THE CHANGING ROLE OF MIDDLEMEN
- STRATEGIC RESPONSES TO DISTRIBUTION DYNAMICS

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ABSTRACT

This paper deals with changing roles of so called middlemen. In today's business reality, there is a clear shift in the orientation of middlemen, from 'only'facilitating the sale of produced goods, to identifying customer needs and sourcing to create solutions that match these needs.This paper aims to explore the changing roles of middlemen.The analytical framework takes its point of departure in the Industrial Network Approach. The study of roles focuses on operations and skills with regard to the activity and resource layers. For the actor layer significant issues concern the nature of the middleman's relationship with other actors and its position in the network. These aspects are central for the value-generating capacity of the middleman.

The paper relies on a case study of an actor (a middleman), Mobile Inc., involved in providing 'Wireless equipment' with a focus on mobile phone solutions.The main conclusion of the empirical study is that numerous opportunities are open for identification of roles for middlemen in the current distribution landscape. From being a typical 'traditional' middleman, Mobile Inc. evolved into a multidimensional actor featuring quite diverse conditions in relation to its business partners. These roles are: assortment provider, logistics service provider, purchasing coordinator, end-customer interface, marketing organizer, and product developer. Each of them requires its particular capabilities and skills. With regard to the network layers, it is clear that specialisation in the activity layer is one significant role for middlemen today. Furthermore another role can be classified as coordination in the activity layer. With regard to the resource layer, resource combining and problem solving are two central roles.

The study also shows that a middleman can generate value for various types of business partners, in this case: end-customers, retailers, operators and producers. It is also obvious that a middleman cannot fulfil all these obligations entirely through its internal operations and skills – it is dependent on activities and resources of other firms. Another important observation is that the role-set of a middleman tends to evolve through interaction between various roles and functions. Hence, the roles of middlemen need constantly to be questioned and open for modifications.

For middlemen in order to handle role modifications, a five-step model for analysis and implementation is proposed.

KEYWORDS: Distribution,Dynamics,Middlemen, Roles, Industrial Network Approach

INTRODUCTION

> ”An advanced marketing economy is characterised by intermediary sellers who intervene between the original source of supply and the ultimate consumer. These middlemen include retailers and wholesalers and many specialized types of merchants, brokers and sales agents”. (Alderson, 1965:211)

These middlemen have played major roles in the evolution of trade and industry. Business historians even claim that the entrance of the professional trader at the end of the Middle Ages was an important driving force for the development of the society (Heilbroner, 1962). Similar thoughts are expressed by Hicks (1969) who concludes that when these professional firms, specialised in trading, entered the scene, they became the engines in the evolution of our world. Channel researchers also emphasise the central role of middlemen in the past in the conclusion that “wholesalers as institutional type have for thousands of years been involved in what we refer to as global marketing” (Rosenbloom and Larsen-Andras, 2008:235).

Various types of middlemen have continued to be significant actors, as witnessed in the quote above. At the end of the 1900s, however, their central positions in distribution systems were severely challenged. Technical development in manufacturing, logistics and systems for information exchange made new types of distribution arrangements possible. In particular, information technology development (IT) improved conditions for direct producer-consumer contacts. IT also reduced the need for inventories because of faster and more accurate communication and enhanced control of material flows. Since warehousing was one of the main functions of middlemen these changes threatened their position in a time that was characterised as “the revolution that is taking place in distribution” (Stern and Weitz, 1997:824). Far-reaching consequences were expected and it was argued that the on-going changes “will modify many of the assumptions on which distribution channel structure is based” (Pitt et al., 1999:19). As described above, the consequences were expected to be most dramatic for middlemen and the authors concluded that “many intermediaries will die out” (ibid.). Some years later a comprehensive literature review on the role of intermediaries in distribution indicated that these perceptions were still valid, since a main finding was that “there is no room in this revolution for middlemen” (Mudambi and Aggarwal, 2003:317).

However, Pitt et al. (1999:19) claimed also that “new channels and new intermediaries will take their places”.The most significant effect in this respect was supposed to be achieved through ‘electronic’ intermediaries (e.g. Tamilia et al., 2002). There is no doubt that ‘traditional’ middlemen in some contexts, and some situations, have been outperformed by such firms. However, in many cases it is the ‘traditional’middlemen that have taken the lead in the restructuring of distribution. They have done so by changing their roles in ways that makes it possible to claim that they appear as ‘new intermediaries’. What is even more important is that these firms work in ways that definitely makes it relevant to talk about ‘new channels’. For example, one study concluded that in some new types of distribution arrangements, where middlemen have redefined their roles, “it is often difficult to distinguish whether they are wholesalers or retailers in the traditional sense” (Dawson, 2007:317).

This paper deals with issues related to the need for re-interpretation of the roles of middlemen in light of the on-going transformations of distribution. ‘Role’ is not a clear-cut concept in the distribution literature – it has been used in various meanings. In this paper the role of a firm is defined firstly by the operations in which it is involved (sometimes identified as 'functions') and the skills required for the undertaking of these operation. Secondly, a role is defined in relation to what business partners these operations and skills are directed. This is because potential roles become manifest through the value-generating opportunities they provide.

We begin in the section below with an overview of previous research on the dynamic features of middlemen as the point of departure for our framework. The literature review indicates that the analysis of potential roles for middlemen in today's business landscape requires a holistic perspective. On this basis we adopt the industrial network model in the framing of middlemen and their potential roles. In the framework we explore central conditions in distribution networks in the three layers of activities, resources and actors and discuss what they may imply for the role of a middleman. After that follows the empirical information illustrating the efforts of a mobile phone distributor to take various roles and positions in relation to its business partners. The findings from this case study are analysed with the concepts and models identified in the framework, followed then by conclusions and implications.

THE DYNAMICS OF MIDDLEMEN – A BRIEF HISTORICAL REVIEW

The professional trader, mentioned above, dominated the distribution arena for long time. The main reason was that manufacturing in general was characterised by small-scale family operations. In the United States only a "small amount of manufacturing was carried on outside home" (Chandler, 1977:17). Therefore, in the colonial time, before the industrial revolution, the 'Grand Distributors' ruled the game. These organisations were 'all-purpose' businesses and sold all types of goods and performed all the basic commercial functions by acting as "exporter, wholesaler, importer, retailer, ship-owner, banker and insurer" (ibid. p. 15). This broad engagement was required in order to secure the supply of goods from geographically distant sources of goods. Since specialised actors were not available, this middleman had to integrate all these activities within its organisation. These firms served as coordinators of the small producing units, through their business transaction with consumers and end-user in the ports and river towns where they located. They also supplied the producers with raw materials, tools and furnishings. The societal importance of these trade firms are illustrated by the fact that they "acted as the community's financier…provided short-term loans to finance staple crops and manufactured goods… and made long-term loans to planters, farmers and artisans to enable them to clear land or to improve their facilities" (Chandler, 1977:17-18). At this point in time Chandler concluded that the 'mass-marketer' played the most important role in distribution. This middleman selected goods from small-scaled manufacturers and supplied consumers that had little choice, but buying what was available.

Around 1800 these conditions changed considerably. One reason was the industrial revolution that over time resulted in substantial expansion of the size of companies in the manufacturing sector, consequently enhancing their power. Furthermore, various types of enterprises specializing in some of the distribution functions appeared, such as banks and insurance companies. Some merchants began to specialize in one or a few lines of goods, for example, cotton, wheat and dry goods. Moreover, they tended to "concentrate on a single function: retailing, wholesaling, importing or exporting" (Chandler, 1977:16). In the middle of the 1800s manufacturers began to establish their own sales organisations (Bucklin, 1972). They did so because mass production required mass distribution and existing middlemen were unable to sell and distribute goods in the volumes they were produced. Other manufacturers engaged in sales and distribution because their technically advanced products required specialised services like demonstration, installation and after-sales services, which current middlemen had neither the interest in providing, nor the competence to supply. Therefore, over time "the mass producer rather than the mass marketer took over the role of coordinating the flow of goods" (Chandler, 1977:239). The power balance thus had shifted in favour of manufacturers.

These organisational changes were made possible through technological changes. The integration of mass production with mass distribution under the control of manufacturers was achieved through 'a revolution in transportation and communication' (Chandler, 1977). Efficient systems for physical delivery could be established because of advances in transportation in terms of railways and steamships, while new opportunities for information exchange were provided through telephone, telegraph and improved postal services. These developments contributed to enhanced specialisation of middlemen that now could reach out to larger markets even when they narrowed their assortments. Thus, at the end of the 1800s, middlemen showed up, representing businesses that "were defined in terms of user industries, such as steel, mining, textiles and ship-building", while others specialised "by product categories, for example, welding supplies, cutting tools and industrial chemicals" (Corey, 1989:253). These firms lay the ground for what was later identified as industrial distributors.

The direct sales organisations of manufacturers covered only large accounts in geographically concentrated markets, while they relied on industrial distributors for small-scale and geographically dispersed end-users. It is a huge difference in the position and status of these firms in comparison with the Grand Distributor. This middleman had been a trader that was "seeking out sources of supply of dependable goods at reasonable prices" (Copeland, 1928:262). In the new arrangements powerful manufacturers with trade-marked goods, more or less, dictated business conditions and the roles of middlemen "have become less of a trading nature and more of a distributing nature" (ibid.). In particular the position of wholesalers was weakened, because they were threatened from both sides by firms that wanted to bypass them. The functions of wholesalers were taken over "more and more by manufacturers, retailers, and to some extent by consumers – either directly or by agencies they own or control" (Stewart and Dewhurst, 1939:45).

After World War II, middlemen have regained the initiative. Firstly, they have been in a better position than manufacturers to handle increasing costs for personal selling and physical distribution, particularly in relation to small and medium-sized customers. A middlemen representing several manufacturers can allocate costs for sales-visits and logistics on several accounts in comparison with a manufacturer with only one assortment in the product portfolio. Therefore, industrial distributors have improved their position as a sales channel for manufacturers (Hlavacek and McCuiston, 1982). Secondly, the standardised approach required in large-scale manufacturing has been replaced by enhanced attention to customisation (Lampel and Mintzberg, 1996). In the demands for individualisation middlemen are closer to the end-user and therefore, in certain situations, they have greater opportunities in these efforts. Thirdly, retailers have improved their position considerably in today's distribution arrangements. Increasingly they design the products in their assortments and then contracts out manufacturing. Moreover, they develop their own brands and strengthen their power through the establishment of chain organisations.

Fourthly, and most important, middlemen have been able to exploit the conditions appearing from the second revolution in communication and transportation. The technical developments during the recent twenty years in relation to logistics and information technology, in combination with flexible manufacturing systems, provide opportunities for entirely new distribution configurations, relying more on efficient flows of goods, than on inventories and warehousing. The same developments have strengthened a separation of the physical flow from the information flow that was initiated some fifty years ago and identified as the 'separation of the two halves of distribution' (Converse, 1958). This separation began when logistics emerged as a strategic corporate function, from previously being integrated with marketing in the broader area of distribution (Heskett et al., 1964). The long-term effect of the separation is that "marketing and logistics which were initially closely linked drifted apart" (Juttner et al., 2007:379). In combination with the development of information technology this separation provided opportunities for further specialization of middlemen. Firms focusing on either the physical flow or the information flow are in a better position to exploit new opportunities than companies involved in a huge number of middlemen functions. New types of actors identified as third-party logistics providers have evolved through specialization on the flow of materials (e.g. Carbone and Stone, 2005; Marasco, 2008). Others have focused on information exchange and been defined as information brokers (Clarke and Flaherty, 2003) and electronic intermediaries (Tamilia et al., 2002).

The short exposé above illustrates the significance of dynamic modifications of the roles for firms we call middlemen. The broad pattern described illuminates a development towards enhanced specialization over time. This development has affected the role of a middleman in several aspects. The role of the Grand Distributor in terms of institutional levels covered and functions performed, differs greatly from some of the middlemen of today, specializing either on physical flows or information exchange. However, taking the steps toward modifications of roles is a complex issue. It is complex because such actions require reformation of internal attitudes and cultures. Moreover, changes in what to do, and in relation to whom, will impact on other organizations as well, and these firms may either support or oppose such rearrangements. These conditions show the relevance of empirical studies of what potential roles can be identified for a middleman in today's business landscape. This objective will require a framework for analysis that is presented below.

ANALYTICAL FRAMEWORK

In the Introduction we presented two significant aspects of the role of a middleman. The first regards the operations and the skills required, while the second concerns what type of business partner to emphasise. The dominant paradigm when it comes to distribution and middlemen is the marketing channel perspective. This view is completely producer orientated. A well-known text book explains distribution as something starting in the factory, describing "the route taken by a product as it moves from producer to the user", and looked upon "through the eyes of marketing management in production firms" (Rosenbloom, 1995:5). This view was highly relevant in the era of mass production, because large-scale manufacturing required that products were channelled out of the factory in the most efficient way. However, over time this perspective has become increasingly unrealistic, since today's distribution arrangements to a large extent build on customized solutions and build-to-order production.

These changes have made the channel view less appropriate since current distribution arrangements have been characterised as "webs of capabilities embedded in an extended enterprise" (Narus and Anderson, 1996:112) and as "networks of value-adding partnerships like confederations of specialists" (Anderson et al., 1997:59). These features are nicely illustrated in an example of the ways in which a specialty grocery products manufacturer organised its distribution onto supermarket shelves: "It was using an array of third-party players, including food brokers, grocery wholesalers, and health food distributors… When the company drew a structured diagram it looked like a bowl of spaghetti" (Stern and Sturdivant, 1987:41. Such 'bowls of spaghetti' are preferably analysed with the industrial network model distinguishing three central layers in the business network: activities, resources and actors. The activity layer concerns issues related to what is done in the network. The resource layer involves the resources used for the undertaking of activities. Finally, actors are those controlling resources and undertaking activities. Since activity specialisation and resource sharing were identified as central features in today's distribution arrangements, the ARA model is well suited for analysis of potential roles for middlemen. Below we discuss some central features of today's distribution arrangements in the three network layers and explore what consequences these conditions may have for middleman roles.

THE ACTIVITY LAYER

The most central concept in the network's activity layer is interdependence since "the execution of any activity is dependent on other activities" (Håkansson et al., 2009:96). Mass production, mass distribution, and huge inventories of standardised offerings for long time ruled activity structuring. Over time these features have been replaced by just-in-time deliveries, build-to-order, and customisation, in a shift from 'speculation' to 'postponement'. These arrangements make activities increasingly interdependent because buffering inventories are replaced by more or less seamless flows requiring enhanced synchronisation. They also modify the conditions for the 'traditional' middleman since warehousing and inventory handling used to be cornerstones in their activity undertaking. Moreover, increasing functional specialisation calls for coordination of activities of specialised firms.

In a historical study of wholesaling, covering three industries in the UK and Ireland, it was concluded that the main driving force for change was 'a search for efficiency' through improvements in the activity structure of the network (Quinn and Murray, 2005). Their research showed that efforts to economise on activities can produce significant reductions in the cost structure, such as the effect of information technology in the 1990s. Technological development impacts considerably on the activity layer by providing opportunities to undertake activities in more efficient ways. A study of wholesaling in the pharmaceutical industry showed that cost-reduction processes impacted substantially on the productivity of activities in warehousing, transportation and order processing (Fein, 1998). A strategic opportunity for a middleman is obviously to focus on some activities, divest and outsource others, and through this specialisation reposition itself in the activity layer, either on the basis of particular capabilities in information handling (see, for example, Aldin and Stahre, 2003) or logistics and transportation (Selviaridis and Spring, 2007).

The separation of the flow of information from the flow of goods calls for coordination. Such integrative efforts thus provide strategic opportunities for middlemen. This option is illustrated by large-scale logistics service providers connecting the physical distribution activities of a huge cadre of small firms, through sophisticated IT-solutions (Marasco, 2008).

THE RESOURCE LAYER

The shift from speculation to postponement affects the value of resources. In current networks, advanced equipment for logistics and materials handling in combination with information technology solutions constitute the most important resources. As discussed above one significant characteristic in today's networks is that companies increasingly rely on the resources of others. Enhanced outsourcing and focus on core competence reduces the single firm's ownership control of the resources that are critical to its operations. These conditions impact also on the importance of individual resource elements, because "the value of a resource is dependent on its connection to other resources" (Håkansson et al., 2009:7.

Middlemen can contribute to value generation in the resource layer in various ways. Significant illustrations here concern extensions of offerings to include more than physical distribution of finished products. Many middlemen are involved in problem-solving of various types for their business partners. These 'added-value services' play a greater role for wholesalers today and include, for example, the design of "retail sales programs, marketing strategies, computerized inventory management systems" (Kimanyi, 2005: 3.9). Middlemen also engage in design and development of products, the manufacturing of which is outsourced to sub-contractors (Dawson, 2007). Furthermore, both wholesalers and retailers have developed strong brands which contribute to improving their competitive position (e.g. Urakami and Wu, 2010). Other wholesalers take responsibility for the creation of product assortments (Maruyama, 2004), for example, by becoming engaged in consolidation and category management (Hingley, 2005).

THE ACTOR LAYER

The actor layer has always been significant in distribution analysis, since the main perception of middlemen used to be that they reduce the number of transactions by connecting producers and users. Historically, relationships among distribution actors tended to be characterised by transactional processes, based on arm's-length arrangements (Hoyt and Huq, 2000). These conditions have been reconsidered when activity interdependences and resource combinations cut across company borders. From an industrial network point of view the role of a middleman is not only to connect other firms in order to reduce transactions. Even more important is the position of the middleman in the activity and resource layers. These positions determine the activities in which to be involved and the resources to control through ownership – and to what extent to rely on others in these two respects.

Value generating efforts in the activity and resource layers impose challenges for the actor layer. Middlemen involved in these actions must be able to work in a cost efficient way, at the same time as advanced capabilities and competences are required. In general, these role modifications call for large-scale operations, attainable through mergers and acquisitions. Wholesaling is therefore increasingly characterised by consolidation of previously fragmented businesses. Such findings are reported for wholesaling in general in Europe, the US and Japan (Dawson, 2007; Fein and Jap, 1999; Maruyama, 2004), as well as for specific industries (Fein, 1998; Barns, 2002). The main benefits of consolidation are that increasing wholesaler scale provides the financial power "to make operative decisions about product assortments and geographical territories independently from manufacturers" (Fein and Jap, 1999:63). Also retailing features consolidation and these parallel developments have resulted in closer connection between the two levels and made it possible for a wholesaler to establish exclusive relations with large retail chains.

So far we have dealt mainly with the operations and skills required for the potential roles of middlemen. As expressed in the introduction the second aspect of a role is to identify towards what business partners these operations and skills are to be directed, which is obviously an issue for the actor layer. We argued above that the mainstream distribution literature has considered middlemen as a means for the efficient outward distribution from the factory of the producer. We question this narrow perspective and claim that it needs to be extended in the analysis of the conditions in the current distribution landscape. Here we rely on Gadde and Snehota (2001) who make a distinction between three main dimensions in the role of a middleman: trader, distributor and provider. The middleman astrader is typically represented by the 'grand distributor' discussed in the historical exposé. The middleman as distributor is the conventional view of middlemen in the marketing channel perspective. Over time the third role has become increasingly important: the middleman as provider. In this case the main attention is directed to the customer side and the middleman's main function is to serve as purchasing agent for these firms. This significant role of a middleman was pointed out long ago in the claim that "the middleman is not a hired link in a chain forged by the manufacturer" (McVey 1960:64) However, the dominant paradigm of 'middleman as distributor' has tended to overshadow this role.

In today's business reality, there is a clear shift in the orientation of middlemen, from "facilitating the sale of what is produced, to one of identifying customer needs and then sourcing solutions" (Dawson, 2007:315). Similar observations of an enhanced provider role are reported from Japanese distribution where wholesalers seem to have adopted new business models making them "a more integral part of their customers' operations" (Rawwas et al., 2008:105). Another opportunity would be to follow the example of middlemen that saw their main purpose to be "to help both suppliers and customers" and thus avoid to be perceived "as extensions of either suppliers or customers" (Lusch et al., 1993:25). Similar recommendations come from Mudambi and Aggarwal (2003:124) in the claim that the central issue for an industrial distributor "is the ability to consistently provide added value, both to manufacturers and to customers".

RESEARCH ISSUES

In the Introduction the role of a middleman was defined in two respects:

- the operations in which it is involved and the skills required for these operations
- in relation to what business partners these operations and skills should be directed

On the basis of the discussion in the analytical framework, the empirical study of middlemen roles should focus on operations and skills with regard to the activity and resource layers. In the activity layer significant issues revolve around specialisation (what activities to be involved in) and coordination (the linking of interdependent activities). In the resource layer a central question relates to what resources are crucial for the undertaking of the activities. Furthermore important issues concern what resources that need to be controlled through ownership and how these internal resources are combined with resources accessed from business partners. For the actor layer significant issues concern the nature of the middleman's relationship with other actors and its position in the network. These aspects are central for the value-generating capacity of the middleman.

RESEARCH METHODOLOGY

We have claimed above that the issues dealt with in this paper call for a holistic approach in the framing of the research problem. This conclusion has its methodological consequences and favours a case-study approach. A case study "investigates a contemporary phenomenon in its real-life context” (Yin, 1984:25). This approach is recommended for studies of complex systems and events that are unique and where broad conceptual frameworks are used (Norman, 1976). Eisenhardt (1989:534) provides another argument for this methodology in the claim that “the case study is a research strategy which focuses on understanding the dynamics within single settings”. Qualitative case studies are frequently used by industrial network researchers (Dubois and Araujo, 2004), because they make possible analysis of problems in settings with unclear boundaries (Yin, 1984; Halinen and Törnroos (2005).

Within the case study framing we rely on the principles of systematic combining (Dubois and Gadde, 2002). Systematic combining is a non-linear, path dependent process based on a continuous interplay between theory and reality and vice versa. Systematic combining is expressed as “a process where theoretical framework, empirical fieldwork and case analysis evolve simultaneously and it is particularly useful for development of new theories"(Dubois and Gadde, 2002:554). In this process data and theory are successively adapted to fit with each other through the processes of going back and forth between theoretical framework, empirical observations and analysis. This means that what is found in the empirical world might call for refinement of the framework, which then requires additional theory. In the same way the modified framework may call for additional information about the empirical world.

The case study centres on a distributor of mobile phones and its efforts to define new roles for its business. Besides the data collection in the focal company interviews have been made with the business partners of the distributor, representing significant actors in the distribution network illustrated in Figure 1.

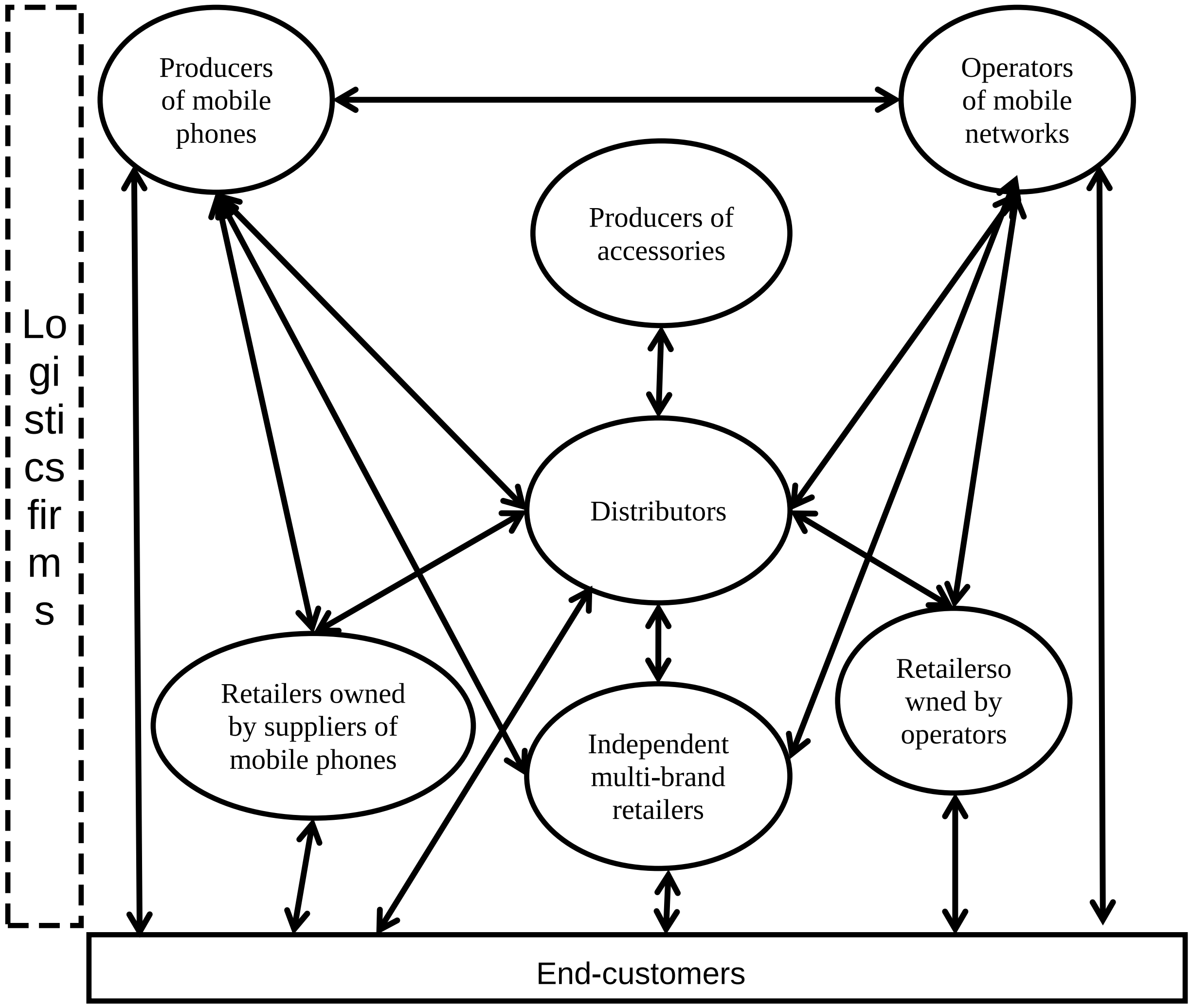

Figure 1. The distribution network for mobile phones

Producers of mobile telephones (often identified as brand-owners) apply a multitude of distribution strategies for reaching out to end-customers. They can use several types of independent middlemen in the form of distributors (wholesalers) and retailers. Some producers prefer a direct relationship with end-customers, either via the internet or through retailers that they control through ownership and therefore are focused on selling telephones of this specific brand. Other retailers are owned by operators, with the main mission of supplying subsidized telephones together with subscriptions valid for this specific operator's network. A third category of retailers are independent from operators and producers, functioning as multi-brand stores where mobile solutions are part of a larger assortment in, for example, home electronics. Operators work closely with producers, distributors and retailers to integrate subscriptions and SIM cards to mobile solutions together with other hardware, e.g. mobile telephones and accessories.

In general, operators or retailers are responsible for the main contact with end-customers, through retail stores, telephone, or web sites. Distributors and wholesalers buy phones, accessories and other things from producers and sell to retailers or (to less extent) directly to end-customers through web-shops. Furthermore, producers of accessories are important since accessories enable the end-customer to individualize the mobile solution. The margins on accessories are also a lot higher than on mobile telephones and they are therefore an important product category for the actors in the distribution network. Last, but not least, logistics firms play a crucial role by handling the physical flow in the distribution networks.

The main data collection method applied in the study is personal interviews. The types of firms and their representatives that have been subject to interviews are listed in Table 1. The data collection has been conducted in Sweden with the exception of one interview with a Danish actor.

Mobile phone distributor			17
	CEOs	2	
	Sales department	5	
	Key account managers	5	
	Project management	1	
	Logistics	2	
	Purchasing	2	
Operators			3
Retailers			3

Table 1. Number of interviews

EMPIRICAL STUDY: MOBILE INC. – A NETWORKING MIDDLEMAN

The case study focuses on Mobile Inc., a middleman involved in selling ‘Wireless equipment’ with a focus on mobile phone solutions. For a functioning mobile solution three essential parts are required. The first is the physical hand-set, or mobile telephone itself. Second, a subscription is needed that entitles a user of a mobile phone to access one of the existing communication networks (provided by one of the operators) in order to communicate with other users. Third, a SIM-card is required to connect the mobile telephone and its functions to a specific user and that user’s subscription. Besides this, a great number of accessories are available for mobile telephones, such as screen protection, covers, head sets, loudspeakers, and even ‘jewellery’. These parts, in various combinations, together form a mobile solution for an end-customer (see Figure 2.)

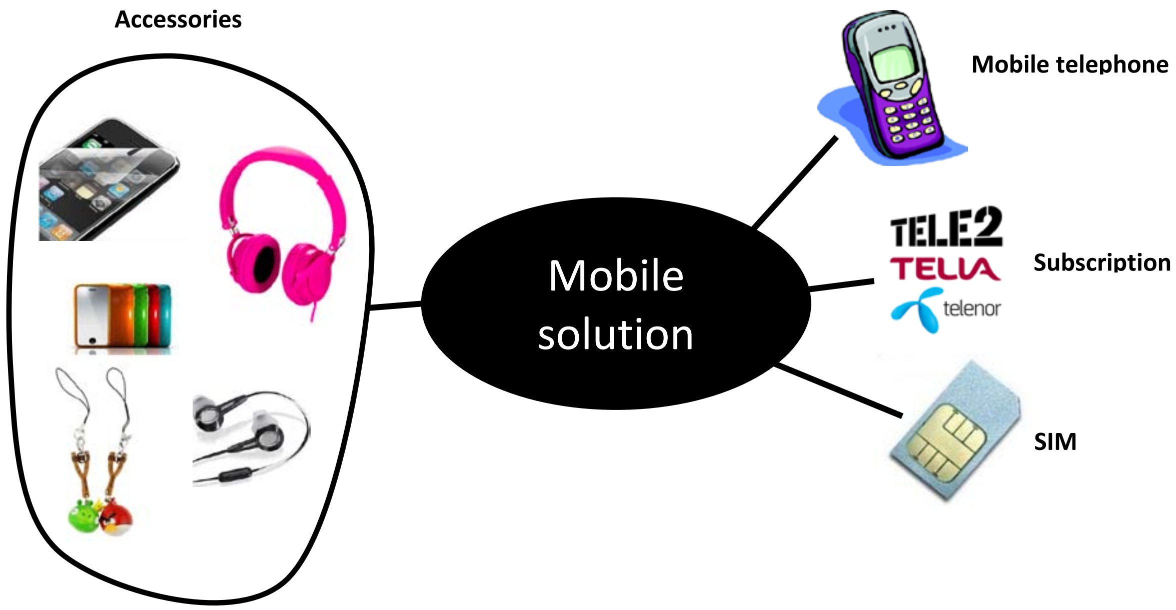

Figure 2. Parts of a mobile phone solution

Mobile Inc. is a global actor in the distribution network making such mobile solutions available to end-customers, and is normally recognised asa wholesaler or a distributor. They act as a spider in the network and work closely together with actor network actors. In the following sections we describe the various roles that we identified in the operations of Mobile Inc. in relation to its business partners.

MOBILE INC. IN THETRADITIONAL ROLE AS ASSORTMENT PROVIDER

Mobile Inc. was established some 30 years ago as a so called 'box-mover', purchasing large quantities of mobile phones from producers. These products are stored in Mobile Inc.'s warehouse and then shipped to retailers in requested quantities. Physical distribution to retailers is outsourced to logistics service providers. Through the large purchasing volumes of Mobile Inc. the cost per unit can be kept lower for retailers than if they would by directly from producers. A main issue in this set-up is to create representative assortments for retailers. The retailer (or the operator) is responsible for the contact with the end-customer. This type of arrangement was the origin of Mobile Inc. and it still accounts for a large proportion of their business. We refer to this role as *assortment provider*. In this set-up the main task for Mobile Inc. is to bring together large volumesof mobile phones to make the firm an interesting business partner for producers, and in this way become an important bridge to retailers. Producers, in turn, are able to reduce the number of direct customer contacts. By breaking up large shipments into smaller assortments (breaking bulk), Mobile Inc. provides value to retailers. A further important aspect is that Mobile Inc. takes title to goods in this arrangement, and thereby also handles the risk of ownership. Capabilities in estimating demand and being sensitive to end-customer trends is therefore crucial in this set-up and this skill hasbeen developedsuccessively over the years.

When mobile telecommunication expanded, operators grew larger and thereby became the favoured counterparts of many producers of mobile telephones. As the operators became larger it became more interesting to sell products directly to them rather than through middlemen like Mobile Inc. Operators were interesting to producers since they 'owned' the end-customers and thereby were assumed to have the possibility to influence their behaviour. Through campaigns and various other mechanisms like subsidies,operators could guarantee that the products actually found their way to the hands of end-customers. Furthermore, by selling to operators producers could increase the exposure of their products to the end-customers. Altogether this implied a new setting to relate to for actors such as Mobile Inc. Another change was that in the early days the telephones were very expensive and the only end-customers able to afford them were companies and some wealthy private consumers. During this initial phase profit margins were substantial, which resulted in a fortune-seeking market,with a lot of 'easy' money to be made by simply moving 'boxes' around. This consequently led to the appearance of many small actors. However, as market penetration rose, margins decreased. The number of companies decreased and the remaining ones gained in size in order to attainlarge-scale operations to counter decreasing margins. For Mobile Inc. these changes led to the conclusion that the traditional way of doing business, i.e. the box-moving arrangement, was no longer sufficient. Instead they needed to focus on becoming better in other aspects than focussing only on large purchases and provision of assortments. As an effect of these changes Mobile Inc. tried to approach operators in order to find new ways in which they could be part of their businesses. We illustrate this with the relationship with the operator ConnectMe.

MOBILE INC. AS A LOGISTICS SERVICE PROVIDER

ConnectMe is a large global operator, relying mainly on their own stores, even though they use also external retail chains to a limited extent. Because they are a large global company group they were able buy directly from producers. Each local country organization of ConnectMe forecasts the coming sales volume. These areaggregated by the global market organisation that makes a final global forecast for the entire company group and places central orders with producers. By working in this way each country organization can benefit from economies of scale, they could not have reached themselves. However, ConnectMe neither has the logistical capabilities required,nor the interest to handle this volume on their own. Instead they have outsourced this task and chosen Mobile Inc. as their partner in Sweden. Mobile Inc. is here used as a *logistics service provider,* in charge of the physical handling of the whole volume. All products are shipped from producers to Mobile Inc.'s warehouse, where they are stored in a dedicated area, and then shipped to the stores of ConnectMe forsales to end-customers. Mobile Inc. never takes title to these products.

Furthermore, if the end-customers of ConnectMe demand products that are not ordered on a global basis from producers, ConnectMe in Sweden can source these items locally from Mobile Inc. Organisation of return logistics is also a responsibility for Mobile Inc. For these operations ConnectMe requires that all products that are returned and sent to Mobile Inc. are checked and evaluated in order to make a judgment whether the product can be sold as 'new', be used as it is, or if it needs to be disposed. The interaction between the two firms is intense. The Key Account Manager at Mobile Inc. is in daily contact with the logistics manager at ConnectMe to discuss operational issues. For example, Mobile Inc. receives information from ConnectMe about incoming shipments in advance, so that they can plan the handling of the deliveries from producers. Beyond this daily contact there are also monthly meetings where other issues are brought up for discussion. These issues can, for example, concern invoices for the logistics services, specification of services, cost issues, service levels and quality aspects, upcoming forecasts, campaigns and events. There are also quarterly business reviews where several representatives from both companies meet. During these meetings the discussions focus on future plans and projects.

MOBILE INC. AS A PURCHASING COORDINATOR

TeleX is one of Mobile Inc.'s retail customers. They are basically a franchise based retail chain running about 50 stores in Sweden. The stores are owned eitherprivately or by the central TeleX organization. Some years ago, this company experienced some difficulties through its widespread and loosely coupled organization and therefore approached Mobile Inc. in their search for new ways of conducting business. Before these discussions TeleX used to order 20% of their purchasing volume from Mobile Inc., whereas the remainder was sourced more sporadically from a multitude of other distributors. TeleX wanted a new business arrangement with Mobile Inc., because they expected potential benefits from aggregating purchases to a single supplier, while Mobile Inc. saw a possibility in securing the whole business volume of TeleX.

In the new arrangement all orders from the stores of TeleX were coordinated and then sourced buy Mobile Inc. In this relationship, therefore, Mobile Inc. can be seen as a *purchasing coordinato*r. This new arrangement required lots of communication, information exchange and persuasion to get all on board. People at retail stores were not convinced that this was a great idea for them, since they lost part of their autonomy. A key supporting factor in this reorganising was that Mobile Inc. developed a new web service. Through this web service the stores of TeleX became much more tightly connected to Mobile Inc. Each TeleX store now could get its own unique web-site and individual web-shop. Mobile Inc. customized each store's web shop by utilising a standardized solution and then make some alterations with regard to name and layout to reflect the specific store. The website in turn was linked directly to Mobile Inc.'s warehouse, implying that end-customers logging onto the web shop to place orders had a direct visibility into Mobile Inc.'s warehouse and the stock available. Orders were sent to TeleX to be confirmed, while all other operations were handled directly by Mobile Inc. A main issue for Mobile Inc. with this new arrangement was the opportunity to test and try out the new web service. Through this service, end-customers interact directly with Mobile Inc. and their warehouse. The main physical flow is directed via a transportation firm to the stores of retailers. However, in a few cases products are delivered directly to significant end-customers. Ownership is always transferred through TeleX. A planned step for the future is to locate consignation storages at retailers, i.e. to keep parts of the inventories of Mobile Inc. in the retailer stores. In this case it is Mobile Inc.'s responsibility to make sure that the 'right' products are available in stock. Already today, Mobile Inc. is responsible for forecasts so this is not a totally new situation. However, for Mobile Inc. such a change would mean about 50 new 'warehouses' to manage. The functionality of such system would require retailers to 'open up' totally to Mobile Inc. with regard to transparency.

MOBILE INC. AS AN END-CUSTOMER INTERFACE

The web service developed in the relationship with TeleX was later adapted and offered to other customers of Mobile Inc. When establishing the relationship with a new customer, the web services solution waskey for the actual closing of the deal with this firm. The new customer, here named WebMob, is an internet-based retailer, selling mobile telephones and accessories to end-customers. WebMob is a pure internet retailer with no physical stores and no warehouse of their own. Hence, they needed a stock-keeping partner. By collaborating closely with Mobile Inc., WebMob is able to provide the entire range of products of Mobile Inc. In this case Mobile Inc. acts as an *end-customer interface*.The existing web-shop solution was thus a main reason for choosing Mobile Inc. as partner. Through the arrangement with Mobile Inc., WebMob can display all productsto their end-customers that Mobile Inc. holds, while still not assuming any of the risk of ownership or tying up any capital. WebMob are not committed to buy the products they reserve, but in return they cannot demand that specific products are kept in stock. When WebMob closes a dealwith an end-customer through Mobile Inc.'s website, WebMob actually buys the product from Mobile Inc. that in turn delivers it to the end-consumer. The products are always transported by a logistics provider directly to end-customers. However, a drawback related to this set-up is that WebMob is limited to the products in the assortment of Mobile Inc.

From being the only a distributor to WebMob for some years, this situation recently changed. Currently, WebMob works with three distributors, who all deliver directly to end-customers. However, Mobile Inc. is still the first-hand choice and the majority of WebMob's sales are sourced from Mobile Inc. Owing to the mutual investments in the relationship with Mobile Inc., WebMobcan do things together with this firm that they cannot do in relation to the other distributors. For example, when a customer wants to change an order, WebMob is allowed to do last minute modifications in relation to Mobile Inc, which is not possible with the other distributors. The relationship with WebMob represents Mobile Inc.'s most advanced IT-solution. For example, reservations of products can be made and there is a frequent transfer of information between the companies concerning historical orders, stock levels, and tracking and tracing of orders. Furthermore, there are lots of regular meetings between the companies. Aspects discussed in these meetings regard, for example, future plans and volume forecasting, as well as upcoming campaigns. This information makes it possible for Mobile Inc. tosecure that the right products are in stock, and to dimension staff accordingly.Return logistics is another crucial factor for WebMob. Since Mobile Inc. already had an established structure for handling such processes it was natural to partner with them also regarding this task. If an end-customer experiences problems with a product they are instructed to return it. Then Mobile Inc. sends it to a repair centrethat checks the product and determines whether the fault is a user error or if it should be repaired or completely scrapped.

MOBILE INC. AS A MARKETING ORGANIZER

Some years ago, a Taiwanese producer – TaiMan – wanted to expand sales in the Scandinavian countries. Since they felt that their market knowledge concerning these countries was very limited. Therefore TaiMan approached Mobile Inc. and together they decided to partner in order to achieve this expansion. In this relation Mobile Inc. became in charge of market communication, including advertising, as well as sales to retailers. In this relationship Mobile Inc. acted as the *marketing organizer* of TaiMan. Mobile Inc. was also responsible for storage and physical handling of products.

However, the main objective of TaiMan was to successively strengthen the position in Scandinavia. Over time, they established their own sales offices in these markets which modified the role of Mobile Inc. Today there is less emphasize onthe extended responsibility featuring the marketing organization role. Therefore, the relation between the two has evolved from a very close relationship towards something similar to Mobile Inc.'s relationships with other producers, i.e. primarily the logistics service provider role.

MOBILE INC. AS A PRODUCT DEVELOPER

During the late 1990s prepaid refill cards for mobile telephones were launched. With these cards, end-customers could preload their subscription with a set amount of money that then could be used for calls. In order to reach end-customers effectively with these pre-paid refill cards Mobile Inc. had to identify new business partners. The previous arrangement, based on phone retailers,was not appropriate for this new product with quite different demand characteristics. End-customers needed to buy these cards regularly and sometimes outside ofthe normal opening hours of regular stores. Therefore, convenience stores were found to be attractive counterparts. However, there wasan increasing problem when it came to the handling of these prepaid cards. In essence, these small cards were equivalent to money. Thus, each transport of cards was similar to a money transport and the storing of cards required rigorous security protocols. In addition, Mobile Inc. felt that the physical distribution of a code that was basically a digital product, was highly unnatural and expensive. In the light of this finding they collaborated with another actor, SysMob, to develop a new electronic distribution system. This solution made it possible to remove the physical card and distribute the code digitally, and then print it at the time of purchase at the retail outlet. Hence there was no longer a need to either store the pre-paid cards physically or to transport them. In this case Mobile Inc. took on the role as a *product developer* to solve as specific problem.

THE COMBINED ROLES OF MOBILE INC.

Above we have high-lighted six quite different roles that have been identified in the operations of Mobile Inc. In reality, however, Mobile Inc. fulfils several roles in relation to each of the business partners. To illustrate these conditions we turn to the relationship with the operator CallU. This operator used to work with external retail chains. However, recently a decision was taken to establish its own nationwide retail chain. Their plan is to maintain the relationships with external retailers, but to increase their total sales through supplementing with own stores and internet sales. Until recently, Mobile Inc. was only one of several distributors supplying CallU. However, CallU reconsidered this multiple-sourcing strategy and decided to select one distribution partner as a single supplier. The reason for this was the opportunity to take advantage of the economies of scale and specialised competence that one distributor can provide. After evaluation of several distributors, Mobile Inc. was chosen. In this relationship Mobile Inc. works partly as an assortment provider by taking title to products and then selling them to CallU. One of the benefits for CallU is Mobile Inc.'s considerable product knowledge. Furthermore, for CallU it is an advantage that other operators also use Mobile Inc. because the volumes handled, and consequently the scale of operations,is increased. Mobile Inc.'s business relationships with other retailers are also regarded an advantage. For example, if CallU has bought products that they cannot sell, then Mobile Inc. can take it back and deliver it to a retailer.

Even though the assortment provider role is the most dominant in this setting, both firms try to develop the relationship. For example, the single sourcing set-up has enabled CallU to use Mobile Inc. as a partner for its internet sales. CallU's web shop is directly linked to the ERP system of Mobile Inc. and their inventory and warehouse. Orders placed in the web shop are handled by Mobile Inc.'s ERP system and products are packed and shipped from Mobile Inc.'s warehouse. Furthermore, the two firms have a frequent dialogue when it comes to new product launches in order to decide which products to focus on. The next step will be to initiate a 'product council', responsible for planning in a three to six months horizon. Through this arrangement, CallU intends to increase the accuracy of forecasts. The purchase coordinator at Mobile Inc. is also in charge of providing CallU with statistical reports concerning stock information. CallU requires a rather comprehensive weekly report of warehouse activities regarding 'their' products. These reports include information about what is available in stock, what is sold, eventual backlogs or orders that have yet to be fulfilled. In addition to the reports the purchase coordinator at Mobile Inc. is also in charge of the buyingof SIM-cards and all sales material related to CallU's products, for example welcome letters to new customers.

Finally, some of the business arrangements between Mobile Inc. and CallU differ from this general description. In these cases Mobile Inc. does not take title to the mobile phones. First, one of the producers requires CallU to buy directly from them, rather than utilising Mobile Inc. Second, CallU sometimes lease out huge numbers of phones to customers. These phones are often sourced directly from producers. In both these cases Mobile Inc. is responsible forthe logistics operations without taking title to products. Hence, in these situations they act more like a logistics service provider than as assortment provider.

CENTRAL FINDINGS IN THE MOBILE INC. CASE

The main conclusion of the empirical study is that numerous opportunities are open for identification of roles for middlemen in the current distribution landscape. From being a typical ‘traditional’ middleman, Mobile Inc. evolved into a multidimensional actor featuring quite diverse conditions in relation to its business partners. The six distinct roles of Mobile Inc. are based on operations with quite different characteristics: logistics, marketing, purchasing and product development. Each of them requires its particular capabilities and skills. In addition, the traditional role as assortment provider calls for supplementary skills, as does the crucial issue to handle these various business operations within one and the same organisation. The study also shows that a middleman can generate value for various types of business partners, in this case: end-customers, retailers, operators and producers.

It is also obvious that a middleman cannot fulfil all these obligations entirely through its internal operations and skills – it is dependent on activities and resources of other firms. Logistics service providers are involved in all physical distribution operations which is one of the cornerstones of Mobile Inc.’s business model. Moreover, SysMob was an important partner in the development of the digital refill cards. For all six roles the interaction with the specific business partner was crucial for the value-generating capacity of Mobile Inc.

Another important observation is that the role-set of a middleman tends to evolve through interaction between various roles and functions. In the efforts to develop a specific function for a particular role, ideas may appear that contributes to improvements of other functions, which paves the way for another role. The web-shop solution is one of the significant examples from this case. This means that middlemen starting to reinterpret the traditional role will be provided with several possibilities in various directions to identify new business opportunities.

DISCUSSION

The above analysis clearly shows the multiplicity of potential roles that can be fulfilled by a middleman in today’s distribution reality. Previous classifications of the functions and roles of distribution in general, and middlemen in particular, first appearing in Shaw (1912), have primarily been rooted in the activities undertaken. Clark (1922) condensed the number of functions to three: exchange (buying and selling), physical distribution (storing and transportation) and facilitating functions (financing and risk-taking). These tasks are then distributed among firms through a division of labour among institutional levels, identified in terms of producers, middlemen and consumers. The conditions for this division of labour change over time, implying that activities are moved from one institutional level to another, because the prerequisites for efficient undertaking of activities change (‘functional spin-off, according to Mallen, 1973). Alderson (1954) identified four factors that determine the economic rationale for middlemen in the division of labour: (i) they reduce the number of business ties between producers and consumers; (ii) they contribute to scale advantages by aggregating demand from several users; (iii) they provide benefits through specialisation by focussing on particular activities; and (iv) they are involved in redistribution of risks.

Coming back to Clark's classification, the facilitating functions have since long been taken over by specialists in banking and insurance. During recent decades specialists in terms of logistics service providers have become increasingly important concerning physical distribution. Furthermore, the conditions for the exchange function have been modified considerably through the development of information technology and we have already mentioned the specialised actors showing up in this area. It is clear therefore that *specialisation in the activity layer* is one significant role for middlemen today.

Enhanced specialisation opens up for another role emanating from the activity layer. With ever increasing specialization of activities there is a need for coordination of the activities undertaken by specialised actors. This takes us back to Alderson's first rational for a middleman: to reduce the number of business ties. In current settings it means that an end-user (or a producer) rather than dealing separately with a bank, an insurance company, a logistics service provider and an information broker, would prefer to use only one business partners for these operations. One example is provided by Dawson (2007:318) who concludes that "some wholesalers have transformed their organisations to become coordinators of the total supply (demand) chain". Another sign of the same development is the increasing reliance on extended offerings combining products with various service elements. Consequently, this role can be classified as *coordination in the activity layer*.

From an industrial network perspective, the resource layer also represents significant opportunities for formulation of strategic roles. In fact, some of these can be derived from Alderson's four rationales. The scale advantages that can be realised from aggregation are to a large extent driven by efficient resource exploitation. Furthermore, the benefits of specialisation evolve from enhanced skills and capabilities. In the analysis of the resource layer we first turn to the claim by Bucklin (1960) that production needs to be considered as a function in the marketing and distribution system. So far this aspect has been largely neglected, but in contemporary distribution landscapes it is important to recall the ideas of Bucklin. In the analysis he identified production as a function coupled only to the manufacturer. At that time intermediate institutional levels were mainly involved in the handling of finished products. In Alderson's terms middlemen primarily contributed with time and place utility, while form utility mainly concerned changes in packaging format and issues related to breaking bulk. Increasingly, however, enhanced attention to postponement implies that final assembly and other finishing operations are undertaken by various types of middlemen (Hulthén and Gadde, 2008). This involvement in the transformation of the form features makes the resource layer increasingly significant from a middleman point of view. Furthermore, the importance of the resource layer is stressed by Rosenbröijer (1998) in the argument that the variety of middleman characteristics is explained by their diverse capabilities, in turn determined by the inherent heterogeneity of their resource mixes.

Resource combining is thus a third role that can be defined from an industrial network context. This combining may take the point of departure in technological resources, such as infrastructures, vehicles and handling equipment, but also concern organisational resources in terms of, for example, logistical competence and skills (Jahre et al., 2006). We claimed above that equipment for materials handling have become more important than inventories and warehouses. However, in many situations physical inventories are still significant in efforts to secure availability. Large-scale resources in this respect may be valuable for small and middle-sized companies illustrated in a study by Cantú et al. (2010). In this case a new middleman was able to improve performance for wholesalers, dealers and industrial users through the establishment of a central warehouse. What is particularly interesting with this example is that this new middleman represents an extra level in the distribution system, clearly contradicting current management literature, where one of the main recommendations is about cutting out middlemen by reducing the number of institutional levels.

When the middleman in the example above had become established in the network, through its efficiency in physical distribution and inventory handling, the firm extended its offering to include various types of other services and also logistics consultancy. Therefore, this example illustrates another potential role in current distribution arrangements that we identify as *problem solving*. This role is obvious also in the evolution of logistics service providers. These firms got a foothold in distribution networks when producers, middleman and also consumers outsourced physical distribution. Once this foothold was established these firms extended the scope of their operations into advanced problem-solving through "a shift from traditional 'piecemeal outsourcing' of isolated activities towards outsourcing of distinct sets of subsystems and even outsourcing of bundles of such subsystems to a single TPL-provider" (Gadde and Hulthén, 2009).

An illustration of a problem solving middleman is presented in Figure 3, portraying the offering of the PC-distributor Atea. Through careful customer analysis this firm has identified in which dimensions they can provide services that support the operations of PC-users. Atea then designed their offering in terms of valuable services stretching from buying advice and specifications, over installation and use, and finally recycling of used PCs.

Figure 3 The problem-solving role of a PC-distributor

The actor layer is highly significant in role formulation and value-adding operations. Any role implies a specific positioning for a middleman in relation to other firms. Mainstream literature defines the middleman's position through its connection to other actors and the opportunities to reduce the number of connections and transactions between producer and user. From an industrial network perspective, however, this view needs to be supplemented with analysis of the middleman's positioning in the activity and resource layers. Regarding the activity layer it was concluded that a middleman may take a narrow position through specialization on either logistics or information exchange. Another value-adding approach would be to apply a broad perspective and function as a coordinator of activities. In the same way the particular form of resource combining in which a middleman is involved will determine a specific positioning in the resource layer and the same is valid for the problem-solving approach applied. The critical issues in these respects concern what activities the middleman should be involved in and what resources need to be controlled through ownership. Furthermore, it is decisive to develop appropriate interfaces between these internal activities and resources and those of other firms. The actual positioning in these respects determines the conditions for joint value-generation.

The specific value in relation to a business partner is generated through interaction.. Depending on the middleman’s positioning in the actor and resource layers, various types of interaction patterns evolve. So far we have primarily discussed relationships with the receiver of the value provided through the specific role. Another crucial issue in the actor layer concerns relationships to business partners involved in the design and creation of the offering of the middleman. Increasingly, the required resource combining and activity coordination cut across the boundaries of firms. Therefore, enhanced relationship involvement is necessary in today’s distribution networks (Weitz and Jap, 1995; Ford et al., 2011). Interaction is thus a common denominator of any middleman role in the current distribution landscape.

Interaction with both the producer side and the user side makes it possible to handle “the never-ending battle to reduce costs while maintaining and improving quality and service” (Wagner et al., 2002:254). The benefits related to interaction were analysed in a study of outsourcing to third-party logistics providers (Gadde and Hulthén, 2009). First, enhanced interaction improves the opportunity to identify a relevant scope of the provider’s role, which can regard anything from single activities to total solutions. Second, close interaction over time improves conditions for learning, concerning the two partners’ operations and resources.

CONCLUSIONS AND IMPLICATIONS

Our study of the changing role of middlemen provides contributions in three dimensions. First, the analysis of the historical development of distribution in general, and middlemen in particular, improves the understanding of the prerequisites and consequences related to the current challenges for middlemen. Second, the industrial network model showed to be a useful framework for identifying potential roles for middlemen. Third, as a managerial contribution from the study, a five-step procedure for analysis and implementation of role modifications for middlemen is suggested.

Concerning the first contribution we return to the quote in the Introduction that there is no room for middlemen in the on-going revolution. The analysis of the historical development shows that middlemen have always been confronted by challenging conditions, making their future questioned and uncertain. In these situations one outcome was that some middlemen ‘died out’, in line with the prediction in the Introduction. For example, a study of consumer retailing concluded that “the retail graveyard is full of formerly famous names that have been unable to adjust to environmental changes, or have been done in by self-inflected strategic blunders” (Brown et al., 2005:103).

However, the main finding in the historical analysis is that middlemen and intermediaries have been able to respond to these challenges.For example, in the late 1940s it was claimed that “the survival and continued vigour of the wholesaler is remarkable considering the persistent attempts to supplant him" (Alderson, 1949:45). Half a century later another researcher argued that wholesaling continues to be a highly significant function, despite the fact that "business analysts have been anticipating the wholesalers' demise for several decades" (Lusch et al., 1993:20). The middlemen that survived did so because they had been able to accommodate to new conditions. They realized that their previous business missions had to be modified because the conditions for their value-generating operations had changed. In these modifications, the role of the middleman had to be reinterpreted. What had been an appropriate role in the past was not valid for the future. The particular business context where middlemen and their business partners reside is in continuous flux and the business models and roles of firms must be adjusted accordingly.

The second contribution of the paper is the finding that the industrial network model is an appropriate tool in the analysis of potential roles. The basic point of departure for this reorientation is that any middleman must in some way generate value for their business partners. As shown in this study there are numerous value-generating opportunities available for a middleman.In fact, our findings indicate that there is more room for middlemen in today's distribution networks than in those of yesterday. The underlying argument for this statement is the huge variety in the operational involvement of current middlemen, as well as the diversity in the capabilities they represent. The network analysis identified two roles in the activity layer: specialisation and coordination. Similarly the resource layers gave rise to two roles: problem solving and resource combining. For the successful implementation of these roles the position of the middleman in the actor layer is crucial, as well as the systematic interaction with the business partners.

As shown in the study there is considerable variety in the roles played by an individual middleman. This variety is caused by the diversity in the demands of various business partners, the features of the value-generating capability and the conditions in the business context. Similar results concerning the variety of roles were found in a study of a Norwegian logistics service provider (Jensen, 2010). Finally, as shown in our case, a middleman can fulfil several roles in relation to one and the same business partner.

The third contribution of the study is a five-step procedure for analysis and implementation of role modifications. The first step in this procedure is to apply a framework for analysis. We have suggested the industrial network model as a relevant framing of the situation for middlemen. This model is particularly useful since it provides three dimensions for the analysis of potential roles: the activity layer concerns the operations that are crucial for value-generating; the resource layer regards the capabilities and skills to exploit, while the analysis in the actor layer relates to (i) the firms for which value is to be generated and (ii) the business partners that are necessary for this value-generating.

The second step is to analyse more precisely what value-generating approach to apply. The two main principles in this respect are to contribute to rationalisation and cost-efficiency, or to innovation and development. The rationalisation option takes its point of departure in the activity layer and various mechanisms for efficiency improvements. The development path relates to the resource layer and deals with potential benefits of resource combining and recombining. Irrespective of which of the two options is selected, a middleman will be dependent on other firms for the fulfilment of its role. The crucial thing here is to exploit the opportunities residing in the network of actors.

This takes us to the third step in the transformation. One major issue here is to decide what activities to undertake in-house, and to what extent to rely on the operations of other firms. A second main task is to identify the resources that must to be controlled through ownership and the resources that can be accessed through business partners. In today's network arrangements both activity coordination and resource combining span corporate borders, which call for inter-organisational skills and capabilities to handle interaction processes.

The fourth step concerns the development of appropriate interaction patterns with the business partners. In this respect the 'problem-solving' role requires broad and long-term interaction with customers in order to identify the specific opportunities in relation to individual counterparts. On the other hand a 'specialist' might be engaged in large-scale solutions that are more or less standardized, implying that high-involvement with business partners is not needed. Differentiation of interaction patterns is thus required for successful operations.

The fifth step, finally, is to combine the previous four steps into a coherent set-up, by formulating the company's 'business model', which is explained as the "view of the firm's logic for creating and commercializing value" (Ostwalder et al., 2005:7). What is considered to be the central components of a business model is expressed in various ways. However, there seems to be some consensus regarding the three aspects identified in Mason and Spring (2011). The first concerns what *technology* to apply in terms of product and process technologies, and the features of current production and distribution infrastructures. The second issue deals with the *market offering* of the company, with regard to the combining of products and services and the extent of customisation. The third important component is the *network architecture*, involving the constellation of firms that together generates value to the buyer. A middleman following this five-step analysis for role modifications is provided with ample opportunities to successfully transform its operations in response to current dynamics in distribution.

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