

**THE IMPACT OF B2B EXCHANGES ON BRICK AND MORTAR
INTERMEDIARIES: THE ELEMICA CASE**

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ABSTRACT

The launch of B2B exchanges in brick and mortar industries has inspired the study of the potential impacts on business models of this shift from offline into online trade. Among market parties, intermediaries form a very interesting group, since electronic marketplaces could be seen as their direct competitors. We argue that the emergence of electronic marketplaces both creates opportunities and threats for brick and mortar intermediaries. This paper presents an analysis of the theoretical impacts of electronic marketplaces on brick and mortar intermediaries and both illustrates and extends the theoretical findings with the Elemica case. Elemica is an initiative of several major chemical companies, which aims to reduce supply chain costs by providing one-stop shopping. We conclude this paper with some fundamental implications of the emergence of electronic marketplaces for intermediaries in the chemical industry, which are applicable to more general settings as well.

INTRODUCTION

On May 17th 2000¹, a group of major chemical companies announced the launch of Elemica, a neutral one-stop shopping business to business (B2B) electronic marketplace for chemical products. It states that this B2B exchange will 'address supply chain inefficiencies and offer integrated solutions and services for buying and selling basic, intermediate, specialty and fine chemicals'. Producers, buyers and intermediaries are taking part in the Elemica initiative. Elemica is just one out of numerous B2B electronic marketplaces that have been launched by brick and mortar companies.

In this paper, we analyze the impacts of the emergence of B2B electronic marketplaces on the activities of brick and mortar intermediaries. With brick and mortar, or traditional, intermediaries we refer to intermediaries in physical industries that do business with traditional, non-ICT driven, business models. In particular brick and mortar intermediaries form an interesting group, because we argue that B2B exchanges could take over a significant part of their business (see Kaplan and Sawhney, 2000; Benjamin and Wigand, 1995).

First, we will briefly discuss existing theory on electronic marketplaces, brick and mortar intermediaries and their changing role as a consequence of the emergence of ICT. With the help of this theoretical framework, we then address our research question: *What are the impacts of the emergence of B2B electronic marketplaces on the activities of brick and mortar intermediaries?* With the Elemica case, we illustrate and extend our theoretical findings.

2. CONCEPTUAL FRAMEWORK

2.1 The Impact of ICT on Inter-Firm Relationships

Transaction cost theory (Williamson, (1975); Coase, (1937) has been the anchor of many studies on marketing channel structure (e.g. Bucklin et al. 1995, Reindfleisch and Heide 1994)) as well as on the impact of ICT on supply chains (see Christiaanse and Venkatraman, 1996; Bensau and Venkatraman, 1995; Venkatraman and Zaheer, 1990; Barret and Konsynski, 1982). It is striking that transaction cost theory has been used to prove both an intermediation and disintermediation trend. Malone, Yates and Benjamin (1987) argue that when transactions become cheaper and more efficient, co-ordination costs will go down. Consequently, outsourcing will become relatively cheap compared to in housing; more generally stated a shift from vertical to market like governance will occur. An opposite view has been developed by Benjamin and Wigand (1995), who argue that since intermediaries add costs to supply chains, both suppliers and customers are better off when intermediaries are bypassed. By the use of ICT, direct sales from suppliers to customers have been made possible, which will be preferred by both producers and resellers.

The role of ICT in creating competitive advantage has been a fertile area of work over the last two decades (see for instance, Konsynski, 1993; Bakos and Kemerer, 1992; Bakos, 1991; Konsynski and McFarlan, 1990; Clemons and Row, 1989; Johnston and Vitale, 1988; Cash and Konsynski, 1985; McFarlan, 1984; Barret and Konsynski, 1982). Interesting is that many of the studies conducted in the 1980s were obviously done in the pre-Internet era. The technologies underlying the effects of electronic marketplaces were technologies such as proprietary linkages or EDI. It is important to realize that these technologies required a standardized, predefined message format and therefore did not easily facilitate spot buying, and required consistent introduction and operating costs (Dai and Kauffman 2000, Christiaanse and Damsgaard 2001a). These early technologies had severe market making effects primarily based on the power related biases they introduced and the resulting electronic integration effects (Hopper, 1990 et al.). The Internet as an open platform for information exchange has even more dramatic impacts on dyadic linkages between firms and also on whole supply chains (Christiaanse and Kumar, 2000; Kumar, Van Dissel and Bielli, 1998). Christiaanse and Kumar

1 Elemica Press release, 2000

(2000) for instance argue that through ICT support systems supply chains will become supply webs with significant impacts on the way relationships are structured and managed.

2.2 A Classification of Business to Business Internet-Based Electronic Markets

Rather than just a distribution channel, the Internet should be viewed as market maker. Kaplan and Sawhney (2000) mention two important mechanisms that make marketplaces add value: *aggregation* and *matching*. With aggregation is defined as bringing ‘together a large number of buyers and sellers on a fixed basis (p.100)’. Transaction costs will be reduced by providing one-stop shopping. Aggregation works well in an environment with a fragmented supply side that offers a large number of specialized products, so that a ‘metacatalog of products’ (Kaplan and Sawhney, 2000, p.100) could be created. Moreover, purchasing costs should be based on fixed contracts and order-processing costs should be high relative to the costs of items procured.

Matching is described as bringing ‘buyers and sellers together to negotiate prices on a dynamic and real-time basis (p.100)’. Matching works well when products are commodities and trading volumes are high in relation to transaction costs. Demand and prices have to be volatile, so that spot purchasing allows managers to fade out supply and demand shocks. In the market, there should be the possibility to outsource logistic and fulfillment activities to intermediaries.

Depending on whether the internet based market place is initiated respectively by third parties, producers or resellers Kaplan and Sawhney (2000) distinguish three different types of electronic marketplaces : 1) neutral marketplaces; 2) forward aggregators and 3) reverse aggregators. Neutral marketplaces are operated by independent third parties and fit best in markets with both fragmented supply and demand sides. Forward aggregators favor sellers and fit best in markets where the supply side is highly fragmented. In the model of Kaplan and Sawhney (2000) reverse aggregators are favorable towards buyers and fit best in markets where the demand side is highly fragmented a recent attempt to categorize B2B marketplaces, Kaplan and Sawhney (2000) identify two dimensions relative to the transaction characteristics: 1) *what* businesses buy; 2) *how* businesses buy. The first dimension refers to the strategic importance of the purchase. In this respect they distinguish the purchase of maintenance, repair and operating goods (operating inputs) from that of raw materials and components (manufacturing inputs). The second dimension refers to what maybe transaction frequency, since they distinguish between fixed contract purchasing (systematic sourcing) and spot purchasing (spot sourcing). Four general types of B2B marketplaces are subsequently described. The first one being Maintenance, Repair and Operating goods hubs (**MRO hubs**), which are characterized as horizontal markets that add value by decreasing inefficiencies in procurement processes. MRO hubs could cause disintermediation, because the marketplaces take over several intermediaries’ activities. What we see here is that marketplaces could be seen as intermediaries themselves. **Yield managers** are defined as ‘horizontal markets that allow companies to expand or contract their operations at short notice (p.99)’. They consider yield managers to be of most value in markets where prices and demand of MRO goods are very volatile or when MRO goods are difficult to liquidate. Utility and electricity markets are examples of markets that are appropriate to implement yield managers. A third type of marketplaces are **exchanges**, which are vertical markets (within one specific business) that add value by allowing ‘purchasing managers to smooth out the peaks and troughs in demand and supply by rapidly exchanging the commodities or near-commodities needed for production (p.99)’. **Catalogue hubs**, are considered to be vertical markets that add value by reducing transaction costs. Because they presume that the products catalogue hubs offers use to be specialized, Kaplan and Sawhney (2000) point out that catalogue hubs often work closely with distributors to ensure safe and reliable deliveries.

2.3. The Impact of Internet Based Electronic Market Places on the Role of Intermediaries

Intermediaries do have special positions in supply chains, since they are in touch with a large number of market players both on demand and supply sides. In working out more precisely the role and functions of intermediaries in supply chains, Bailey and Bakos (1997) discuss the following four functions: aggregation,

trust, facilitation and matching. In considering these functions, we observe that intermediary activities could be divided in market making (aggregation, matching) and services (trust, facilitation). Especially intermediaries are able to act as market makers, because they are in touch with both customers and suppliers (Bucklin et al 1995).

Sarkar, Butler and Steinfield (1997) challenge previous work on the impact of ICT on supply chains by making two new assumptions. They assumed that transaction costs do not go to zero and that ICT will have a diverse impact on the costs of transactions between producers, intermediaries and consumers. Sarkar, Butler and Steinfield (1997) argue that in prior work the importance of services tends to be undervalued, because intermediation is assumed to be a single unified service. They point out that intermediation should be seen as a multifaceted set of functions, which will be influenced in a different way by ICT applications. According to Sarkar, Butler and Steinfield (1997), both intermediation and disintermediation hypotheses are likely to happen and they point out that new 'cybermediaries' will enter the market to provide new network-based cyber services. Sarkar, Butler and Steinfield (1997) end their analysis with the expectation that intermediaries will keep playing a significant role in electronic marketplaces. One argument is that the role of intermediaries is multifaceted, which implies that it will be very difficult for producers to take over all activities. A second argument they mention is the unbundling of intermediary activities by implementing ICT. They argue that ICT makes it profitable for traditional intermediaries to offer services separately that could only have been offered integrated in the past. Also, new services could be created because electronic marketplaces enable new intermediary activities. A third argument is the positive impact that institutional, social and subjective factors could have on intermediation. Institutional factors could cause intermediaries to have market power so that suppliers that are implementing direct sales channels in their business could be bypassed by intermediaries on their turn as well. Also social interaction and entertainment benefits could make customers prefer intermediaries to direct contact with suppliers. Factors other than economic, like relational norms act as determinants of the distribution channel structure because of their impact on transaction costs (Zaheer and Venkatraman 1994).

Two major implications of B2B marketplaces seem to play a role: 1) dis-intermediation of market making functions and 2) creation of new channel services. To understand the disintermediation of the market making functions of brick and mortar intermediaries as a consequence of the emergence of electronic marketplaces, we need to compare the described models of Kaplan and Sawhney (2000) and Bailey and Bakos (1997). As we have seen, Kaplan and Sawhney (2000) consider aggregation and matching to be the value adding functions of electronic marketplaces. Bailey and Bakos (1997) mentioned aggregation, trust, facilitation and matching as the traditional functions of intermediaries. This implies that electronic marketplaces could possibly take over aggregation and matching activities from brick and mortar intermediaries. Based on this comparison, electronic marketplaces could be seen as generators for disintermediation. We suggest that electronic marketplaces could actually be considered as 'cybermediaries' (Sarkar, Butler and Steinfield, 1997), so that 'disintermediation' means here 'disintermediation of traditional intermediaries'. Therefore we propose the following:

Proposition 1: The emergence of internet based electronic markets constitutes an alternative for the execution of traditional intermediary functions.

A second implication of the emergence of electronic marketplaces is the creation of additional intermediary activities. These additional activities are created by the demand for new cyber services and by unbundling processes (Sarkar, Butler and Steinfield, 1997). There will be need for new cyber services, because electronic marketplaces require new intermediation activities (i.e. provision of security facilities, data exchange; Bailey and Bakos, 1997). However, these new activities have to be shared with new 'cybermediaries' (Sarkar, Butler and Steinfield, 1997). Unbundling processes emerge, because ICT could make it profitable for traditional intermediaries to offer services separately that could only be offered integrated in the past. This unbundling could lead to additional business (Sarkar, Butler and Steinfield, 1997). Consequently, we argue that the emergence of electronic marketplaces also creates opportunities for brick and mortar intermediaries.

In sum:

Proposition 2: The emergence of internet based electronic markets will generate new intermediation activities to be performed by existing intermediaries.

In the next section, we will examine the impacts of the emergence of Elemica on brick and mortar intermediaries in the chemical industry. The case study serves to illustrate the described framework and to extend our theoretical findings.

ELEMICA CASE DESCRIPTION

Introduction

The case material was gathered as part of a larger study on the impacts of e-business on Royal Vopak² in order of ABN Amro (Sinnecker, 2000a). Vopak is a major brick and mortar intermediary in the European and North American chemical and oil & gas industries. In the Elemica initiative, Vopak is represented by its North American chemical distribution subsidiary Van Waters & Rogers³. In our case study, first we provide information about the chemical market that is relevant for our analysis. Then we give a description of Elemica. In the analytical part, we conceptualize the impact of B2B market places in the context of the Elemica case and link this to our propositions.

Characteristics of the Chemical Intermediation market

In the chemical industry, intermediaries' activities are executed by chemical distributors. The chemical distribution market has the following characteristics (Stinnes and Deutsche Bank Research, 1999): The chemical industry produces a very diverse range of products whereby not all chemical products are handled by chemical distributors. The *size* of the chemical distribution market is dependent on growth in the chemical industry and the degree of outsourcing. Products for the chemical distributors market could be split up into *industrial* chemicals and *specialty* chemicals. Industrial chemical products are largely interchangeable and individual producers claim a relatively small share of the overall market with no significant degree of dependence on any producer. Suppliers in the specialty chemical segment usually enter into agreements, which govern the exclusive distribution of individual products. Chemical distribution is a highly global business where increasingly a strategy of offering the customer more complicated services is pursued. In addition the chemical industry has a strong bias towards pre-negotiated contracting. E-commerce, a watcher of e-commerce developments in the chemical industry, uses an 80-90% range for pre-negotiated trading as a percentage of total trading. Revenues in the chemical distribution are traditionally generated by putting a *margin* on sales prices which implies that aggregation is the most important activity for chemical distributors.

Trends in the Chemical Distribution Market

The industry is changing rapidly which is illustrated by the following trends: The industry is consolidating. Large scale mergers between chemical producers are currently taking place. M&A activities are the driving factor in the sector, triggering further consolidation. The main reasons are the mergers among the chemical producers and their demand for alliances with a small number of strong partners. In addition there is a demand for global services that could be offered by these strong partners. Other forms of partnerships, the establishment of exclusive partnerships with chemical producers and customers are taking place as well. Therefore increasingly competition is switching to competition between supply chains (Christiaanse and

² For more information about Vopak, see www.vopak.nl

³ Van Waters & Rogers was, after Ashland Chemicals, the biggest chemical distributor in North America in 1999 (www.manufacturing.net.com). For more information about Van Waters & Rogers and its role within Vopak, see www.vwr-inc.com.

Kumar 2000). In addition a strong decline in the number of niche suppliers and a reduction of the number of big players to only six worldwide should be seen as a key trend in this industry.

The Value Chain in Chemical Industry

Having characterized the chemical distribution market, we continue to describe the value chain in the chemical industry. Again we use the report of Stinnes and Deutsche Bank Research (1999) to describe the value adding functions of chemical distribution companies. As presented in figure 2, distributors add value both to producers and customers. On the producers' side, distributors take care of sales to small and medium sized customers, so that procurement costs for producers go down (sale for own account). As mentioned before, aggregation has traditionally been the most important function for chemical distributors. Also, distributors take responsibility for transportation and warehousing activities for small volumes (Stinnes and Deutsche Bank Research, 1999). As mentioned before, distributors tend to be specialists, because they deal with a wide range of products, and are in touch with both the demand and supply side. Consequently, we add here that distributors also have a market information function (information transferring).

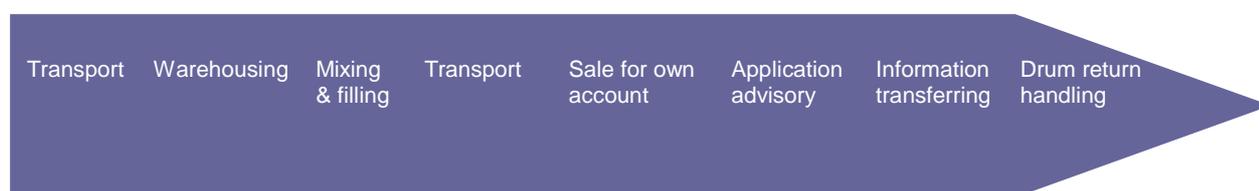


Figure 2: Value chain in the chemical distribution market

Description of Elemica

Elemica⁴ was launched as a B2B marketplace initiative on May 17th, 2000 (press release, 2000). Participating companies were: AtoFina, BASF, Bayer, BP Amoco, Dow, DuPont, Mitsui Chemicals, Mitsubishi Chemicals, Rhodia, Rohm and Haas, Sumitomo Chemical and Van Waters & Rogers.

The press release announced the following strategy of Elemica:

'Elemica will be an independent entity created to reduce supply chain costs for buyers and sellers in the chemical industry. Elemica becomes the premier hub for electronically connecting buyers and sellers of chemicals, allowing them to streamline their business processes primarily for contract sales, from the point of contract inception through delivery of product to payment'. (press release, 2000)

Of Elemica's business model we find the following description in the press release:

'Elemica offers a single integrated end-to-end system to improve negotiation of contracts, contract and order management, fulfillment, and payment. Elemica provides a way for its users to connect to a host of other companies using only a single electronic connection, avoiding the costs of setting up these connections on a one-to-one basis. Via system-to-system integration, Elemica helps reducing inventories and investment by facilitating better demand and production planning. Elemica's logistics planning systems reduce transportation costs, improve delivery, and provide online tracking and tracing of shipments. In addition, connectivity and catalogue listings will allow sellers to increase their market reach, and give buyers a broader selection of products to meet their needs.' (press release, 2000)

⁴ For information about Elemica, see also www.elemica.com.

On June 7th another group of companies joined Elemica (Elemica, homepage, 2000). This group consists of Ashland Distribution Company, Brenntag, ChemCentral, Ciba Specialty Chemicals, Celanese, and Shell Chemicals. Recently, DSM joined as well, while Ashland Distribution Company decided to drop out.

Among participants in Elemica, we find three chemical distributors: Brenntag, ChemCentral and Van Waters & Rogers. On January 1st 2001, the pilot phase of the Elemica project has started, in which a first group of the participants is using the services of Elemica. Later this year more companies are supposed to follow. In April 2001 the Elemica Website stated the following:

“The successful implementation of an e-network such as Elemica can reduce chemical industry supply chain costs by \$15 billion to \$20 billion (Bank of America Report, 2001) Elemica is designed to connect to all buyers and sellers of chemicals, letting every participant streamline operations and increase profitability. Through e-commerce optimization, our offerings provide a neutral, industry-endorsed system to deliver these savings. Moving chemicals around the world requires skill and experience at every link in the supply chain. Optimization of logistics and business processes through the Elemica network offers the potential of significant savings while retaining the high level of reliability and service that the chemical industry expects and delivers. Supply chain optimization eliminates the need for redundant systems, resulting in reduced cost. Eventually, e-solution providers such as Elemica will process 70 percent of all chemical industry transactions, according to Goldman Sachs. In 2005, an estimated \$15 billion in cost savings could be realized in the United States, Canada and Europe combined.

Chemical Distribution before Elemica

In an attempt to structure the activities of chemical distributors as mentioned in figure 2, we make a classification parallel to what the literature is suggesting. In figure 3 we see the value chain of chemical distributors divided over the four basic functions of intermediaries (Bailey and Bakos, 1997). It turns out that chemical distributors offer many sector specific functions in addition to the market making mechanisms aggregation and matching. Moreover, we see that trust activities do not play the independent role as suggested by the literature. Trust activities could probably be seen as part of the other functions. We choose to categorize ‘information transferring’ as matching. All other information functions of distributors are integrated in one of the mentioned activities.

Aggregation	Facilitation	Matching	Trust
sale for own account	transport	information transferring	
	warehousing		
	mixing & filling		
	application advisory		
	drum return handling		

Figure 3: Intermediary functions before Elemica (adapted from Stinnes and Deutsche Bank Research, 1999 and Bailey and Bakos, 1997)

Elemica and the B2B Electronic Markets Classification

In terms of the classification mentioned of Kaplan and Sawhney (2000), we categorize Elemica as a neutral catalogue hub. Elemica offers the facility of one-stop shopping, so that transaction costs could be reduced. Elemica aims to add value by aggregation, what has been defined as bringing ‘together a large number of buyers and sellers on a fixed basis (Kaplan and Sawhney, 2000, p.100)’. In comparing the characteristics of the chemical market to Kaplan and Sawhney’s conditions for effectively working aggregation, we see that a

catalogue hub fits well in the chemical industry. With the information provided about the chemical distribution market, we could certainly satisfy three conditions for efficient aggregation. The number of products turns out to be large in the chemical industry and the supplier universe is highly fragmented, so that likely a ‘metacatalog of products’ (Kaplan and Sawhney, 2000, p.100) could be created. The percentage of purchasing done through pre-negotiated contracts is estimated to be 80-90% (E-chemmerce, 2000), what we consider to be a percentage high enough for efficient aggregation. The order processing cost/costs of items procured ratio for the chemical industry and the extent of specialization of the products are more difficult to analyze, since we could not get appropriate data on that. However, we believe that these conditions are not of major importance, since we know that 80-90% of the chemical market consists of pre-negotiated contracts. Also the choice of a neutral bias seems to be consistent with the theory. As mentioned before, Kaplan and Sawhney (2000) consider a neutral marketplace to best fit markets that are fragmented on both demand and supply sides. As described, the structure of the chemical industry satisfies this to a large extent.

Impacts of the Emergence of Elemica on the Activities of Chemical Distributors

As addressed both by Kaplan and Sawhney (2000) and Bailey and Bakos, (1997), once Elemica is in business, it could take over aggregation activities from traditional chemical distributors. Aggregation becomes a cyber function and Elemica could be seen as a new intermediary that is competing with the traditional chemical distributors. Since aggregation has traditionally been the most important activity for chemical distributors, we see this development as a big threat.

Elemica does not seem to have a major impact on traditional facilitation functions. Facilitation activities require specific know-how (application advisory) or have a physical character (transport, warehousing, mixing & filling, drum return handling). Since we suggest that catalogue hubs could be seen as ‘cybermediaries’, they could only offer net-based services (Sarkar, Butler and Steinfield, 1997). Also Kaplan and Sawhney (2000) have stressed that catalogue hubs often work together with distributors to ensure safe and reliable deliveries. Besides taking over aggregation, Elemica could also contribute to the creation of new intermediary functions (Sarkar, Butler and Steinfield, 1997). According to Bailey and Bakos (1997), traditional intermediaries could play a role in the provision of security facilities for participants on the marketplace (new trust functions) and in the exchange of data (new facilitation functions). Since Elemica does not deal with matching activities, it will not be able to take over information transferring activities. However, information transferring becomes a cyber function, since exchanges (Kaplan and Sawhney, 2000) could facilitate matching. Figure 4 shows the functions for intermediaries when Elemica is in operation.

	Aggregation	Facilitation	Matching	Trust
Chemical distributors		transport storage mixing & filling application advisory drum return handling		
Chemical distributors/ Cyber intermediaries		Fe. exchange of data	information transferring	Fe. provision of security facilities
Elemica	sale for own account			

Figure 4: Intermediary functions when Elemica is in operation (adapted from Kaplan and Sawhney, 2000; Stinnes and Deutsche Bank Research, 1999 and Bailey and Bakos, 1997).

Besides the creation of new cyber functions, there could also be additional revenues generated on existing activities as a consequence of the emergence of the Internet. This occurs as a result of the unbundling of traditional physical services into physical services and informative services (Sarkar, Butler and Steinfield, 1997). Since this unbundling process is abstract, we visualize it. Therefore, we use a business model for chemical distribution of brick and mortar intermediary Vopak⁵ (figures 5 and 6). As mentioned before, Vopak is represented in Elemica by its North American chemical distribution subsidiary Van Waters & Rogers. On the left-hand side, we find the value chain of chemical distributors as shown in figure 2. The main difference between Vopak's diagram and our theoretical framework as displayed in figure 3 is that Vopak already distinguishes between physical and information driven activities before an electronic market is implemented. Vopak categorizes information driven services as 'orchestration'. Orchestration activities consist of all activities that have to do with controlling and managing the supply chain. In our framework, information driven activities are integrated in physical functions. The most important activity for chemical distributors, sale for own account, is displayed in the diagram as 'purchasing' and 'sales'. Application advisory and information transferring could be seen as orchestration. Vopak considers drum return handling, warehousing and mixing & filling to be part of their transport and storage activities. On the right hand side, we find the business model of chemical producers. Producers are added to the diagram to show their outsourcing options before and after the implementation of internet

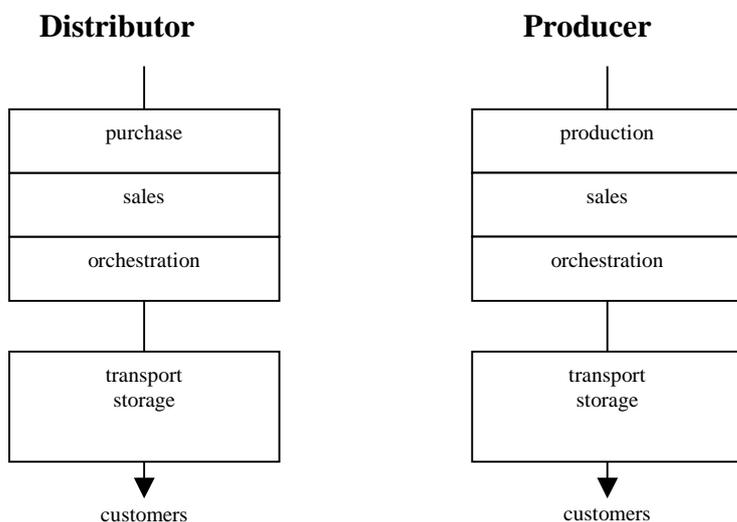


Figure 5. Traditional business model

Impacts of ICT on Business Model

In figure 6, we see the situation in the chemical market after having implemented an electronic market in the chemical industry. The first observation we make is that distributors will lose some sales activities due to direct e-sales from producer to customer. This is consistent with the view of Benjamin and Wigand (1995) as well as with our prediction that market making functions will be disintermediated.

Our second observation is that orchestration activities could be separated from sales activities by implementing electronic markets. Consequently, orchestration activities could be offered as an independent service, so that additional business could be generated. This is in line with the view of Sarkar, Butler and Steinfield (1997). The additional vertical arrows in the diagram illustrate that the integrated stream of the traditional business model does not exist any longer when an electronic market is implemented.

⁵ Vopak presentation first half year results 2000

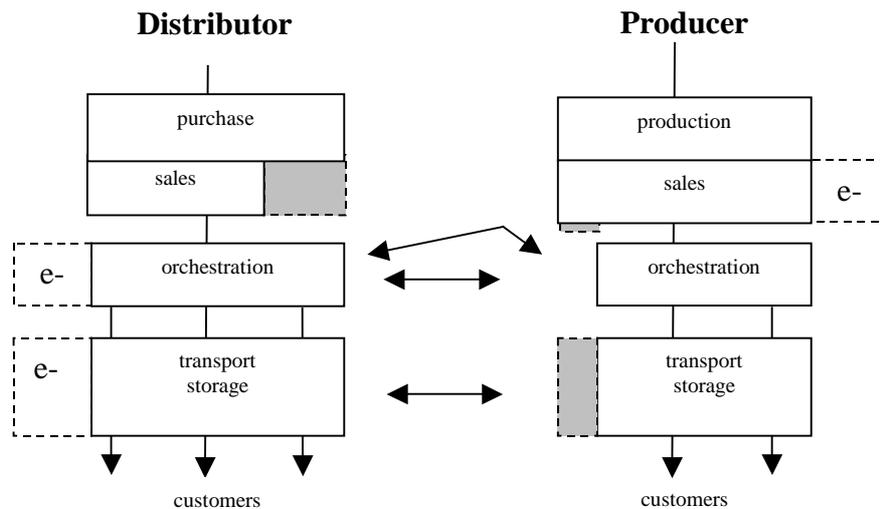


Figure 6: Impact of ICT on business model (adapted from Vopak presentation first half year results 2000)

CONCLUSIONS AND LIMITATIONS

Based on our derived framework, we strongly believe that the emergence of electronic marketplaces like Elemica will dramatically change industries. Traditional channel functions of intermediaries will be shifted, which offers both opportunities and threats that require top management attention. In this paper, we derived a theoretical framework appropriate for the analysis of the impacts of the emergence of electronic marketplaces on traditional intermediaries. The Elemica case served to further explore and illustrate theoretical findings. Nevertheless the data used are mainly secondary of nature. We expect to undertake further research using in-depth interviews to further develop hypotheses and quantitative analysis shall be applied to confirm findings. Also it would be interesting to conduct a number of case studies to detect distributor's functions before and after the transactions through ELEMICA actually take place.

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