

E-invoicing in Nordic markets and expansion of e-invoicing across borders – market review

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1 Executive summary

This report is useful for companies that are currently using an e-invoicing solution and are interested in exploring possibilities for expanding services locally as well as globally. The report additionally contains information about some of the common challenges related to the activation of receiving or sending e-invoices. To address these challenges, this report proposes a number of ideas on how to further increase a company's level of sending or receiving of electronic invoices.

E-invoicing expansion can be prompted by the fact that it elicits cost savings and increased efficiency of the existing ERP system. The first step for companies interested in expanding their e-invoicing utilization is setting activation targets. Then, companies should find out the e-invoicing status of their targeted sending or receiving partners. Thereafter, follows e-invoicing activation.

To increase the degree of utilization of e-invoicing across borders, companies must study the potential market maturity, legislation, operators and other players on the e-invoicing market. For instance in the Nordic region, the market situation varies among countries. In Finland, the e-invoicing market has been B2B driven. By contrast, in Sweden and Norway, most development has taken place in the B2C markets. In Denmark, e-invoicing development has been driven by governmental institutions.

Despite the differences in these foreign markets, companies looking to broaden their e-invoicing scope still face similar challenges. Before expanding, companies must first identify key information about their customers' and suppliers' e-invoicing status. This knowledge is instrumental both for activating e-invoicing and setting market prioritization. Another challenge is finding and partnering with the right e-invoicing operator. The ideal operator is one that can offer experience, a degree of internationalization, a broad customer base and roaming agreements that are already in place. In the best case scenario, the right operator partner can help a company increase the degree of utilization of e-invoices both locally and globally.

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2 Introduction

Companies interested in increasing their utilization of current e-invoicing services have two alternatives. A company can increase the level of e-invoicing in current market(s) and/or expand the solution to other countries. To increase the level of invoicing, a company that currently sends e-invoices can activate existing customers to receive e-invoices as well. If the company is currently a receiver of e-invoices, it can encourage existing suppliers to send more e-invoices. The company that is currently receiving can also expand to sending e-invoices or vice versa. Yet another possibility is for companies to expand their current e-invoicing solutions across borders.

The purpose of this report is to help companies gain insights into the possibilities of expanding their e-invoicing solutions within the Nordic countries and beyond. The report presents a market view for Finland, Sweden, Norway and Denmark. Within these markets, the concentration of e-invoicing to B2B and B2C sectors, the amount of operator cooperation and the existence of other available solutions are all factors influencing the outcomes in each market. The lessons learned from these countries can be applied more broadly as well. This report also discusses some challenges and ways for companies to find out more about their customers (the potential e-invoice receivers) or suppliers (the potential e-invoice senders).

The report is based on knowledge that BasWare Einvoices Ltd. personnel have gleaned from working with e-invoicing markets in Europe. It also includes ideas and views gathered from current and possible future partners, additional BasWare Corporation personnel as well as other market players. This report primarily focuses on the B2B markets; the B2C markets will not be covered as extensively. The report starts with an overview of best practices, continues with a review of the market and key players, and concludes with a discussion on activating supplier/customer e-invoicing services.

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3 Best Practices – guidelines for companies increasing e-invoicing utilization

Companies that aim to increase use of their existing e-invoicing solution should pre-define targets for activation. This is equally relevant for companies expanding the use of e-invoicing within their existing operative markets and for those looking at e-invoicing abroad. Target setting can be performed based on current operative markets and/or local market status. Moreover, it is recommended that companies divide activation for sending and receiving e-invoices into separate projects. This is due to the fact that e-invoicing activation changes current operative processes. And because of this, it is also important to inform and involve company personnel in the e-invoicing activation project. In this way, company personnel can support the success of e-invoicing activation in relation to customers, suppliers and other external parties.

Another relevant step in e-invoicing expansion is to identify the current e-invoicing status of a company's partners. Companies that send e-invoices need to know about their invoice receivers' (customers') abilities to receive e-invoices. Conversely, companies looking to receive e-invoices need to know their invoice senders' (suppliers') abilities to send e-invoices. Acquiring knowledge about the e-invoicing status of external parties and the market's overall readiness helps companies prioritize and implement their e-invoicing strategies.

Consider the following issues when expanding the sending of e-invoices:

- A company's technical capabilities for e-invoice sending, i.e., the data provided by the billing system and the target market requirements regarding invoice data.
- The chosen model for the financial service center, which has a large influence on the technical implementation, i.e., centralized versus localized implementation.
- The recipient's capability to receive e-invoices.
- The operator used by the recipient in the target market and any existing roaming agreements with the chosen sender operator.
- Legislative requirements of the target market concerning invoice authenticity, integrity and VAT deduction. For example, the use of a digital signature is not needed in Scandinavian markets but is required in many European markets.
- Digital archiving requirements for the invoices sent. When activating the sending of e-invoices, companies must plan and implement whatever archiving solution is deemed necessary.
- The need to inform e-invoice recipients about the company's ability to send e-invoices to current customers.
- The steps required to implement and activate the sending of e-invoices.

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Consider the following issues when expanding the receiving of e-invoices:

- A company's technical capabilities for e-invoice receiving and internal invoice distribution. Electronic invoice acceptance and rotation enables cost savings and increased efficiency.
- The sender's ability to send e-invoices and any possible roaming agreements between the recipient's and sender's operator.
- Legislative requirements of the target market concerning the invoice authenticity, integrity and VAT deduction. For example, the use of a digital signature is not needed in the Scandinavian markets but is required in many European markets.
- Digital archiving requirements for received invoices. When activating the sending of e-invoices one must plan and implement the needed archiving solution. In some countries, there may be additional requirements to store the invoice electronically as well as in paper format.
- The need to inform the current supplier about the corporation's proposed goal to receive e-invoices and the definition of a supplier activation project for this purpose. This project should be organized to assess the current status of the supplier and then plan activation based on that assessment.

The above listed issues are considered "everyday business" for most service operators. Consequently, it falls on the company that is going into e-invoicing to set the targets from its internal point of view and then decide which tasks to implement in-house and what to outsource.

When considering possible service providers for e-invoicing, two issues are very important. The service provider must understand what kind of data can be produced from the customer's current ERP system and any related issues. In addition, a service provider should demonstrate a solid understanding about the local requirements and have a large direct customer base or have roaming partners. The roaming partner network increases the amount of possible e-invoice senders and receivers beyond the coverage of a single service provider.

E-invoicing service implementation is another important consideration in starting e-invoicing. The knowledge and experience of the service provider plays a significant role in this area. A customer's ERP system can add unexpected costs in the consultancy side due to technical or commercial considerations. These unwanted costs can be minimized by using an experienced service provider with solid know-how and a large customer base. In addition, it is equally important to set expectations for the implementation phase at a level that is both reasonable

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and reachable. When implementation is ready from the technical point of view, there are often issues related to activation of e-invoicing among suppliers or customers that remain to be solved.

From these issues and considerations, it can be concluded that the market is mainly recipient-driven and that suppliers act accordingly, based on the demand of e-invoicing solutions activation. It is important that suppliers' activation to e-invoicing takes place in a pre-organized fashion. Successful activation requires correct information about the company's supplier base and suppliers' billing routines. Thereafter, it is necessary to alert suppliers, gaining their attention in order to activate them for sending e-invoices.

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4 E-invoicing status in the Nordic markets

The Nordic markets are currently in different lifecycle phases. As a result, market status varies from country to country, within the business to business (B2B) domain and in the business to consumer (B2C) domain. Details on the status of individual Nordic markets are provided as follows.

4.1 Finland

The Finnish market is characterized as B2B-driven, due to the developments within the company's internal automation, i.e., workflow management solutions for handling and acceptance of e-invoices. Receiving the full benefits of invoice automation requires that the whole value chain from e-invoice transmission to e-invoice receiving and invoice handling is operating without any manual intervention. The internal automation for Finnish companies has been and is still increasing on a yearly basis. While it took years to reach a volume growth, today, with more internal automation solutions in place, companies have started to realize the importance of e-invoices as part of the value chain. Currently, the e-invoicing market is growing at a rapid pace. One of the driving factors for this growth is the open collaboration between service providers and operators, which has established a well functioning e-invoicing network between the parties. It is this operator level interoperability that makes the Finnish market so advanced and globally unique. However, B2C e-invoicing in Finland remains in the early stages with much lower market penetration than the B2B segment. The main reason for this gap is that although internet banking is extremely popular, e-invoicing functionality as part of the solution has taken quite some time. Despite the various service launches during the last several years, overall B2C e-invoicing volumes are still extremely low.

4.2 Sweden

The Swedish market is characterized by a high number of companies, altogether more than 700,000. Most of these companies are small and medium sized, with less than 20 employees. From a commercial point of view, the market is very mature in the B2B segment with large invoice volumes and healthy competition among service providers. Sweden has also one of the highest rates of debit /credit invoices on the B2C segment in Europe.

However, the tradition of invoice scanning on the receiving side, and printing and posting on the sending side has pushed prices down to such levels that the cost savings for transitioning to e-invoicing are limited. Currently, almost all of the larger Swedish corporations use some kind of service for invoice scanning. About 50 percent of the solutions are in-house (with the dominant provider being Readsoft AB). The other half outsources their scanning to a third-party scanning house. On the printing side, the service is typically distributed to multiple service providers where competition has been quite extensive.

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Another important factor in the Swedish market is that EDIFact is a commonly used invoice automation solution. The high percentage of point-to-point EDIFact solutions is slowing the development of e-invoicing, which is based on open collaboration and a many-to-many type of architecture. This factor has also slowed down the commercial and technical development of B2B e-invoicing services.

One conclusion drawn from these noted restrictions and the limited number of e-invoices is that the current service providers are not yet working for open networks and information sharing. In fact, the market is still quite protected and closed, which limits the current interest towards e-invoicing. This is expected to change in the near future as customer pressure for e-invoicing increases and the market starts to get activated. (This was the exact same situation in Finland just a few years ago and today, e-invoicing flourishes.)

4.3 Norway

Unlike some of the other Nordic markets, Norway started from the B2C side with collaboration of large B2C players like telcos, banks, etc. initiating consumer e-invoicing services. This has resulted in the Norwegian market having one of the highest B2C e-invoicing penetrations in the world. However from a B2B market point-of-view, Norway is similar to Sweden in that the cooperation between different market players is just starting to occur and the e-invoicing market is based on point-to-point connections. However, there are some promising signs that service providers are starting to understand the need for communication. A case in point, these services providers recently established a new cooperative group called b2bConnect.

4.4 Denmark

Denmark has taken a completely different approach towards e-invoicing. The country's public sectors were informed that as of February 1, 2005, public authorities would only issue and receive invoices in electronic format. Any goods or services suppliers that are unable to send or receive e-invoices must rely on a third-party provider for printing or scanning. This move has helped to rapidly develop the e-invoicing market and promoted the need for cooperation among the various operators.

On the B2C side, Denmark's largest banks have introduced a jointly-owned company, which acts as an e-invoicing service provider in the B2C market. In addition to this joint initiative, various other parties such as banks, e-invoicing operators and software houses have introduced competing solutions.

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5 Key players

The key players in the Nordic e-invoicing market are split. No single player has reached a dominant position in the e-invoicing sending and/or receiving area. In many markets, there is also a division between sender and recipient service providers. From the customer's point of view, there is also a split in e-invoicing roles between the banks and the operators.

Banks can be seen as more active in the B2C and small end of the SME market. This is due to the fact that currently, there are a high number of debit direct customers and a wide range of internet banking user interfaces provided by the banks. Banks have profiled these services as standardized services, which are based on a specific format and do not accommodate formatting changes. Conversely, the e-invoicing operators have traditionally been successful in aiming their services at large companies and SMEs in the B2B market. These markets require more value-added services and tailored service offerings.

5.1 Sending customers

Companies looking to expand their sending of e-invoices should consider the following key parties/factors:

- System vendor of their current billing system. It is important to identify the file format requirements that affect the potential solution's connection level when using an invoice operator. The basic requirement is that the system can produce all the required information fields and include them in a file.
- Transmission solution to transfer e-invoices from the sender's billing system to the recipient. The sender's billing system should be connected through an interface to a service provider's network. The service provider performs whatever mapping is necessary between the different formats to transmit the invoice to the recipient in the correct format.
 - If the recipient considers an e-invoicing operator, it is relevant to know the operator's customer base and the roaming partners to which the operator has connectivity. A good operator choice minimizes the need for multiple sender connections.
- Printing partner, because not all the recipients will be able to receive invoices in electronic format. Printing services can either be implemented as part of the e-invoicing solution or as a separate solution.
- In the event that integration work is necessary or changes must be made to the existing business processes, use of a consultant may be necessary to support reorganization or interface development.

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5.2 Recipient customers

A company interested in expanding its receiving of e-invoices should consider the following key parties/factors:

- Internal workflow system provider, because the full utilization of e-invoicing benefits often requires a company to reorganize its internal processes to minimize the amount of manual invoice handling.
- The e-invoicing solution to provide invoices from the senders to the recipient. This requires a connection between the service provider's network and the e-invoice recipient.
- Scanning solution to maximize the efficiency of the automated e-invoice receiving solution. The scanning solution can be in-house or outsourced to a third party. In cases where scanning is outsourced, it can be bundled as part of the e-invoicing solution, making it possible to receive all e-invoices through the same route.

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6 Discussion about expanding e-invoicing services

E-invoicing expansion projects are most often driven by cost savings. Typically, a company initiates the project to reduce unnecessary costs related to receiving and/or sending invoices in paper format. Another reason for expansion occurs when an existing customer starts to require e-invoices instead of paper invoices.

When companies talk about expanding their use of e-invoicing services, they are planning to increase the amount of e-invoicing in the current market(s) and/or expand the solution to other countries. The first activity refers to activating suppliers to send more e-invoices or activating existing customers to receive more e-invoices within a company's current operative markets. The other option is to extend the coverage of the current e-invoicing solution to countries in which the company is not currently operating an invoice automation solution.

Most companies choose to optimize their internal processes as the first step to gain added value. This forms a good base for e-invoicing because the expansion decision should always be reviewed based on current processes and the changes required if e-invoicing is adopted. A company that is willing to take the next step should set up a structured project in which to evaluate the current supplier and customer list. This evaluation of customers/suppliers enables the company to minimize unnecessary costs associated with the automation project.

After companies complete their process evaluation and assessment of the suppliers' and/or customers' status, they should define their target markets for e-invoicing adoption. A company has the option of expanding the e-invoices solution within current market(s) and/or to other countries.

In making this decision, the company should evaluate the following criteria: the company's own level of e-invoicing utilization, existing markets in which the company has operations (including partners and customers) and the number of invoices sent or received. This information and evaluation can help prioritize implementation, particularly where the company has multiple target markets with no existing e-invoicing solution. The volume of sent or received invoices can greatly influence the total potential cost savings. The current market requirements and the market's e-invoicing status are of equal relevance. As a result, companies would do well to compare the invoice volume and the e-invoicing market penetration within a specific market to find the combination that offers the highest market potential. These efforts are relevant for both the sending and receiving parties and can help companies define the success of the e-invoicing activation within a specific market. .

Numerous market studies indicate that e-invoicing has developed faster in markets that are based on open communication and collaboration. Companies planning e-invoicing expansion should also include considerations regarding in-house versus outsourced activities. Currently, there are multiple service providers offering different activation services that support the contacting of suppliers and/or customers.

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E-invoicing operator's services are typically built so that the customer is provided with all the interfaces and tools necessary for sending and receiving e-invoices. That same service provider also manages the mapping of electronic invoices between different formats. The countries and markets in which a company operates help determine the requirements used to select the service/solution provider. The service provider must also handle compliance with the local legislative requirements of the e-invoicing business.

6.1 Expanding the sending of e-invoices

A requirement for expansion of e-invoice sending is the existence of current customers that can receive invoices electronically. Some markets provide such information publicly, i.e., through an alliance or other non-profit organization. If a company's current customers cannot receive e-invoices, it is possible to use a printing house for printing and posting the invoices. While this does not offer as many cost savings, it does enable the company to utilize a single solution for invoice sending.

Another critical issue for e-invoicing solution implementation is the current and any future location of financial services and billing. For example, if the company has multiple locations with local systems supporting each country, the e-invoicing solution (i.e., connection to the billing system) is typically localized and implemented per country as well.

In situations where the company uses a shared service center to support many countries from one location, the implementation of e-invoicing can also be centralized. This solution also enables centralization of related services such as archiving. However, centralization may entail added legislative considerations. For example, legislative requirements dictate that an invoice stored outside the country from which it is issued should be accessible in real-time. Moreover, some markets require that the invoice be stored in both paper and electronic format regardless of the sending format.

From a technical standpoint, another key consideration is the format that the invoice system generates and the information content that it provides. While many older systems cannot generate XML format, they do manage to put the information in some other printable format that can be captured by the e-invoicing solution and mapped to a standard solution.

6.2 Expanding the receiving of e-invoices

A company that already has an active receiving side implementation, can expand its receiving of e-invoices by activating its current suppliers to send e-invoices instead of paper invoices.

The first step is for the company to review its internal processes. The company should carefully study how invoices are received and handled internally. Another important factor is the level of automation in the company's internal processes. Obviously, a company that has invoice automation in place can pass along the biggest savings potential to new e-invoice receivers. Using scanning as part of the recipient process limits the possibility for total cost savings and justifies the use of e-invoicing. When scanning is applied, there are multiple possibilities for

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implementation based on whether the services are built in-house or outsourced to a third party. Use and implementation can be made easier when a company selects one single solution to serve as the incoming pipeline. This is similar to using a single solution for printing on the e-invoice sending side.

Once the company has clarified its internal processes for receiving e-invoices, the next important issue is to notify and activate the company's current suppliers to send e-invoices instead of invoices in paper format. This requires the company to actively communicate the need for invoice automation to its suppliers. Some e-invoicing operators offer supplier activation as a service. The operators can help the company to increase awareness about e-invoicing activation and even directly support the automation of invoices.

The activities required for this process can be divided into two parts: information gathering and supplier activation. Information gathering entails identifying the suppliers that provide the largest potential for cost savings through invoice automation. This is accomplished by identifying the invoices senders that send the largest volume of invoices in paper format or to a scanning company. This information can be further used to prioritize suppliers. Before starting the activation phase, it is recommended that companies review this supplier list to verify whether all their current and necessary vendors are included. In some cases, companies must first synchronize the list of vendors and the related management processes before automating the operational model between them.

Once a prioritized list exists, it can be compared with the operator's existing customer base and any public databases, if they exist. (These databases include all service-providing operators and define the suppliers capable of sending e-invoices to another receiver.) Naturally, suppliers that already use e-invoicing are the fastest to be activated. The main task is to inform the suppliers about the company's ability to receive e-invoices and ensure that the first e-invoices are received correctly.

If a supplier's e-invoicing status is unknown, the company must gather more information. There are multiple channels and ways to proceed, but generally the project starts by finding the right contact person and obtaining answers to predefined questions regarding the supplier's e-invoicing status. Using this information, companies can categorize suppliers and define any related technical implementation requirements. This information enables the chosen service provider to help companies speed up their e-invoicing expansion process by recommending the best way to activate suppliers.