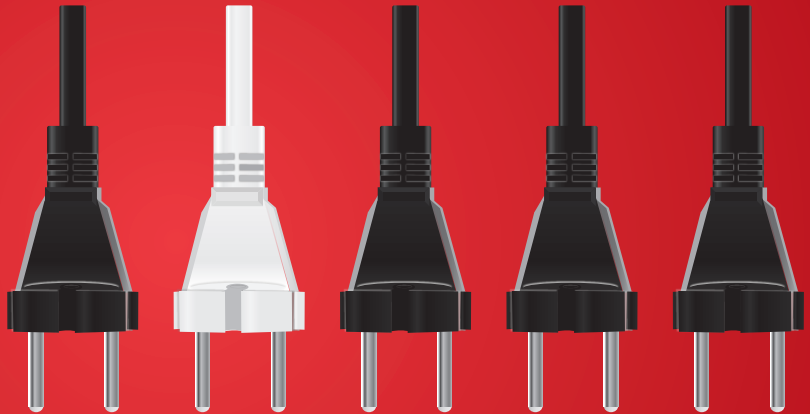


THE EFFECTS OF ECOMMERCE ON
**THE ELECTRONICS'
SUPPLY CHAIN**



VOORWOORD

TEKST

Spring 2012

Axel Groothuis, partner Eurogroup Consulting

Maarten van Welsum, Senior Manager Eurogroup Consulting

Eurogroup Consulting, Gooimeer 5-39, 1411DD Naarden

+31 (0) 35 699 60 69, www.eurogroupconsulting.nl

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1. FINDING THE BALANCE BETWEEN PRODUCERS AND RETAILERS ONLINE

Last year, online sales in the Netherlands grew by 13%. With online expenditure totaling €9 billion, the Internet is a channel no company should ignore. For producers, however, selling on the Internet can be like rope walking – a delicate balance has to be found between direct online sales and sales through a retailer.

Product brands increasingly important online

Amongst websites that provide online shopping services, brands are becoming increasingly important, providing recognition and trust in a sea of online shops. Strong retail brands such as BCC and MediaMarkt have successfully translated their brand values to the web, yet some strong product brands seem to be avoiding the possibilities of online sales. Is it that they are not aware of the importance of this new sales and distribution channel or is something amiss? The answer lies in channel conflict.

Consumers expect their favorite brands to sell online, but by selling directly to consumers, producers fear they could conflict with their distributors and retailers. Obviously, the online outlet may lead to a loss of business for retailers. However, producers fear the retailers may retaliate by withdrawing shelf position in the stores. The situation is shaky yet major product brands like Philips and Sony have taken the bull by the horns and are also aiming at direct online sales. Web shops for consumers in multiple countries are up and running.

The Eurogroup Consulting Producer-2-Consumer model illustrated in figure 1 shows the four levels of production companies developing online activities.

From sales support to conflict avoidance

On the first level, the product brand website purely supports sales made through other channels such as retail stores. Products are displayed online so as to inspire the potential client, but for actual purchases, consumers are referred to a physical point of sale.

On the second level, the brand sells its products online in a way in which retailers and distributors do not feel threatened. This may, for instance, be through price differentiation offering only list prices that are not competitive, or possibly through assortment differentiation offering a restricted collection with the producer using its web shop to sell phased-out products, new introductions, specific product categories such as accessories, parts and services, or an internet-only product line.

Some product brands use target group differentiation by limiting sales to 'members only' or to a geographical area that is not covered by its major channel partners. Although conflict avoidance is important for producers, consumers find such web shops incomplete, expensive, and often frustrating.

Co-operation between sales channels

The next level for the retailer and the producer is co-operation so as to create a comprehensive online offer for the consumer. For instance, a producer could enable its retailer to integrate its entire assortment into the retailer's website. This would provide the producer with an online sales facility that could also be accessed in the retailer's physical store, with product delivery being either to the store or the consumer's home.

Involving the retailer in product ordering from the producer's website is another option. In this case, the producer could offer retailers a complete online sales platform in which they can open their own online shop. The retail stores could then function as a 'pick up point' for purchases made through the producer's website.

Compensating channel partners for direct online sales to consumers from their customer base is another means of co-operation. This necessitates the consumer providing specific information such as a postal code or an online discount code provided by the retailer, or requesting that the consumer selects a local service point when they make online purchases.

1. SUPPORT	2. CONFLICT AVOIDANCE	3. CO-OPERATION	4. REVOLUTION
<ul style="list-style-type: none"> Website as a display window Overview of products & services Dealer addresses mentioned 	<ul style="list-style-type: none"> Online sales, not interfering with retail channel via differentiation in: <ul style="list-style-type: none"> Price Assortment Target group 	<ul style="list-style-type: none"> Strong interaction between sales channels Strong online support to retail channel (product catalogue, online store) Loyalty programs with the retailer Revenue sharing models 	<ul style="list-style-type: none"> Full assortment online Competitive online pricing Strong off line inspiration and advice: brand centers, brand corners Customer decides what to buy in what channel Advanced cross channel loyalty program with the brand
			

Figure 1: Producer-2-Consumer: Cross-channel growth model

Product brands could also enforce price harmonization across all channels. For example, working exclusively with a concession model could prevent price differences arising between the channels, as it is the manufacturer who determines the price.

Revolution

On the revolution level, producers take power and sell directly without constraints, and resellers may be forced to explore a different business model. When strong brands 'go direct', this is the trend that should take off.

Imagine department stores that are 'houses of brands', functioning as a showroom with highly skilled personnel who are able to make relevant comparisons between products and brands. Very strong brands like Apple may be able to afford fully owned, exclusive flagship stores throughout the country.

The actual purchase of a product will then be made using an online terminal in-store or at home. Loyalty cards or special discounts using a code number that refers to the sales person will stimulate consumers to purchase online, and the 'showroom' will be paid per square meter and per referral.

Determining the right level for a product brand

In the next three years, more brands are expected to leap forward to level four. In the case of a supply chain where the downstream partners have more power, the product brand may decide to start by just exploring the co-operation model. The independence of a producer online is determined by its brand power.

In addition, going direct requires major changes in organizations that are not yet selling online. Consider the impact on distribution, door-to-door delivery, stock management, customer service calls and direct returns, order and price management, IT, and so on. The question for companies is whether they are able to implement such a new business model and how easily they can integrate with new, online channel partners. Organization agility also determines how and when a company moves between levels. In the next article the effects of Ecommerce on the producer's supply chain will be discussed.

No matter how a producer navigates through and within the levels of Producer-2-Consumer selling, retailers and product brands will have to find a new balance to face the future. The growth of the online channel is too impressive to ignore.

2. THE EFFECTS OF ECOMMERCE ON THE ELECTRONICS' SUPPLY CHAIN

2.1. Introduction

Over the last years many retailers have added online shops to their existing sales channels. Since the consumer is used to buy online and basic thresholds like security of online payment have decreased, the discussion about the added value and role of retailers in the value chain arises. Many product brands question whether they should offer their products online and sell directly to consumers.

The choice of a product brand to start online sales to consumers leads to channel conflict issues in the relation between retailers and product brands . But even when a channel conflict can be avoided, product brands still have to deal with the impact on their own supply chain. To get insight into the effects of Ecommerce on the supply chain interviews have been conducted with supply chain- and Ecommerce managers of more than 10 leading consumer electronics' product brands (hereafter called "producers"). Next to a general introduction the results and comments are divided into the topics assortment, warehouse, sales & distribution and returns & service.

2.2. General: The emergence of Ecommerce in electronics

SURVEY RESULTS

- Ecommerce is already important in electronics, as all producers are selling online via retailers.
- For this reason a part of the producers is familiar with handling client specific orders even with home delivery to consumers.
- Many of the producers indicated that they have just started direct online sales or that it is currently on the board's agenda. This is often limited in assortment or target group.
- Producers are anxious to offer their entire product range online because of the possible impact on the position of the retailers.
- A few are very explicit that they will protect the current retail channel as it is or do not feel able to organize the last mile. So they say they will never sell directly to end consumers online.



“More than half of the producers have already started with direct online sales”

Figure 1: Percentage of producers with direct online sales

There are many ways in which producers may offer and deliver their products to consumers. With retailers there are several ways of co-operation dependent on the sales channel and the party responsible for delivery. When introducing direct online sales to consumers, the number of options is further extended. Moreover different (online and offline) business models can be combined. The figure (2) below gives an overview of the business models present on the market. For example in the cell with the text ‘Traditional’, which is referring to the traditional retail model, sales are done at the retail shop and the consumer picks up the products at the retail shop. In this situation the producer delivers the products to the retailer. In the cell with ‘P2C webshop’ the sales are done via the webshop of the producer and the producer also does home delivery. The retailer is not part of the supply chain in the ‘P2C webshop’ model.

		PHYSICAL DELIVERY FROM PRODUCER TO	
		Retailer	Consumer
CONSUMER SALES CHANNEL	Retail physical	Traditional Sales at Retail shop & Pickup at Retail shop	Showroom model Sales at Retail shop & Home delivery by producer
	Retail online	R2C webshop Sales via Retail webshop & Home delivery by retailer	Online showroom model Sales via Retail webshop & Home delivery by producer
	Producer online	Pickup Sales via Supplier webshop & Pickup at Retail shop	P2C webshop Sales via Supplier webshop & Home delivery by producer

Figure 2: Traditional and Ecommerce business models

2.3. Assortment: Shorter product life cycles and more depth

SURVEY RESULTS

- The effect of Ecommerce on the assortment is limited at the moment.
- In general the assortment offered online by retailers is comparable to the assortment found in the shopping streets.
- The most important effect of Ecommerce on the assortment is on the product life cycles, which are becoming shorter and shorter. Ecommerce is one of the drivers of this development.
- In a couple of cases producers have however deepened their assortments (more variants) for online purposes or have increased the configurability.
- Producers generally offer a more limited assortment in their own webshop compared to the traditional retail channel.
- The changes in assortment, although limited, are causing extra complexity in the supply chain for producers.

In the long run Ecommerce will lead to an increasing number of products in assortments. Also for electronics this trend is recognizable. Often Ecommerce means the introduction of a 'long tail' of products with a low stock turnover. Also choice and customization expectations of online consumers result in larger numbers of products. Producers are often willing to provide for these extra options in order to "mystify" the online comparison between sales channels (like retailers and own web shop) and to prevent price erosion in this way. As shown in figure 3 the standard set-up of assortments is changing, triggered by Ecommerce.

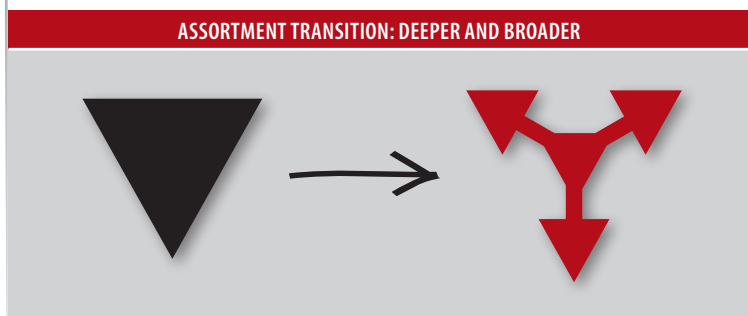


Figure 3: Effect of Ecommerce on assortment

2.4. Warehouse: Separation of stock and increase in value added services

SURVEY RESULTS

- In line with the increase in the number of products in assortments, the number of products in stock (stock keeping units) is also larger because of Ecommerce.
- Other effects of Ecommerce are the extension of value added services and changes in packaging.
- Adjustment of streams in the warehouse is regularly needed because of Ecommerce.
- For producers with an own webshop a separation between Ecommerce stock and retail stock is common. Besides this the extension of value added services is very substantial when selling online to consumers.

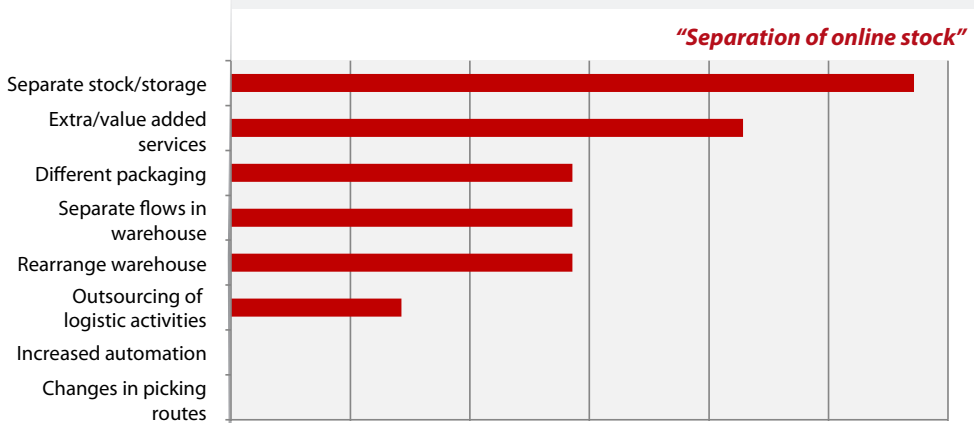


Figure 4: Effect of Ecommerce on warehouse handling

The stock held for Ecommerce is often separated (physically or administratively) from the stock for retail. Different possible explanations can be given for this phenomenon. In the first place it is important that the stock is really available for online sales. As via the website a reliable availability of products must be communicated right away. Secondly Ecommerce orders often need a different client specific handling and packaging. Next to this some products may only be sold online and are not available for the traditional retail channel.

Physical separation is often applied in cases of fast movers. Two-step picking is introduced to combine fast movers and slow movers into the distribution of online orders, which mostly requires additional handling and cannot easily be combined with general picking strategies due to short delivery times and small

order quantities compared to replenishment of retailers. Certainly when a producer starts with Ecommerce a separation of stock can help in performing the Ecommerce warehouse activities adequately as they are often more complex than the 'normal' ones.

2.5. Sales & distribution: Smaller, faster, integrated and international

SURVEY RESULTS

Orders and deliveries

- Order sizes and delivery sizes in electronics are decreasing as a result of Ecommerce, which is among others due to customer specific orders. This also means that the number of orders and deliveries per period is higher.
- Shorter delivery times to consumers are required from producers with their own webshops. They also have to meet additional requirements for packaging (consumer packaging, adding consumer shipping documents, labeling).

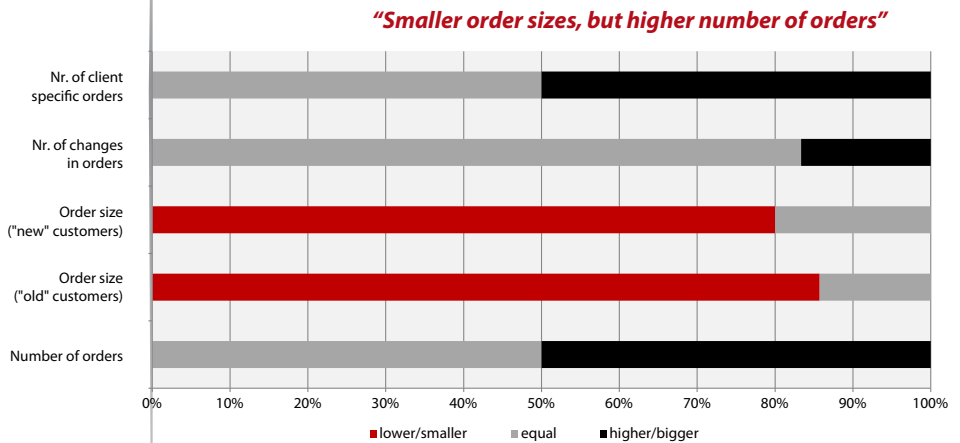


Figure 5: Effect of Ecommerce on order behavior

SURVEY RESULTS

Planning

- The method of planning for outbound distribution is changing because of Ecommerce.
- Different information is used for Ecommerce like sell-out information, more information is exchanged with online retailers and planning frequencies are higher.

“Better sharing of information with retailers”

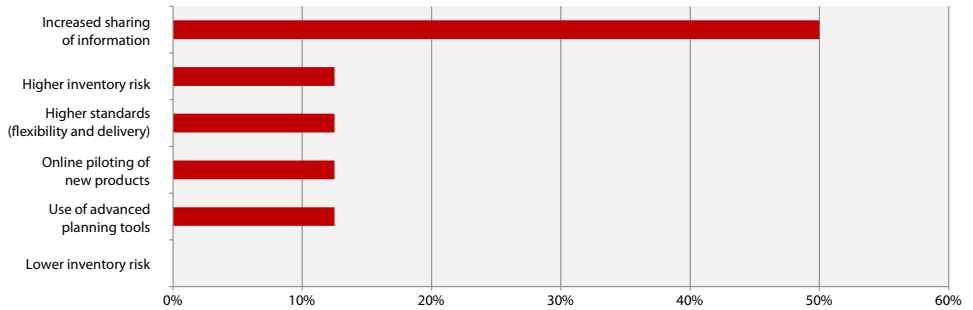


Figure 6: Effect of Ecommerce on supply chain planning

SURVEY RESULTS

International

- Special attention is paid to the internationalization opportunities and threats of Ecommerce.
- Harmonization in sales and distribution throughout Europe and the world is becoming an actual topic.

Consumers are used to short delivery times based on their experiences with large, online department stores. From producers in electronics these consumers expect the same. Further, all kind of interaction possibilities should be available for consumers via the Internet. This requires an integrated information supply throughout the chain, from stock insight and promised delivery times to order and payment status, tracking and tracing, pricing and campaigns, product specifications, warranty information and installation manuals. On the one hand you may argue that Internet sales are more anonymous for consumers. On the other hand you may state that consumers are more involved in the sales process as they do have much more insight into the entire supply chain.

Better information sharing between consumers, retailers and producers will definitely improve customer satisfaction. However, between producers and (multiple) retailers, it is not always clear who has to invest in those improvements and to what extent their traditional producer-buyer relation will change by sharing more information. Moreover, the competition between retailers may be affected when a producer provides the same information to all retailers. Ownership and availability of information becomes a competitive

advantage online. A general tendency is that logistics and planning departments are willing to share information with other partners in the supply chain, where commercial departments have to overcome a threshold.

Product life cycle management has become increasingly complex for producers in electronics. A product introduction in Asia or in the USA immediately leads to a consumer demand in Europe as the real “brand addicts” follow the developments of these brands closely. This requires ‘cross border harmonization’ in price and assortment on the one hand, but creates opportunities for product pilots and improved international demand forecasting on the other hand. In case of direct online consumer sales by the product brand itself, it raises the question whether a consumer is allowed to buy online via a foreign website. This also introduces complexity in distribution due to country-specific settings, manuals and warranty policies. Apart from the effects in case of direct sales, many producers also have to revise their existing distribution contracts for cross-border online sales by retailers and other distributors.

2.6. Returns & service: Support producers required

SURVEY RESULTS

- Return logistics for Ecommerce are often outsourced to a third party (comparable with the regular stream).
- A part of the producers is handling the return stream for Ecommerce separately from regular returns
- The percentage of returns in relation to sales may be higher for Ecommerce than for sales via retail, but this difference is limited.
- Online only retailers (‘etailers’) are often not equipped for handling returns or performing reparations. They rely on the support of producers, who take over these activities from etailers.
- Electronics’ producers mostly collect products at the consumers’ or retailer’s location. This gives producers the chance of getting closer to consumers.

“Better sharing of information with retailers”

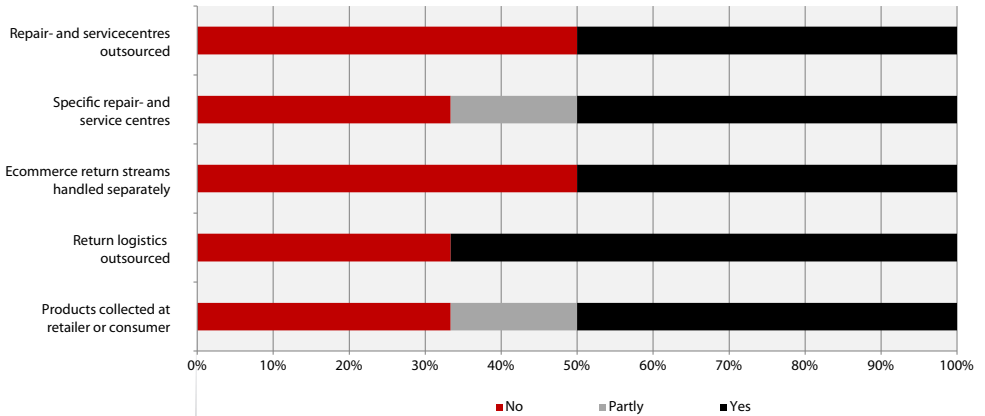


Figure 7: Organization of returns and services

New European legislation offers “buyers at distance” (who were not able to see the product before the purchase) the right to return the product within two weeks for any reason. If they have announced their return within two weeks, they have another two weeks to physically return the products. In some cases, the return costs are to be paid entirely by the seller. This creates the theoretical option that someone buys a large flat screen and returns it shortly after the European soccer tournament. Especially with shorter product lifecycles and seasonal products a tremendous stock risk is put on the retailer or producer.

Another effect of online sales is that logistics operations are often outsourced to less specialized third parties. This leads to an increase in product damage due to improper product handling during storage, picking, packing and distribution. Although these damages may be claimed at those (logistics) service providers, it is always hard to prove who caused the damage. A practical solution to eliminate the need to investigate every case in detail would be to agree on a standard damage returns rate with the service provider in advance.

2.7. Conclusion: Increase of supply chain complexity

The conclusion from the survey is that Ecommerce clearly impacts the supply chain of the producers in electronics. This impact increases when sales are done online and gets even higher when producers deliver directly to consumers. The situation, which has the highest impact on the supply chain of producers, is when producers are selling to consumers online and are also delivering to consumers themselves ('P2C model'). For producers this results in a complex supply chain based on aspects like shorter product lifecycles, separated picking strategies/stocks, smaller order sizes, higher number of deliveries, differentiation in packaging and further internationalization (figure 8).

		PHYSICAL DELIVERY FROM PRODUCER TO	
		Retailer	Consumer
CONSUMER SALES CHANNEL	Retail physical	Traditional	Showroom model
	Retail online	R2C webshop	Online showroom model
	Producer online	Pickup	P2C webshop

Increasing complexity (handwritten note with arrow pointing from 'Traditional' to 'P2C webshop')

Figure 8: Effects of Ecommerce on supply chain complexity

This entire cocktail of changes creates a significant challenge to remain profitable while meeting consumer's expectations. The most important driver for the choice for one or more Ecommerce business models is customer value. At the end of the day the consumer decides about the required offering. Thus it is important that producers are convinced of the customer value of the chosen online business model, as it will not make life easier upfront. Time will tell which brands are resilient enough and can cope with this "new economy".

EUROGROUP CONSULTING

GOOIMEER 5-39, NL-1411 DD NAARDEN

P.O. BOX 5021, NL-1410 AA NAARDEN

+31 (0)35 699 60 69

INFO@EUROGROUPCONSULTING.NL

WWW.EUROGROUPCONSULTING.NL