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FROM E-BANKING TO E-BUSINESS AT NORDEA BANK

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Executive Summary

Since the beginning of business computing, financial services firms have been major innovative users of IT. In particular, banks have used IT internally to enhance their efficiency and effectiveness and externally to improve their customer service and competitiveness. However, they have typically confined their IT use to financial applications. IT could be used to offer e-business services beyond financial applications, seamlessly integrating services from business and government providers.

Nordea Bank, headquartered in Stockholm, Sweden, has done just that, and has differentiated itself from its competitors. It has augmented its e-banking portfolio by adding an e-business platform through which it offers both its private and corporate customers the value-added e-business services of e-identification, e-signature, e-billing, e-salary, and e-payment. Several of these e-services have become widely used standards in the Nordic region.

Nordea Bank's evolution of services teaches seven lessons about moving into e-business: (1) start new IT initiatives early and with a modest investment, (2) combine high-tech services with a high-touch capability, (3) entice customers to move to cost-efficient channels, (4) proactively manage online/offline channel conflicts, (5) leverage the existing online customer base to acquire new online customers, (6) decrease risk of fraud by using instant e-payment, and (7) leverage existing technologies to create new value for customers and for the firm.

A BRIEF HISTORY OF E-BANKING

To reduce their costs and extend banking hours, banks began installing Automated Teller Machines (ATMs) and pay terminals in the 1970s. While these machines did make banking faster and easier, they still required customers to go to a specific banking location. And they did not move customers away from cash.

As Bo Harald, head of electronic banking at Nordea Bank, pointed out, "ATMs are very expensive: you have to keep the money there, you need to protect them, and sometimes they are destroyed. Cash is actually the most expensive way to pay for things. Just like ATMs, pay terminals are unprofitable. People shouldn't be paying their bills in the street; **they should** do it at home. Why should people use cash at all? It's unhygienic, it's unsafe to carry around, and there is the high risk of counterfeit money. It's irrational!"

E-banking access began via PCs in the 1980s (often called e-banking) and spread to mobile phones in the late 1990s/early 2000s (often called mobile banking). A major issue in introducing these new channels, though, was keeping the costs down. Costs could go out-of-control if a bank needed many people to answer customers' questions, at a branch or a call center.

Harald described Nordea's decision on this matter. "We decided to offer no consultation on the Internet and very little on the phone. We believed we had to keep our offer simple to succeed in Internet business and to gain the necessary confidence and trust of our customers. That's difficult, but necessary. By keeping our offer simple, we didn't need to provide expensive instructions over the Internet. And shifting transactions to electronic channels freed up our resources for improved service levels at branches. That's where people go for complex products, anyway."²

Some countries also introduced banking via television. But TV banking has not fulfilled its high expectations. "Clearly, every family has a TV in their house, so, in principle, it should work well," said Harald. "But we believe that people just do not want to check e-mails or do their banking in front of the whole family. Those are rather private things and that's why the TV in the living room is not well suited. With the continuing convergence of the TV and the PC, this might change, though."

Like other banks, Nordea has moved through this evolution.

¹ Mary Lacity was the accepting Senior Editor for this article.

² Based on quotes in "Learn from the largest Internet bank of the world," accessed at www.tietoenator.lv.

NORDEA BANK'S E-BANKING EVOLUTION

From 1984 to the present, as Nordea Bank has evolved its services, it has learned lessons about moving into e-business. These lessons are presented in this section, in the context of the bank's evolution.

Nordea Bank's Background

Nordea Bank is the result of mergers among banks from the four Scandinavian countries of Sweden, Finland, Denmark, and Norway. In 1997, Swedish Nordbanken and Finnish Merita Bank merged to form MeritaNordbanken. In 1999, Danish Unidanmark acquired TRYG and, later, Vesta. In 2000, Unidanmark and MeritaNordbanken merged to form Nordic Baltic Holding, which became Nordea, after merging that same year with Norwegian Christiana Bank Og Kreditkasse. (See Figure 1.)

By the end of 2004, Nordea had almost 10 million private customers, of which 4.1 million were active e-banking customers. Of the total population in the Nordic region, 45% had an account with Nordea, either a main account or a secondary one. Today, Nordea employs 29,000 people and has 1,220 branches throughout the Nordic and Baltic regions.

To guide its operations, Nordea formulated both a "Nordic Idea" and a "Nordea Vision," as described below.

Nordea Bank's "Nordic Idea"

- "We share and exchange Nordic ideas;"
- "We are Nordic in operations while personal and local in delivering services. We think Nordic and act locally";
- "Our market is of a size that makes it worthwhile to develop joint concepts, products and services."³

Nordea Bank's Vision

- "We will be valued as the leading financial services group in the Nordic and Baltic financial market with a substantial growth potential."
- "We will be in the top of the league or show superior profitable growth in every market and product area in which we choose to compete."
- "We will have the leading multi-channel distribution with a top world ranking in e-based financial services and solutions."⁴

3 Taken from Nordea's company Web site.

4 Taken from Nordea's company Web site.

Entering the e-Banking Market

The head of e-banking at Nordea is Bo Harald. He is the main architect of Nordea's approach to e-banking and has been an e-banking advocate since the 1970s. He joined Union Bank of Finland in 1975, where he introduced electronic payment systems, beginning with telephone voice commands. In 1982, he began phasing out checks. And in 1984, he added PC banking via dial-up modems.

By getting into e-banking early, Union Bank of Finland gained in-house experience, which kept its costs down. "E-banking is not expensive if you start early and you build it up gradually," said Harald. "However, it can be very expensive if you wake up in the middle, when things are already happening, because then you need to ask expensive consultants for advice. You end up buying all the expensive bells and whistles to outshine your competitors."⁵

But in the mid-1980s, the majority of Nordea customers did not have computers at home. To overcome this technical hurdle, Nordea asked its corporate customers to allow their employees to use their workplace computer to log on to their personal bank account. Nordea convinced these corporate customers that permitting online banking at work would save them time and money because their employees would not have to leave work to visit a branch bank during working hours. Ever since, workplace access has remained an important pillar of Nordea's e-banking business.

Lesson #1: Start early and with a modest investment.

Nordea started its online e-banking activities in the early 1980s. Getting into e-banking early—when the stakes and required investments were relatively low—helped the bank evolve a suitable technology platform and a profitable business model. Once customers' adoption and use of online banking started to increase rapidly, the bank was able to scale up operations quickly, using its time-proven technology and the organizational learning it had acquired through use.⁶

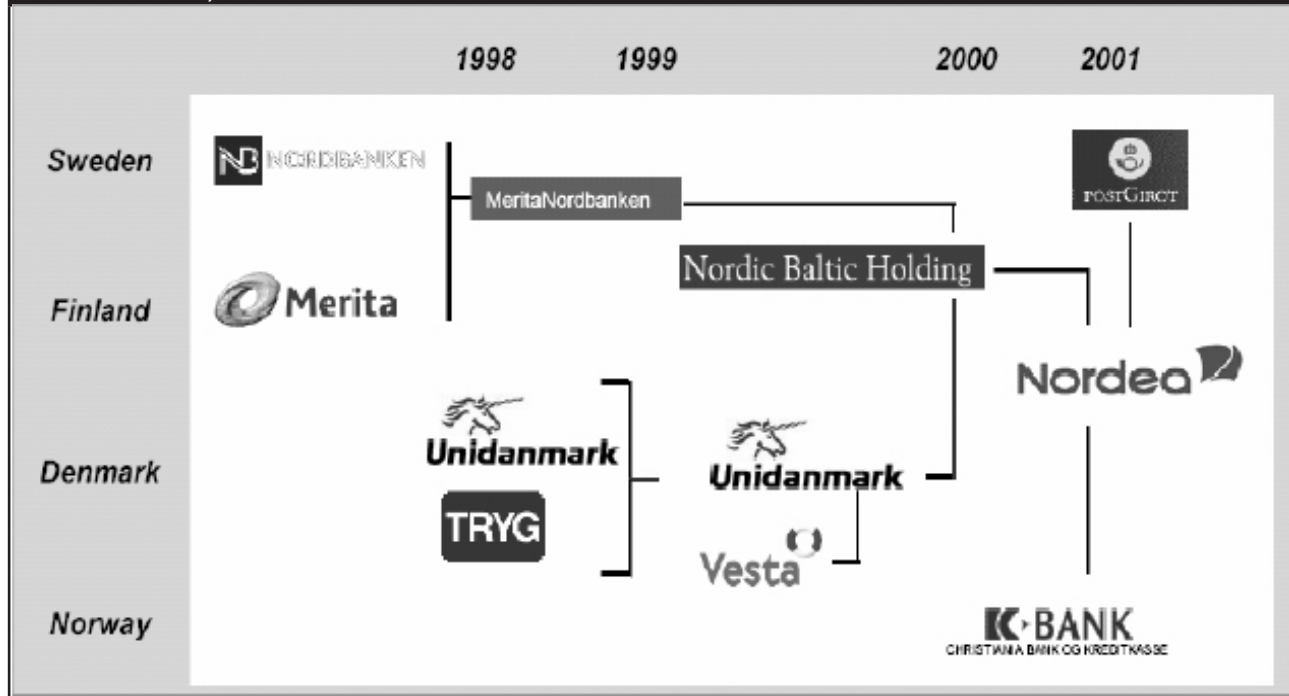
Integrating Banking Channels

After launching e-banking in 1984, Harald continued to introduce new customer interfaces that allowed

5 Unless otherwise noted, all quotes by Bo Harald are from personal interviews with the other authors.

6 For a discussion of different types of first-mover advantages, see Besanko, D., Dranove, D., Shanley, M., et al., *Economics of Strategy*, Wiley, 2003, pp. 438-446.

Figure 1: Nordea Bank was created through mergers of Scandinavian banks (Source: Nordea Bank)



banking via the Internet, televisions, WAP⁷-enabled mobile phones, digital TVs, and GPRS⁸ phones.

“When adding channels, a bank’s main goal should be to add value,” explained Harald. “But it is also crucial that all the channels and services have the same look and feel, to offer customers a consistent user experience. The key is to have one core in our electronic bank and then keep adding doors to it.”

As these new channels were introduced, customers’ banking patterns began shifting away from physical infrastructure to digital platforms. Nordea has managed to shift customers away from using the physical banking infrastructure for cash transactions (getting cash from a teller or using an ATM to withdraw cash or make payments) to handling transactions digitally without physically transferring cash (making Internet payments, card payments, direct debit). As shown in Figure 2,⁹ *cash transactions* have decreased by 6% annually, while the *non-cash transactions* have increased by a 16% compounded annual growth rate

7 WAP stands for Wireless Application Protocol, which is a secure specification that allows users to access information instantly via handheld wireless devices.

8 GPRS (short for General Packet Radio Service) is a standard for wireless communications based on packet transmission. It runs at speeds up to 115 kilobits per second, compared with current GSM (Global System for Mobile communications) systems’ 9.6 kilobits. GPRS, which supports a wide range of bandwidths, is an efficient use of limited bandwidth and is particularly suited for sending and receiving small bursts of data, such as e-mail and Web browsing, as well as large volumes of data.

9 Nordea company data.

(CAGR). Internet payments have grown the most, over 21%.

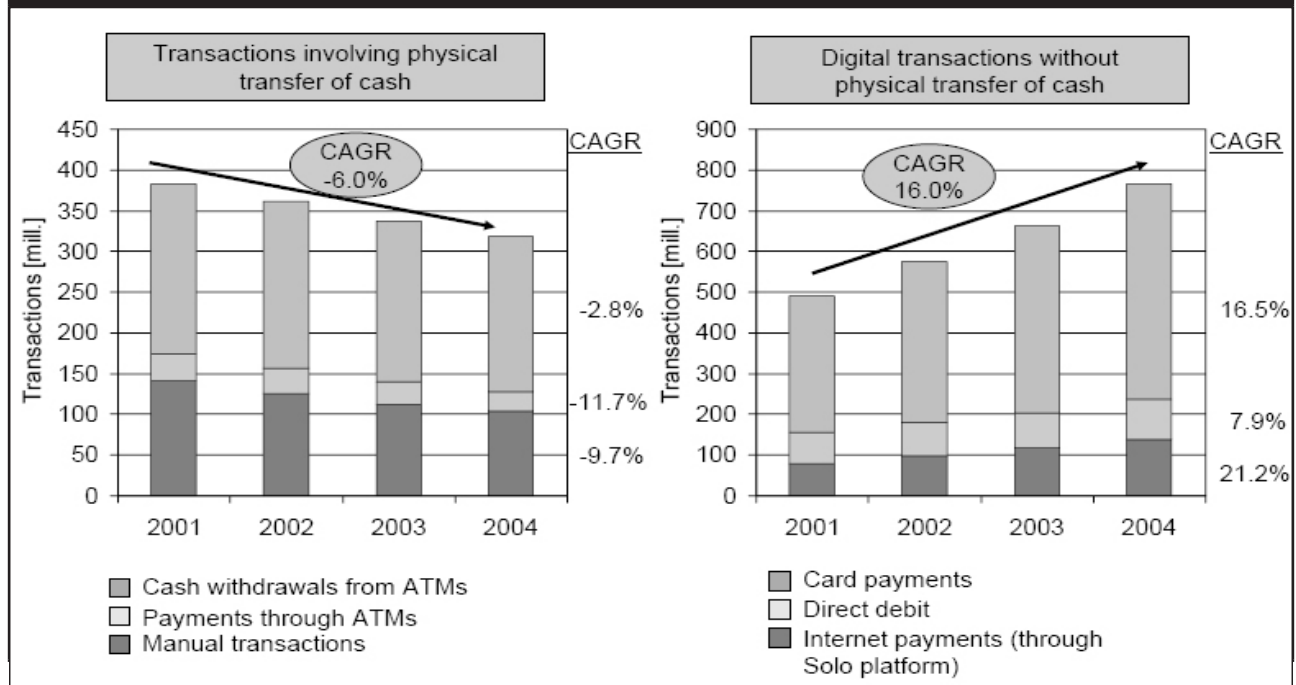
Unlike some banks, Nordea did not consider e-banking and bricks-and-mortar banking as competitive businesses, but rather as complementary channels. Even so, it has kept direct online consultation from bank employees – either at a branch or a call center – to a minimum.

In fact, the role of its branch office network has drastically changed since the 1980s. Up until the introduction of e-banking, Nordea’s bank clerks spent most of their time keying in transactions manually. Today, its branches primarily forge personal relationships with customers.¹⁰ Management considers establishing rapport as essential to helping customers make such important decisions as purchasing insurance or establishing a pension plan because the best consultations on these matters are based on personal trust.

Thus, Nordea management sees banking as local, but not always requiring a full-service branch. In certain locations, Nordea only needs office space where its customer representatives can meet their clients to talk face-to-face and thereby foster personal relationships. The actual transactions can then take place online. To

10 For information on the topic of trust in electronic banking, see Yousafzai, S., Pallister, J., and Foxall, G., “Strategies for Building and Communicating Trust in Electronic Banking: A Field Experiment,” *Psychology & Marketing*, February 2005, Issue 2, pp. 181-201.

Figure 2: Cash transactions have decreased significantly while non-cash transactions have increased



ensure such collaboration from branch employees, Nordea did not create separate profit centers for Internet and branch banking. Instead, management aimed to combine and leverage high-tech and high-touch to ensure that the two channels would benefit from each other.

Lesson #2: A successful and sustainable approach to e-banking is high-tech and high-touch, not one or the other.

Nordea has continued to combine the high-tech approach of online banking with the personal relationship building that can only be achieved through the face-to-face interactions at a branch office. The bank leverages its high-touch branch environment to move its customers to its high-tech online environment.

Enticing Customers to Switch Channels

Physical transactions, such as check writing and transacting in a branch, cost more than online banking. So Nordea implemented a pricing scheme that offered financial incentives for customers to switch to online banking. Figure 3¹¹ shows Nordea's transaction processing costs by channel. For instance, making a payment in a branch office costs Nordea €2, but only 10 cents when done through the Internet. Nordea's pricing structure reflects these differences.

Customers pay €5 *per transaction* in a branch, versus €2 *per month* online (they can conduct as many online transactions as they want for that price). Similar pricing schemes apply to stock trades and consumer credit. Only opening an account is free of charge in both channels.

In addition to using pricing to direct customers to the more desired distribution channel, Nordea also does not give new value-added applications away free. For instance, customers pay a monthly fee for Internet banking. They pay additional charges for brokerage services, credit card reporting, and WAP access.

Lesson #3: Entice customers to migrate to more cost-efficient channels.

The online banking channels drastically altered Nordea's cost structure. Traditional branch banking became highly cost-ineffective. To successfully migrate its customers to the more cost-effective online banking channels, Nordea offered financial incentives, which were in line with its actual costs per channel.¹²

Managing Channel Conflicts

To assess potential conflicts among the various banking channels, and actions to alleviate the conflicts, Nordea management used the framework shown in

11 Nordea company data.

12 Orr, B., "Contrarian forecast for 2010: Chilly for branches, sunny for e-banks," *ABA Banking Journal*, March 2004, Issue 3, pp. 56-59.

Figure 3: Transaction costs by banking channel

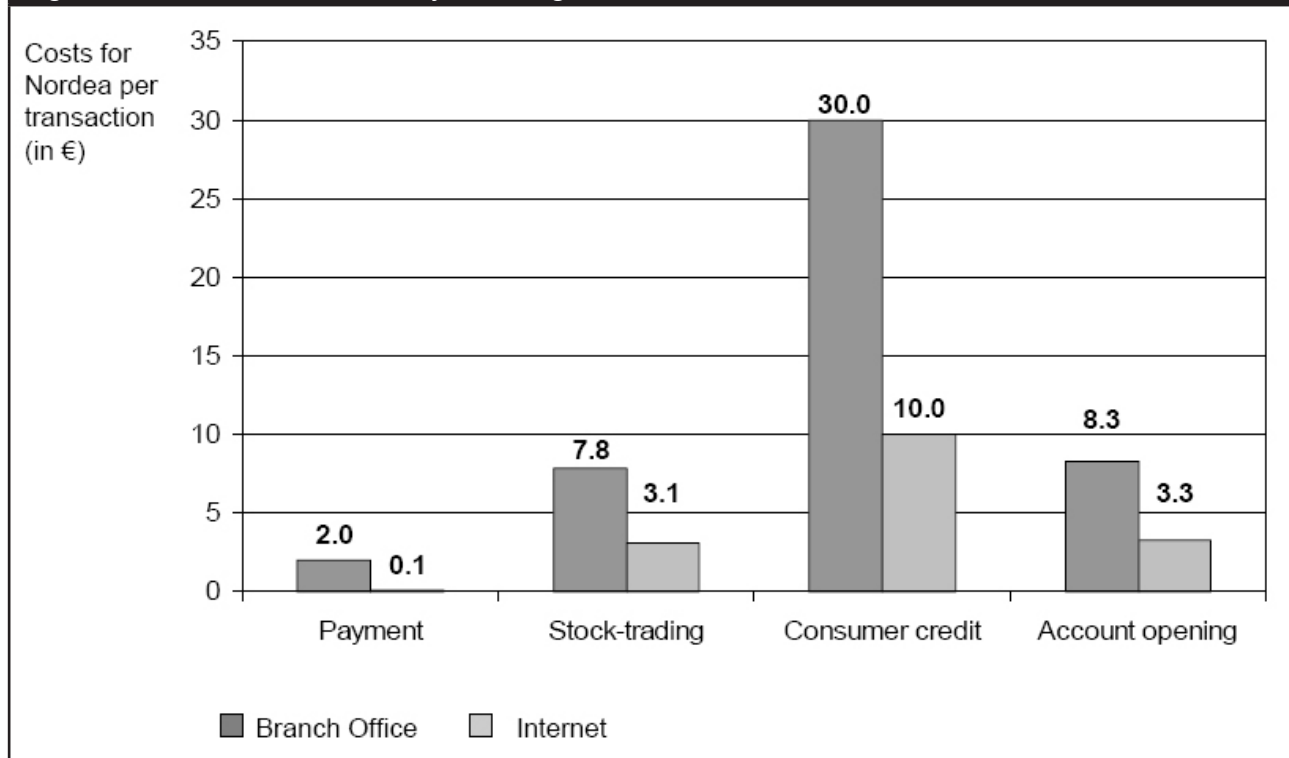


Figure 4.¹³ On one axis is the prospect of a conflict that hurts a channel. On the other axis is the importance of the threatened channel to the bank.

During the 1990s, this shift away from manual transactions significantly decreased the number of Nordea branches in Finland—from 1,300 branches in 1991 to 400 branches in 2000. During the same period, the number of employees fell from 22,000 to 10,600.

Management needed to deal with this human aspect of channel conflict. “We had to speak to the unions in great length, and we had to hand out very generous [severance] packages because no employee was actually fired,” recalled Harald. “But we also tried to show that Solo [Nordea’s online channel] had greatly increased customer satisfaction, which would make Nordea a more competitive and stable institution in the future. We also showed the [labor] unions that Finland was world class in Internet banking, and that it was necessary to change our organizational structure to maintain this lead. Finally, we pointed out that it was problematic to have people do this type of manual, repetitive, and low-paid work. It would be much more valuable to educate these people to do more creative and interesting work.”

13 Bucklin, C., Thomas-Graham, P., and Webster, E., “Channel conflict: When is it dangerous?” *McKinsey Quarterly*, No. 3, 1997, pp. 36-43.

Lesson #4: Pro-actively manage online/off-line channel conflicts.

As new distribution channels are introduced, conflicts with traditional channels become inevitable. Nordea recognized the differences across channels and emphasized their unique, yet complementary, features. It pro-actively avoided potential channel conflicts by creating a single profit center, thereby ensuring that the online/off-line channels would cooperate, not compete.

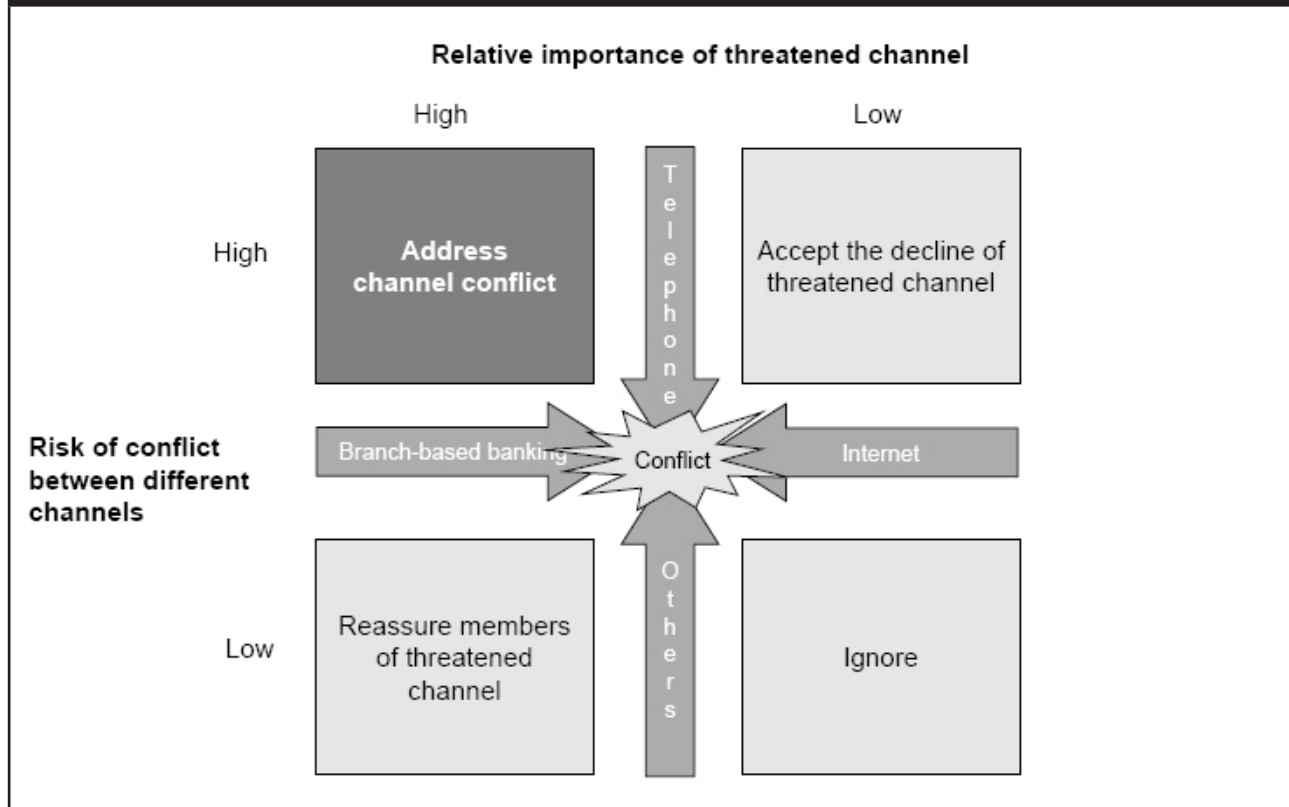
Acquiring New E-banking Customers

Due to its early start in e-banking, Nordea has spent less money than other online banks on marketing its Internet initiatives. From 1996 to 2001, Nordea spent about €18 million to market its Finnish Internet initiatives. But rather than spend this money on attracting new customers, it spent it on getting its 9 million branch customers to move to the Internet.

In its marketing activities, Nordea differentiates between two types of customers:

- **Internet believers.** These customers have been online for years and have the know-how and trust to navigate the Internet, shop online, and do their banking online. The Internet is ingrained in their consumer behavior. They have an “e-habit.” To them, e-banking is a routine day-to-day activity. In fact, it is such a normal activity to them that

Figure 4: After introducing e-banking, Nordea had to actively address the online/offline channel conflict



they do not talk about it with their friends. Thus, from a marketing perspective, these believers are viewed as “infertile” because they generally do not act as multipliers. They do not tell their friends about it.

- **Non-believers.** These customers are just starting to surf the Internet. They require substantial convincing to have enough trust and know-how to start doing their own e-banking. Friendly branch employees are well suited to comfort these customers. Once these customers go online, however, they become proud of their accomplishments and start talking about their experiences to their friends. From believers, they become preachers, creating a viral marketing effect¹⁴ where customers acquire more customers. “When you get a critical mass of these customers, they are your best sales force,” said Harald.

¹⁴ The term “viral marketing” arose with the growth of the Internet. It means, in essence, “spreading the word the way a virus spreads itself, infecting adjacent cells, which, in turn, infect their adjacent cells, and so forth.” It reflects the uncontrolled “biological” word-of-mouth form of marketing, as opposed to the centrally controlled form of marketing seen in advertising and commercials in mass media and direct mail campaigns.

Even though Nordea has achieved high penetration throughout Scandinavia, management sees significant potential for its e-banking services, especially among senior citizens. Therefore, it organizes evening events, especially in the countryside, to teach senior citizens how to use the Internet. Senior citizens have even come to view these events as club meetings! Experience has shown that senior citizens consider learning how to send an e-mail to their children or grandchildren to be a major achievement. Nordea builds on this achievement by engaging senior citizens in online communities and discussion forums.

Nordea does not court its younger, Internet-savvy customers to the same degree. “I wouldn’t spend any money on marketing to people younger than 30; there’s no need,” said Harald. “People can start e-banking when they’re 15, so it’s worthwhile putting some marketing money into letting them know what’s possible. But from 18 to 30 or 40, you don’t need to do much. Instead, I would put all my money into the 60-years-and-above group.”

Lesson #5: Leverage the existing online customer base to acquire new online customers.

Nordea has leveraged its established customer base to market its e-banking services to customers who do not use them. Such viral marketing—where online customers help “convert” branch customers into online channel users—has proven to be a very cost-effective and successful way to get new online customers. Interestingly, it has not been the Internet-savvy customers, but rather the new computer-literate customers, who have been the most powerful online customer multipliers.

The State of Nordea’s E-banking Today

Today, all Internet banking activities at Nordea take place through “Solo,” the company’s online banking service. Its popularity is demonstrated by the following statistics, which describe the highest month of usage:

- **Student loans:** 88% of all student loans are completely paperless. Students apply online by providing information about their financial status. Loans are approved within one hour through a computerized scoring system. Once approved, students sign up by supplying their customer number one more time, along with a one-time password.
- **Equity loans:** 80% of all equity loans are made through Solo.
- **Mutual fund orders:** 65% of all mutual fund orders are made through Solo.
- **Foreign payments:** 77% of all private and small business foreign payments take place via Solo. Customers need to key the account number of the recipient into their computer (or mobile phone). The recipient receives the money as fast as an international transfer. Through Nordea, this operation takes one day, at most.
- **Currency deposits:** 43% of all currency deposits take place through Solo.
- **Foreign exchange:** 39% of all foreign exchange transactions occur through Solo.
- **Car finance:** 68% of all car-financing loans take place through Solo.

- **Home mortgages:** 24% of home mortgages come in through Solo.

ADDING E-BUSINESS SERVICES

Nordea’s success at e-banking prompted it to leverage these competencies by offering e-business services.¹⁵ In fact, stated Harald, “E-banking services are kind of passé. Nowadays, every bank offers e-banking. The really important thing is launching e-banking services for e-business. It’s a huge market!”

To visualize how to extend e-banking into e-business, consider the concept of *the virtual value chain*,¹⁶ shown in Figure 5.¹⁷ The virtual value chain suggests that data captured in the physical value chain—while performing such activities as customer identification, order processing, and logistics—can be turned into information and used to enhance customer service, attract new customers, or offer new types of products and services. In short, it can open new markets.

Nordea does not produce or sell physical goods.¹⁸ However, as part of its move into e-business, it has re-used different types of information captured throughout its value chain and made that information available to customers in new formats. In doing so, it has created new business opportunities and additional value for its shareholders.

For instance, to become a customer, Nordea requires people to identify themselves in person, by, for example, going to a Nordea branch, presenting their ID, and signing a contract. This information can then be reused in a digital environment to create new applications, such as e-identification or e-signature. In a different area, the file transfer systems used for managing accounts can be reused to manage bills as well.

Nordea credits two factors for the success of its e-business services. The first is high-tech: a secure and convenient identification procedure. The second is high-touch: its branch sales staff, who advise customers on e-business services.

The first, the secure and economic log-on code, has proven to be highly beneficial. The code combines three elements: (1) a 9-digit customer number, (2)

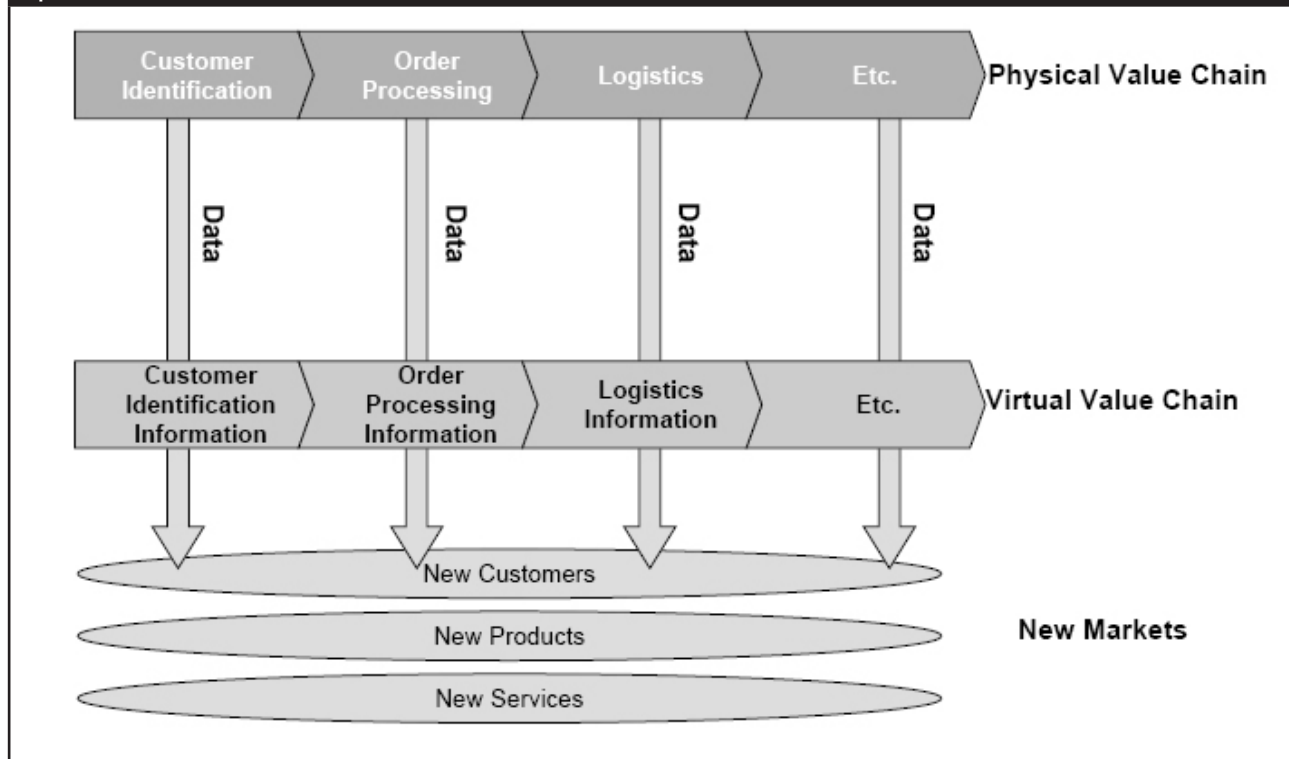
15 Boyes, G. and Stone, M., “E-business Opportunities in Financial Services,” *Journal of Financial Services Marketing*, December 2003, Issue 2, pp. 176-189.

16 Rayport, J. and Sviokla, J., “Exploiting the Virtual Value Chain,” *Harvard Business Review*, November-December 1995, pp. 75-85.

17 Figure 5 is based on the virtual value chain concept described by Rayport and Sviokla.

18 The concept of the virtual value chain was initially developed for physical products.

Figure 5: The virtual value chain illustrates how existing information can be leveraged to open new markets



a one-time code from a list or scratch card, and (3) a sign-out code chosen and sent out by the central server. This type of log-on code is highly convenient for customers because they do not need to install software on their computer or carry around a password-generating device. It can be used in person at any branch, and it can be used with any computer, mobile phone, fixed-line phone, or TV for e-business. In fact, this secure identification procedure provided the platform for Nordea to expand further into offering e-business services.

Second, Nordea considers its sales staff as crucial for offering e-business services. Initially, in e-banking, the goal was to move customers from the bricks-and-mortar branches into the e-banking channel. But then, once branch sales staff were trained on how to advise customers on e-banking and were convinced of its value, they easily learned how to advise customers on the e-business initiatives.

Nordea's current e-business services to its private and corporate customers are based on re-using existing information and technology. These services are described below.

The E-identification Service, to Gain Access to Other Web sites

Using Nordea's e-identification service, Nordea customers can identify themselves on the Web sites of companies and governmental agencies that participate in Nordea's e-business offerings. For example, in Finland, Nordea has an agreement with local insurance companies whereby its customers can log onto the Nordea site, just as they would for a regular e-banking session, and then transfer to their insurance company's Web site.

Nordea's e-identification is now widely used in the Nordic public and private sectors. Finland, Sweden, and Estonia have the highest adoption rates, to date. In fact, the Finnish Ministry of Finance has officially stated that customers who need strong e-identification should use Nordea's e-identification standards.

For example, consider the case of a Finnish citizen who wants to access the state pension system to find out the status of her pension balance to decide how much she needs to save for retirement. Initially, she accesses the state pension system's Web site, which has links to all major Finnish banks that provide e-identification services. She chooses her bank, accesses the Web site, and identifies herself with her one-time password. Once registered, she can switch to other services, including the state pension service, from

this identified area. This state pension site is accessed 2,000 times a day.

Nordea's e-identification service has proven so convincing that the Finnish Post Office has discontinued its own identification service and is using Nordea's instead. The post office decided that building and maintaining a reliable e-identification service only for the post office was not cost-effective.

The E-signature Service, to Sign Online Contracts

The e-signature service came about by "accident." When Nordea told executives from Sonera, the largest telecom operator in Finland, that customers could get a loan online, they said: "Look, if people can sign up for loans through your system, they should also be able to sign a phone subscription contract using the same system."

Within a few weeks, Nordea reached an agreement with Sonera. Using a link on Solo, Nordea will send an online phone contract to all interested customers to sign, once they identify themselves on Solo. Nordea then extended this e-signature service to other businesses, such as utilities. In fact, Nordea's e-signature has become a common e-signature standard in Finland.

The E-billing Service, to Send Invoices Electronically

When e-commerce began to gain importance in the late 1990s, Internet security was of major concern. Customers did not want to use their credit card to pay online.

At that time, the product developers at Nordea wondered whether they could create an e-payment mechanism for real-time e-commerce transactions between Nordea accounts. They reasoned that while not all shoppers had a credit card, they all had a bank account. Nordea's e-billing service was first used in 1998 by Finland's main telephone companies, which started to send invoices to their customers directly through the Internet.

Nordea now provides an e-billing service to companies. The companies electronically send their invoices to Nordea, which forwards these e-invoices to its customers who have a Nordea e-banking agreement. The invoices of customers without e-banking accounts are automatically sorted out; they receive printed invoices via postal mail. Customers who receive an e-invoice are notified and asked, "Do

you want to pay this bill?" They can approve the payment with a mouse click, and the bill is paid.

As banks throughout Scandinavia increasingly provided e-billing services, real-time payments also gained in importance because they allowed business to be conducted "state-less." That is, buyers and sellers could meet, close the deal, exchange payments, and possibly exchange the paid invoices (if needed). In short, they could conduct the entire transaction without leaving any payables or receivables due, that is, "state-less."

The E-salary Service, to Send Salary Statements Electronically

Through Nordea's e-salary application, companies can send salary statements of their employees straight to the e-bank, thereby eliminating the need for these employers to print salary statements and send them via postal mail. Introducing the e-salary functionality required only a little effort on Nordea's part because it essentially re-uses the e-billing service. "If you, as an employer, have enough staff, say 10,000 employees, it makes sense for you to send out e-salaries instead of paper salaries," said Harald. "That's where getting to a critical size really starts to matter."

The E-payment Service, to Pay Online

To create the e-payment service, Nordea adapted its online invoicing function so that merchants could use the Solo Web site to settle payments. Using the e-payments function, a Nordea customer can go to the Web site of any online store in the Nordea marketplace and place an order. The customer then clicks on the link to Nordea's e-payment system and requests an electronic invoice. When the customer then approves payment of the invoice, with a mouse click, the money is immediately transferred into the seller's Nordea account.

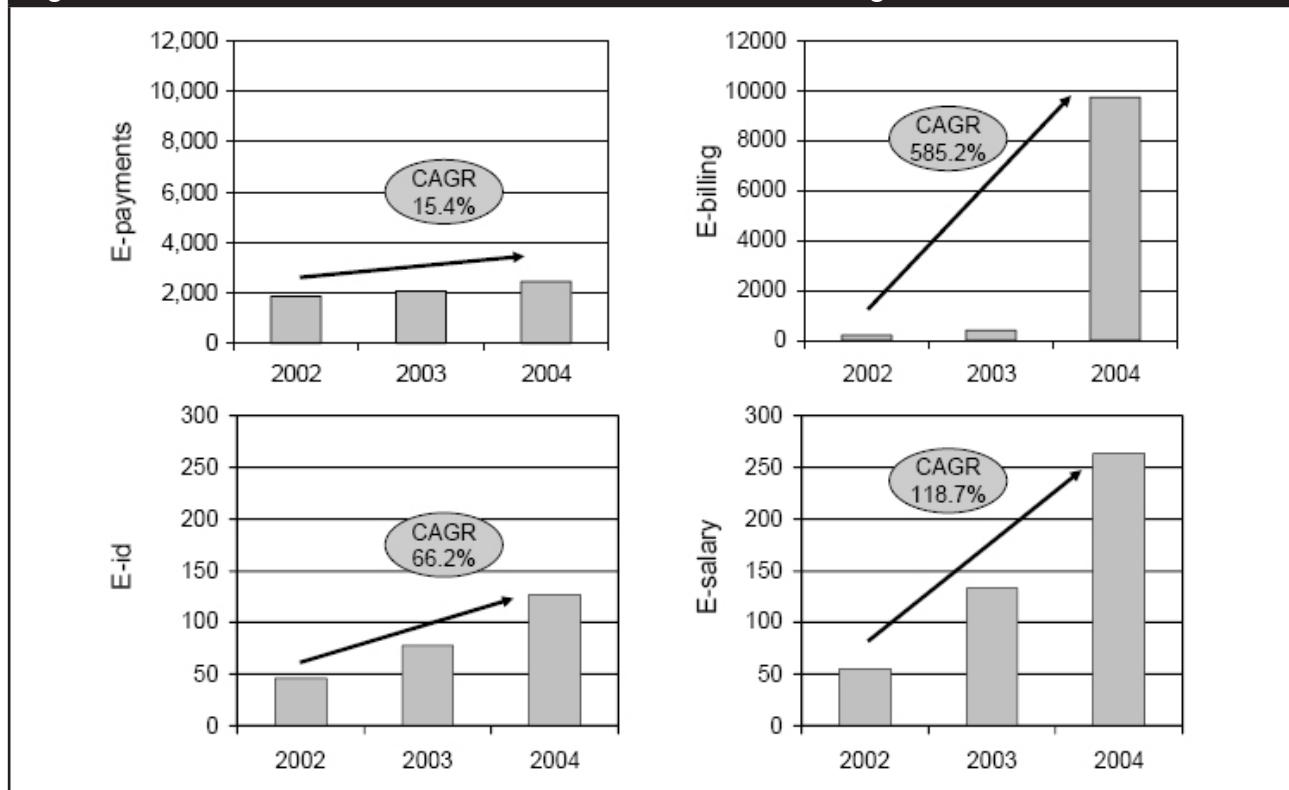
The benefits to merchants are twofold: (1) they do not need to send out a paper invoice, and (2) they do not need to worry about whether or not buyers will pay the invoice.

To ensure that there is no fraud on the merchant side, Nordea conducts a reliability check on all 2,000 merchants who sell goods on the Solo e-marketplace.

Lesson #6: Decrease the risk of fraud by using instant e-payment.

With its online e-payment service, Nordea enables merchants to immediately debit a customer's account,

Figure 6: The evolution of Nordea's e-business services usage, 2002-2004



once it has processed a purchasing order. This almost-immediate capability eliminates merchants' risk of not being paid for the goods they ship.

The Growth of Nordea's E-business

The evolution of four of Nordea's e-business services—e-payments, e-billing, e-ID, and e-salary (but not e-signature)—between 2002 and 2004 is shown in Figure 6.¹⁹ The statistics refer to the year corporate and public service customers started offering these services to their customers. For instance, the e-billing chart shows that in 2004 almost 10,000 companies (including large telecommunication and energy corporations) started sending e-invoices to their customers using the Nordea e-business platform. The compound annual growth rate (CAGR) for e-payments, e-identification, e-salary, and e-billing was respectively 15%, 66%, 118%, and 585%.

Lesson #7: Leverage existing technologies to create new value for customers and the firm.

Nordea created substantial new value for its customers by re-using existing information and technology and repackaging them in new formats. All of Nordea's e-business activities use technologies the bank was

already using for different purposes. This reuse has allowed Nordea to save substantially on development time and costs because its investments in R&D and testing of the new e-business capabilities have been small.²⁰

TAPPING FUTURE GROWTH OPPORTUNITIES

Due to its small domestic Nordic market, Nordea's growth potential through its physical branch network is limited. Nordea has also considered moving into other European markets as a pure e-bank (without a branch network), but has found this expansion option not feasible. Preliminary tests showed that it is difficult to gain a foothold in mass-market banking without a strong brand name and an established branch structure that makes personal contact possible. Thus, management believes its main growth area is in further expanding its service range.

E-business presents the best opportunity to extend its customer relationship management (CRM) capability even further, by proactively addressing future events in each customer's life. To develop this CRM capability, Nordea is turning to personalized, triggered data mining. It works as follows: when a customer account

¹⁹ Nordea company information.

²⁰ Stalk, G., Evans, P., Shulman, L., "Competing on capabilities," *Harvard Business Review*, March-April, 1992, pp. 57-69.

changes, for instance, there is a large incoming money transfer, an address change, or a marital status change, a trigger in the database is set off, informing the bank of the change. These flags raise a number of questions for bank personnel: what does the change mean for near-term financing, for long-term payments, for insurance, for e-services? Based on the answers to these questions, Nordea makes a personalized offer to the customer, either by letter or face-to-face in a branch.

While this process currently only applies to events that have already taken place in a customer's life, Nordea wants to go further and ask customers directly about their upcoming "life events." For instance, when customers mention their intention to purchase a car, this information would set off a number of questions at Nordea: what can we (Nordea) do for this customer in relation to this event? What can the private sector do? What can the public sector do? Nordea's Solo partners, for example, could send car offers to these customers. Car payments and contract signing could both be accomplished using e-signature. Automobile financing and insurance could be arranged through Nordea. Car inspection could also be handled by a Nordea partner.

When setting up such personalized services, data privacy is a critical issue and an important concern. To minimize potential drawbacks, Nordea refrains from sharing customer information with any party external to the bank. Customers need to voluntarily "opt in" to allow the bank to share their personal information with, for instance, car dealers. During the initial stage of transactions, Nordea protects customers' identity from merchants.

Regarding the future, Harald sees the importance of e-banking and e-business in a broader perspective, "Accustoming people to e-banking is really a social task to make Europe more competitive. We can't afford not to do it. E-banking services can be used to make people more productive to compete with the US and the Far East. Due to our high costs and our powerful [labor] unions, we can't afford not to increase productivity. To achieve this, the all-important element is the "e-habit" we have been building up over the years in our customers. They have the know-how and trust to navigate the Internet, to shop online, and to do their banking online. To them, e-banking is a normal day-to-day activity. That's the key to the future. Although we can't plan or foresee the future, we can create it. That's exactly what we want to do at Nordea."²¹

21 Quoted in "Learn from the largest Internet bank of the world," accessed at www.tietoerator.lv.

CONCLUSION

Over the last two decades, as Nordea has embedded IT capabilities ever more deeply into its core activities, it has succeeded in establishing an e-trust and an e-habit among its customers. And to leverage its existing online banking platform to create its e-business services, Nordea has moved from operating within a single value chain to managing an inter-organizational value network that includes other firms and governmental agencies.

Interestingly enough, this expansion strategy into e-business services was not deliberately planned from the outset, but rather emerged as new application possibilities became obvious. For instance, Nordea started offering an online contract service after executives from Sonera, a telecommunications provider in Finland, pointed out that it should be possible to offer this service using existing technology.

Other organizations in industries besides banking and financial services could adapt (if not adopt as is) these seven lessons to their own business eco-system to use IT capabilities to create new value propositions for their customers, gain a competitive advantage in their marketplace, and sustain an edge over time.

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APPENDIX 1: THE RESEARCH APPROACH

To carry out this study, we used the case-study approach.²² Initially, we conducted a literature search on the Scandinavian banking sector, in general, and on Nordea, in particular, using online databases and company Web sites. Based on this information, we developed an extensive questionnaire about Nordea's online banking activities. We conducted on-site interviews with some managers of Nordea, in particular with Bo Harald, head of e-banking. He provided us with relevant company data regarding the development of e-banking at Nordea as well as customer uptake and usage patterns of the online services. To broaden the context for this article, we followed up the face-to-face meetings with telephone interviews and e-mail exchanges with Harald, and other members of the management team, on Nordea's e-banking and e-business activities.

22 Yin, R. *Case Study Research*, Sage, 1989.