrechts, 2005; Cachon and Kök, 2007) and includes the choice of what brands and products to offer within the categories. Assortment choice also includes product development and the introduction of new products to the assortment (Kaufman et al., 2006). *Pricing* is a second activity that is often mentioned as part of category management (Gruen and Shah, 2000; Basuroy et al., 2001; Campo and Gijsbrechts, 2005; Cachon and Kök, 2007). The relative pricing of products within a category is often brought forward as an important activity in category management. Third, *marketing* or promotion is mentioned as part of category management (Gruen and Shah, 2000; Basuroy et al., 2001; Dhar et al., 2001; Campo and Gijsbrechts, 2005). Marketing can be carried out in many different ways, such as presentation of the products in the store, shelf space allocation or advertising. Lastly, *inventory management* activities such as order planning and forecasting have also been mentioned as a part of category management (Dhar et al., 2001; Campo and Gijsbrechts, 2005).

RESOURCE ALIGNMENT

According to Prahalad and Hamel (1990), the roots of a competitive advantage are the core competencies of the corporation. Day (1994) adopted a slightly broader view and included capabilities and assets along with the core competencies. Prahalad and Hamel (1990) would probably have argued that assets and capabilities stem from the core competencies, but it could also be argued that core competencies are dependent on business attributes, such as the scale or scope of the business (Day, 1994). If Barney's (1991) broad description of resources is used to describe the roots of competitive advantage, all of the above-mentioned competencies, capabilities and assets would be included. It is therefore safe to say that resources can be described as the roots of competitive advantage.

Resource-based theory suggests two motives for creating strategic alliances; to access the resources of other or to develop the internal resources (Das and Teng, 2000). Grant and Baden-Fuller (2004) argues that knowledge access is a main motivator for engaging in strategic alliances. For an alliance to be beneficial for the parties in it, the resources held by one firm have to be attractive for the other firm, and they have to be made accessible through the alliance. Without this kind of resources, the costs of forming the alliance would outweigh its benefits. This logic can be applied to relations within networks as well. In less formalized relationships, such as those between a supplier and a retailer, the access to resources might be less significant than in alliances, but so are the costs of the relationship as well.

When resources made available in an alliance are attractive and not can be explained by resource alignment. Das and Teng (2000) describe resources made available through an alliance as either performing or nonperforming, and similar or dissimilar, see Table 1. This creates a typology where resources can be characterized as supplementary, complementary, surplus or wasteful. Dissimilar resources can be of the same kind (e.g. technological) as resources held by the alliance partner, but still be considered dissimilar if the resources held are different in nature. The differentiation between performing and nonperforming resources is often implicit in research on alliances as the nonperforming resources are largely disregarded (Das and Teng, 2000; 2003).

Table 1: Resource alignment (Das and Teng, 2000)

	Performing	**Nonperforming**
Similar	Supplementary resources	Surplus resources
Dissimilar	Complementary resources	Wasteful resources

RESOURCE ALIGNMENT'S EFFECT ON PERFORMANCE

According to Das and Teng (2000; 2003), resource alignment is affecting performance through collective strengths and inter-firm conflicts. Supplementary and complementary resources have a positive effect on the collective strength, but are not related to inter-firm conflicts. Surplus resources may decrease inter-firm conflict, while wasteful resources may increase inter-firm conflict according to Das and Teng (2000; 2003). High collective strength and low inter-firm conflict is then correlating to alliance performance (Das and Teng, 2003).

Between supplementary and complementary resources, the complementary resources are considered especially important for alliance performance (Das and Teng, 2000; Sarkar et al., 2001; Wittmann et al., 2009). An analysis of the articles citing Das and Teng (2000) also show that complementary resources are far more researched than supplementary resources. Sarkar et al. (2001) hypothesize that value creation in alliances increases when partners have complementary resources and when there is cultural and operational compatibility between the partners. In relation to Das and Teng's (2000) typology, this operationalization of complementary resources mainly distinguishes the performing aspects of resources rather than the similarity of resources. It can therefore be argued that the existence of supplementary resources affect resource complementarity as well as cultural and operational compatibility in Sarkar et al.'s (2001) operationalization. The hypotheses of Sarkar et al. (2001) are only partially supported and therefore further investigation of supplementary and complementary resources are motivated.

As firms' can acquire resources from their network, they seek partners with resources that they need (Gulati et al., 2000). Stuart (2000) show that small firms in partnerships with experienced firms perform better than other small firms. Doh's (2000) and Lin et al.'s (2009) findings similarly indicates that alliances with firms with complementary resources increase performance. Hitt (2000) also writes that firms in emerging markets seeks partners with financial and technical expertise, while firms in developed markets seeks partners with geographical expertise, indicating a search for partners with complementary resources. Lambe et al. (2002) and Wittman et al. (2009) claim that complementary resources lead to idiosyncratic resources that, in turn, create alliance performance. Few studies contradict the necessity of having complementary resources in literature on alliances. The findings concerning alliances are likely transferable to other kinds of relationships in business networks, but there is still a need to explore how complementary resources are perceived in business networks. Also, the relation between complementary and supplementary resources has been given limited attention in above mentioned research.

METHODOLOGY

Operationalizing resource-based constructs is problematic and has often been handled by using proxies from secondary data (Das and Teng, 2000). Wang and Zajoc (2007) as well as Lin et al. (2009) studies resource similarity and complementarity quantitatively, but use SIC industry codes as a measure for comparing similarity of resources. Harrison et al. (1991) are slightly more sophisticated and use level of R&D intensity, capital intensity, admin intensity and debt intensity as proxies for resource alignment. Apparently, similarity of resources is difficult to quantify in a way that satisfactorily captures the knowledge aspects that are important for category management. A qualitative case study can avoid the uncertainty associated with using these proxies.

Das and Teng (2000) also makes an important distinction between performing and non-performing resources that is often disregarded in studies on resource alignment. They state that similar resources can either be supplementary or surplus, meaning that there may or may not be useful for the actors to have similar resources. In the same way, dissimilar resources may be either complementary or wasteful, depending on their usability. To make this distinction between performing and nonperforming resources, there is a need for a data collection method where the beliefs and insights of the respondents can be taken into consideration.

The interviews

A challenge in the data collection is that the processes and activities first have to be explained, then the resources needed can be described. The interview guide is therefore simple and only contains general questions about (1) how the activities are carried out and what the difficulties are in the activities, (2) what resources are needed for excelling in the activities and (3) the existence of these resources among the involved actors. This is in line with the ideas of Day (1994) who suggest that capabilities can be identified by mapping the process activities in a firm. The challenge for the interviewer is then to pick up on the difficulties in the activities and ask what is needed to overcome the difficulties. This challenge to ask the right questions and shape the interview to focus on resources made the interviews slightly different in character. Some interviews provided more useful answers than others. For this reason, no effort is made to compare the results between the different BMs and make generalizations based on the differences between the BMs.

The empirical body of this paper is mainly based on four interviews with Managing Directors or Purchasing Directors. The interviews range in duration between one to two hours. All quotes from the interviews provided in the paper have been confirmed as correct by the interviewees and translated to English.

The interviews aim to capture both the current situation and the intended evolution in the network. The outcome in terms of performance or profitability in the different scenarios is not specifically emphasized. Instead, the different scenarios and the respondents' descriptions of what challenges they face is used to understand how resources contribute to perceived performance. Lin (2009) argues that researchers subscribing to the resource-based view over-emphasizes a value-maximizing economical reasoning and disregards social aspects in alliances. Therefore, this study aims to capture social aspects in the current and potential future situations, and express these aspects in resource-based terms.

Context

This study targets Swedish BMs that mainly sell to professional customers, as opposed to DIY retailers that primarily attract private consumers. Professional customers are more specific in their demands and this creates a greater need for the resources held by suppliers. In this kind of retailing, the relations between customers and the stores are also important, which increases the need for the resources held by stores. BMs selling to professional customers are therefore suitable to approach when exploring resource alignment. Managers in BMs also perceive their own industry to lag behind other kinds of retailing. It is therefore interesting to compare the development in BMs to other kinds of retailing, and using a resource-based perspective to try to understand the developments within the industry.

Sweden's four biggest BMs targeting professional customers are included in the study. One of them is a BM chain, meaning that all the stores are owned by one firm. The other three are independent BMs, meaning that the stores are owned by several separate firms but they are members in a voluntary BM group. These BM groups take central responsibility for some activities such as marketing, finance and IT. How responsibilities are shared between the headquarters and the individual stores differ from BM to BM. More details on the BMs included in this study in provided in Table 2.

Table 2: The BMs included in this study, data from 2012

	Respondent	**Independent or chain**	**Turn over [kSEK]**	**Number of stores**	**Profit margin**
BM 1	Managing Director	Independent	6 900 000	120	2,9 %
BM 2	Managing Director	Independent	5 700 000	123	2,7 %
BM 3	Purchasing Director	Chain	5 000 000	66	6,4 %
BM 3	Managing Director	Independent	3 800 000	190	2,4 %

RESULTS

Assortment choice

The responsibility for assortment decisions is held by the stores, but they are influenced in their decision making both from the BM headquarters and from the suppliers.

According to the interviews, the supplier, the stores and the BM headquarters are holding dissimilar resources that all can be useful in assortment management. The resources held by the three actors are therefore potentially complementary resources. The stores have close relations with their customers and know what they demand, the BM headquarters know aggregated demand and has the capacity to structure assortment management, while the supplier is an expert in their own products and knows how products fit together.

> *We have product councils for each product category with at least one representative from each of our seven regions. Their role is to bring customer input, trends and regional differences from the stores to the product manager… The product manager makes decisions based on store representatives' thoughts in combination with what he statistically sees in the system. The stores then get information from the product manager on what assortment suits them – BM 3*

> *It is often the supplier who knows what is going on in his assortment – BM 2*

> *There is both competence and experience among suppliers that should be capitalized on… The suppliers have unique product knowledge – BM 4*

The knowledge and capabilities of the three actors are complementary resources that that together can contribute to assortment management. The complementarity of the resources is exemplified in the following quote:

> *[In our assortment management] we constantly start from the local market, and if a store is passionate about window installations, that is not a problem for the central organization. We just have to adapt. – BM4*

The interviewees do however express a need for both the stores and the suppliers to broaden their understanding of customer value so a common goal for the assortment management can be reached. The suppliers can use this understanding in order to determine what products they should provide to the BMs. The stores need this understanding to make the final decision on what assortment to keep. In other words, supplementary resources, in the form of a shared understanding of customer value, are sought for. Without this shared understanding, the supplier's product expertise and the stores knowledge of local demand cannot be fully taken advantage of, making them wasteful rather that complementary resources in the assortment management.

> *We contact our suppliers and are open about what we want. "We invite you to join this journey". If we have a transparent plan for what to do and if both are willing to invest heavily, then we get there. Then we start to talk about how we conduct retailing together, and there are some suppliers who are ready for that, but so far they are quite few. – BM4*

> *The worst thing I know is hearing from a store that "we do not carry that item because no customer asks for it". "Ok, but if you place it in the shelf, do you think it will sell then". "I have no idea". – BM2*

The dissimilar resources of the actors need to be supported by a common understanding of customer value, if the distribution channel should be improved. Without the supplementary resource of understanding customer value, the actors are not able to work towards the same goal when planning the assortment. The dissimilar resources of the actors are then only partially complementary.

Pricing

Pricing in the stores is often determined by the stores themselves, and based on a combination of purchasing prices and market prices. For the BM chain, prices are determined by the headquarter. Suppliers influence pricing through their selling prices and BM headquarters can provide support to stores in how to price products. It is suggested by some BMs that increased control over pricing from BM headquarters would improve pricing.

The resources needed for making the pricing decision are dissimilar between the three kinds of actors in the network. The suppliers' knowledge is limited to the costs incurred in the production and these costs should be reflected in the selling price to the BMs. The stores understand local circumstances and the demand of the local customer. The BM headquarters often collect pricing data from competitors' websites and therefore have a view of the market prices of products and an understanding of what prices are suitable. Through their size, the BM headquarter also have the resources necessary to create templates and IT support for the frequently used rebate systems. Because of this, the resources of the store and of the BM headquarters are complementary, while the resources of the supplier can be considered as wasteful for the pricing decision.

> *Suppliers should not be involved in pricing. Their role is to produce and develop products. – BM4*

> *"What is required is good supporting IT systems that enable management of the gigantic assortment of products". – BM2*

> *We supply the stores with templates for customer contracts that are adapted to different kinds of customers. We also have indexed price levels in the different templates. But the contract negotiators in the stores determine the final prices. – BM3*

> *The IT system provides initial values for determining prices… The most common initial value is our purchasing price. The stores are then allowed to adjust prices from this level, either by determining a margin or by basing it on market prices. We provide the preconditions. We provide the entire orchestra, but they have to play the instruments themselves depending on what they want it to sound like. – BM2*

> *Customers ask for better prices on some products, so it is important that the person responsible for pricing knows what the customers demand. – BM1*

In the interviews, some BMs mentioned a need to increase understanding of relative pricing and how pricing of one product can affect the entire business. Inspired by other sectors of retailing, respondents argued for a very competitive pricing of 'staple' items, whose prices are often compared between stores by customers. Other more slow selling products would then be given a higher margin. This way of pricing is however perceived to require a developed understanding of the pricing's effect on sales in general. As the respondents perceive the BM headquarters to be best suited for acquiring this resource, this would also require that the headquarters increase their control over the stores' pricing decisions. The capability to understand pricing's effect on sales could be a complementary resource held by the BM headquarters. In the independent BMs, there are legal restrictions in the headquarters' control over pricing decisions. This limits the possibility for independent BMs to control prices in the individual stores.

> *There is definitely skill involved in pricing. The better you are on pricing, the more competitive you can be on the products that matters. Market knowledge is required in the different categories. This means that competitors, customers and suppliers are known. We have to understand this to be able to sell. – BM3*

Regarding pricing, the empirical findings do not indicate any need for resource similarity between the actors. The decision on pricing seems to be affecting the supply chain to a lesser extent than the decision on assortment. Therefore the pricing decision does not require a shared view among the actors in the network. Instead, the necessary resources of the store and of the BM headquarter are complementary as they cover knowledge on different levels of aggregation.

Marketing

Marketing efforts are carried out differently in the different BMs, but some common practices can be found. Suppliers are often providing folders and product information. The BM headquarters are often coordinating larger marketing campaigns, but with varied involvement of the stores. An important part of marketing is also the education provided to customers on how to use the products sold in the BM. Mainly, the suppliers are responsible for this education of builders.

Successful marketing efforts require an understanding of the products and of the customers. Much like in assortment management, the actors in the network have complementing resources that contribute to this understanding. The suppliers know their products, the stores know the local customers and the BM headquarters know the market on an aggregated level, and their sizes enable them to coordinate the marketing efforts across the stores and take a shared responsibility for promotions. Marketing efforts often focus on products and therefore deep knowledge of the products is important.

> *The suppliers contribute with education of our employees and our customers in product knowledge, how the products can be used, building technique, etcetera. – BM3*

> *We buy products from a producer and sell them to a customer. We only make sure the products are transmitted in the best fashion possible. We are rarely specialists, we are generalists. When a new product is introduced it might be better if the producer speaks for that product. But we bring the customers and make sure that the product is available. – BM2*

> *We provide guidelines centrally. "If you make an ad, make in in this way". Then we do collective campaigns, a collective webpage, digital tools to use locally with customers, educations, etcetera. – BM1*

To improve marketing efforts, the suppliers need to expand their knowledge of their products to also include an understanding of the customer value of their products. Many suppliers know the technical characteristics of their products, but do not know what the customers value in the products or how this value should be communicated to customers. As with assortment management, there is a need for the supplier and the BMs to hold supplementary resources. The suppliers and the BMs are responsible for different marketing activities and customer value has to permeate all the different activities.

> *Suppliers need to improve their education of our employees and our customers. [Suppliers] have to learn how to use the products. – BM1*

> *Suppliers sometimes, in their educations, tend to delve in details and become too technical. Then they have to see the big picture and ask what the arguments are for the customer. Talk so the customer understands. What is the surplus value for the customer? – BM3*

> *We negotiate centrally with suppliers so our stores have about 50-60 pages to choose from, then we have a web based tool where the store picks eight pages that they want to include in their brochure. When they have chosen pages they also get to choose the selling prices of the products. Then they get the brochure printed with their own logo. Then all the customers in the store's database get text messages and e-mails with the offers of the store. The stores also get their own homepage, where their chosen products and prices are shown. This is entirely generated by the IT system. This can only be achieved when you unite and do something collaboratively. – BM4*

> *This is the new role for the suppliers– to manage the knowledge surrounding the products. It is much more efficient than the old role, where suppliers were supposed to convince the stores to include their products to the assortment. That is not needed today. Now they need to handle knowledge instead of a price list. Suppliers are still mentally adapting to this shift. – BM2*

There is also a conflict of interests in marketing activities between the BM and the supplier. The suppliers can get a varying amount of attention in the marketing and they can be more or less involved in the creation of marketing activities. This conflict exists both in the store layout decision and in the advertising campaigns.

> *We have to be responsible for the choice of what to focus on in our marketing. The dialogue has to start from us. – BM3*

> *We want to be the sender of the message and so does the supplier. Both in ads and in the store. The customer has to see that they are in [our] store and not just any market place. – BM4*

The actors hold complementary resources needed in marketing activities, but to be able to better exploit these resources, there is a need for the supplier and the BM to obtain supplementary resources regarding the understanding of customer value. Mainly, the suppliers are perceived to need to improve their understanding of how to communicate the customer value of their products. Supplementary resources in terms of a shared view of the customer benefit in marketing activities are also needed.

Inventory management

Usually, the stores are ordering products from their suppliers when their inventory levels are running low and the suppliers then make a delivery of products to that store. To limit the distribution costs, stores try to order several products from the same supplier at once and the suppliers tries to coordinate drops to several nearby located BMs at the same time. The BM chain has set up a distribution center and one of the buying groups is planning to set up a distribution center as well. With these centers, the suppliers can deliver larger volumes to the centers and the stores can order larger volumes from the centers.

To plan their production, suppliers need to produce forecasts of future demand for products. The sales of building material through BMs are greatly affected by seasonal variations and also to some extent by trends. The suppliers therefore benefit from the ability to anticipate changes in demand. The BMs also need to anticipate these changes, in order to find accurate order volumes and inventory levels in the stores. The stores' main resource in inventory management is their awareness of the inventory levels in their stores. With accurate data systems, the inventory levels can however be monitored by BM headquarters as well. According to the interviewees, the BM headquarters also have the resources to anticipate future demand to a further extent than stores, which makes the headquarters more suitable for inventory management activities. With a distribution center, BM headquarters can also coordinate inventory management, which further increases their suitability to order products to stores, according to the interviewees. In the BM chain, 70-80 percent of the products are ordered by the headquarter. In the buying groups, the stores are however still responsible for ordering their own products.

> *As a supplier an even production is very important. That can only happen if our replenishment follows customer demand. The more information we collect about customer needs and behaviors, the less peaks and dips there will be in the production. The inefficient structure we currently have will only work as long as the customer is willing to pay for it. – BM4*

> *We make forecasts and are able to make them quite accurate. Suppliers know what they sell to us, but they do not know what we are selling. They do not know if variations depend on changes in sales in the market or if we make adjustments in our inventory levels. For that reason, suppliers are provided with forecasts when needed. – BM3*

In the current setup, when stores are responsible for ordering, many resources are not used to their full potential. The BM headquarter, who is probably best suited to coordinate orders in a cost-efficient manner and produce forecasts of future demand, does not use this resource at all. Some interviewees therefore expressed a wish to increase headquarter control over ordering. This requires IT support systems so that sales and inventory levels can be properly tracked. The BM headquarter is then providing complementary resources that can improve the inventory management. If the suppliers should also take advantage of the BM headquarters' expertise in estimating future demand, the BM headquarters need to deliver forecasted demand to their suppliers. Currently the IT systems of the supplier and the BM are often not sophisticated enough to enable such developments. In other words, supplementary resources in terms of IT systems are needed if suppliers should be able to take advantage of the BMs forecasts.

> *It is a matter of efficiency to let two persons in the headquarter manage all procurement instead of having 65 stores manage it themselves. – BM3*

Some suppliers of commodity products, often foreign ones, do not have the possibility to manage EDI. – BM3

In this industry we have huge excess stocks. Our stores have an inventory turnover ratio of less than two times per year. – BM4

Our great improvement potential is to make more stores work with inventory levels… To do so, we need education, discipline, a strong will and simplifications in our current IT system. We have to put it on the agenda, but there are a lot of things that has to be prioritized. – BM1

The knowledge of future demand and inventory levels held by the stores and by the BM headquarter is not supplementary, as the inventory management is not carried out in collaboration between the store and the BM headquarter. Depending on who is responsible for the activity, the other actor will have nonperforming, surplus resources in this area (c.f. Das and Teng, 2000). When the store is responsible for ordering, the BM headquarters possibility to coordinate store orders is a nonperforming, wasteful resource (c.f. Das and Teng, 2000). When the BM headquarter is responsible for ordering, this resource is complementary to the other resources used in inventory management. The ability to make forecasts and predict future demand is currently needed both by the supplier and by the actor responsible for ordering products. This resource is therefore complementary. The BM headquarter has or can at least obtain resources that make them most suitable to take responsibility over orders and forecasts. The stores are less effective in placing orders and making forecasts, and therefore their expertise in this area would be a surplus resource. When it comes to IT maturity, the suppliers' and the BMs' resources are supplementing each other, as they need IT systems that can communicate with each other.

Summary of results

The findings in the four activities included in category management are summarized in

Table 3. As there is a difference between what resources the actors currently hold and the mentioned need for resource improvements, these are described separately.

Table 3: Summary of complementary and supplementary resources identified in the four activities of category management

	What resources the actors hold	What resources the actors need to improve
Assortment choice	*Complementary*: Stores knows local customer demands, headquarter knows aggregated demand, supplier knows products.	*Supplementary*: Supplier needs to improve knowledge of customers and customer value.
Pricing	*Complementary*: headquarter partly knows supply chain costs and market prices, and can support in rebate systems. Stores know local market.	*Complementary*: headquarter can develop knowledge of relative pricing and how pricing of one product can affect the entire business.
Marketing	*Complementary*: Stores knows local customer demands, headquarter knows aggregated demand, supplier knows products.	*Supplementary*: Supplier needs to improve knowledge of customers and customer value. Suppliers also need to adjust to the IT maturity in the BMs.
Inventory management	*Complementary*: Stores know how much is left. Headquarters know changes in demand (due to ad campaigns or changes in stockholding). headquarter has economies of scale in inventory management.	*Complementary*: Further IT support systems needed in headquarters. *Supplementary*: Suppliers need to develop EDI and be able to use forecasts and production plans.

DISCUSSION

Conclusion

This paper has set out to explore resource alignment among actors involved in the category management of builders' merchants. In category management, it is important to consider both supplementary and complementary resources held by the actors in the network. Supplementary resources are important when it comes to IT adaptation and the actors' understanding of customer value. Complementary resources are important for the specific expertise held by the different actors, where the supplier should be the expert on products, the BM headquarter should be the expert in knowing retailing and the market on an aggregated level, and the stores should be experts in understanding the local circumstances and building relationships with customers.

To enable the network to capitalize on the complementary resources of the supplier, the supplier is required to hold some supplementary resources. Without these supplementary resources in place, the unique resources held by the supplier are partly nonperforming in the network, and therefore wasteful (c.f. Das and Teng, 2000). For example, the suppliers are required to increase their understanding of customer value (a supplementary resource) if they should be allowed to use their product expertise to influence the assortment decision of the BMs. This conclusion contrasts other works on resource alignment where supplementary resources have been marginalized or disregarded (e.g. Harrison et al., 2001; Adegbesan, 2009; Lin et al., 2009). This view on resource alignment can provide important input for literature on supply chain integration and network theory as well. Supply chain integration is a subject closely related to resource alignment as it considers cooperation between actors in a supply chain (Narasimhan and Kim, 2002; Vaart and Donk, 2008). In network theory, the collaborative use of resources is discussed using the ARA model, where different actors are described as having different resources and performing different activities (Håkansson, 1993; Håkansson and Snehota, 1995). Depending on what resources the actors have, they are differently suited for performing these activities. The role of supplementary resources is however not stressed in either supply chain integration or network literature. The suggested interrelation between supplementary and complementary resources is formulated in the proposition below:

Proposition 1: Having supplementary resources in a network increases the chance for dissimilar resources to be complementary rather than wasteful.

This study does not give definitive answers to why supplementary resources are mentioned as important in the relation between the supplier and the BM headquarter, and not mentioned in the relation between the stores and the BM headquarter. Within marketing research, trust and commitment is perceived to be crucial factors for explaining alliance success (Morgan and Hunt, 1994) and these ideas are also adopted in research on resource alignment (e.g. Lambe et al., 2002; Wittmann et al., 2009). A possible explanation is therefore the higher degrees of commitment and trust within the BMs compared to the relation with the supplier. The stores and the BM headquarter have made long term investments in their relationship and are highly dependent on each other. In this situation, the store and the BM headquarter can divide responsibilities to a further extent and do not need to share resources. In the relations with the suppliers, trust and commitment is lower and the possibility for the relationship to end is higher. Therefore, the risk for opportunistic behavior (c.f. Williamson, 1991) is higher. This is also supported by Gruen and Shah (2000) who claim that it is difficult for retailers to recognize supplier opportunism in category management. The actors then need to have similar resources to a further extent, as they need to make sure that the other actor does not act opportunistically.

For example, the suppliers' roles in marketing activities are currently limited to educating store employees and sometimes the customers in the stores. If the suppliers would share the BMs understanding of customer value (a supplementary resource) they could be given more responsibility in educating customers and in other marketing activities. IT maturity is another (supplementary) resource needed by the suppliers that could grant them more responsibility in marketing activities. If commitment and trust would be higher between a supplier and a BM, they could share responsibility for the marketing activities to a larger extent. Without this mutual commitment and trust, the responsibility has to be given to one of the actors. In the example of customer education, the supplier can be fully responsible for some education programs while the BM is fully responsible for other programs. They therefore need similar resources as they both have to explain product characteristics and the customer value of products in their educational programs. With higher commitment and trust, they would have been able to take responsibility for different parts of the educations; the supplier for product characteristics and the BM for the customer value of the products. This leads to proposition 2:

Proposition 2: The need for supplementary resources among actors in a network is higher when trust and commitment between the actors is low.

The need for supplementary resources is however only present for responsibilities that affect both the supplier and the BM. The pricing decision is not directly influencing the supplier and in this case the resources of the supplier can be complementary to the resources of the BM even though they lack supplementary resources. This is formulated in proposition 3:

Proposition 3: The need for supplementary resources among actors in a network is higher when the resources are needed for activities that the actors have a shared responsibility for.

Theoretical contributions

In addition to the conclusions, this paper makes two important contributions to research on category management. First, a description and a modularization of category management into four distinct activities are provided. Second, this paper explores what resources are needed for carrying out these category management activities.

The first contribution of this paper is the theoretical description of category management in relation to previous literature and the definition of four category management activities. Previous literature on category management contains surprisingly few reviews of how other authors describe CM. It is often taken more or less for granted what category management is (e.g. Chen et al., 1999; Dhar et al., 2001; Cachon and Kök, 2007) and these assumptions can vary a great deal. In this paper, category management is considered to be an approach to retailing that all retailers have adopted to a varying extent. Category management consists of the four activities of assortment choice, pricing, marketing and inventory management.

Second, this paper contributes with a description of what resources are needed for carrying out the activities of category management. The most distinguishable ones are product expertise, knowledge of the customers and what they value, knowledge of competitors and the market in general, IT support systems, and financial resources that enable important investments. Few efforts have been found in previous research to identify these resources. Harris and McPartland (1993) describe information and technology support as an essential element in the implementation of category management. This study has highlighted a need for IT support in the supplier’s organization as well. For marketing efforts and production planning to work efficiently, the IT systems of the supplier need to be on par with the systems of the supplier. In line with the findings of this paper, the need to understand what customers value is often emphasized in category management research (Dussart, 1998; Gruen and Shah, 2000). These studies are however not focused specifically on identifying the resources necessary in category management.

Managerial contributions

This study describes the resources held by the different actors involved in category management. The supplier has the technical expertise in the products, the stores know local customer demand and the central organization in the retailer knows demand on an aggregated level and can use economies of scale to provide support for the stores. Even though differences between different kinds of retailers exist, this description would likely look similar for other retailers as well. This description of resources provides support for retailers and their suppliers concerning how to assign roles and responsibilities in category management activities. An important part of this is the internal coordination between the BM headquarter and the stores.

Further research

In this paper Das and Teng's (2000) framework of resources is applied to explain when and how supplementary resources are needed in order to make dissimilar resources into performing, complementary resources in a network. It would be interesting to see if these proposition hold in other contexts and can be made into general statements. Though Das and Teng's (2000) article is heavily cited, surprisingly few efforts are made to apply their framework of complementary and supplementary resources in empirical settings. The findings in this paper show a possible avenue of further research. The necessity of supplementary resources for obtaining complementary resources in a network requires broader empirical investigation.

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