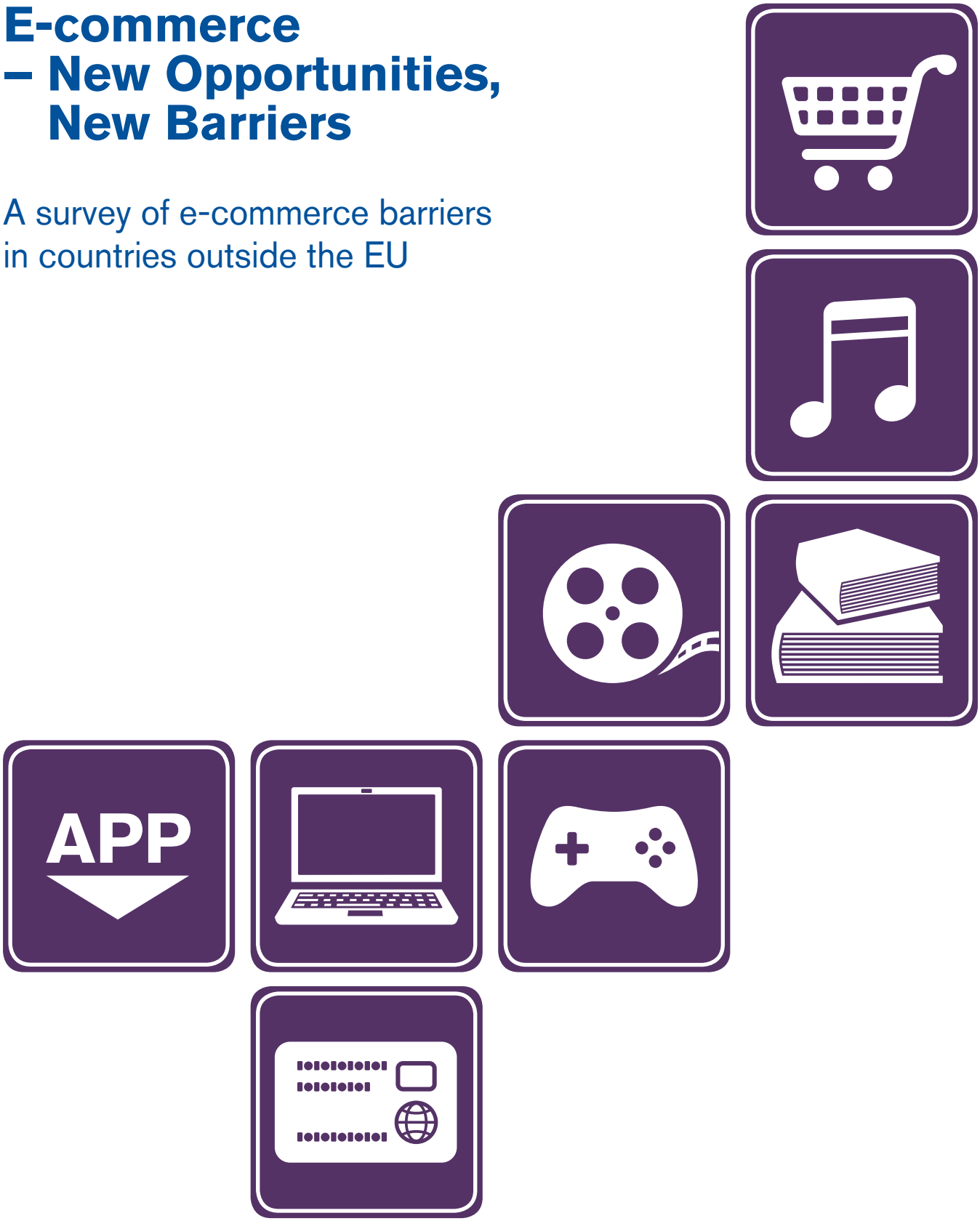
Kommerskollegium 2012:4

E-commerce – New Opportunities, New Barriers

A survey of e-commerce barriers in countries outside the EU



Kommerskollegium
National Board of Trade

The National Board of Trade is the Swedish governmental agency responsible for issues relating to foreign trade and trade policy. Our mission is to promote an open and free trade with transparent rules. The basis for this task, given us by the Government, is that a smoothly functioning international trade and a further liberalized trade policy are in the interest of Sweden. To this end we strive for an efficient internal market, a liberalized common trade policy in the EU and an open and strong multilateral trading system, especially within the World Trade Organization (WTO).

As the expert authority in trade and trade policy, the Board provides the Government with analyses and background material, related to ongoing international trade negotiation as well as more structural or long-term analyses of trade related issues. As part of our mission, we also publish material intended to increase awareness of the role of international trade in a functioning economy and for economic development. Our publications are the sole responsibility of the National Board of Trade.

The National Board of Trade also provides service to companies, for instance through our Solvit Centre which assists companies as well as people encountering trade barriers on the internal market. The Board also administers The Swedish Trade Procedures Council, SWEPRO.

In addition, as an expert authority in trade policy issues, the National Board of Trade provides assistance to developing countries, through trade-related development cooperation. We also host Open Trade Gate Sweden, a one-stop information centre assisting exporters from developing countries with information on rules and requirements in Sweden and the EU.

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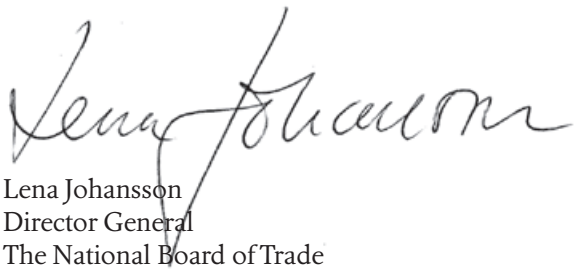
Preface

The internet has created new opportunities for international trade. The geographical distance between buyer and seller has decreased in importance and has changed the way in which companies and individuals conduct business, trade and communicate. However, as new opportunities are created, new barriers to trade are exposed. In this report, we identify the e-commerce barriers faced by Swedish businesses in countries outside of the EU; barriers that limit the opportunities to conduct cross-border e-commerce. Many of these barriers are the same as those for traditional trade, whilst others are specific to, or more problematic for e-commerce. We observe that, to a large extent, barriers encountered in non-EU countries are the same as those found within the EU.

This is the fourth report on e-commerce produced by the Swedish National Board of Trade. The previous reports are: *Survey of E-commerce Barriers within the EU* (2011), *E-invoicing in Cross-border Trade* (2010) and, most recently, *How Borderless is the Cloud?* (2012), in which we study cloud computing and international trade. The aim of these publications is to study how the conditions for international trade are changing, as well as to contribute to the discussion on how trade policy can be formulated in order to facilitate cross-border e-commerce.

The current report has been compiled by Henrik Jonströmer, Magnus Rentzhog and Emilie Anér from the National Board of Trade. We would like to extend a special thank you to the businesses that contributed to this study by providing information and agreeing to be interviewed.



Lena Johansson
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1. Introduction

The internet has, in many ways, reshaped both the Swedish and the global economy. The internet has changed how businesses and consumers compare, buy and sell both products and services, and how they search and manage information, deal with payments, and manage data. The internet has also opened up completely new sectors in the economy, by creating new products, new services, and business models that were not previously possible. International trade has been facilitated by these developments. E-commerce, that is to say, trade in goods and services that is conducted via electronic means, has grown exponentially, and businesses can today connect with consumers in foreign markets in ways that were not previously possible. Small businesses in particular have gained from this, having, in the past, lacked the necessary resources in order to export to foreign markets. However, despite the growth of e-commerce and the new opportunities this has created, new trade barriers are also being discovered – barriers that are either specific to or more problematic for e-commerce. A previous study by the National Board of Trade into the barriers to e-commerce within the EU showed that cross-border commerce within the EU is hampered by a number of legal barriers, such as bans on e-commerce as a sales form, pure establishment requirements, barriers linked to sales conditions, and intellectual property barriers.[1]

In this study, The National Board of Trade identifies the e-commerce barriers encountered by Swedish businesses in countries outside the EU. The study focuses on barriers that are either specific to or more problematic for e-commerce. We believe that e-traders have certain characteristics that result in these barriers affecting cross-border e-commerce more seriously than they do traditional trade. This is because e-traders:

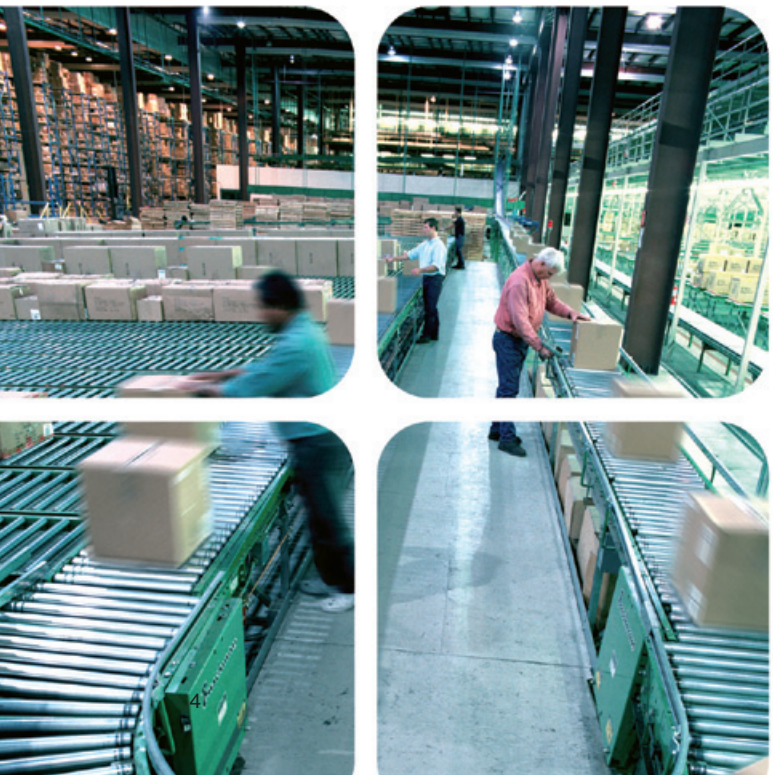
- sell into a large number of markets simultaneously
- are seldom established in the markets they are selling into
- are small
- often ship a large number of small consignments, rather than single larger ones

We have used these characteristics as reference points when assessing whether or not a barrier is especially problematic for e-commerce.

The study not only focuses on legal barriers, but also on those barriers created by a lack of information about laws, regulations, procedures and methods affecting e-commerce, and also by bureaucracy and a lack of competition. The study is primarily based on interviews. We have interviewed 22 Swedish businesses, small, medium and large, the majority of these within the IT and telecommunications, retail, and entertainment sectors.[2] As the study is based upon business interviews, the results, to a large extent, reflect those barriers *perceived* by the businesses. We have tried to verify and complement the descriptions of these barriers to the best of our abilities. Whilst working on this report, we noticed that certain barriers reported by the businesses were a result of misunderstandings made by the businesses. This observation is notable as it highlights the fact that information about laws, regulations, procedures and methods affecting e-commerce often lack transparency and is difficult for businesses to understand. Hence, an important step towards more open cross-border e-commerce is to make such information more easily-interpreted and transparent for businesses.

In this study we have used a broad definition of e-commerce as given by the European Commission that includes the following transactions; both *business-to-consumer* and *business-to-business*:

- **Goods and services are purchased over the internet but delivered in non-electronic form**
  Example: a consumer in Norway orders a book from a Swedish website. The book is subsequently shipped from Sweden to Norway.



- **Goods that have traditionally been delivered as 'physical' goods are sent across networks in digital form**
  Example: a consumer in Norway downloads an e-book from a Swedish website.
- **Electronic delivery of services**
  Example: a Norwegian accountant sells and delivers his or her services via the internet to a business located in Sweden.

The definition above reflects the fact that the concept of e-commerce is wider than the 'traditional' definition which only includes transactions where goods are ordered via the internet and delivered in non-electronic form.[3]

We have identified eight types of barrier in this study, which have been categorised in separate sections:

- **Lack of information:** e-commerce businesses struggle to find adequate information about the relevant laws, regulations, procedures and methods applicable to foreign markets (section 2).
- **Barriers relating to customs:** complicated and overly-burdensome customs procedures, custom duties on returns and corruption at the border create costs and administrative problems for e-commerce businesses (section 3).
- **Barriers relating to consumer and sales law, and consumer information:** differences in the right to cancel and return purchases, and specific requirements on the provision of information to consumers are particularly problematic for e-commerce businesses, which often sell in a large number of markets simultaneously (section 4).
- **Payments and taxes:** requirements for specific payment solutions and differences in tax regulations create costs and administrative problems for e-commerce. (section 5).
- **Intellectual property rights barriers:** e-commerce businesses are exposed to intellectual property rights violations and have difficulties in securing the rights to copyrighted material (section 6)
- **Cross-border data transfer:** llegislation that limits the ability of a business to store and transfer information, especially personal details, across national borders impedes cross-border e-commerce (section 7).
- **State controls:** cross-border e-commerce is restricted by the requirement for local establishment in order to register top-level domain names, internet censorship and requirements to use specific encryption methods (section 8).
- **Other barriers:** rroaming charges, fraud, problems obtaining insurance, certification of products, lack of standards, rules of origin, regulations on the launching of audio-visual material (*windowing*) and state subsidies (section 9).

In addition to the identification of barriers, this study also includes two short case studies. The first is about Norway, an important market for Swedish e-commerce, but one which is riddled with many e-commerce barriers and is particularly problematic for Swedish e-commerce retailers (section 10). The second case study examines the 'app market' – a new market (that did not exist before 2008) with its own specific barriers and problems (section 11). At the end of this report there is a summary which includes a discussion regarding the measures that can be taken to facilitate and open up international e-commerce.

2. Lack of Information

A problem mentioned repeatedly by those businesses we interviewed was the difficulty of finding adequate information about national laws, payment methods, logistics solutions etc. in the countries where the businesses conduct e-commerce. This is particularly problematic for e-traders, who often sell their products and services in a large number of markets simultaneously. Small businesses find this particularly problematic as they lack the requisite resources to collect and analyse all of the relevant information for the countries in which they sell. A small retail business that sells to more than 70 countries described the situation as follows: "It is extremely difficult to get an overview of the situation in each of the countries that we sell in, so we work along the lines of 'trial and error'. However, this does lead to occasions where the laws of certain countries are sometimes violated." In other words, the legal situation is often uncertain for e-traders, it is, therefore, difficult to gain an overview of the multitude of laws and regulations that must be taken into consideration. This can even lead to e-traders inadvertently violating the laws and regulations of certain countries. This problem was also brought up by larger businesses. One of the largest companies in Sweden, active in countries such as the USA and China, complained of a lack of transparency in the information provided by the authorities in each of these countries with regard to the labelling of products and the rules on consumer information.

Several companies that we were in contact with called for either the Swedish authorities or business federations to provide easily accessible information about what businesses should keep in mind when trading with other countries via the internet. The Swedish Trade Council has taken such an initiative and has created an internet-based e-commerce guide aimed at Swedish businesses (see box below).

Box 1

The Swedish Trade Council e-commerce guide

To simplify the process for Swedish e-commerce businesses that wish to begin exporting, the Swedish Trade Council has produced an internet-based e-commerce guide. The guide includes information on laws, regulations, trends and other aspects that should be taken into consideration when engaging in sales with other countries via the internet. The guide currently covers the Nordic Countries, Germany, the Baltic States, Poland, Russia and Belarus. It is available from the Swedish Trade Council website (in Swedish):

www.swedishtrade.se/ehandelsguiden

3. Barriers Relating to Customs

Many companies, particularly those in the retail sector, have suggested that tariffs present the greatest barrier to cross-border e-commerce. This problem does not exist within the EU, which is a free-trade area; however, when exporting to countries outside of the EU tariffs are, indeed, a major problem. One business suggested that "outside of the EU, tariffs are always the most problematic". Tariffs raise the price of the products sold by e-traders and consequently reduce their competitiveness. Tariffs are, however, not more of a problem for e-commerce than they are for traditional trade. Therefore, in this study we have chosen not to delve deeper into the levels of the tariffs, but instead to focus on other customs related questions that, we believe, have a particularly negative impact on e-commerce.

3.1 Customs procedures are problematic when shipping large numbers of small consignments

Complicated and overly-burdensome customs procedures are a general problem for all international trade. However, they can be even more problematic for e-traders, as they send many small consignments rather than single large ones. E-traders are often small businesses and, as a result, are more sensitive to the costs incurred as a result of customs procedures. Some businesses have stated that customs procedures have contributed to their decisions not to enter certain markets. Russia was one example given by many businesses in this regard.

A number of countries have out-dated and time-consuming customs procedures. In Ukraine, it was noted that EDI files[4] are not accepted; instead, each parcel must be declared (contents, dimensions and weight). Similar regulations also exist in other countries but can often be dealt with by forwarding agents or distributors. In Ukraine, e-traders have to carry out this work themselves. See also the case study on Norway (chapter 11).

One business had chosen to set up bonded warehouses[5] in Norway and Switzerland to avoid the bureaucracy associated with customs transactions. The business suggested that it would have preferred not to use bonded warehouses, but that the customs procedures (and duties) made this necessary.

3.2 Customs duties on returned goods

The option to return products bought via the internet is an important aspect of consumer rights, however, the costs incurred and administration involved in dealing with cross-border returns are a burden on e-traders. Although his is a problem in relation to all markets outside the EU, Norway and Ukraine have been highlighted as particularly troublesome. One business also mentioned Turkey, where the seller is responsible for all costs incurred with returns. It can thus prove costly for e-traders who ship their goods over long distances.

One company in the clothing sector explained that they receive 50 returns for every 150 product sold. As a result, return costs can become significant for many e-traders. In many cases, the consumer returns the product and states that the recipient (i.e., the business) in Sweden covers the costs. One company stated that this can result in a total of almost SEK 500 in customs duties and shipping costs for each return. In certain cases this results in companies choosing not to ship the returns back to Sweden because the process is too time-consuming and costly. In Ukraine, one business has instead chosen to resell the returned goods to outlets in Ukraine. The business would have preferred to ship the products back to Sweden, however, handling returns in this way proved cheaper.

Swedish businesses have the right to duty free treatment for goods returned from countries outside of the EU, provided certain conditions are fulfilled. This can be done by making an application to Swedish Customs[6], however, this opportunity had not been utilised by those businesses we were in contact with. We can only assume that this is because businesses are either unaware of the possibility, or that they found the procedures to be too time consuming.

3.3 Corruption renders e-commerce difficult

Corruption is a huge problem for international trade in general, often in relation to customs procedures, and relates to anything from bribery to the disappearance of items. Both small and large businesses highlighted this problem. An increasing number of businesses deemed e-commerce to be particularly sensitive to corruption, as it is often many small consignments that are shipped, which are 'easier to misplace', and e-traders often do not have the staff on site to be able to follow up any problems. The fact that the interpretation of what can be classified as corruption differs between countries is also a problem.

One business explained that it had decided to leave the Chinese market and another that it had decided not to start selling to Russia, due to corruption. In Russia, corruption (together with burdensome bureaucracy) results in logistics companies refusing to send products there. In addition, Turkey, Ukraine and 'other Eastern European countries' were mentioned as problematic with regards to corruption.

4. Barriers Relating to Consumer and Sales Law, and Consumer Information

When e-commerce businesses direct their sales to different markets simultaneously, they become subject to the various consumer and sales laws applicable in these countries. This, in turn, creates costs and administrative problems for the businesses, as they have to adjust their sales and business operations accordingly. This is a problem within the EU, but even more so at a global level, where consumer and sales laws differ to an even greater extent between countries.

4.1 Differences in the right to cancel and return a purchase create costs and administrative difficulties

A common problem for e-traders is the variation in consumer legislation in the different countries where they operate. This primarily relates to the right to cancel or return a purchase. A number of companies saw these variations as a major barrier, while others considered them to be less of a problem as they thought it was relatively easy to adapt to the different requirements. The latter were often companies with large sales volumes and generous return policies. The question of differences in consumer legislation adds to the legal uncertainty for e-traders who find it both difficult and costly to discover what local consumer legislation dictates.

A related question is the need to easily resolve disputes that may arise, especially in business-to-consumer trade.[7] Disputes often concern small amounts of money and, in practice, it is often difficult to take a dispute to a regular court. For this reason, there are currently alternative mechanisms that can be used to resolve disputes. However, when trading outside of the EEA, such dispute mechanisms are often difficult to access. The same is applicable to consumer guidance.[8] This creates uncertainty, both for the buyer and the seller, which, in turn, impedes cross-border e-commerce.

4.2 Rules concerning consumer information and website content

Many businesses have described laws and regulations dictating what information websites must and must not contain as problematic for their business operations. A common problem is the requirement to

use local languages. Businesses regularly adapt their websites to the local language, but in certain cases, such as in countries with more than one official language (i.e., Canada), this can be costly – especially if the sales volume is small. It is also common for countries to have requirements relating to the labelling of products and the provision of customer information. Some countries also have regulations that vary between states, regions or provinces (the United States was mentioned as problematic by many businesses in this regard). Regulations are often unclear and businesses encounter problems in obtaining clarification from the authorities about which rules apply. Adaptations to websites can be costly and burdensome, particularly in those cases where businesses are not sure of what is required of them.

Most countries also have restrictions on what is allowed to be published on websites. If a business has a website aimed at a specific market, such rules may result in the company not being permitted to display their entire range of products on their website. One business reported that Saudi Arabia has regulations on how much bare skin on women is allowed to be displayed on websites. This meant that the firm was not allowed to show images of women in underwear on their website. Children's pyjamas with pictures of pigs on them were also prohibited from being either displayed or sold in the country. Another business said that it was not permitted to display children and bedclothes in the same picture in the United States. This type of regulation affects firms' business operations and increases costs and administrative workload.

4.3 Product labelling and requirements for registration with the authorities are burdensome

It is common for countries to have requirements for product labelling; these can apply to the information displayed on the label on clothes, or to user manuals that need to be in a local language, for example.

Some countries require businesses to register with the local authorities in order to be allowed to sell certain products. These requirements increase the administrative burden for businesses, particularly if their sales are targeted at a large number of markets. It is easier for businesses with a local establishment to manage these problems as their volumes are normally larger and because they can manage the various requirements for each country separately. E-traders, however, rarely have a local establishment and thus have greater difficulty in dealing with this type of problem.

One company stated that they do not sell cosmetics to countries where there is a requirement for the ingredients list to be given in the local language as this adds an administrative burden and extra costs. The same business had also decided not to sell electronics outside of Sweden due to the fact that many countries require manuals to be translated into the local language. Another business has decided not to sell food products to certain markets where the obligation to register with the country's equivalent of the National Food Agency creates costs that are higher than the potential revenue.

5. Payments and Taxes

5.1 VAT regulations can be unclear or differ between digital and physical sales

VAT problems were a common theme brought up by those businesses interviewed by the Board. In many cases, this related to the lack of clarity regarding in which country the VAT should be accounted for. Other examples concerned unclear VAT regulations in general. The most common problem appeared to be VAT registration requirements. Such requirements exist in many countries – both within and outside the EU – and mean that businesses must be VAT registered in the markets they sell to if they sell over a certain amount. This also carries with it a demand for establishment, which contradicts the very idea of e-commerce. The majority of businesses that do not wish to register locally chose to bypass this by hiring a local VAT representative. This in turn creates additional costs (see section 10 and the case study on Norway for a more detailed explanation).

Countries that are divided into different states may also produce further problems for e-traders. Businesses brought up the United States, Canada and Australia as examples. The problem is that different states often have their own VAT and tax regulations, thus resulting in further administrative costs for e-traders. This issue becomes particularly problematic when the business conducts sales via the internet and accepts returns in stores. Sales are often carried out in one state while the customer might return the purchased good in another. This results in businesses being made to account for VAT variations.

One company stated that in many countries VAT on digital books is higher than physical books, which, in turn, negatively affects the trade in digital books. This is the case in Norway (and also in Sweden[9]). There also exist differences in the VAT applied on movies shown on cinema, DVD and video-on-demand (VOD). Cinema movies usually have the lowest VAT which, in turn, negatively affects VOD sales.

5.2 Differences in the requirements for payment solutions create costs and administrative problems

Payments for products and services that are purchased on-line are, in most cases, processed differently than if the purchase was made in a physical store. If e-commerce is to reach its full potential, it is necessary for consumers to feel secure when carrying out transactions over the internet. For this reason, many countries have legislation to regulate which methods of payment are permitted for on-line purchases. Even though this type of regulation may be necessary to ensure a high level of payment security, there is also a risk that over-regulation may create problems for businesses and impede cross-border e-commerce. Many of those businesses interviewed mentioned various problems relating to payments that lead to increased costs and additional administration. To be able to compete in several markets, businesses need to adopt a number of unique solutions, tailored for each market. In certain countries, the requirement to use specific payment methods has resulted in companies opting out of selling in these markets. Furthermore, different payment methods for different markets create opportunities for fraud when businesses struggle to maintain the different systems necessary. Many Swedish e-commerce businesses have stated that they choose to decline Russian credit cards.

Many examples were provided by businesses regarding legal or de facto requirements to use certain payment methods (that may even be specific to an individual country). Other cases included those

where local credit or debit cards cannot be used outside of their country of origin (e.g., Brazil), and countries that do not permit e-signatures (China and Russia) or credit cards to be used in on-line transactions. One company described how they offer their own credit payment solutions, but that it was not possible to offer this option to customers outside of the Nordic countries. Many businesses use on-line payment services such as PayPal and Moneybookers. Several regarded these companies as having too much power, leaving e-traders at the mercy of their terms and conditions.

One alternative payment method is for businesses to offer customers the option of paying via their internet banking service. To be able to provide such payment services, businesses must open a local bank account with those banks whose internet services they wish to use. In order to offer consumers the ability to pay via as many different banks as possible, businesses must, in effect, open a large number of local bank accounts in different countries. This, in turn, leads to costs and additional administration for the firms. Another problem that was highlighted was the requirement to carrying out sales in the local currency. When selling products and services to customers in China, all transactions must be carried out in the local currency. The same is also applicable in South Africa, for example.

The right to get access to customers' credit history was also highlighted by many businesses. This right is often weaker outside of Sweden, and in many countries only banks have permission to access credit reports. In some other countries, only 'negative' information (such as missed or late payments) is disclosed, and not 'positive' information (e.g., annual income), making it difficult for firms to make a balanced evaluation of potential consumers' creditworthiness.

5.3 Requirements to use handwritten contracts make the use of online solutions impossible

In a number of countries, businesses are not able to offer certain internet-based services because the laws and regulations of these countries are not up-to-date with the digital economy. One clear example of this is the requirement to use paper invoices and handwritten contracts. This increases the administrative burden for companies and makes the use of various online-based services impossible. One business gave an example of a service using an internet based platform where the delivery of goods is automatically registered in the recipient's invoicing system. It is not possible to use this service in countries such as Kazakhstan, Russia and Ukraine, where the use of paper invoices and handwritten contracts is a requirement.

5.4 Double taxation

E-commerce creates revenues overseas, and there is, therefore, a risk of double taxation. Fortunately, bilateral agreements often exist to deal with this. Despite such agreements being in place, one business reported having problems in Norway, in this respect. The company had established a subsidiary in Norway and sold its products online to customers from this subsidiary in order to avoid double taxation.

6. Intellectual Property Barriers

Many businesses referred to problems related to intellectual property as being the largest or one of the largest barriers to their operations. These barriers arise because intellectual property rights are often controlled nationally and are not harmonised across national borders. For example, in most countries the copyright holder is represented by a national collecting society, and licences to use copyright material (such as music or film) are often restricted to a limited geographical area. The same is applicable to nationally registered trademarks. The National Board of Trade has previously concluded that many intellectual property barriers exist within the EU.[10] The businesses that have contributed to this study have indicated that many of these barriers are just as common within the EU as they are outside of the EU.

6.1 Businesses subject to intellectual property infringements

Not surprisingly, many businesses have had their intellectual property rights infringed when conducting e-commerce. Competitors use the name of Swedish companies on their products and design them so they appear as if they are the original product. China and Ukraine have been mentioned as problematic in this regard. Illegal downloading is also common, and affects not just sales of computer games but also mobile phone applications. Users can unlock restrictions and 'jailbreak' their smartphones, thus being able to download apps from file sharing sites without having to pay.

One company suggested that Google's rules for advertising and keywords lead to trademark infringements. Google sometime agrees not to allow any other companies to show advertisement when a certain company's name is searched for on Google (as is the case with companies such as IKEA). This is, however, only applicable if the company's name is deemed to be specific. If, on the other hand, a company name is considered to be generic it is not protected in the same way, so other companies are allowed to show advertisements when the company name is searched for. These businesses move to a high position in the list of returned hits and can 'piggy back' their way to the top of the list based on the good reputation of other companies.

One retail business reported problems with private parallel imports, where certain consumers purchase large quantities of a product which they later resell in Russia. This may be completely above board if the importing country does not forbid parallel imports. One company reported that Russia differs considerably from the EU in that Russian buyers – not sellers – risk committing intellectual property rights violations when they purchase from sellers outside of Russia. This, in turn, reduces consumers' willingness to shop online.

6.2 Rules on third-party liability differ and are sometimes unclear

One key issue is that of the liability of third-parties on the internet (such as broadband companies, search engines and online stores) regarding the intellectual property of copyrighted material

shared via their websites. This question is just as prevalent within as it is outside of the EU. Depending on the industry, businesses may have conflicting interests and ways to classify problems. Copyright proprietors consider it the task of the third-party to monitor what is distributed via their websites and services, and to immediately remove material that violates, or that may even be considered as contributing to the violation of copyright. Companies that act as third-parties, however, state that they neither wish, nor have the legal obligation to monitor the material distributed via their websites and services, and hence take no responsibility for the actions of their customers.

Copyright proprietors who discover infringements can contact either those who are responsible for the infringement directly, or the third-party and request that they remove the material. Therefore, it is extremely important that there are regulations in place which clearly state the responsibilities of third-parties. Such regulations do not exist in certain countries, Turkey being one example. One of the businesses interviewed, which has a third-party role, stated that, as a result of this, they always include in their user terms and conditions that they reserve the right to shut down a service if a governmental agency so demands. However the business stated that they neither reserves the right, nor have the legal authority to monitor their customers' activity themselves.

There have been many lawsuits involving online platforms and copyright holders. One example is that of the on-going case in the Netherlands concerning the responsibility of telecoms service providers regarding the material downloaded via file sharing. One business believed that the time for litigation is over, and that the way forward is through collaboration between stakeholders. The pace of technical development has created better filters that can block the material that causes infringements. The same business also stated that collaboration within the EU has been driven forward thanks to the Commission taking the initiative to encourage unanimous agreements between the relevant stakeholders.

6.3 Difficulties securing the rights to copyright protected material

According to many businesses, it is either not possible to, or there is a lack of information about how to purchase licences for copyright-protected material; this acts as an impediment to the development of legal services for downloading and streaming of such material, particularly across borders.[11] Many businesses, particularly small businesses, also raised concerns regarding the risk of infringing copyrighted material unwittingly.

Since intellectual property rights are usually regulated and protected nationally, businesses that sell to a multitude of countries will normally secure the rights in each new country separately. Copyrighted material differs from other intellectual property, as it does not need to be registered; hence there is no register containing current copyright regulations.

Those wishing to use copyright protected material must apply to collecting societies (such as STIM[12] in the case of Sweden) in each country. Sometimes copyright holders have not registered with these organisations and some countries do not even have them.

Even the EU regulation in this respect is fragmented and poorly adapted to the digital environment, particularly with regard to the clearing and collective management of copyright and to cross-border licences.[13] In addition to the difficulties encountered when trying to find out whether something is protected or not, this leads to high transaction costs being incurred when licensing copyrighted material.[14]

Some businesses described how problematic it is to secure the rights to films that are sold on the internet via streaming. One company described the system for copyright protected films as "a labyrinth, impossible to navigate". First and foremost, regulations governing digital films are less clear than for films that are sold physically. For the latter, the business pays what is known as a private copying fee for the physical product – i.e., the DVD – that in turn is passed on to the copyright owners. For digital films, however, the same simple system does not apply. Additional problems also arise when selling digital films across borders. When retailers of streamed films enter into a new market, they are required to compensate (sometimes both for the film itself and the music used in it) the copyright proprietors and collecting societies in that country. This needs to be done even though the business had already bought a licence from the copyright proprietor when they first began distributing the film. A further problem is that licensing is usually not technology neutral. According to many businesses we have interviewed, the combination of all the above acts as an impediment to the development of new and innovative e-services within the film industry. One business further suggested that charges are generally much higher for digital films because the big copyright proprietors, mainly from the United States, are large corporations who hold a strong market position when setting prices. Another business highlighted the fact that collecting societies in different countries charge different fees.

Regarding the e-book market, one business claimed that the growth of this market is held back due to of out-of-date copyright regulations which prevent older literature from being adapted into e-book format. These legal problems also exist in the music industry. One company complained about the business model used by STIM. Collecting societies such as STIM are, in a sense, a natural monopoly which prevents competition. The European Commission recently presented a proposal to simplify cross-border trade of music licences within the EU.[15]

6.4 Lack of searchable information about intellectual property rights

Some businesses suggested that it is difficult to find information about the intellectual property rights that must be registered – trademarks, patterns and patents – thus businesses risk violating intellectual property rights unwittingly. One business explained that, since bots can search the internet for infringements, inadvertent violations are more easily discovered by the intellectual property rights holders. Many businesses would like to see centralised, searchable databases where national registers are combined (both inside and outside the EU). This is also a problem for traditional trade, but is more pressing for e-traders who usually sell in many different markets without establishing themselves physically.

6.5 Domain grabbing is becoming more and more common

Domain grabbing involves the registration and use, in a particular country, of a domain name which is similar or identical to the name of a trademark belonging to someone else, resulting in the owner of the trademark being unable to register the same domain name legitimately in the country in question or abroad. The legal proprietor of that trademark may, therefore, be open to accusations of having infringed on the trademark that has been registered as a domain name. Many of the interviewed businesses have been subject to this problem. This occurs particularly frequently in China and other Asian countries, but also within the EU. One business has chosen to manage domain grabbing by registering domain names in those countries where it is thought to be the most important. For small businesses however, this method can be too expensive and complicated to adopt.

ICANN (Internet Corporation for Assigned Names and Numbers) is an international private organisation that coordinates the domain name system. One business suggested that new rules introduced by ICANN will aggravate the domain grabbing problem. The rules make it possible for businesses to register their own top-level domains (such as 'google'). According to the business surveyed, the consequence of this will be that businesses will need to keep track of and protect a growing number of top-level domains associated with their trademarks.

No multilateral intellectual property rights exist that directly regulate the registration of domain names that are similar or identical to trademarks registered in other countries. Firms have the possibility to use alternative dispute solutions, inter alia, under the auspices of ICANN.

7. Cross-border Data Transfer

Many businesses interviewed by the Board have highlighted laws and regulations that restrict their ability to store and transfer data across national borders – mainly in the form of personal details and other confidential information – as a major problem. Even if this type of legislation is required in order to protect individuals' privacy and personal integrity, it is essential that it is designed in a way that promotes technological innovation and the economic advantages associated with cross-border data transfer. Norway was mentioned by the businesses as a problematic country in this respect. Many have complained that Norwegian law forbids the collection and storage of Norwegian customers' social security numbers. Businesses must, therefore, adapt their systems accordingly to manage information about their Norwegian consumers. Also, this restriction prevents businesses from accessing credit reports on their Norwegian customers in order to determine their creditworthiness.

The ability to transfer data across borders is a prerequisite for the utilisation of, so called, cloud services. By making use of such services, data storage can be managed via external, often remote, data centres. Instead of storing data on local servers, information is stored on external servers (in 'the cloud') that are accessible via the internet. These servers are often located in a different country to where the cloud user is based. In effect, restrictions on cross-border data transfer form an indirect barrier to the use – and promotion – of cloud services.[16] These restrictions have been reported as problematic by a Swedish company active in Russia and Kazakhstan. They encountered problems when they wished to integrate information about their employees (regarding their salary, employment terms etc.) into their cloud-based HR system, which was hosted on a server based in Germany. Legislation on the management of personal details in Russia and Kazakhstan was described by the company as being so complicated and restrictive that the business had decided to store and manage the information locally instead. According to this business, Russian law states that each individual employee must provide written permission stating that their details may be stored abroad. This permission must also be continually renewed (annually or similar). The business stated that in Kazakhstan, storing 'sensitive information' abroad is forbidden; however, there is no clear definition of what is considered to be sensitive information. In both cases, the local regulations forced the company to adapt accordingly, thus creating additional administrative costs.

8. State Controls

Many businesses have highlighted various types of state control in countries outside of the EU which constitute barriers to e-commerce. The problems described below show how state control measures cause problems for cross-border e-commerce.

8.1 Demand for local establishment in order to register local top-level domains

Requirements for a local establishment in order to register a local top-level domain name have been highlighted as a problem by many companies. Norway and Japan are two countries that have been frequently named in this context. The problem is that a business risks losing potential customers if there is no locally registered top-level domain. This problem is explained further in the case study on Norway (section 10). This requirement also exists in certain countries within the EU, and was previously identified as a problem in the Board's survey of e-commerce barriers within the EU.[17]

8.2 Internet censorship and governmental requirements for encryption solutions

A consultancy firm with offices in China mentioned the Chinese authorities' control of the internet as a problem for their operations. The authorities had shut down the business' Chinese website without any warning or explanation. Furthermore, there were no clear guidelines from the authorities about what is and is not permitted on websites. This, of course, creates legal uncertainty for businesses active in the country. China and many other authoritarian regimes use internet filters to censor and limit online access to information. It is also commonplace that access to foreign websites is arbitrarily blocked by the authorities, who refer to protection of national security and social order as the reasons for their actions.

Countries may also place demands on software developers to use specific encryption solutions that governmental agencies have the ability to 'unlock' if they so wish; one company, developing apps, named the United States as an example. In China, there is a requirement that wireless network devices use specific encryption methods approved by the authorities (which they can de-crypt) instead of the secure protocols that are used in the rest of the world.

9. Other Barriers

In addition to the barriers described above, the businesses we have interviewed gave a long list of other barriers.

9.1 Roaming charges raise the cost of e-commerce via mobile devices

Roaming is the term used to describe the situation where a mobile phone user is transferred from one telecommunications operator to another, as happens, most commonly, automatically when a person uses their mobile phone abroad. Mobile operators conclude roaming agreements between themselves, thus enabling operators to charge customers for calls on their regular bill, without the need to send an additional bill from the country in which the phone was used. The problem is that the roaming market is characterised by a lack of competition, the result of which is that the charges agreed between mobile operators, which, ultimately, fall on the customer, become excessive.

These high charges adversely affect consumers' and businesses' use of mobile devices abroad, which, in turn, impedes cross-border e-commerce. One business indicated that retail sales via mobile devices are currently limited, but are expected to increase significantly in the future. The research firm Jupiter estimates that over USD 240 billion worth of transactions were made with mobile devices in 2011.[18] The problem is that the roaming charges for data transfer and in turn, the use of different services, are so high that consumers refrain from using mobile services when they are abroad. One company suggested that the development of mobile services is negatively affected by roaming as it reduces the economies of scale. See the case study on the app market (section 11) for more examples.

9.2 Fraud

On-line fraud is unfortunately common, and is highlighted as a problem by many businesses. One e-trader we spoke to stated that fraud occurs everywhere but is especially commonplace in Russia, China and African countries. Few logistics businesses choose to operate in Russia as a result of the risk of fraud (as with customs procedures, see section 3.3). One company stated that they had left the Russian market as a result of fraud. Another highlighted the problem of software product keys being sold or spread online to other, non-paying users.

9.3 Impossible to obtain insurance

In the United States, businesses are subject to what is known as 'product liability'. This means that businesses may be held responsible for any personal injuries or damage to property caused as a consequence of defects in the products they sell. One way to protect against potential claims for damages is to take out product liability insurance. One company pointed out that no insurance company wished to sell such insurance to foreign e-traders, making them bear all of the risk of any claims for damages.

9.4 Product certification

In South Korea, products intended for children up to the age of three require product certification. Products must have been tested in an accredited laboratory and be marked with the Korea Certificate (KC) symbol. Products are also subject to inspections from the authorities to ensure that they meet the relevant legislative requirements. Russia has similar certification requirements for both children's and adults' clothing; all products that come with a certification requirement must be marked with a symbol and also a code that identifies the third-party company who conducted the product testing.

9.5 Lack of standards impedes e-commerce

Lack of standards is generally viewed as an impediment to traditional trade and the same applies to e-commerce. One example noted in our study is that of the lack of standards and a harmonised format for e-invoices. The lack of standards acts to impede the adoption of various online solutions, and make the use of e-invoices difficult.

9.6 Rules of origin create the need for local warehouses

One company explained how strict rules of origin create problems for businesses who sell online to the USA and South Africa. There can be two reasons behind problems with rules of origin: i) e-traders may have smaller consignments than those of traditional exporters, thus making it more costly to prove the origin of each consignment, ii) direct transport regulations state that in order to satisfy rules of origin, products may only be stored overseas for a limited period. As e-traders often have their warehouse facilities placed in strategic locations around the world, this can create problems.

In many cases, Swedish e-commerce businesses have decided to establish local warehouse facilities in these countries, thereby reducing the administrative burden for the individual product/consignment. However, this is time consuming and requires a form of local establishment.

9.7 Rules affecting the launch of audio-visual content ('windowing') hinder the development of e-commerce

Copyright holders stagger the launch of their content on the various formats ('release windows'). Traditionally, this has meant that films are first shown in cinemas, then on DVDs, pay-per-view TV and finally on TV. Digital distribution is challenging this order, and many businesses wish to develop services that sell/rent/stream audio-visual content at an earlier stage. One problem is that there are public support systems (i.e., film subsidies and distribution systems) that support traditional sequencing and therefore obstruct the development of such services.

9.8 Subsidies abroad distort international competition

Subsidies for computer games developers in Canada and the Province of Quebec have been named as a major problem by Swedish computer games developers. These subsidies are mainly provided in Montreal, which is currently home to one of the world's largest clusters of games developers (between six and seven thousand people are estimated to work with computer games development in the city). The province offers tax rebates to games developers based upon how many people they employ. According to the branch organisation, Swedish Games Industry, these subsidies have a strong negative impact on Swedish games developers. This is because the subsidies contribute to distorting competition internationally, and Sweden subsequently loses out on many investment opportunities from abroad.

9.9 "Transport roaming" makes transport more expensive

The transport sector also encounters problems that are reminiscent of roaming. When using postal services outside of the EU (often required by small companies for shipping) it can become unreasonably expensive because national postal services are often monopoly providers and so are in a position to set prices as they themselves see fit.

10. Case Study: Norway

Norway is a large, important market for Swedish e-traders. Four out of ten Swedish e-traders who sell abroad list Norway as their largest foreign market.[19] The Norwegian market is particularly lucrative for e-commerce businesses, not simply because of its geographical location; a study has shown that one in four Norwegians shop online at least once a month, often on foreign web shops as these usually have both a greater variety of products and lower prices, compared with Norwegian competitors.[20] Nonetheless, Swedish businesses claim that sales to Norway could be even higher if it were not for the trade barriers that exist within the country. One business stated the following: "Norway should be the obvious go-to market for Swedish e-traders wishing to expand. However, it is, unfortunately, incredibly problematic to conduct e-commerce there."

Below, we describe the two major e-commerce barriers that Swedish e-traders face in Norway: the requirements for local establishment when registering top-level domains, and custom procedures. The descriptions illustrate how these two barriers present themselves in relation to Norway. General information about the same barriers can be found in sections 3.1 and 8.1, respectively. Other barriers related to Norway, brought up by businesses, are the ban on the storage of social security numbers and double taxation. These are, however, not described in detail here.

10.1. Requirement for local establishment in order to register Norwegian top-level domains

In Norway, there is a requirement for businesses and individuals who wish to register a Norwegian top-level domain to be established within the country. This can either be in the form of a limited company (aksjeselskap, AS) or a branch known as a 'Norwegian Registered Foreign Company' (*Norskregistriert utenlandsk foretak*, NUF). This type of requirement indirectly acts as a barrier to cross-border trade, as internet search engines rank websites with Norwegian top-level domains higher than websites with other top-level domains. Businesses that have a Norwegian top-level domain ('.no') will, therefore, be more visible, and in the long run get more hits when consumers in Norway conduct a search for a product or service, compared with businesses that only have a Swedish top-level domain. Furthermore, it can be assumed that consumers in Norway feel 'safer' and more willing to purchase from a site with a Norwegian top-level domain, compared with a Swedish one.

To avoid losing potential customers, many Swedish businesses choose to start a limited company or NUF in Norway. This is, of course, expensive, and something that smaller e-commerce businesses might not have the means to do. One alternative can be that the business 'rents' the rights to top-level domains from companies known as 'domain management companies' in Norway, or pay for a local VAT representative to register a top-level domain on their behalf.

In addition to the requirement for local establishment in Norway, there is also a limit to the number of sub-domains a business may register. These limits pose a problem to Swedish e-commerce businesses who wish to register many sub-domains under one Norwegian top-level domain.

10.2 Norwegian customs procedures are perceived as unnecessarily time consuming and complicated

Norwegian customs procedures were described as 'outdated', time consuming and expensive to adapt to by the businesses interviewed by the Board. A large clothing company explained how this had contributed to the company choosing to open a bonded warehouse in Norway and sell their products into the Norwegian market from there. The company's shipments to countries within the EU are managed from a central warehouse in Sweden, but the Norwegian customs procedures made it cheaper and easier to invest in a bonded warehouse in Norway.

In practice, it is not actually the customs procedures that are the main problem, but the underlying tax regulations. When Swedish businesses sell products directly to consumers in Norway, either the business or the consumer must take responsibility for the customs and VAT costs incurred. Businesses often decide to manage these themselves, as they would otherwise risk losing customers by passing on the responsibility to the consumer. The Norwegian VAT laws that regulate this management are viewed by many businesses as outdated and not well adapted to cross-border e-commerce.

The formulation of Norwegian VAT laws has resulted in businesses deciding either to establish themselves locally in Norway to simplify VAT management, or to appoint a Norwegian VAT representative who then assumes management responsibility. For those companies who choose to establish themselves in Norway, they can choose between either starting their own limited company (*aksjeselskap*, AS) or opening a branch (*Norskregistrert utenlandsk foretak*, NUF). The registration cost for a NUF is NOK 2,580 and NOK 6,190 for an AS, and there is an additional requirement of a minimum initial capital of NOK 30,000 when incorporating an AS. After registering their NUF or AS, the businesses may then manage the local VAT administration themselves, assuming that they have the required knowledge. In both cases a permanent establishment and address in Norway is required. Businesses are then governed by Norwegian laws and regulations for accountancy and tax duties.

Businesses that do not wish, or do not have sufficient funds, to start a limited company or NUF in Norway may instead appoint a Norwegian VAT representative to assume responsibility for VAT management. Businesses who offer this type of service are often accountancy firms. Establishment through the appointment of a representative can be compared to outsourcing of invoicing, card payments and accounting. The initial cost for this service has been said to vary between SEK 10,000 and SEK 50,000. The recurring cost of managing customer invoices, VAT reconciliation and tax declarations is charged at a rate of SEK 800, and upwards, per hour. These figures give a good indication of how expensive Norway's customs procedures, or tax regulations rather, can be for Swedish e-traders.

Another problem is that businesses may not register for VAT until they have sold products with a value in excess of NOK 50,000. The businesses can, however, apply for early registration of future VAT if they can prove that their sales will exceed this value within a reasonable time frame, such as by demonstrating business development on their home market.

11. Case Study: The App Market

Mobile applications, known as apps, are software programmes, adapted for smartphones and tablet computers, which users can easily download and install. The app market has grown rapidly in recent years, and this has created new opportunities for businesses which, thanks to apps, can reach out to customers in, what is effectively, a global marketplace. As the costs for developing, marketing and distributing apps are so low, the app market has to a large extent been captured by small software development businesses and entrepreneurs. Over 85 per cent of the best-selling apps in 2011 were developed by small businesses, and the majority of these had less than ten employees.[21] Businesses in other sectors have also benefitted from the app market, due to the fact that many apps can be used in order to make business operations more efficient and reduce production costs. However, the literature about the app market and how it is linked to international trade and trade policy is limited. Therefore, we have chosen to take a closer look at this service sector to see if it is subject to any trade policy barriers and problems.[22]

11.1 Why is the app market of interest?

The app market is interesting for three reasons. First of all, it is a new sector; it did not exist until 2008, when Apple introduced apps along with their iPhone[23], and it has since expanded rapidly. It is now the case that apps are, in principal, just as important as websites in creating a channel for customer integration. Previously, apps were used as a way for businesses to build their brand – they were a tool that enabled businesses to show themselves off, but often lacking in content. Now, apps are used to a much greater extent as tools which support various services and transactions. According to one business, approximately 15 per cent of all flight bookings are made via apps. It is likely that more and more businesses from diverse sectors will focus their resources on selling products and services via apps, winning new customers and increasing market share. Secondly, Sweden is successful in this sector and was previously a flagship country for app creation and development. Despite the Netherlands, the United Kingdom and the United States having all overtaken Sweden in terms of market share, Sweden is still an important player in the sector, with successful app and game development clusters based in places such as Stockholm. The third reason is that apps automatically become global. Businesses that choose to internationalise their operations with help from apps do not follow the traditional internationalisation path, that leads first to neighbouring countries, then Europe, then the world.

The two dominant system platforms for apps are the Apple operating system iOS, where apps are distributed via the App Store, and the Google Android operating system, where apps are primarily distributed via Google Play.[24] The Apple and Google operating systems are dominant and comprise almost 80 per cent of the current market.[25]

11.2 Barriers and problems

One problem faced by the app sector is that of high roaming charges which makes the use of apps more expensive when the user is abroad.[26] The app development businesses we have been in contact with view this as a major problem, especially outside of the EU. Roaming charges are examined in more detail in section 9.1. Illegal downloading is also a problem for the app sector; one business stated that more than 30 per cent of all apps in use today were pirate copies. Several businesses also complained that it is difficult to get in contact with Apple and Google to have them remove apps that infringe on trademarks. One business believed that Apple and Google should have better control over what is published and be held responsible for any potential intellectual property infringements (or, at least, be legally obliged to resolve any infringements they are notified of).

The main problem for the app sector, according to the app development businesses we have interviewed, appears to be the terms and conditions businesses have to abide by if they wish to distribute their apps via Apple's App Store platform. This was repeatedly highlighted by the app development businesses that the Board has been in contact with. Apps for Apple's iPhone and iPad may only be distributed through the App Store. In contrast, Android apps may be sold freely, though Google Play is still the dominant platform for Android users. The sale of iPhone/iPad apps is, therefore, restricted to Apple's platform, whereas Android apps are closely associated with Google's platform. However, these were also viewed as effective distribution and payment channels by app developing

businesses, who also view the commission rate of 30 per cent of revenue, charged by both Apple and Google, as acceptable. Furthermore, these platforms help to increase the sense of security amongst app consumers, as all apps available on these platforms have been approved by Apple or Google, respectively. Nevertheless, the lock-in effects are large, and businesses state how they feel they are at the mercy of Apple and Google's goodwill and conditions. One business stated that, "you don't have control in the way you would like to have." For businesses it is a case of balancing the advantages of access to a simple distribution channel against the disadvantages of a system that is strictly controlled by its owner.

One problem highlighted by businesses is that Apple regularly changes the contract agreements for apps that consumers have already downloaded. Users must accept the new terms and conditions to be able to continue using the app. Another problem is that Apple repeatedly changes the requirements for what apps should contain in order to become authorised. One company stated that Apple does not allow apps that contain political satire. Apple can even prevent apps from containing certain functions that Apple wish to retain the sole rights to. For example, Apple forbids the inclusion of links to external payment sites; instead, all payment functions must be linked to Apple's payment system which, in turn, charges a 30 per cent commission on all payments.[27]

The examples above illustrate how businesses are not permitted to develop apps on their own terms and are instead forced to submit to Apple's terms and conditions, which are lacking in transparency. This is exemplified by one case, well known within the industry – the case of the Swedish-made app iKamastura. The app quickly rose in popularity after its launch and became well known for being the best and most attractive Kama Sutra app on the market. Illustrated pictures of partially naked people were displayed in the app, this was deemed to be too provocative by Apple and the app developer was told to make the images less explicit. Once the developer had made these changes, Apple decided not to publish the app anyway, stating that there were already too many apps of the same kind on the market. This example illustrates what many businesses have stated during our interviews: Apple decides which businesses are authorised to sell their apps via their platform based on rules which both lack transparency and are unpredictable.[28]

Another problem brought to light was that of software patents. Apple stops apps that they believe have infringed on patented software. The biggest problem for the businesses was that they were not aware of how and where information on existing patents could be found. This is a problem connected with that regarding transparency and intellectual property laws described in section 6.3.

12. Conclusion

In this study the National Board of Trade has surveyed barriers to e-commerce encountered in countries outside the EU, based upon interviews with Swedish businesses. The results show that Swedish businesses encounter a series of barriers in countries outside of the EU: from restrictive customs procedures, corruption, lack of information about laws and regulations, to intellectual property barriers and internet censorship. Some of these barriers have their origins in national regulations, whilst others are of a technical or logistical nature. The countries highlighted as the most problematic by Swedish businesses were Norway, the United States, Russia, Ukraine, and other East European countries. The fact that these countries stood out, most likely reflects the fact Sweden's e-commerce trade with these countries is large.

One interesting conclusion, which can be drawn from our interviews, is that many of the barriers experienced by Swedish businesses are the same when trading with non-EU countries as they are when trading with other EU countries. One business stated the following: "It is not easy to conduct e-commerce anywhere, either inside or outside the EU." This underlines the fact that e-commerce within the EU is not without its problems, and suggests that many of the problems that need to be resolved within the EU also need to be addressed in relation to third-countries. Examples of barriers that are common both within and outside the EU are: lack of information, differences in consumer and sales laws, intellectual property barriers and the requirements for local establishment in order to register top-level domains. Furthermore, it is important to underline the fact that businesses state that these barriers are often larger and more burdensome in countries outside of the EU. Other barriers, on the other hand, only exist in countries outside the EU, internet censorship and problems relating to customs procedures being two examples.

It is difficult to determine which barriers are the most serious for Swedish businesses, but the barriers mentioned repeatedly by businesses were the lack of information about laws and regulations, differences in consumer laws and specific requirements for website content, customs-related problems, and intellectual property barriers. Some of the barriers identified in this study are specific to e-commerce, such as the registration of top-level domains and requirements for handwritten contracts. Other barriers, which also affect traditional trade, but can be more burdensome for e-traders are, for example, customs-related problems, differences in consumer laws, and intellectual property barriers. We argue that these barriers affect e-commerce to a greater extent, as a result of the specific characteristics of e-traders, namely, that they sell to a large number of markets simultaneously, they are small, are seldom established physically in the markets they are selling to, and often send a large numbers of small consignments rather than single larger ones.

What then can be done to reduce the barriers that affect cross-border e-commerce? As the barriers vary in character – some barriers are legal, others are related to payment systems, logistics or lack of competition etc. – there is no single solution available. Furthermore, many barriers may be justifiable as necessary in order to fulfil important policy objectives, such as consumer protection, privacy and data protection. In such cases, it is essential that laws and regulations are transparent, predictable, and formulated so as to minimise trade-distortion. This all suggests that various solutions must be sought within different fora in order to render international e-commerce more open.

Many of the barriers fall within the auspices of the World Trade Organization (WTO). International trade in services is regulated by the General Agreement on Trade in Services (GATS), and intellectual property rights by the TRIPS Agreement. It is possible that many of the trade barriers that have been identified in this report are in breach of WTO member countries' commitments as defined by these agreements. In such cases, Sweden and the EU should initiate dialogues with these countries in order to encourage them to comply with their international commitments. In order to improve international co-operation in the fight against intellectual property rights violations, the EU, and other countries, have negotiated the Anti-Counterfeiting Trade Agreement (ACTA). This has, however, not been implemented in Sweden or the EU as it was recently rejected by the European Parliament.

E-commerce is also discussed in the WTO's *Work Programme on E-Commerce*, established in 1998, with the objective of analysing trade-related issues arising from global e-commerce. Within the framework of the work programme, the EU and the United States, in 2011, presented 10 common principles supporting the expansion of Information

and Communication Technology (ICT), and cross-border e-commerce.[29] These principles include refraining from discriminating against foreign service providers in sectors that are important for e-commerce, and from arbitrarily blocking cross-border access to information. If more countries were to incorporate these principles into their national legislation, an important step towards more open international e-commerce would be made.

Another international initiative that has great potential for opening up cross-border e-commerce is that of a plurilateral trade agreement for trade in services, known as the 'International Service Agreement' (ISA). This is currently being discussed amongst a number of countries, including the EU. Such an agreement would lead to new commitments and rules that go further than those set down in the GATS, and which would benefit the international trade in services in general, not simply cross-border e-commerce. When it comes to the problem of burdensome customs procedures for e-traders, one step in the right direction could be made via a new international agreement on trade facilitation that is currently being negotiated within the WTO.[30]

The EU and Sweden may also address many of the barriers identified in this study bilaterally through dialogues and free-trade agreements with other countries. In this context, it is important to achieve mutual recognition of digital payment systems and e-signatures, to strengthen international co-operation on the protection of intellectual property rights in the digital environment, and to make commitments to open up the cross-border trade in services in sectors that are important for e-commerce, such as IT, telecoms and data services. Another important issue for e-commerce that, up until now, has received very little attention in the EU's free-trade agreements is that of cross-border data flows. Through future free-trade agreements, the EU should attempt to reach agreements where all parties commit not to introduce or maintain unnecessary barriers to cross-border flows of electronic information.[31]

Within the EU, much has already been done to harmonise regulations that affect e-commerce. Whilst this is positive for e-commerce within the EU, it is, however, important that the Union's internal solutions do not create new barriers that hinder e-commerce with third-countries. In order to avoid this, the EU should, to the greatest possible extent, develop its legislation in line with solutions that have already proved successful in other countries. Another option is to 'export' EU solutions by incorporating these into the EU's free-trade agreements. The European Commission has recently proposed the establishment of a 'Common European Sales Law' that businesses may implement on a voluntary basis. The aim is to reduce the uncertainty that arises amongst both businesses and consumers about the conditions that apply to cross-border purchases made via the internet. In order to help resolve disputes between traders and consumers, the Commission is also investigating the possibility of a web-based dispute settlement mechanism, a 'one-stop-shop', which consumers within the EU can easily access. Once introduced in the EU, solutions such as these should, if it is deemed feasible, be expanded to other countries by incorporating them into the EU's free trade agreements.

Finally, there is much action required within Sweden and the EU in order to improve the conditions for e-commerce. Governmental agencies and

business organisations should make information more transparent and easily accessible. They should inform businesses of which laws, regulations, payment methods, logistics solutions etc. apply to both their own and to foreign markets. The Swedish Trade Council's on-line e-commerce guide (see section 2) is a good example of such an initiative. Many of the barriers identified in this study can also be found at the EU level and in several EU countries. One example is the requirement for local establishment in order to register local top-level domains.[32] If cross-border e-commerce within the EU becomes more open, this will lead to increased competition, higher quality and lower prices for both by consumers and businesses.

In conclusion, the work we have done on this study and the discussions we have had with various businesses, have led us to believe that it is time to stop treating e-commerce as something different and new. Although online trade presents its own specific problems, it is still an inherent part of international trade. Today, the internet is an integrated component of Swedish companies' business models. Businesses today, both large and small, have an established online presence, and trade carried out by electronic means is now standard for many businesses, especially in B2B-trade. One telling figure in this context is that manufacturing is the sector in Sweden where e-commerce makes up the largest share (27 per cent) of businesses' revenues.[33] In other words, e-commerce is important for the whole economy, not just for individual sectors, such as retail or IT and telecoms. Reducing the barriers to cross-border e-commerce would have a positive effect on the whole of the economy, including traditional international trade.

All this points to the fact that, in a policy context, it is becoming less and less appropriate to treat e-commerce as a separate issue. If cross-border e-commerce is to reach its full potential, e-commerce issues need to become an integral part of the trade policy agenda and should not be managed separately, as is currently the case, for example, in free trade negotiations. Issues that have not previously been addressed by trade policy, but that are of great significance to businesses' opportunities to trade internationally, such as cross-border data transfer and roaming charges, should be integrated into the trade policy agenda. If this does not happen, policies risk becoming outdated and out of tune with the reality of business in the digital economy.

Appendix – Questionnaire used in Interviews with Businesses

1. General legal barriers to e-commerce

- 'Ban' on e-commerce, either in its entirety or for certain products/services?
- Requirement for residency or establishment (to be able to sell certain products/services, establish national top-level domain, to have the right to store personal details)?
- Regulations that present a de facto, but not legal, requirement for residency or establishment (trade requires a local licence, capital from local partner, deposit of capital etc.)?

2. Intellectual property barriers

- Requirements for licences to be able to use protected material?
- Difficult to identify the concerned parties to sign the user licence?
- The costs for licences are too high?
- Pirate copying of protected material?
- Infringement of a company trademark?
- Others have used solutions that we hold patents for?
- Different products/services can be patented in different countries?
- 'Domain grabbing' (others have registered domain names in our name) ?

3. Consumer rights barriers

- Differences/uncertainty regarding the right to cancel the purchase?
- Differences/uncertainty regarding returns?
- Lack of fast and cheap dispute solutions, causing consumers to refrain from purchasing?

4. Taxes

- Double taxation?
- Different interpretations of products/services in different territories?
- Unclear VAT regulations?
- Discriminatory VAT?

5. Payments

- E-invoices/signatures not accepted?
- Other regulations or technological standards regarding e-invoices/e-signatures?
- Different regulations for card payments?

6. Content related barriers

- Censorship?
- Requirement/ban for/of certain content?
- Regulations for the management of personal data?

7. 'Traditional' trade barriers (not e-commerce specific)

- High customs duties?
- Complicated/time-consuming customs procedures?
- Product adaptation?
- Testing/certification?
- Public procurement?
- Local standards
- Standards created by the state where private are preferred or other?

Notes

1 The National Board of Trade (2011)

2 The manufacturing and service sectors are, unfortunately, not as well represented in our selection of businesses. Businesses from these sectors were generally less interested in participating in our study.

3 European Commission (2011b)

4 Electronic Data Interchange (EDI) involves the transfer of structured information in accordance with an agreed format. EDIFACT is a commonly accepted standard.

5 Bonded warehouses are an authorised place where businesses can store products without paying duties (if they are not going to be sold directly). The products may be their own or those belonging to others. The businesses pay customs duties and charges when they are sold and, therefore, avoid having to pay duties for the entire stock in storage.

6 See Tullverket (2012)

7 It is easier to resolve B2B (business-to-business) related disputes as businesses mutually agree which terms and conditions are applicable to the transaction at hand.

8 Karlsson, Lars-Ingmar (2012)

9 Appel, Martin (2011)

10 National Board of Trade (2011)

11 See also IT and Telecom companies (2012).

12 The organisation STIM, *Svenska Tonsättares Internationella Musikbyrå*, is an organisation responsible for collective management of copyright and related rights and the monitoring of the economic rights of its members. The organisation grants permission (licence) to use music when companies apply for a licence from STIM, and then distributes the licence fees to the authors and publishers who own the rights. The information needed to make the payments is the type of music to be played, recorded, downloaded or streamed. STIM has agreements with many of its partner organisations overseas to monitor and ensure that the Swedish copyright holders and their record companies are paid when music is played abroad.

13 See European Commission (2010) and the National Board of Trade (2011).

14 A report commissioned by the Government of the United Kingdom states how these things depend upon complicated procedures where many organisations involved find it difficult to discover who owns what and in which country and so on (Intellectual Property Office 2011).

15 See European Commission (2012)

16 For a more detailed description of the trade policy aspects of cloud-services, see the Swedish Board of Trade (2012).

17 National Board of Trade (2011)

18 Moneybookers.com (2012)

19 Posten, Swedish Distance Sellers and the Swedish Institute of Retail (2011)

20 PostNord (2010)

21 Association for Competitive Technology (2012)

22 The following problems, as well as the description of Sweden's position, are based upon interviews with businesses within this branch, unless otherwise stated.

23 An interesting point of reference is that the founder of Apple, Steve Jobs did not believe that apps had as much commercial potential as they later went on to display. It wasn't until he saw the 'Ocarina' app (an app that enables consumers to use their mobile as an ocarina) that he realised the potential of apps (see http://computersweden.idg.se/2.2683/1.292607/fran-flojt-till-app-ekonomi)

24 Today, Apple has over half a million apps available on their App Store, whilst Google Play offer approximately 425,000. However, Google are developing much faster than Apple as their platform is larger. (http://www.appbrain.com/stats/number-of-android-apps and http://www.apple.com/se/iphone/built-in-apps/app-store.html)

25 Wallström, Martin (2012)

26 Roaming fees are only a problem when using apps that must be connected to the internet.

27 One example of this is outlined in Markander, Mikael (2012).

28 This example is also explained in Velazco, Chris (2012)

29 World Trade Organization (2011) – "Communication from the European Union and the United States: Contribution to the Work Programme on Electronic Commerce", WTO S/C/W/338

30 The discussions within the WTO on an international agreement on trade facilitation include all WTO members and have been ongoing since 2004. These discussions also include commitments from developed countries to give technical assistance and capacity support to developing countries that do not have sufficient resources for the modernisation of their customs procedures.

31 The commitment to not restrict the flow of electronic information across borders has been introduced in the free-trade agreement between the USA and South Korea, and has also been discussed in the ongoing negotiations on the Trans-Pacific Partnership, TPP. The TPP includes countries such as the USA, Australia and New Zealand. The commitments in this agreement should be studied further as they can possibly form the basis for EU discussions on how cross-border data flows can be managed in future EU free-trade agreements.

32 Germany, Finland and Estonia have requirements for local establishment for the registration of top-level domains. The requirement also exists within the whole EU when businesses and private persons wish to register the top-level domain .eu (Commission Regulation (EC) No 1255/2007, 22 April 2002 laying down public policy rules concerning the implementation and functions of the .eu Top Level Domain and the principles governing registration)

33 For the Swedish manufacturing sector, e-commerce primarily occurs via electronic data interchange (EDI), i.e., automatic transfer of orders, invoices, consignments and so on, that are sent in a standardised electronic format (The Boston Consulting Group 2011)

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