E-business and the evolution of the supply chain in the spirits industry: a comparison between Italian and Nordic markets.

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Abstract

This paper examines and compares the evolution in the spirits industries on a number of Countries, namely Italy, Finland, Sweden, Norway, Denmark, Estonia and Poland, focusing on the degree of Internet use. The methodology applied refers to the *value chain* framework and looks at the transformations generated by Internet within B2b relationships.

Key Words: Supply Chain, E-business, Information Technology

Introduction

The development of e-commerce has involved changes and transformations and determined expectations amongst companies with regard to value creation within a supply chain, especially in business to business (B2b)[1] relations. Main consequences of the above transformations may be concentration processes among companies, changes in the role of intermediaries, and re-organisation of the supply chain. New opportunities of exploitation of information cause, in traditional value chains, the separation between physical and information flows, that have traditionally overlapped in the past[2], in a process called "business de-construction" (Evans and Wurster 1997). Separating information from physical flows introduces new opportunities linked to the re-combination of traditional activities of value chains in new aggregations, where the traditional sector boundaries fade and the bases of competition change (Valdani 1997). Internet will allow some activities that used to be outsourced to be performed internally, or vice versa, either shrinking or expanding firm boundaries (Afuah 2003), so changing the industry structure. New value creation opportunities for e-businesses can derive from new combinations of information and physical flows, new transaction procedures, and from the reorganisation and integration of resources, capabilities, roles and relationships between suppliers, partners and customers (Amit and Zott 2001). In this paper we try to evaluate the state of development of Internet technologies in the spirits industries across Europe, in B2b relationships. We focused on the Italian, Swedish, Finnish, Norwegian, Danish, Polish and Estonian markets. We found that industry configuration and level of State involvement in the sector, as well as management mentality, have a very relevant impact on the degree of deployment of Web-based technologies.

Poland and Estonia have been going through similar paths with liberalisation and deregulation of their spirits industries since the late 90's. This paper is structured in four sections, section

[1] With B2b we generally mean the network of relationships amongst companies made feasible by the Internet-based information and communication technologies.

[2] As most of the information potential in the *value chains* was embedded in the products and services exchanged.

one presents a brief description of categories of spirits, markets, taxation regimes and demand evolution in the countries under scrutiny. Secondly, after a quick reference to the "value system" framework, we identify some of the most relevant innovations on logistics, procurement, production and marketing made available by Internet. The third section investigates the degree of development of on-line activities in the countries above, taking into account the impact of different industry structures. In Southern Europe the sector presents a high number of niches, high degree of specialisation, and extremely diverse types of enterprises, while most Nordic markets are characterised by retail state monopolies and quasi-monopolistic spirits productions. Lastly, we present and evaluate the methodology and findings of a survey by the Department of Business Administration of the University of Bologna, with regard to the use of Internet technologies in the spirits markets cited. In the final remarks we are only concerned with the outcomes of our survey, and do not consider the potential changes in the sector's value chain, which could be the object of further research.

Sector description

The spirits sector includes all alcoholic drinks with the exception of wine and beer. This miscellaneous set of drinks has as a common factor a certain variable percentage of distilled alcohol (particularly ethyl alcohol[3]). Fermentation is the process by which an organic substance (usually sugar) is converted by a single-celled micro-organism such as yeast into alcohol. In Appendix 1 we give a brief description of the most widespread types of spirits.

The Italian market

Drinking habits in Italy have changed remarkably over recent decades. Back in the mid 70s the country had one of Europe's highest per capita intakes of alcohol with 12.4 litres and by the end of the year 2000 Italians only consumed 7.5 litres of alcohol per capita[4]. The change reflects a decline in the quantity of both spirits and wine consumed, while beer consumption

[3] The ethyl alcohol used in the spirits production is obtained by fermenting vegetables musts.
[4] Figures from www.assobirra.it/report2001

continued to rise. The consumption of spirits has suffered from a widespread awareness of healthier lifestyles. However different typologies of alcoholic drinks present different trends, with the most encouraging results achieved by rum, vodka and gin, as well as sweet liqueurs (the Italian Limoncello[5] is considered one of the most interesting cases in the spirits sector). Products such as grappa, whisky and liqueurs seem to have reached their maturity phase. Generally the consumption of spirits has become more and more linked to trends dictated by changes in lifestyle and emotional aspects recalled by flattering advertisements, as the recent success of whisky creams proves. As for the production, the Italian market is divided in a high number of niches, each with an important concentration degree (one or a small number of companies operate in each niche)[6]. Overall the spirits production is, in terms of market share, mostly in the hands of some of the biggest international brands, such as Campari, Martini & Rossi, Diageo, Allied Domecq, Stock, Averna.

Company	Income in the year 2000 in ml of euros[7]
Campari	434
Martini & Rossi	288
Diageo	140
Averna	129
Stock	103
Allied Domecq	70

Table 1.

The Nordic Region

The Norwegian, Swedish and Finnish markets of alcoholic beverages are similar in many respects, their main features represented by the presence of retail state-run monopolies, high taxes, strict rules against alcohol advertising, relatively low consumptions of *registered* alcohol, but a flourishing black market that taps into high levels of cross-border shopping,

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[5] The success achieved by the Italian *limoncello* shows that even in a generally declining sector new niches can be found and exploited even in a mature sector.

[6] www.foodarea.com

[7] Data collated from the following websites: http://www.dalcero.com/pagine_principali/alvino_articoli%20fino%202002/WHOSWHO.HTML, www.sardinews.it/2_02/04.html, http://annunci.tiscali.it/scheda/annuncio/ak929867/, www.marketpress.info/003%20notiziari/anno%202001/12%20dicembre%20news%202001/06%20GIn%202001/pag%2006%20GIAliment.htm, www.acquabuona.it/stampa/annotre/stampaset4.html#7, http://qn.quotidiano.net/chan/economia_politica:496492.5:/2000/02/01

illegal import and moonshine[8]. The consumption of recorded alcohol varies from country to country with Denmark having the highest per capita consumption of wine, and Finland the highest per capita consumption of spirits[9]. According to Nordic statistics, the average recorded consumption of alcohol in the above Countries is well below the European average, however an important share of the Scandinavian spirits market is to be attributed to contraband, and parallel trade. The total population of the Nordic region (Norway, Sweden, Finland, and Denmark) counts about 20 million people and the total spirits volume for the three countries has been recently estimated in 83 million litres[10]. The above figure does not take into account the alcohol sold in the black market, that for Norway in 1999 accounted for an estimated 55% of the total spirits consumption, while an approximate 46% of spirits were supplied through illicit transactions in Sweden, and 25% in Finland and Denmark[11]. The table below shows the registered consumption per capita in the Nordic Countries[12].

Registered alcohol consumption, 1999 measured in litres of pure alcohol per capita.

	Norway	***Sweden***	***Finland***	***Denmark***
Total	5,23	5,80	8,60	11,64
Spirits	1,04	1,30	2,30	1,37
Wine	1,39	2,00	1,58	4,24
Beer	2,89	2,50	4,38	6,51

Table 2 Source: "Nordic policies on alcohol" 2001

While Finland, Sweden and Norway have similar drinking traditions and consumption patterns, as well as industry structure and regulations, the Danish market is more liberal and closer to the European models. Although Denmark subscribed to restrictive measures in the past, during the 90's it slowly began shifting towards the main European, more liberal model,

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8 In some countries, such as Italy and most European Countries moonshine (amateur distillation) is permitted, while in some others, particularly in the Nordic countries, home distillation is illegal.

9 "Nordic policies on alcohol", article published in 2001 on the www.aperitif.no/assets/10445/NpoA.eng.pdf website.

10 Data from the www.scandinavianbeveragegroup.com website.

11 The percentages for Finland and Denmark refer to cross-border trade only, without taking into account smuggling and moonshine. Source: Ministry of Taxes, Report on Border Trade, 2000.

12 Iceland has not been included despite being one of the Nordic Countries together with Norway, Sweden, Finland and Denmark as the features of its spirits sector can be deemed conform to those of Norway's.

influenced by early EU integration and its proximity to the more non-interventionist Germany[13]. As table 2 shows taxes on spirits in Denmark are still higher than in most central and southern European countries, but lower than in the rest of the Nordic region.[14].

Country	*Spirits / 70cl@40% abv (£)*
Austria	1.41
Belgium	3.23
Denmark	7.20
Finland	9.81
France	2.82
Germany	2.54
Greece	1.79
Ireland	5.41
Italy	1.26
Luxemburg	2.03
Netherlands	2.93
Portugal	1.58
Spain	1.34
Sweden	10.53
UK	5.48

Table 3. EU duty rates on alcohol as at 1 September 1999, Source: Wine and Spirits Association[15]

Sweden and Finland have recently started adapting to EU regulations on alcohol by cutting taxes and rising import allowance quotas, while. Norway remains true to the traditional Nordic alcohol policy, with one of the world highest taxations of alcohol-related products. The table 3 shows the level of alcohol tax for spirits and fortified wine[16] in Euro per litre across several European and Nordic countries in 2001.

Levels of alcohol taxes in Euros for Spirits and Fortified wines.

Country	**Spirits (40% alcohol)**	**Fortified wine (22% alcohol)**
Norway	34,382	9,804
Sweden	22,458	5,042
Finland	20,183	7,064
Denmark	14,748	1,414
UK	12,104	3,235
Netherlands	6,003	1,034
Germany	5,202	1,534

Table 4. Source: "Nordic policies on alcohol", 2001

[13] Nordic Policies on alcohol 2001, published on the www.aperitif.no/assets/10445/NpoA.eng.pdf website
[14] From Jan Bentzen, Valdemar Smith: "What does California have in common with Finland, Norway and Sweden?"
[15] "The revenue effect of changing alcohol duties" by Zoë Smith, 1999
[16] Wine to which alcohol (usually grape brandy) has been added. Definition from: define.ansme.com

Denmark is the Nordic country with the highest *recorded* per capita alcohol consumption (and the one with the lowest illegal supply), Danes consumed 9.5 litres per capita of legal alcohol in 2001[17]. Spirits consumption increased by 0.8% between 1997 and 2001, with tequila and single malt whisky registering the strongest growth. Local spirits like aquavit dominate the Danish spirits market, in 2001 it accounted for almost 50% of value sales. The spirits market is dominated by the local company De Danske Spritfabrikker A/S, entirely owned by the Swedish Vin & Sprit Group, that holds about half of the volume sales, due to its strong position in the sale of aquavit while the remaining production is in the hands of few small private distilleries. However competition comes from international players such as Rémy Cointreau, Pernod Ricard Group, Diageo and Allied Domecq, all present in Denmark through subsidiaries or importers with sale rights. The Norwegian sector performed well in 2000/2001, up by 3.2% by volume but the increased popularity of wine threatened the sales of spirits. Beer remained the largest sector, accounting for 80% of total sales in 2001. The industry is characterised by a retail state-run monopoly, Vinmonopolet. The company has the exclusive right to sell wine, spirits and strong beer all over Norway, while in 1996 the state-owned Arcus AS, overtook all import and wholesaler operations in addition to spirits manufacturing and bottling. The Swedish market of alcoholic drinks amounted to 661 million litres, up 0.3% in volume and down 0.6% in value terms from the previous year. Market growth was dampened by the decline in spirits, while increasing interest in wine helped drive the market upwards. In Sweden drinks with alcohol content higher than 3.5% can be purchased only in the state owned monopoly outlets, Systembolaget, operating during limited opening hours. Advertising of alcoholic products is restricted mainly to the point of purchase. The spirits production is dominated by state owned V&S, manufacturer of the internationally known Absolut Vodka. With close links to Systembolaget and providing the cheapest and

[17] Data from "National Drug Monitor 2001 Annual Report Alcohol", published on the www.trimbos.nl/ndm-uk/ndm_uk_alcohol_2001_4.html website.

most popular brands, Vin & Sprit managed to retained a firm grip on the sector despite the abolition of its manufacturing monopoly in 1995. In Finland in 2002 alcohol consumption rose to 9.3 litres per capita and increased steadily since 1995. This represents a growth of 3.5 percent over the previous year. The growth has followed the trend of overall economic developments, and longer opening hours of restaurants have also contributed to it. The consumption of alcohol outside legal sources comprises alcohol imported from trips abroad, especially Estonia, and of home-made alcohol. Its share of the total annual consumption of 9.3 litres is an estimated 1.7 litres. Alko, the retail monopoly, recorded a sales growth of twelve percent in January 2003 over the same month last year[18]. Altia is the principal spirits manufacturer, although no longer a monopoly by law, it still supplies over 50% of the alcohol sold by Alko.

Poland and Estonia

According to official statistics alcohol consumption in Estonia is dominated by vodka and in the first half of the 90s was approximately 6.5 litres per capita, while an estimate of unrecorded consumption gave a total of ca. 12.5 litres for the same period. The alcohol restrictions of the Gorbachev era were succeeded by the constrictions of an economy in transition. Through the early 90s alcohol consumption was highly affected by the trends of the economy, taxes, and alcohol prices. From the mid-90s many alcohol producers have been bought up by foreign companies, the Finnish Primalco (of the Altia Group) recently bought up a leading Estonian distillery, Liviko. The Finnish company holds a dominant role in Estonia's spirits market, together with the Swedish V&S Group[19].

The Polish spirits market is very similar to the Estonian one, what used to be the Polish Spirits Monopoly Polmos became a group of independent distilleries in 1991, and few years later the privatisation process started with the Polish market opening up to foreign investors. The

[18] www.helsinki-hs.net/
[19] www.vinsprit.se/english

Swedish V&S Group was one of the major foreign players to take advantage of the privatisation, with the takeover of Polmos Zielona Góra, the third largest distillery. Other international spirits manufacturers operating in the Polish market in the recent years are Bacardi Martini, Seagram, Allied Domecq, as well as Pernod Ricard of France[20]. As for the consumption, high duties and taxes encourage illegal imports by individuals and organised crime gangs. Legal sales are thought to be up to 30% short of overall value sales. Since the development of a free-market economy in Poland, drinking habits of the population have evolved, the consumption of "high strength" alcohol has decreased in favour of beer and wine[21].

The value system framework and e-commerce enhancements

When embarking on on-line transactions companies must make sure they have sufficient resources to be able to cope with the boost in demand that follows the combination of virtual and physical or traditional activities. The essential impact of the information technology within the theoretical framework of the value system is that all main activities performed within a company and along its supply chain produce information that can then be processed and circulated. IT alters the value chain that is not longer linear, but becomes a value network (Carignani and Mandelli, 1999). The information, embedded in the final products, is isolated and circulated across the supply chain. All actors, part of the value system contribute, simultaneously, to input and receive processed information that can be used at different managerial levels to improve activity efficiency. Therefore value generation is not longer a linear process that starts with the delivery of raw material at the manufacturer and ends with post-sale services, but can be achieved in ways so far unexplored. Furthermore, the introduction and spreading of Internet technologies often triggers a breakdown of the value chain (Carignani and Mandelli, 1999), with value creation opportunities deriving from

[20] Warsaw, June 30 (Reuters), by Marta Karpinska
[21] www.polishvodkas.com/miscelany/

innovative configurations and transaction procedures, the reorganisation and integration of resources, capabilities, roles and relationships between suppliers, partners and customers (Amit and Zott, 2001). Web-related technologies are an essential and interesting tool connecting different activities of a supply chain and enabling the circulation, in real time, of information to and from suppliers, distribution channels, customers. Internet becomes a "value driver" that takes the form of a connection of primary activities amongst one or more companies belonging to the same value system. For those companies operating on-line, Rayport and Sviokla (1995) have put forward a virtual value system, including the activities of collection, management, processing, and distribution of information along the supply chain. They have attempted to adapt Porter's value chain framework to e-businesses, where the information flows in and out a firm and is parallel to the traditional flow of goods and / or services. The value system is adapted to on-line transactions, where the information flow can be source of value creation and generate competitive advantage. The value creation is not longer examined as a phenomenon concerning only one company but it involves several businesses belonging or not to the same industry. Internet offers the potential to create new added value on each traditional activity. Primary activities like production and logistics can be totally reorganised and the various actors integrated with "Web-based supply chain management". If we consider the direct customer as opposed to the final customer, the offer of complementary services can originate from the analysis and contribution to the value chain of a company's customers. The attempt to fulfil customers demands in the best possible way both through innovation and process improvement can lead to a process of sustainable value creation (Hoover, Eloranta, Holmström and Huttunen, 2001). This increased capability to evaluate the customer needs is made easier by the use of Internet, that accelerate the information exchange and make it more viable than the traditional interpersonal relationships (Wayland and Cole, 1997). Furthermore, lower transaction costs can be achieved by the efficiencies achieved in the exchange process thanks to the reduction of information asymmetry. These costs are linked to opportunistic behaviours, and to finding new business partner (Perry and Schneider, 2000). Internet facilitates integration and collaboration amongst companies in the same supply chain. The total cost of transactions control and coordination is reduced considerably making the transaction costs almost irrelevant (Bettis, 1998). ICT requires the management to re-think the entire supply chain, in order to achieve an advantage on competitors. Keevil, Nickel and Christodouleas (2001), from the Boston Consulting Group have identified five strategies, that can lead to a sustainable competitive advantage by exploiting e-commerce potential:

Actively collaborating with supply chain partners, the Internet creates new opportunities for collaboration.

Extending the company's reach up and down the supply chain, companies can use the vast reach of Internet to move beyond their current supply chain partners and reach out to their suppliers' suppliers and their customers' customers.

Changing the supply chain flow path, companies can use the Internet to leapfrog elements of the supply chain or to engage new participants.

Growing revenue – not just cutting costs, Internet can be used across the supply chain to shorten order-to-delivery times, improve reliability, and broaden product choice.

Transforming capabilities into new businesses, as companies move their business processes on-line, they can more easily offer selected processes to companies in other industries (Keevil, Dickel and Christodoulears, 2001). New opportunities are therefore linked to the re-combination of traditional activities of value chains in new aggregations that alter the bases of competition and where the traditional sector boundaries fade (Valdani, 1997). It is at this stage that services can play a central role, through an innovative re-organisation of the traditional value chains. They can become the pivotal elements, facilitating the re-combination of “logistic” functions (organisation of physical flows) and “know-how” functions (organisation of information flows).

We now describe briefly the effect of e-commerce on some business activities:

Procurement: Collaboration between business divisions or between buyers and sellers can create value through shared learning (Conlon, Cotte and Neuhaus 2001), particularly affecting any of the activities of the purchase process: finding new suppliers, pre-ranking of suppliers, sharing specifications of the merchandise, negotiation, order issuing, transaction management, post-sale services and evaluation and control of suppliers performances. A fundamental role is played by eMarketplaces that beside supplying on-line negotiation tools, can manage the whole eProcurement process, also by attending to off-line activities. Through Internet companies can tap into a bigger supply base to ensure dependable supply (Lee and Whang 2001).

Logistics: logistics has become even more strategic with the introduction of e-commerce (Porter, 2001). E-business allows partners to redefine logistic flows so that roles and responsibilities of supply chain members may change to improve overall efficiency (Lee and Whang 2001). More and more companies choose to outsource logistic processes to specialised partners in order to reach higher degrees of efficiency and focus on their core business. IT is driving consolidation of third party logistics as many leading-edge logistics businesses specialise and use new technologies to create substantial value for their customers. Users increasingly rely on logistics providers for expertise in complex technologies such as transportation management systems (TMS) and warehousing management systems (WMS) [22].

Marketing: E-commerce constitutes a huge potential, in terms of reaching new customers and spreading the company image worldwide, Internet enables companies to reach the highest number of potential customers and offer them the most suitable product (the trade-off between reach and richness of the message not longer exists). On-line marketing can also be an excellent tool to improve communication with existing customers, ascertain their

[22] www.manufacturing.net/scm/

satisfaction level and lead occasional customers to become regular. Among the different tools used in electronic marketing numerous companies opt for the *newsletter*, that allows for a long relationship with the customer and can be used to publicize discounts and special offers. Other tools available are: the *Newsgroup*, where part of a company's website is reserved to on-line debates useful to have feedback on products/services offered and *Website customisation*, that is the set up of web-pages dedicated to single customers.

Production: the systems supported by on-line technologies can improve the control over raw material, inventory management, and information flow during production and assembly. A routine that implements ICT based production processes is defined as MES (Manufacturing Execution System). It gathers and processes information on production rates, supply levels, interruptions generated within the factory and circulates it to the internal production units for analyses, machines set-up, planning, order management and deliveries scheduling. MES's can also be used to better match customers orders with production capability and communicate information to management and distribution networks.

Internet technologies in the spirits sector

The level of use of Internet technologies changes remarkably across different sectors and different countries. Chart 1 shows the level of IT investment per capita in Euros in 1999 across different European countries and compares them with the same figures for the United States. The investment level is ten times higher in the most heavily investing country (Sweden) than in the least investing country (Greece), however nowhere in Europe the level of IT investment is as high as in the US[23]. While the three Nordic nations part of EU, Sweden, Denmark and Finland, are amongst the six European countries investing more in IT, all Southern European countries are positioned at the bottom of the chart with the lowest investments in IT, Italy is followed by Spain, Portugal and Greece.

[23] The data in the charts above are all extracted from the ***European IT Observatory*** annual reports

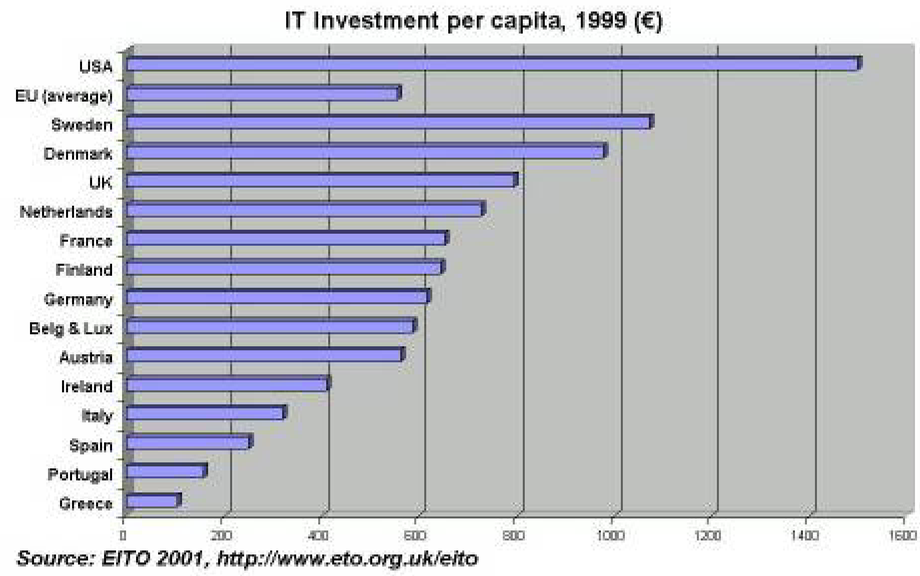

Chart 1.

A reason for Italy lagging behind most European nations is that many small and medium businesses feel that the uncertainties linked to the implementation of IT solutions are numerous and difficult to overcome without conspicuous investments. The level of e-commerce employment in Italy was studied by Bertelè and Rangone (2001). In 2001 the total number of Italian eMarketplaces was 124[24], however a later research (Mainetti, Perego and Rangone 2003) shows that in 2002 many of the above initiatives were adopting a "wait and see" policy, while others started new business models to provide innovative services. The mutability of the Italian IT sector shows that the market is still on an experimental phase, where "trial and error" strategies are applied to understand what the most successful and value-adding business models are. With regard to the spirits sector, a common feature to the Italian and Nordic markets is that the vast majority of *spirits* producers are present on-line only with their company website, where the company, its history and mission and a catalogue of products are presented. This choice is the result of a business strategy that uses the Internet as a medium to communicate, promote and improve the company image and the brand visibility. The difficulties posed by new on-line business are not negligible, alteration of

[24] Bertelè U. and A Rangone (2001) "E-Marketplace: quale ruolo nel mercato italiano?", Associazione Impresa Politecnico, Milan

packages just to mention one. Selling on line can lead to the inevitability of having to reconsider handling and packaging materials, for example packages might need strengthening by using polystyrene inside card-boxes, to protect the products during the transport. Particularly in countries where IT is not regarded as a priority investment (Italy, Poland and Estonia, among those studied), e-commerce represents a novelty, an activity that is not consolidated and that can bear some risks. Many companies do not have sufficient resources and prefer avoiding the risks that can be generated by e-commerce by relying on their wholesalers expertise for the distribution of their products. On the other side the use of Internet in the Nordic spirits markets is deeply affected by strict regulations on alcohol advertising, and access to alcoholic drinks. Retail for example is strictly regulated in Norway, Sweden and Finland through state monopolies, therefore the diffusion of e-commerce activities has been slowed down if not forbidden all together. Another limit is represented by the national character of the spirits market in Scandinavia, for instance the Norwegian retail company website (www.vinmonopolet.no) has not been translated into English. Also Finland's and Sweden's main alcohol suppliers are the national ex state-monopolies Altia and V&S Group respectively. However because of their propensity to invest in IT, Nordic countries, particularly Sweden and Finland, have been studying and implementing important innovations in many business sectors and, recently, also in the industry of reference.

The survey

It is believed that the performances of business activities of most industries are or will be, in the near future, affected by the new way of conducting business through Web-based technologies. However the mere fact of being connected on-line does not automatically mean that Internet full potential is exploited to enhance competitiveness and create sustainable value. There are different degrees of Internet utilisation that businesses can implement according to different factors such as risk adversity and disposal of resources, behaviour of business partners and competitors, expectations with regard to the benefits to be gained from the implementation of Internet solutions. The purpose of our survey was to estimate the degree of use of Internet solutions reached by businesses operating in the *spirits* industries of Norway, Sweden, Finland, Denmark, Poland, Estonia and Italy and establish what are the limits to Internet adoption encountered by companies in this sector.

Research Methodology

The approaches to the analysis of the Italian and Nordic markets were slightly different due to their divergent features, the study of the former was carried out following the steps below:

1. on-line *spirits* producers[25] were mapped on an excel spreadsheet. The mapping was carried out through some main search engines[26], and helped perform an initial analysis on the following aspects: producers country of origin, nature and complexity of the websites, products and reference market (local, national or international).
2. Secondly, a questionnaire was sent to companies engaged in B2b e-commerce activities in order to better understand the rationale behind investments in Internet technologies and its long term implications. We split the analysis to examine businesses implementing *company websites* (where Internet is used as a medium to reach broader markets) and those using what we defined as *e-commerce websites*[27].

The analysis of the Nordic market was carried out by using the same mapping method as for the Italian market but including in the sample also those companies that are exclusively concerned with importing and/or distribution activities. This decision was taken in consideration of the fact that there is only a limited number of spirits producers in the Scandinavian region.

Study outcomes

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[25] Businesses performing activities of production and/or production and distribution were examined.
[26] Search engines used include Altavista, Google, Lycos, Yahoo, Virgilio.
[27] For e-commerce websites we mean websites where is possible to finalise transactions on-line.

The Italian websites examined were 93 and amongst them only six use e-commerce for B2b transactions, while 11 are engaged in B2c on-line transactions. An interesting feature is that over half of the Italian websites studied, 52.7%, operate in an international environment[28] despite the difficulties encountered on different taxation systems and regulations. From this point of view export activities promoted by IT solutions would be less burdensome for those producers that already export through traditional channels and therefore have the necessary structure to carry out bureaucratic and fiscal formalities. Another distinguishing feature of Italian spirits producers is that the vast majority 75.3% do not foresee on-line transactions. We classified their websites as *company websites*, they are composed of a maximum of usually not more than 10-12 pages where the company and the products are presented and publicised. Internet is viewed as a medium to expand the company and brand visibility, many companies do not have sufficient resources and prefer avoiding the risks that can be generated by e-commerce by relying on their wholesalers for the distribution of their products. Wholesalers and retailers are used to dealing with their costumers, are professional and could view the opening of a producer e-shop as a threat to their activity. Producers are therefore afraid that they might not be able to achieve the results they hoped for in terms of profits and that they could ruin the relationships with their intermediaries causing serious damages to their traditional business. Italian spirits are often unbranded, therefore need constant marketing and communication efforts, which, producers claim, can be easily done by a network of retailers while using the Web may be more problematic. Often the scarce interest of Italian producers towards e-commerce is due to the perception that the consumer would buy on the Web only renowned branded liqueurs, while would want the advice of an expert intermediary to try new *spirits*.

[28] We consider a company as operating in the international market if its website is translated into other languages or when it is explicitly indicated.

The websites examined for the Nordic markets, including Poland and Estonia, totalled 86, table 4 shows their distribution according to the nationality.

Website nationality	Number of websites
Finnish	7
Swedish	25
Norwegian	6
Danish	18
Estonian	15
Polish	15
Total	86

Table 5.

Here we found that the percentage of what we defined as e-commerce websites, where it is possible to finalise on-line transactions, was even lower than in the Italian sector (only 2.3% if we leave out websites selling exclusively wine and beer), however it was also determined that the reasons behind this choice were more linked to market restrictions imposed by governments rather than to the mentality and the way business is conducted, as it was the case for Italian producers. Another peculiar feature of the Nordic spirits industry is its national character, for all countries examined, except Poland, it was found that the vast majority of websites were addressed to the single national markets or to the Scandinavian region. Only the biggest national groups operate in more than one Scandinavian country; both the Swedish V&S and the Finnish Primalco (part of Altia group) are present in Estonia, V&S holds a big market share in Denmark and Norway. Most Swedish, Finnish and Danish websites are translated in English, however the translation only consists of the presentation of the company, its mission and history and the list of products sold in a virtual catalogue, while e-commerce facilities are only foreseen in two of the Danish websites examined. 60% of the Polish distilleries seem eager to broaden their market addressing their websites to international customers and partners, this is due to a relatively liberal approach to the spirits industry by the latest governments and the need for financial resources, however none of the websites studied engaged in on-line transactions.

Concluding remarks

The potential of e-commerce for the development of highly customised B2b relationships is, in the sector studied mostly unexploited. The majority of Italian spirits producers, especially small size, family run enterprises are very keen on face to face, conventional relationships with wholesalers and retailers. They are used to having personal contacts with their business partners, and find the implementation of Internet technologies not suitable to the type of products offered, often not distinguished by a unique brand. These companies could benefit from the service of what Bertelè and Rangone (2001) define as Private eMarketplaces, businesses set up with the aim to offer technological support and competences to players belonging to the same value chain, and train them to exploit potential advantages of customised Internet solutions. Scandinavian companies have a higher inclination to invest in ICT solutions, however the structure of the alcohol industry in Norway, Sweden and Finland, dominated by national-wide production and distribution groups, operating mainly in the national markets and within the restrictions and regulations enforced by the single governments poses an important limit to the implementation of e-commerce solutions in this sector. Generally the development of e-business solutions, both B2c and B2b, in the Nordic spirits markets has been hindered by the restrictions imposed on the sector by local governments. The almost complete absence of competition has so far dampened down what in the Scandinavian region is a natural tendency to invest heavily in IT solutions. However from interviews with personnel from the purchasing office of the Finnish retail giant Alko we learned that a new B2b Extranet solution is being put in place as a pilot at the moment, allowing the Finnish company to communicate in real time with their entire network of national and international suppliers for supply chain management purposes. If successful the Extranet solution will run in parallel and later replace EDI that is being employed at the moment. Lastly as for what concerns the use of Internet in the Polish and Estonian spirits sectors, we found that Estonian websites seem to be addressed mainly to the internal and Finnish market (Estonian websites are usually only translated in Finnish) partly because a lot of local distilleries and distributors are in the hands of the bigger Finnish and Swedish groups. In contrast, Polish websites appear to consider broader markets, with 60% of them including a complete English version. However amongst all websites examined only a very small percentage engage in e-commerce activities, where transactions can be finalised on-line, and they are mainly the websites of Danish producers and distributors, where the combination of a high propensity to invest in IT and a more liberal alcohol industry structure than in the rest of the Nordic region, allows for a higher degree of use of Internet technologies.

Limitations

With this study we aim to portray the present state of firms operating in the spirits sector drawing the attention to some of the possible causes hampering the development of Internet technologies in some European countries. The choice of the countries, far from being exhaustive, was restricted by time and space constraints, that led us to neglect key markets such as the French, British, Irish, German and Spanish ones. The discussion above attempts to shed some light on the reasons for the delay in implementing new technologies in a sector playing a crucial part in the economy of the countries examined, reasons that could be further explored by in-depth interviews to the main actors of the industry.

Further research

Given the qualitative trait of the present research, focusing on those factors that we believe are affecting the implementation of e-commerce solutions in the spirits sector across Europe, we suggest that the next step be the performance of an analytical and quantitative evaluation of one or more case studies in the countries examined. Particularly interesting would be to consider the cost analysis of a firm engaged in B2b e-commerce transactions. Furthermore it would be of interest to expand the study to other important EU countries.

Appendix 1

Gin is a white spirit flavoured with juniper berries and a varied assortment of herbs and spices. The base of Gin is primarily grain (usually wheat or rye).

Whisky is distilled from grain, and sometimes the grain has been malted. It is aged, in wooden barrels. From the ninth century, Irish monks arrived in Scotland to Christianise their Celtic brethren. Along with the Word of the Lord they brought the first primitive stills, which they had picked up during their visits to mainland Europe in the Dark Ages. Homemade whisky became an integral part of the Gaelic culture.

Vodka is the dominant spirit of Eastern Europe. It is made by fermenting and then distilling sugars from a mash of pale grain or vegetal matter. Vodka is produced from grain, potatoes, molasses, beets, and a variety of other plants.

Rum is made by distilling fermented sugar (from fermentation of cane juice or molasses) and water. Molasses is a sweet residue that remains after sugar cane juice is boiled and the crystallized sugar is extracted.

Tequila is made by distilling the fermented juice of agave plants in Mexico. By Mexican law Tequila can be made only from blue agave, and produced only in designated geographic areas, primarily the state of Jalisco.

Liqueurs are sweet, flavour-infused spirits categorized according to the flavouring agent. Artificial flavourings are strictly regulated in most countries, and must be labelled as such. Most liqueurs use finished spirits such as Cognac, Rum or Whisky as their base. Crèmes are liqueurs with a primary flavour, while cream liqueurs combine dairy cream and alcohol. Herbal liqueurs may contain dozens of different flavouring elements to achieve the desired flavour.

Brandy is a spirit made from fruit juice or fruit pulp and skin. It can be categorized as follows: Grape Brandy, distilled from fermented grape juice or crushed grape pulp and skin and aged in wooden casks. Pomace Brandies (e.g. Italian Grappa) are made from pressed grape pulp, skins, and stems. Fruit Brandy, like Calvados, is the term for all Brandies that are made from fermenting fruit other than grapes. Being an agricultural spirit unlike grain spirits such as Whisky, Vodka, and Gin, Brandy is dependent on the ripening of the base fruit, and the production of wine from which is made. Brandies tend to be location-specific (Cognac, is the French region that gives its name to the local Brandy)[29].

[29] www.tastings.com/spirits/

References

Afuah A. (2003) "Redefining firm boundaries in the face of the Internet: are firms really shrinking?" *Academy of Management Review*, 2003, Vol. 28, No. 1. pp. 34-53

Amit, R. and C. Zott, (2001) "Value creation in e-business" *Strategic Management Journal*, Vol. 22, 493-520.

Bertelè U. and A Rangone (2001) "E-Marketplace: quale ruolo nel mercato italiano?", Associazione Impresa Politecnico, Milan.

Bettis, R.A. (1998) Commentary on "Redefining industry structure for the information age" by J.L. Sampler, Strategic Management Journal Vol.19

Carignani, A. and A. Mandelli, (1999), "Fare business in Rete". Milan: McGraw Hill

Evans P. B. and T. S. Wurster, (1997), "Strategy and the new economy of information", *Harvard business Review* n.2, 71-82

Conlon K., P. Cotte and K. Neuhaus (2001) "Getting Procurement right: Positioning the Center to Capture Value", BCG Inc. 2001

Eloranta E., J. Holmström, W. E. Hoover Jr and K. Huttunen (2001) "Managing the Demand-Supply Chain". New York: John Wiley & Sons

Keevil, C., K. Dickel and J. Christodoulears (2001) "Supply Chain Strategies for the Internet Era". Boston Consulting Group.

Lee H. L. and S. Whang (2001) "E-business and Supply Chain Integration" Stanford Global Supply Chain Management Forum, 1-20

Mainetti S., A. Perego and A. Rangone (2003), "eCommerce B2c" First Tuesday Italy, Issue 5, year 2, 17th March 2003

Perry, J. and G. Schneider (2000) "e-Commerce". Milan: Apogeo

Porter, M. (2001) "Strategy and the Internet", *Harvard Business Review* (March-April) 63-78

Rayport, J.F. and J.J. Sviokla (1995) "Exploiting the Virtual Value Chain", *Harvard Business Review* (Nov.Dec.), 75 85.

Smith Z. (1999) “The revenue effect of changing alcohol duties” Institute for Fiscal Studies, November 1999.

Valdani E. (1997), “Dalla concorrenza all’ipercompetizione, dall’evoluzione alla coevoluzione” *Economia e Mangement* n. 3, 81-93

Wayland, R.E. and P.M. Cole (1997) “Customer Connections: new strategies for growth” Boston: Harvard Business School Press.