Exporting Complex Digital Products: Entry Modes and Motives

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When a product is digital, it will most often be distributed directly to the customer through the Internet, and therefore the entry modes, considered in this paper, are different kinds of the entry mode called direct export: A virtual export channel is generally understood as the entry mode for digital product providers. However, other types of entry modes like the ones called direct digital export with F2F-sales, direct digital export with F2F-support and virtual sales subsidiary are entry modes that respond to a higher degree of pre- and after-sales complexity.

Background and Aims

Will e-business change the internationalization processes of the firm? E-business is about digitalization of processes, products and actors (Whinston, Stahl, and Choi 1997) and many think that because of digitalization, the importance of localization diminishes, especially for the type of companies that sell digitized products and services. When local, physical presence is essential in the internationalization of companies, but it is important to understand the Internet's ability to supersede firms' need for local, physical presence because "the key distinction in e-business is between those products that can be delivered electronically and those that cannot" (Grant and Bakhru 2004) and because the meaning of national borders as artificial barriers changes with the notion of digital products (de La Torre and Moxon 2001). Digital products' intangible nature forces a re-evaluation of existing rules and practices (OECD 1999). The digitalization of the products is likely to increase firms' inclination to expand internationally (Petersen and Welch 2003). The digital product providers have from the start multinational accessibility. The digital product providers compete not just with domestic firms but also with firms all over the world (Singh and Kundu 2002). As a standard global marketing book (Hollensen 2004) emphasizes, the main drivers behind internationalization of digital products are global reach together with the possibility of digital distribution.

Digital products as information-based products can benefit from the digitalization of the process, where there is no need for logistics (Nahar, Huda, and Tepandi 2000; Angehrn 1997), because digital products can be delivered instantaneously through the Internet (Enders and Jelassi 2000; Zekos 2005; Ranchhod, Gurãu, and Hackney 2000; Breitenbach and Doren 1998; Angehrn 1997; Peters 1998; Hoffman and Novak 1996), and distribution costs are thus eliminated (Melewar

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and Smith 2003; Hoffman and Novak 1995) and no inventory is needed (Barua and Whinston 2001; Zekos 2005). The homepage, that is the digitalization of the actor, can handle the internationalization process (Barua and Whinston 2001; Zekos 2005). The general understanding of the internationalization of digital product providers could then be that it is only a matter of digital distribution: “What better way could there be to distribute digital products?” (Breitenbach and Doren 1998).

However, a standard global marketing book also emphasizes, that the Internet as a new distribution channel is not suitable for very complex products where face-to-face interaction is necessary (Hollensen 2004, p. 408). It is almost in line with traditional thinking about entry strategies for international markets. When a product requires extensive pre- and after-sales services, the marketing of the product on a distance becomes more difficult because such product services require proximity to the customers. Traditionally, this has been solved by selecting entry modes that have local, physical presence on the target market (Root 1987).

In other words, the first argument that internationalization of digital product providers is simple - it is just a matter of digital distribution - can only be true when proximity to the customer can be handled by the Internet interface, only. The second argument that highly complex digital products make the internationalization process rely on local, physical entry modes only, disregard that the Internet can supplement the physical proximity with a virtual one (Angehrn 1997; Ekeledo and Sivakumar 2004) and Malone, Yates and Benjamin (1987) even suggest that the greater complexity of a product, the more information is needed to specify the attributes to the customer, and therefore the utility of a digital distribution channel increases.

Therefore, the aim of this study is to understand *why* the complex digital product providers decide to internationalize and *how* the internationalization process is handled. The *why* question relates to *motives* of internationalization, where the motives represent drivers and decisions

(Strandskov 1995; Wiedersheim-Paul, Olson, and Welch 1978; Crick and Chaudhry 1997), which influence a choice or prompt an action. The *how* question is about creating and selecting entry modes, which are commonly defined as an institutional arrangement with the purpose of facilitating the transfer of goods and services from the exporters' market context to the marketing channel of the target country (Root 1987; Andersen 2005).

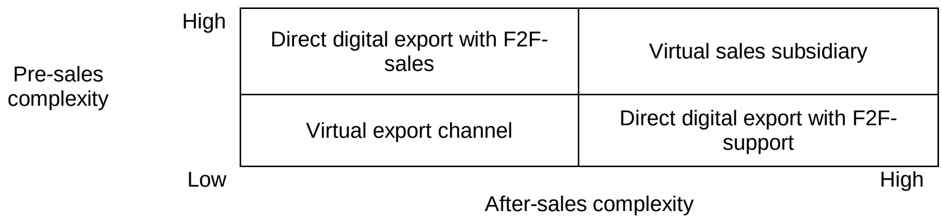
Export entry modes and motives for digital product providers – some conceptual issues and statements

In the following, we will first discuss how the internationalization process is handled in terms of outlining different types of possible export entry modes for digital product providers and relate this to the different motives of internationalization that influence the choice of or prompt the action to create a certain type of entry mode. These two discussions of entry modes and motives are combined in the succeeding prediction matrix.

Export entry modes for digital product providers

Normally, entry modes are classified in three different modes; export modes, intermediate modes and hierarchical modes (Hollensen 2004; Root 1987). When the product is digital, it will most often be distributed directly to the customer through the Internet, and therefore the entry modes, considered in this paper, are different kinds of the entry mode called direct export. Direct export relies on three different channels: the foreign agent/distributor channel, the foreign branch/subsidiary channel and direct sales to the customer as mail-order exporting where the exporting firms' representatives work out of the home country (Root 1987). In the search of possible Internet-based export intermediation, Andersen (2005) shows that a meaningful division of the entry modes are ex ante and ex post complexity, meaning the complexity of the exporter's task before and after the sale. We use some of his thinking to develop a conceptual understanding of entry modes that reflects the pre-and after-sales complexity faced by the digital product providers' activities in transferring digital products from the exporters' market context to the marketing channel of the target country. Even though Andersen (2005) primarily focuses on export of physical products, he also takes digital product providers into account. The virtual export channel entry mode has a low complexity in both pre-and after-sales activities. Morgan-Thomas and Bridgewater (2004) also used the term "virtual export channel" but do not have a sole focus on digital products. However in this paper, the virtual export channel is the type of entry mode that is only virtual and there is no need for local, physical location facilitating face-to-face interaction. Not all situations are characterized by low pre-and after-sales complexity because the product is digital and can be distributed through the Internet. Often the digital product providers' product can be so specialized that the pre-sales complexity in finding appropriated customers will increase and emphasize the need of having people in the field. The specialized product can be difficult to implement and use, so that people are needed for handling the after-sales complexity. These people may be needed on location. The Internet-based entry modes need to take face-to-face (F2F) interactions with the customer into account. Figure 1 illustrates the possible entry modes for digital product providers, where a higher complexity means a greater need for local, physical presence of the exporting firm.

Figure 1: Direct Export Entry Modes for Digital Product Providers



The *Virtual export channel* is the most simple type of entry modes demanding the fewest resources, where the e-commerce site of the digital product provider is used to expand, administer and service the market. This type of mail-order exporting can be suitable when dealing with simple digital products and thus have a low complexity in both pre-and after-sales activities with no need for local, physical location facilitating face-to-face interaction (Grant and Bakhru 2004). In situations where pre-sales complexity is higher, a suitable entry mode is the *direct digital export with F2F-sales*. This type of entry mode is suitable when the market transparency is blurred. In situations where after-sales complexity is higher, a possible entry mode is the *direct digital export with F2F-support*, which is an export firm managed e-commerce site with connected local support people (Grant and Bakhru 2004). This type of entry mode is suitable when the request for local customer service is high. The two types of entry modes that required F2F interaction can be considered as foreign agent/distributor channels where the agent/distributor handles the pre- respectively after-sales complexity and the exporting firm still have control of the distribution. A less described entry mode is the *virtual sales subsidiary*, which from the customers' point of view is a foreign branch/subsidiary channel. From the customers' point of view, the exporting firm's homepage describe a list of sales subsidiaries that from a legal point of view can be constituted by many types of firms like independent sales agents, consultant firms, virtual offices, etc. All these actors have the exporting firm's extranet as a common ground. Here they share the exporting firm's marketing and support material and the field actor's market and support experiences. The exporting firm will still be in charge. Only the exporting firm handles the creation of marketing and support material that can be used. Payments and other control issues, such as deciding who should have access to the extranet, are also decided by the exporting firm. This type of entry mode is the most resource demanding and is relevant in situations where both market transparency is blurred and requests for local customer service are high.

Motives for International Expansion

We recognize that the choice and the use of an entry mode are related to the decisions and drivers that create the background for the internationalization of the digital product providers. For present purposes, we categorize the motives for international expansion along two dimensions: *drivers* and *decision nature*. The choice to categorize motivational factors along these lines is inspired by Strandskov (1995) who uses the same dimensions to outline the similarities and differences between theories about the internationalization processes of firms. The combination of the two dimensions results in the motive matrix shown in figure 2.

Figure 2: Theoretical frame for categorizing internationalization motives

		Drivers: Internal	Drivers: External
Nature of decision	Planned	*Efficiency* The decision to internationalize is driven by an internally generated wish to obtain company-specific advantages and is taken as a consequence of careful evaluation of expected outcome.	*Positioning* Industry-specific competitive conditions are the driving forces behind the decision to internationalize. Decisions are planned and taken with the purpose of improving the company's competitive position.
	Emerging	*Exploration* Initial internationalization takes place on a trial-basis and the decision to continue or discontinue expansion is a direct result of actual experiences. Decisions are internally motivated.	*Legitimacy* Internationalization is motivated primarily by external drivers rooted in a company's relationships with other companies and happens as a consequence of ongoing political negotiations rather than careful planning.

Inspired by Rask & Kragh (2004) and Strandskov (1995)

Drivers refer to attention-evoking factors (Wiedersheim-Paul, Olson, and Welch 1978), i.e. those factors or influences causing a firm to consider international expansion and as such represent the “motives” in relation to decisions about the internationalization process chosen by the firm. Drivers can be either internal or external (Crick and Chaudhry 1997; Strandskov 1995) and describe whether international expansion is initiated as the result of an internal process, where resources, competencies and skills are purposely built up and developed or whether it is mainly determined by factors in the external environment of the focal firm. As for the vertical dimension – the *nature of the decision* – it refers to the level of deliberation of the international firm. Decisions can either be planned or emerging (Strandskov 1995). Planned decisions are taken in anticipation of future needs or problems and are as such the result of careful planning and analysis of alternatives, whereas emerging decisions emerge gradually as a consequence of a company reacting to opportunities or threats without necessarily having had the intention to do so at the outset.

Developing a prediction matrix

Based on our literature study, a prediction matrix is developed in the following table 1. Before presenting the table, we will discuss the internationalization motives and relate them to the types of entry mode of digital product providers. The indicators illustrate the different motives for internationalization of the digital product providers and are marked with a code in superscript that corresponds to table 1.

The **efficiency** square of figure 2 contains the international expansion motives that imply deliberate actions most likely taken after careful consideration of the expected outcome in terms of how the digital product providers can obtain benefits from *streamlining processes and reduce internal costs*. This understanding can be founded on the so-called OLI-paradigm (Dunning and Wymbs 2001). When international expansion of digital product providers takes place in cyberspace, rather than in the marketplace, the firm is more likely to use the market to access resources and capabilities, rather than to extend their ownership of the very same resources and capabilities. These specialized value-added resources and capabilities of other firms can (because of the Internet) easily be utilized by the firm without *internalizing* them. The Internet is reducing search costs and the coordinating costs within and between organizations. The *location* advantages relate to resources and capabilities that are special for the social, legal and commercial environment in question. In the electronic marketspace, knowledge creation and innovation are replacing physical processes as value-adding activities. For high digital content products, there has been a replacement of the physical products with "virtual" ones. E-commerce firms enter foreign markets instantaneously when their services are posted on the Internet.

When the digital product providers chose **entry modes** in order to handle local and physical presence in the most efficient way, the virtual export channel is appropriate for exporting into the transparent market with uncomplicated products at low cost (Angehrn 1997; Peters 1998; Quelch

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and Klein 1996; Mahnke and Venzin 2003; Dunning and Wymbs 2001)[Eff1]. Direct digital export with F2F-sales makes it possible to internalize marketing activities made by others and the digital product providers thus need to have local, physical presence in the market (Dunning and Wymbs 2001)[Eff2]. This is also the case when using direct digital export with F2F-support but the digital product provider here seeks to internalize others' customer support activities (Dunning and Wymbs 2001)[Eff3]. The Virtual sales subsidiary looks like a fully functioning sales subsidiary but it is operated by others and the need for local, physical presence at the market is thus avoided[Eff4].

In **exploration**, international expansion also takes place as a result of internal considerations; however, the decision is more re-active in nature and not least the decision to continue international expansion is taken only upon evaluation of actual experiences. Hence, the process of internationalization is incremental and a possible strong commitment to internationalization emerges over time and the digital product provider thus *increases his experiential knowledge*. This understanding derives from the so-called Uppsala Internationalization model (Forsgren and Johansson 1975; Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977) that has been questioned by many scholars for many years, even though the idea of incremental internationalization seems to be suitable (Petersen and Pedersen 1997). In the work of Petersen, Welch & Liesch (2002) with their focus on predictions of Internet-based foreign expansions of firms, they demonstrate that the discussion about the validity of incremental experiential learning as a foundation for understanding the Internet-based international expansion depends on the situation. A range of foreign expansion effects of the Internet is likely: from limited impact to rapid, widespread global expansion in many cases.

The possible speed and focus of the international expansion of digital product providers varied among the types of possible **entry modes**. Using the virtual export channel only, the digital product provider can in theory achieve a fast and easy incremental international expansion (Mahnke and Venzin 2003; Petersen, Welch, and Liesch. 2002)[Exp1]. However, when the digital product providers experience that the export markets are more complex, alternative entry modes will be tried out and a temporary decremental internationalization process occurs. The direct digital export with F2F-sales as well as direct digital export with F2F-support can be the next step in the learning process where the digital product providers use agents/distributors in order to fill out the knowledge gap related to pre-sales respectively after-sales activities[Exp2 & Exp3]. The virtual sales subsidiary symbolizes the cumulative experiential knowledge[Exp4]. Then the digital product providers can further expand their international activities in an incremental way but at a lower speed than first anticipated.

Positioning contains motivational factors related to the competitive situation of the digital product provider. Careful consideration of external factors such as, for instance, market and industry developments is decisive for the choice of how to configure the mode of entry in order to *create a suitable competitive strategy* (Mahnke and Venzin 2003). We use Porter (2001) as a basis for developing this understanding. When digital product providers are in focus, it is the entire value chain of activities that is under change and in these situations the Internet reduces the importance of location, at least for the initial sale, which means that the Internet widens the geographic market from local to regional or from national to global. Thereby the use of the Internet tends to expand the geographic market, bringing many more companies into competition with one another.

The **entry mode** as the virtual export channel can result in a direct competition on prices so that the digital product providers have to follow a low-cost strategy (Porter 2001)[Pos1]. This is possible with uncomplicated products. However, it can be difficult in case of complicated digital products. The direct digital export with F2F-sales will expand the geographic market and can be the vehicle for a differentiation strategy with local sales people perceived as unique by the customer (Porter 2001, 1980)[Pos2]. The direct digital export with F2F-support will make the digital product providers able to have a differentiation strategy with local support people perceived as unique by the customer (Porter 2001, 1980)[Pos3] where the price should be seen in connection with the extended customer services available. The virtual sales subsidiary will be the result of both types of strategies. The uniqueness of the firm's strategy is, because of the Internet, the possibility to combine them and make it look like one international expansion strategy that is cost leadership and differentiated at the same time (Porter 2001)[Pos4].

Finally, in **legitimacy,** digital product providers are induced to internationalization by external drivers. Unlike the motives found under the heading of positioning, however, actions here are more re-active and are initiated because external factors present obvious reasons to internationalize. We label the motivational factors found here “legitimacy”, reflecting the reasonableness of *initiate profitable partnerships* (Overby and Min 2001). An example of this is Morrison, Bouquet and Beck (2004) that see relationship building as essential. Instead of using ownership as a control mechanism, Internet technologies are used to monitor and discipline overseas affiliates. The digital product providers already have the control by offering the product/service from their web-site and thus they will send it directly to the end user. This new business model relies on the Internet for procurement, sales, and maintaining customer relationships, and non-equity partnership arrangements to provide direct customer interfaces and local adaptation and delivery of products and services.

The **entry mode** as the virtual export channel can be used to create direct relationships with customers (Peters 1998) and thereby it is possible for the digital product providers to control the whole process[Leg1] and the costly face-to-face interaction with the customer is avoided. Direct digital export with F2F-sales is a feasible entry mode when the digital product providers recognize that the market situation is more blurred and the pre-sales complexity is high. The digital product providers will seek to outsource the marketing activities (Ekeledo and Sivakumar 2004) where the exporting firms still have the control over the use of its products[Leg2]. If the complexity is high in the after-sales activities, the digital services providers will outsource the customer service (Ekeledo and Sivakumar 2004)[Leg3]. In cases where there is a high complexity regarding both the pre- and the after-sales activities, the digital services providers will seek to establish a virtual sales subsidiary where all actors that maintain marketing and customer support activities are listed. By doing so, the digital product providers are managing a virtual type of network organization consisting of real-time Internet-based relationships[Leg4] that handles the F2F-interaction with the foreign customers.

Table 1 below summarizes the literature study and gives an overview of our statements about types of entry modes concerning the motivation of digital product providers with complex digital products contrasting uncomplicated products, where the complexity is divided into pre- and after-sales activities. The indicators illustrate the different motives for internationalization of the digital product providers. The virtual export channel is predicted to handle the pre- and after-sales activities in the export of uncomplicated products. Direct digital export with F2F-sales is predicted to handle the pre-sales activities in the export of complicated products. Direct digital export with F2F-support is predicted to handle the after-sales activities in the export of complicated products. Finally, the virtual sales subsidiary is predicted to handle the pre- and after-sales activities in the export of complicated products. In other words, the purpose of this prediction matrix is to outline our understanding of *why* the complex digital product providers decide to internationalize and *how* the internationalization process is handled.

Table 1: Prediction Matrix

Statements How is the internationalization process handled? Type of entry mode:	**Indicators** Why did the digital product providers decide to internationalize? Motivation – the digital product provider wants:	**Predictions**
Virtual export channel	Exp1: To create fast an easy incremental international expansion Eff1: To have a low cost export Leg1: To control the whole process Pos1: To have a low-cost strategy	Is suitable for uncomplicated digital products
Direct digital export with F2F-sales	Exp2: To use agents that can fill out the pre-sales and sales knowledge gap Eff2: To use others marketing activities with no need for local, physical presence Leg2: To outsource marketing activities and to control the use of the product Pos2: To have a differentiation strategy: local sales people	Is suitable for complicated digital products when F2F pre-sales activities is needed
Direct digital export with F2F-support	Exp3: To use agents that can fill out the after-sales knowledge gap Eff3: To use others customer support activities Leg3: To outsource customer service activities and controlling the use of its products Pos3: To have a differentiation strategy: local support people	Is suitable for complicated digital products when F2F after-sales activities is needed
Virtual sales subsidiary	Exp4: To handle the cumulative experiential knowledge Eff4: To create a fully functioning sales subsidiary operated by others Leg4: To be present in the virtual type of network organization consisting of real-time Internet-based relationships Pos4: To have focused international expansion strategy	Is suitable for complicated digital products when F2F pre- and after-sales activities is needed

Methodology

According to Yin (1994), explorative case studies are particular good to address research questions like "how" and "why", which are present in the this paper. The explorative case study approach is used in this study for matching patterns of observations with expected motive indicators found in the literature, allowing the researcher to evoke and test mini-theories on simple causal relationships and let these form into more complex patterns (Weick 1997). The purpose of this approach is not to generalize findings into predictions about a population, but to ground theory development in empirical observations and further refine it through the test of reality (Mills 1959; Strauss and Corbin 1990; Yin 1994). In contrast to the traditional procedures of grounded theory (Glaser and

Strauss 1967), which exclude formal theory in the development of an understanding, we allow formulation of indicators based on our theoretical pre-understanding.

The aim of the analysis is to further develop theory concerning the motivation and entry mode selection when exporting complex digital products. 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 in 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 and Bjerke 1997). The following list describes the research process of the present study, where the three first phases focus on building the theoretical framework and the three following phases on analyzing the case.

1. Pre-understanding
   Grounding study in existing literature
2. Understanding
   Conducting the case study
3. Post-understanding
   Development of theoretical framework for the study of entry modes (figure 1), motives (Figure 2) and related indicators (table 1)
4. Pre-understanding
   Matching indicators with observations
5. Understanding
   Evaluation and further reflections
6. Post-understanding
   Generation and revision of theoretical understanding

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 and Huberman 1984).

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Data

The empirical foundation of this paper consists of an inductive explorative case study that serves as a challenger and supporter of the understanding described in the prediction matrix. We understand this explorative case study as a description of the extreme situation (Yin 1994) and polar type case study (Eisenhardt 1998) of the internationalization process where local, physical location and face-to-face interaction is needed and at the same time where the Internet is extensively used to ensure proximity to the customer and the product can only be used when accessing the Internet. The case describes Scanmarket (Rask 2004) as an example of a successful e-marketplace (2005) where customers do 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 e-marketplaces. Scanmarket has expanded from the Danish home market to the English, German, American and Swedish markets. Scanmarket is a company with limited resources. In the financial year of 2004, it generated a gross revenue of 3.3 million Danish Kroner, had a net capital of 1.9 million Danish Kroner and employed five full time employees and approximately 30 freelancers and agents (Rasmussen 2005).

Scanmarket is an e-marketplace that can be defined as “an inter-organizational information system that allows the participating buyers and suppliers to exchange information about prices and product offerings” (Bakos 1991). Scanmarket is one of four possible types of e-marketplaces classified by trading function: 1) Catalogue: this describes the products and services offered by the suppliers. 2) Catalogue with on-line ordering: this allows orders to be placed online. 3) Exchange: the supplier or buyer sends a request to sell or buy something. 4) Reverse Auction: buyers list a product or service which they would like to buy; suppliers submit offers, lowering the selling price for each bid submitted (Swedish Trade Council 2004). Scanmarket develops and sells access to its reverse auction e-marketplace, which can be seen as a complex product.

Discussion of the findings in the case study

In the following, fragments of the Scanmarket case are presented to illustrate the predictions made in table 1. Because we are dealing with a single case study, we will not postulate that the findings can hold for generalization. However, the case study only serves as a preliminary test and an illustration of the conceptual model about entry modes and motives presented earlier in this paper.

Motives in Scanmarket's internationalization process

The internationalization process of Scanmarket started when a Dane who had moved to *England*, contacted Scanmarket. She then started as Scanmarket's UK sales representative in January 2001 on a commission basis. In 2003, a strategic alliance with ADR International Purchasing Consultants was formed to sell the Scanmarket system to the ADR customers. ADR made customer training, where they taught state-of-the-art e-procurement. Scanmarket was very pleased with this arrangement. In 2004, Scanmarket created a virtual office in UK.

The *German* sales office opened in June 2003 and it was handled by an agent on a commission basis. The agent was a Dane originally 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. In the future, the agent was meant to handle Germany independently.

During the Christmas holidays of 2003, Scanmarket was contacted by a Dane that had previously sold business intelligence software in the *USA* through Navision-partners. The goal was to sell the Scanmarket System through these Navision-partners that were already experienced on the

American market. The North American sales office, which covered the *USA*, Canada and Mexico, opened in January 2004. 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 Scanmarket customer membership at EMD AG. EMD AG was an international central purchasing and marketing organization primarily organizing autonomous and independent grocery trading firms in 15 European countries. The Swedish customer was also a member of EMD AG. Scanmarket saw cooperation with EMD AG as a possible international expansion vehicle because EMD could recommend Scanmarket to EMD-members.

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

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

In other words, even though internal drivers as efficiency seeking and experiential knowledge generation were present; Scanmarket's main internationalization motive was legitimacy, where it was external drivers as applications from outsiders that generated the wish to go into a certain market. This relationship building was a consequence of ongoing negotiations that resulted in entry modes that secured Scanmarket as a central hub in the network.

How Scanmarket handled the internationalization process - creation and selection of entry modes

Scanmarket *did not use a virtual export channel* because Scanmarket have a complicated product:

> "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 at a lower price and maintain an appropriate contribution margin". (Nygaard 2004)

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. Scanmarket's digital product is a process enabler and it therefore makes sense that face-to-face interaction is important in the pre- and after-sales activities.

Scanmarket *used direct digital export with F2F-sales*. In countries with few reference customers as in Germany and Sweden, the entry is in reality handled by Scanmarket employees situated in Denmark and Scanmarket employees travel to the customer's location when face-to-face interaction is needed. The international addresses of the sales offices' listed on the Scanmarket homepage in these countries are either virtual offices or offices handled by an agent. The primary objective of the agent was to forward customer enquiries to Scanmarket in Denmark and to create trust in the firm by having a formal representation in the current country. Scanmarket experienced that face-to-face meetings were an important tool to investigate the sales potential in order to make the potential customers able to understand the organizational impact of the product. 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. Therefore the strategic alliance with ADR International Purchasing Consultants was a perfect answer to Scanmarket's needs because ADR already undertook customer training, where they taught state-of-the-art e-procurement and ADR could thereby easily locate potential customers and sell Scanmarket's system as part of the ADR's product portfolio. In that way, *Scanmarket outsourced its marketing activities*.

Scanmarket would not use the direct digital export with F2F-support, because Scanmarket's experiences showed that the need for customer support was very limited:

> Once customers got used to Scanmarket's system, it was the experience at Scanmarket that the need for customer support was very limited: '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.' (Nygaard 2004)

It was possible to handle customer support calls until two o'clock local Danish time. So there was no need for being physically present at the customers' location. In other words, when their product is digital, Scanmarket becoming close to their customers because the after-sales activities benefit from the fact that the Internet creates the needed proximity.

If Scanmarket change their choice of entry mode to the *virtual sales subsidiary in the future*, Scanmarket will be present in the virtual type of network organization consisting of real-time Internet-based relationships. When handling a market in that way, Scanmarket in Denmark will not have any customer interaction with the local customers. The North American sales office could be an example of this. The internationalization process for Scanmarket is then characterized by being fast, broad and deep, done with a limited number of resources. To make this happen, Scanmarket needs to develop skills in building up an extranet that 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 used. Payments and other control issues as to whom are using the product and as to whom 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

The case study illustrates that the presented conceptual model can be useful in order to understand *why* the complex digital product providers decide to internationalize and *how* the internationalization process is handled. We can conclude that digital product providers' internationalization process also relies on local, physical presence when the complexity in pre and/or after-sales activities is high. The importance of localization has not changed and thereby the understanding of *why* the complex digital product providers decide to internationalize can be explained by the traditional internationalization motives, called efficiency, exploration, legitimacy and positioning.

How the internationalization process is handled is different compared to traditional understanding of entry modes because the digital nature of the product gives new opportunities in creating entry modes where face-to-face and Internet-based interaction is mixed. When the product is digital, it will most often be distributed directly to the customer through the Internet, and therefore the entry modes, considered in this paper, are different kinds of the entry mode called direct export where the foreign agent/distributor channel corresponds to direct digital export with F2F-sales/F2F-support, the foreign branch/subsidiary channel corresponds to the virtual sales subsidiary and direct sales to the customer as mail-order exporting corresponds to the virtual export channel.

Virtual export channels are generally understood as the entry mode for digital product providers. However, other types of entry modes called direct digital export with F2F-sales, direct digital export with F2F-support and virtual sales subsidiary are entry modes that respond to a higher degree of pre- and after-sales complexity. Much of the literature has had a focus on the Internet as a supplement to face-to-face interaction but with digital product providers it is the other way around. Because the digital product providers' product is digital, it is possible to control the use of the product through Internet-interfaces. Face-to-face interaction is not necessary in control-related activities. Face-to-face interaction is needed but as a supplement only.

The conceptual nature of this paper calls for more research as to the importance of local face-to-face and interface presence in the internationalization process of companies. Our conceptual model complements existing models of entry mode strategies by recognizing the changes due to e-business. However, we consider the major change to be in the classification of export. The traditional understanding of export modes that its implies total externalizing with a low degree of control and risk and a high degree of flexibility (Hollensen 2004, 274) changes. The meaning of digital direct export implies a high degree of control and flexibility and a low degree of risk when the digital product providers control the distribution and the use of the product through Internet enabled interfaces. There is thus implications for further research in order to understand whether or not internalizing and externalizing is the right way of classifying entry modes (Mahnke and Venzin 2003). Another aspect that needs further research would be the question of product and market complexity. We have in this paper worked with the understanding that complicated products need face-to-face interaction and because of that the need, the pre- and after-sales complexity can be high. However, this distinction may be too simple. Product complexity can also be divided into search and experiences goods (Mahnke and Venzin 2003), and/or technical and commercial complexity (Roberts and Mackay 1998). Additionally, it is well-known that the product complexity decreases with the level of experience with the product. In other words, further research is needed as to product complexity when exporting digital products. This paper does not deal with the relationships between the individual motives. It would also be interesting to concentrate future research on the investigation of which motives are dominant in the early start of the internationalization and which motives represent a more mature type of internationalization based upon the company's reflection of experiences. In this relation, it still remains unanswered if and how companies move from motive to motive. Obviously, the next step in this research agenda would be more empirical investigations designed as case studies in order to understand the underlying motives, processes and entry modes involved.

From a managerial implication point of view, the manager must be aware of which motives are propelling the internationalization process in the company because it gives different rationales for necessary decisions. In the selection of entry modes of digital product providers, we have showed that face-to-face interaction is necessary when complex digital products are in focus. We believe that managers will find our model useful in more thoroughly developed entry mode strategies that take into consideration the need for face-to-face interaction in sales and support activities.

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