International Entry Modes for Digital Product Providers

A case-study of an e-marketplace that seek to minimize local, physical presence

Morten Rask, Aarhus School of Business
&
Bent Petersen, Copenhagen Business School

Often internationalization of the firm refers to the process of increasing involvement in international operations. In relation to e-business many authors have argued that e-business will change the internationalization processes. E-business is about digitalization of processes, products and actors and many think that because these digitalisations, the importance of localization diminish, especially for what we call digital product providers that sells digitized products and services. The empirical foundation of this paper consists of an inductive explorative case-study that serves as a challenger and supporter of this understanding. The case describes an example of a successful e-marketplace where customers doing reverse auctions. A recent study found that most e-marketplaces are based in Europe and the USA and operated mostly domestically even though a few (14%) e-marketplaces operate worldwide (Fredsted, 2003). The case study gives insight into one of the few international marketplaces. Scanmarket has expanded to the English, German, American and Swedish markets. Essentially the case raises the question: "To what extent does the Internet supersede firms' need for local, physical presence?"

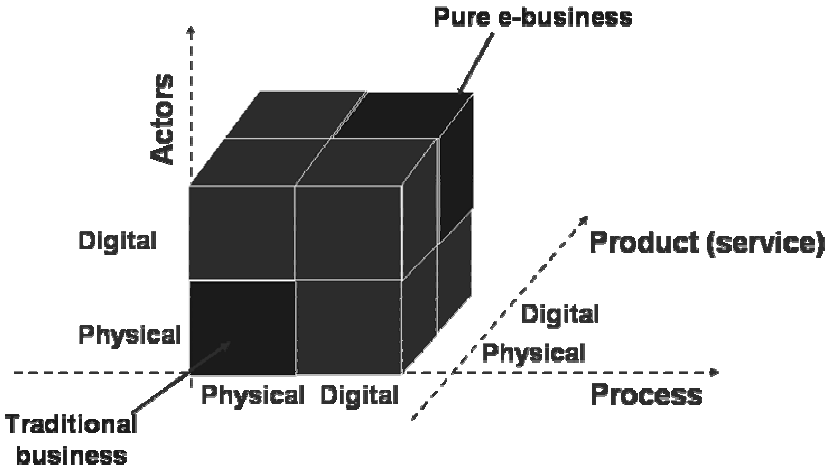
The paper is organized as follows. First an introduction is provided. After a description of the methodological issues, the case-study is presented. The case-study indicates theoretical issues in the discussion of the need for local, physical presence when a digital product provider is in question. On the basis on the theoretical and empirical background a discussion is provided in order to understand the need for local, physical presence when a digital product provider is in question. The final conclusion ends the paper.

Defining the Digital Product Provider

The question "To what extent does the Internet supersede firms' need for local, physical presence?" is closely related to digital products (Petersen & Welch, 2003). E-business can be defined as the digitalization of actors, processes and products (Whinston, Stahl, & Choi,

1997), which is illustrated in figure 1.

Figure 1: Definition of e-business as a matter of digitalization



Adapted from Rask (2001)

Digitalization of the actor dimension happens when the company supplement the sales offices with a homepage, etc. To make that happen, some of the processes in the firm need to be digitalised. Also a part of the product is digitalised, for example the service part. In other words, the three dimensions are interdependent on each other. Every dimension requires and at the same time constitutes possibility for digitalization on the other dimensions. The process, where the traditional company transforms its actors, processes and products from a physical state to a more digital state, makes them going from being a brick-and-mortar company to be a click-and-mortar company. For these types of firms, their e-business strategy constitutes the digitalization state of the actor, process and product dimension, where the digitalization of the product normally holds certain limitations because the core-product can not be digitalized. In other words, click-and-mortar firms need some local, physical presence. It can be local personnel because the core product is a service delivered by human beings or it can be logistical processes because the physical product or the physical container of the product needs to be physical delivered to the customer.

Solving the Traditional Trade-off between Richness and Reach

The digitalization of the product is likely to increase firms' inclination to expand internationally (Petersen & Welch, 2003). When the product is digital, we can talk about digital product providers, that normally exist because of and on the Internet only. The digital product provider shares the uniqueness with e-commerce corporations that sell physical products only. The digital product providers have from the start a multinational accessibility. The digital product providers compete not just with domestic firms but also with firms all over the world (Singh & Kundu, 2002). The digital product providers have the possibility to solve the traditional trade-off between "richness" and "reach" that have been difficult for

traditional firms.

"Reach simply means the number of people, at home or at work, exchanging information" (Evans & Wurster, 1997). For many firms global reach have been a compulsory resource drain because it's a costly and time consuming affair. However, because of the Internet, global reach can be a strong resource (Morrison, Bouquet, & Beck, 2004). Normally Internet is understood as a phenomenon with extremely wide reach. However in some cases Internet is a poor mirror of the physical world because of the relative low Internet penetration. Even though Internet only covers approximately 15 percent of the world's population, more and more people are using the Internet (UNCTAD, 2003). During the last decade the Internet has been introduced to consumers and businesses and the usage of the Internet has increased reach tremendously. Additionally, when the object under investigation is digitalized, Internet-based international expansion is very relevant and in some cases Internet could be the only place to market and sell the products.

Richness can be defined by three aspects of the information itself: Bandwidth as the amount of information that can be exchanged between sender and receiver in a given time. The degree to which the information can be customized is the second aspect. The third aspect is interactivity (Evans & Wurster, 1997). Figure 2 illustrate that Internet-based international expansion can solve some of the traditional trade-off between richness and reach.

Figure 2: Solving the Traditional Trade-off between Richness and Reach

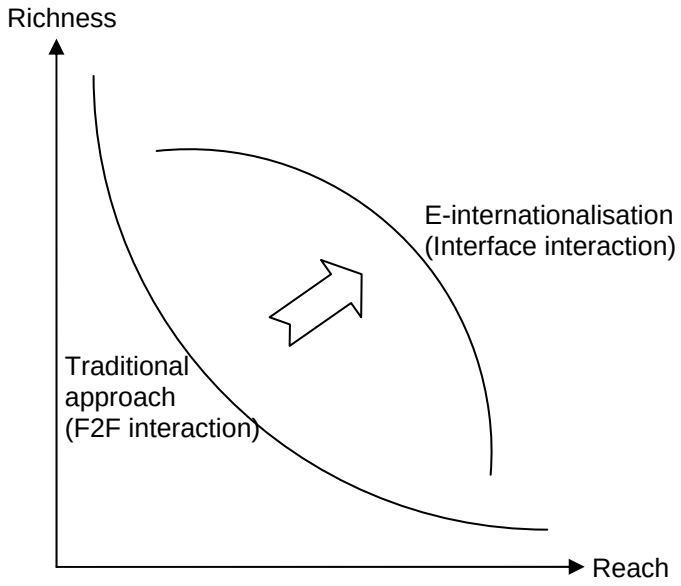


Figure 2 also shows that Internet-based international expansion make the firm able to reach relatively more respondents with a delivery of higher richness of information in relation to a traditional international expansion approach. We can also see that Internet-based international expansion have a more narrow scope of the trade-off effect between rich and

reach. Internet is not able to cover the unconnected world and the reach is thereby also limited but this is not relevant for the digital product providers that deliver their product by using the Internet. If there is no Internet connection available, the digital product provider does not exist, so a local and physical presence can not solve that problem. Regarding the richness, Internet can not cover face-to-face that has the highest information richness (Daft, Lengel, & Trevino, 1987; Daft & Weick, 1984; Lengel & Daft, 1988).

Could the need for face-to-face interaction could be the reason for the digital product providers' need for local, physical presence in the market? To say it differently, normally face-to-face exchanges had been and area of interest, theory development, education and practical training in cross-cultural management for many yeas. New types of knowledge and skills had to develop when face-to-face interaction is not obvious because the international expansion vehicle consist of Internet interfaces. This is seen as one of the most demanding aspects of global e-commerce (Petersen & Welch, 2003; Petersen, Welch, & Liesch., 2002; Rask, 2001) and that is why we raise the question: "To what extent does the Internet supersede firms' need for local, physical presence?

Methodology

The aim of the inductive case study is to further develop theory concerning the need for local physical presence in the internationalization process of firms. We apply a hermeneutic procedure that involves several iterative loops between phases of the research process. This is often referred to as the three-step process of interactive redevelopment of understanding: pre-understanding, understanding and post-understanding. The purpose of pre-understanding is to create a common language about the phenomena under investigation. The goal of the understanding phase is to find essential patterns in the information. In the post-understanding phase we interpret what is factual and actual in the current study (Arbnor & Bjerke, 1997). Table 1 describes the phases in the research process of the present study.

Table 1: Research Process and the Paper Structure

Research Process	Organization of the Paper
1) Pre-understanding Grounding study in existing literature	Defining the Digital Product Provider
2) Understanding Case creation	Case study: The Internationalization process of the e-marketplace Scanmarket A/S
3) Post-understanding Developing of theoretical perspectives for the need for local physical presence	Theoretical perspectives on local and physical presence for the digital product provider Scanmarket

Among the advantages of this approach to case analysis are the possibilities for others to better understand and follow the interpretation processes of the researcher in deriving findings from complex data material, something which less structured qualitative analysis procedures have been criticized for lacking (Miles, 1979; Miles & Huberman, 1984).

Data

The first contact to Scanmarket was initiated in the beginning of 2003 by the CEO Ole P.

Nielsen as a feedback on one of the author's book (Ivang, Rask, & Christensen, 2002) about e-marketplaces and a meeting was scheduled. The interview's output was a teaching case (Rask & Ivang, 2004) and the contact was maintained by supervision of students working with Scanmarket during 2003 and 2004. Again Scanmarket called for help and the next interview was scheduled with the consultant Betina Nygaard where we talked about the internationalization process. The resulting case describes the initial internationalization process and the considerations about future international expansion of a successful e-marketplace.

Case study: The Internationalization Process of the E-marketplace Scanmarket A/S

Scanmarket develops and sells a digital product, based on an Application Service Provider idea. Scanmarket contacts the customer and sells a subscription to the system, which gives the customer unlimited access to the system for one year, during which he can conduct as many reverse auctions as he wants. A reverse auction is a buyer-oriented marketplace facilitating matching of organizational buyers and sellers based upon variable price setting. Reverse auctions support primarily the negotiation phase and to a certain extent the information searching and evaluation phase, where as suppliers are often contacted and qualified before the auction. In that way reverse auctions can be used for both spot and systematic sourcing of both manufacturing inputs and operating supplies. In other words, the Scanmarket customer buys access to a digital product that enables him to formalize the negotiation process when purchasing products and services.

> The primary marketing message is: Scanmarket enables the buying organization to reduce purchasing costs by reducing process-time and product price… The suppliers will also experience process-time reduction, which gives the suppliers the possibility to sell to a lower price and maintain an appropriate contribution margin. (Betina Nygaard, Scanmarket, June 4, 2004)

Personal face-to-face selling was important, especially in Denmark. When Scanmarket interacted with their customers (acting as buyers in the Scanmarket system), there was a focus on relationship building. Scanmarket helped the procurement personnel the first time they had to conduct an auction. This usually took about 1½ hour. Scanmarket employees visited the customers' procurement personnel 2-3 times a year afterwards. However it had changed. The reason was that Scanmarket re-oriented the customer focus to big (top-100) companies with professional procurement departments. Scanmarket was monitoring the use of auctions in real-time and could help the customer getting started from a distance. If Scanmarket could see that a customer did not use the system for a while, a personal contact was established. In the extreme case there was no need for being physically present at the customers' location. However, from a psychological point of view it was important to have a business address in the country.

A market entry into a new country started with creating a list of the top-100 firms in the current country. In the next step Scanmarket located and called the purchasing director at each of the potential customers. Scanmarket asked for an opportunity to demonstrate the product in a face-to-face meeting. At this meeting, the latest procurement activity and how this could have been done in Scanmarkets system were discussed. In Scanmarket's experiences that the

difficult issue was to get the potential customer to understand the negotiation process as it would take place in Scanmarket's system.

Organizational development: From a tiny local to a small international player

The development of the e-marketplace had been a hard fight, and Scanmarket was one of the few Danish dotcoms that survived after the stock-market-driven dot.com hype. One of the reasons was that the company never had any loans or overdraft facilities. The first financial year as a private (limited) company Scanmarket had a negative result of DKK 900.000 before tax for the period June 2, 2002 to December 31, 2003. In 2004 Scanmarket had positive monthly revenues and expect to generate total revenue for 2004 between 2 and 3 million DKK. The buyers bought for 3½ billion DKK in 2002/2003 and the management expects that this number will increase to 5-6 billion DKK in the financial year of 2004. (Dietrichsen, 2004). The exchange rate for 6 Danish Kroner was approximately one US dollar and ½ British Pound Sterling. In other words, Scanmarket was a small company with limited resources. Once customers got used to Scanmarket's system, it was the experience at Scanmarket that the need for customer support was very limited too.

> We have a very user-friendly system so we get less than one customer support-call a day… Also we can follow the auction activities and if we find issues that need to be corrected we call the customer. (Betina Nygaard, Scanmarket, June 4, 2004)

In addition, it was possible for Scanmarket to make online product demonstrations for potential customers and handle concrete problems with a certain auction from the main office in Solbjerg, Denmark. It was possible to handle customer support calls until 2 a.m. local Danish time. It was not only customer support and training that could be done on a distance. Also, "production" was not dependent on the physical location. Some of the minor important programming tasks had been outsourced to firms in the Philippines.

Figure 3: Organizational activities and responsibilities at Scanmarket HQ, June 2004

Activities	**Issues**	Director OPN	Consultant BN	Programmer SS	Programmer KN	Director VPN	Secretary IN
Pre-sales and sales process	New markets in general						
	Sales in general						
	German focus	X					
	UK focus		X				
	USA focus	X					
After sales	Education and training						
	Customer support						
Production	System development	X					
Organizational support	Accounting					X	
	Administration						

The crosses (X) symbolize managerial responsibility and grey areas symbolize the task responsibility for the current employee

Essentially, Scanmarket was a sales driven entrepreneurial company. The founder of the firm Ole P. Nielsen was CEO together with his father that also held the CEO title. The founder cared about the product and the expansion of the market opportunities for Scanmarket and left the "details" to the rest of the organization. Figure 3 illustrates the organizational activities and responsibilities at Scanmarket that roughly could be divided into activities a) before and during the sales process, b) after the customer had been acquired, c) the development of the Scanmarket system and d) organizational support. The organizational setup was strong because there were human links between sales, after-sales and production activities.

International experiences

The initial goal was to establish Scanmarket on the Danish market:

> The starting point was to create a company that could stay in business, the fundament should be in order, and we needed to cover our fixed cost. Often the customers ask us: "Are you here tomorrow?", this is extremely important. This [the Scanmarket system] is a process and when you use time and effort in such a process and you shift to a new system, you need to train your employees again. (Betina Nygaard, Scanmarket, June 4, 2004)

The internationalization process of Scanmarket started when a Danish woman Vibe Puggaard who had moved to *England*, because her husband had got a job there, contacted Scanmarket. She asked if she could be the Scanmarket representative in England. She started the UK sales offices in January 2001 on a commission basis. In 2003 Vibe Puggaard moved back to Denmark with her family and an agent was hired to serve the English market. Also in 2003 a strategic alliance with ADR International Purchasing Consultants was formed to sell the Scanmarket system to the customers of ADR International that was present in UK, USA and South Africa. ADR International made customer courses, where they taught state-of-the-art e-procurement. Scanmarket was very pleased with this arrangement. In 2004 Scanmarket created a virtual office[1] in UK. Together with the UK market responsible at Scanmarket, ADR International and an independent agent handled the UK market.

The *German* sales office opened in June 2003 and it was handled by an agent on a commission basis. The agent, a Dane named Teit Silberling was interested in a formal employment at Scanmarket. In the summer of 2004 the CEO of Scanmarket, Ole P. Nielsen moved to Germany in order to help expand sales in the German market. Together with the agent, Ole P. Nielsen met with the big customers and he also found new customers on his own. A German contact agency helped book these meetings. In the long tem, the agent was meant to independently handle Germany.

During the Christmas holiday of 2003 a contact was made to the Dane, Johan Møller Jensen that previously was selling business intelligence software from the Danish IT-firm Targit A/S. The Targit software was sold through Navision partners. The goal was to sell the Scanmarket System through partnerships with existing IT-solution firms that are experienced in the market as they already was certified as Navision solution partners. These partners would act as authorized dealers. After the meeting, the North American sales office, which

[1] A virtual office provides often services like: a street address, receive mail and parcels from regular mail as well as from all courier services, forwarding of mail worldwide, a fax number with fax forwarding, a phone number answered in the company name, messages taken is emailed to the company, transfer of callers and order taking.

covered *USA*, Canada and Mexico, opened in January 2004. The head of the American sales office acted as general agent and he was paid commission for each license sold in the USA. The commission should cover the training of the authorized dealers so they could handle customer support. They got the exclusive rights to sell to the customers in the state where the authorized dealer is located and the authorized dealer agreed to buy a certain amount of licensees every month. The price of the exclusive rights was fixed as a minimum invoice amount, reflecting sales potential in the state. The way it worked was that Scanmarket would invoice the dealer with the minimum invoice. When the dealer sold a license, he first sold the licenses already paid by the minimum invoice amount. In the "American" way of handling a market, Scanmarket Denmark did not have any customer interaction with North American customers.

In January 2004 the first *Swedish* customer came to Scanmarket. The contact came through a Danish customer's membership at EMD AG. EMD AG was an international central purchasing and marketing organization with primarily autonomous and independent grocery trading firms in 15 European countries as members. The Swedish customer was also a member of EMD AG. Scanmarket saw cooperation with EMD AG as a possible international expansion vehicle so tests were planned in 2004 regarding the possibility that EMD would recommend Scanmarket to EMD-members.

In the summer of 2004 six languages were available; Danish, English, French, German, Spanish and Swedish. The Scanmarket customers' primary concern regarding language options were that the domestic language should be an option together with English.

Looking back on the relatively short internationalization process of Scanmarket, the experiences from UK and USA had made big impressions at Scanmarket:

> The USA-model and ADR have been the most important experiences because this wake-up-call had made it possible for us to see that international expansion can be done fast and in another way than if we should do it "correct" from a traditional point-of-view. This gave us ideas to how to proceed in the future as a combination of USA and ADR. In that way we can start new markets without using too many resources. (Betina Nygaard, Scanmarket, June 4, 2004)

The future international expansion of Scanmarket should be understood as project-based work that ends with 10 reference customers. After that, market responsibility could be handed over to external partners. A new market could then be approached. This could be done with limited resources.

Theoretical Perspectives on Local and Physical Presence

The case-study evolves some interesting themes that needs for further theoretical refinement in order to understand digital product providers need for local, physical presence. First, in Scanmarket is seems to be important that there is a face-to-face interaction with the customer in order to handle the reach and richness in some of the customer interaction. However this face-to-face interaction does not necessary have to be conducted by Scanmarket employees but by external partners when Scanmarket still have the full control of the use of the product. This is possible because the product is digital. The way Scanmarket solves the trade-off between richness and reach encourage the second discussion theme; the need for and type of entry modes that makes sense for a digital provider as Scanmarket.

The Need for Face-to-Face Interaction

Reverse auction is a buyer-oriented e-marketplace. In that way Scanmarket's product is an interface that facilitating the matching of organizational buyers and sellers based upon variable price setting without buyers and sellers needs to have face-to-face interaction. You could say that the Scanmarket system solves the traditional trade-off between reach and richness when the buyer negotiate price with the seller. By using the Scanmarket systems, the buyer can in theory reach every potential supplier in the world and the richness of the interaction is also impressive. There is no limit for the amount of information, the level of customization and interactivity that is involved in the negotiation process. In this view it seems strange that face-to-face interaction is so important for Scanmarket when they sell and support the product. However, if we understand Scanmarkets digital product as a process-enabler it makes sense that face-to-face interaction is important in the pre- and after-sales activities.

Regarding the pre-sales activities, Scanmarket used the Internet to create a list of potential customers in the current country. However, Scanmarket experienced that face-to-face meetings were an important tool to investigate the sales potential. Internet interaction could not solve the trade-off because the level of richness was too low. The reach of the Internet made Scanmarket able to locate potential customer. Even though it was possible for Scanmarket to make online product demonstrations for potential customers the lack of richness did not make Scanmarket able understand it was a real business opportunity. Scanmarket experienced that all types of customers need product demonstration in a face-to-face meeting in order to make the potential customer able to understand the organisational impact of the product. In more IT-inexperienced firms with a more unprofessional procurement department there was an extra need for face-to-face interaction in terms of training in using an Internet-based interface and also in terms of streamlining procurement processes. In order words, the most important part of the sales process was to emphasize that the product enables a more efficient procurement process. This stressed the importance of training as a part of the sales process.

When the customers got experienced with the Scanmarket system, it was the experiences at Scanmarket that the need for customer support was very limited. When Scanmarket was monitoring the use of auctions in real-time, Scanmarket could handle concrete problems with a certain auction from the main office in Denmark. It was possible to handle customer support calls until two o'clock local Danish time. So there was no need for being physical present at the customers' location. In other words, because the product is digital the after-sales activities benefits from the fact that Internet can solve the traditional trade-off between richness and reach.

To conclude, we can say that the case-study shows that even though you have a digital product and a type of product that solves the traditional trade-off between reach and richness there is a need for face-to-face interaction and this could be the reason for the digital product providers' need for local, physical presence in the market when complexity in the sales activity is high.

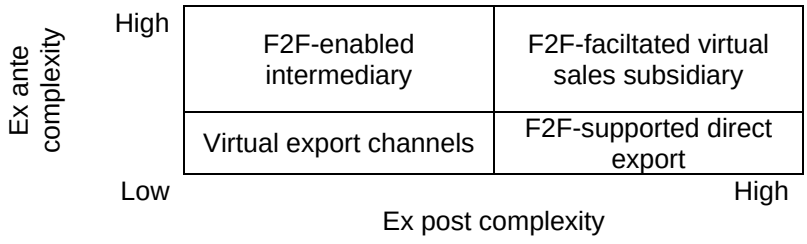
Possible Internet-Based Entry Modes for Digital Product Providers

The case-study shows that digital product providers can with good meaning let external partners conduct the face-to-face interaction with Scanmarket customers. Scanmarket still have the full control of the use of the product when they monitor the use of auctions in real-time. This is possible because the product is digital. In the search of possible Internet-based export intermediation Scanmarket have tried to create entry modes that reflects the complexity of Scanmarkets activities before and after the sale and at the same time Scanmarket seeks to minimize the need for being physical presence at the local market.

In order to create a theoretical perspective on the Scanmarket selection of entry mode, Andersen's (2004) work on Internet-based export intermediation shows a meaningful division of the entry modes are ex ante and ex post complexity, meaning the complexity of the exporters activities before and after the sale. High ex ante complexity is symbolized with high search costs and high ex post complexity constitute high subsuming contract and control costs under the headline of coordination costs. These transaction costs are related to the need of local physical presents. In other words, the more firmly the local physical locales presents, the higher transactions cost. Hence, export intermediaries represent a low-involvement entry mode, whereas sales subsidiaries present a strong resource market commitment (Young, Hamill, Wheeler, & Davies, 1989).

Even though Andersen (2004) primarily focus on export of physical products, he also take digital product providers into account. The entry mode that has low complexity on both the ex post and ex ante dimensions is called the virtual export channels. This type of entry mode is only virtual and there is no need for local physical location. However, not all situations are characterised by low ex ante and ex post complexity because the product is digital and can be delivered on the Internet. Many of the digital product provider failures illustrate, that the ex ante market complexity was very high, so these firms went bankrupt because of the marketing budget sky-rocketed (Haig, 2003). Also often the digital product providers' product can be so specialized that the search cost in finding appropriated customers will increase because the need of having people in the field. The specialized product can be difficult to implement and use, so people are needed for handling the ex post complexity. These people can be needed to be on location. The Internet-based intermediary needs to be supplemented by face-to-face (F2F) interactions with the customer. Figure 4 illustrates the possible entry modes for digital product providers, where a higher complexity means a greater need for physical local presents of the exporting firm.

Figure 4: Possible Entry Modes for Digital Product Providers



F2F means face-to-face

Virtual export channels is the most simple and lowest resources demanding type of entry mode, where the e-commerce site of the digital product provider is used to expand, administer and service the market. In situations where ex ante complexity is higher, a suitable entry mode is the *F2F-enabled intermediary*. This type of entry mode is suitable when the market transparency is blurred. In situations where ex post complexity is higher, a possible entry mode is the *F2F-supported direct export*, which is an export firm managed e-commerce site with connected local support people. This type of entry mode is suitable when request for local customer service is high. A growing in importance and a less described entry mode is the *F2F-faciltated virtual sales subsidiary*. From the customers point of view the exporting firms homepage describe a list of sales subsidiaries, that form a legal point of view can be constituted by many forms of entry modes like independent sales agents, consultant firm, virtual offices, etc. All these actors have the exporting firm's extranet as common ground. Here they share the exporting firm's marketing and support material and the field actors' market and support experiences. The exporting firm will still be in charge. Only the exporting firm handles the creation of the official marketing and support material. Payments and other control issue as deciding who should have access to the extranet are also decided by the exporting firm. This type of entry mode is relevant in situations where market transparency is blurred and when request for local customer service is high.

To summarize, high ex ante and ex port complexity can explain why digital product providers need local, physical presence abroad. Virtual export channels are generally understood as the way digital providers do export. However other types of entry modes like what wee call F2F-enabled intermediary, F2F-supported direct export and F2F-faciltated virtual sales subsidiary are modes that respond to a higher degree of complexity and stress the need for local physical presence. In the case-study we find support for these possible entry modes for digital product providers.

In the case-study we can see that the ex ante complexity made it inefficient for Scanmarket to sell directly to the customer through virtual export channels. The use of the product was actually a pre-sales activity because the problem was how the potential customers could make use of the Scanmarket product as a process efficiency enabler. The simple use of the product in itself was easy and if problems occurred, the simplicity nature of the support questions made Scanmarket able to handle them online.

In Scanmarket the F2F-enabled intermediary comes in two flavours. In countries with few references customers as in Germany and Sweden, the intermediary is in reality handled by Scanmarket employees situated in Denmark and Scanmarket employees travels to the customer's destination when face-to-face interaction is needed. The international sales offices' addresses listed on Scanmarket homepage in these countries are either virtual offices or offices handled by an agent with the primary objective to forward customer inquires to Scanmarket Denmark and to create trust in the firm by having a representation in the current country. When the local market obtains a sustainable size in terms of numbers of customers and sufficient understanding of the product usage, the market responsibility can be handed over to external partners. A new market can then be approached. This can be done with limited resources. Then the F2F-enabled intermediary in the local market is operated by external partners that take the Scanmarket product in as part of their portfolio of IT-systems,

procurement consultant services or other related product offerings. These external partners will operate the intermediary and sell the Scanmarket system to the customers, make customer training and also handle customer support. When doing this, Scanmarket change the choice of entry mode to what we call the F2F-faciltated virtual sales subsidiary. In that way of handling a market, Scanmarket Denmark does not have any customer interaction with the local customers.

On the longer run Scanmarket wants to find external partners in each country so it is possible to outsource the customer contact. The internationalization process for Scanmarket is then characterized by being fast, broad and deep, which make it possible to handle with limited number of resources. To make this happen, Scanmarket needs to develop skills in building up an extranet so they can share their marketing and support material and Scanmarket needs to collect the external partners' experiences with customer support. Scanmarket will still be in charge by handling the creation of the official marketing and support material that can be used. Payments and other control issue as deciding who are using the product and who should have access to the extranet are also decided by Scanmarket. In other words, Scanmarket builds an interface that can support the external partners' face-to-face interaction with the customers.

Conclusion

This case-study shows that there is a need for local, physical presence when digital product providers sell complex products and services. Face-to-face interaction can not be avoided and thereby will the internationalization of the digital product provider lead to an increasing involvement in international operations. High ex ante and ex port complexity can explain why digital product providers need local, physical presence abroad. Virtual export channels are generally understood as the way digital providers do export. However, when a high complexity is recognized, face-to-face interaction with the customer should supplements the "pure" digital interface of the virtual export channel entry mode. Entry modes like what wee call F2F-enabled intermediary, F2F-supported direct export and F2F-faciltated virtual sales subsidiary are modes that respond to a higher degree of complexity and stress the need for local physical presence.

In the case-study we find support for these possible entry modes for digital product providers. The case-study shows that even though you have a digital product and a type of product that solves the traditional trade-off between reach and richness, there is a need for face-to-face interaction when the reach and richness of the internet limits the needed customer interaction. The reach of the Internet made Scanmarket able to locate potential customer. Even though it was possible for Scanmarket to make online product demonstrations for potential customers the lack of richness did not make Scanmarket able understand it was a real business opportunity. In order words, the face-to-face interaction was important in the pre- and after-sales activities when the most important part of the sales process was to emphasize that the product enables a more efficient procurement process.

The case-study finds the extent of the Internets capability to supersede firms' need for local, physical presence depends on the complexity of the pre- and after sales activities and on how the mangers create entry modes that reflects the complexity. On one hand, e-business

will not change the internationalization processes as we know it, because face-to-face interaction can be crucial especially for complex digital products. On the other hand, because the is product digital, it means that no matter what type of entry mode is chosen, the control aspect is different than with physical products because the digital product provider can always control who are buying and using the product.

The decision made by the managers of digital product providers can be crucial in the sense of how the internationalization process of the firm will be. Digital product providers need to develop knowledge and skills in two directions at the same time. The manager should expect a need for face-to-face interaction and thereby a need for local, physical presence in the market when the product complexity is high. Digital product providers have to develop relationships to external partners that can handle the face-to-face interaction with the customers. Also digital product providers will have to build digital interfaces as extranets that can support the external partners' face-to-face interaction with the customers as the creation of marketing and support material. New skills and knowledge have to be developed in building interfaces that can support face-to-face interaction.

We have only worked with one case-study; more extensive knowledge should be searched for. This could take place in adding more case-studies in order to understand the practical application of the suggested entry modes. Also could cross-sectional surveys throw light on the understanding of digital product providers' need for local physical presence in different contexts. Another theoretical issue will be the understanding of the division of labour. We need to understand the motives for international expansion of digital product providers.

References

Andersen, P. H. (2004). Export intermediation and the Internet: An activity-unbundling approach. *International Marketing Review* (Accepted for publication).

Arbnor, I., & Bjerke, B. (1997). *Methodology for Creating Business Knowledge* (2 ed.). Thousand Oaks, CA: Sage Publications.

Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message Equivocality, Media Selection, and Manager Performance: Implications for Information Systems. *MIS Quarterly, 11* (3), 354-367.

Daft, R. L., & Weick, K. E. (1984). Towards a model of organizations as interpretation systems. *Academy of Management Review, 9* (2), 284-295.

Dietrichsen, S. (2004, 17 juni). Virksomheder køber for milliarder på auktioner. *Erhvervsbladet*.

Evans, P., & Wurster, T. S. (1997). Strategy and the new economics of Information. *Harvard Business Review, 75* (5), 70-82.

Fredsted, N. (2003). E-market Survey – most still domestic but growing internationalisation. *eMarket Services Reports*.

Haig, M. (2003). *Brand failures*. London ; Sterling, VA.: Kogan Page.

Ivang, R., Rask, M., & Christensen, E. A. (2002). *E-markedspladser - Et springbræt for dansk eksport*. Gylling: Samfundslitteratur.

Lengel, R. H., & Daft, R. L. (1988). The Selection of Communication Media as an Executive Skill. *Academy of Management Executive, 2* (3), 225-233.

Miles, M. B. (1979). Qualitative Research as an Attractive Nuisance. *Administrative Science*

Quarterly, 24 (December), 590-601.
Miles, M. B., & Huberman, A. M. (1984). *Qualitative Data Analysis - A sourcebook of new Methods*: Sage Publications.
Morrison, A., Bouquet, C., & Beck, J. (2004). Netchising: The Next Global Wave? *Long Range Planning, 37* (1), 11-27.
Petersen, B., & Welch, L. S. (2003). International Business Development and the Internet Post-hype. *Management International Review, 43* (1 Special Issue), 7-29.
Petersen, B., Welch, L. S., & Liesch., P. W. (2002). The Internet and Foreign Market Expansion by Firms. *Management International Review, 42* (2), 207-221.
Rask, M. (2001). *Global Industriel E-handel.* Unpublished Ph.d.-afhandling, Aalborg Universitet, Aalborg.
Rask, M., & Ivang, R. (2004). Scanmarket A/S: A story about an e-Marketplace. *European Case Clearing House* (Reference No. 304-143-1), 14 pp.
Singh, N., & Kundu, S. (2002). Explaining the Growth of E-Commerce Corporations (ECCs): An Extension and Application of the Eclectic Paradigm. *Journal of International Business Studies, 33* (4), 679-697.
UNCTAD. (2003). *E-commerce and Development Report 2003*. New York & Geneva: UNCTAD.
Whinston, A. B., Stahl, D. O., & Choi, S.-Y. (1997). *The Economics of Electronic Commerce*. Indianapolis, IN.: Macmillan Technical Pub.
Young, S., Hamill, J., Wheeler, C., & Davies, J. R. (1989). *International Market Entry and Development - strategies and management*. Englewood Cliffs, NJ: Prentice Hall.