

Case study 2 From e-banking to e-business at Nordea (Scandinavia)

they are online, however, these customers are amazed and proud of their accomplishments and want to pass the news on to their friends. After turning them into believers they take the next step and become preachers – a viral marketing effect where customers acquire more customers, as Harald emphasizes: ‘When you get a critical mass of customers, they are the best sales force for you.’

At Nordea, the importance of a branch cannot be under-estimated when it comes to turning non-believers into believers. Says Harald:

Just imagine an enthusiastic clerk serving a client, who says, ‘Hey, why don’t you also do e-banking? Everyone else does it’ and then convincingly seals the deal . . . The value of the branch network is absolutely fantastic. That’s why you need to get employees to like it. Otherwise they won’t move business into the online channel.

In spite of having achieved a high penetration rate throughout Scandinavia, Harald still sees significant potential for the bank’s e-banking services, especially among senior citizens:

Even if you are the largest e-bank in the world, of course you still have a lot to do in the 60-year-old-plus sector. We feel a social responsibility to organize evenings – especially in the countryside – where senior citizens learn how to use the Internet. For those people, we organize senior citizens’ clubs. We just had one in the east of Finland that was originally set up for 100 people. In the end, 1500 people wanted to participate. When someone in that age group finds out that they can send an email to their children or their grandchildren, that’s a big deal. The sooner they come on board, the better it is. And then they can take part in online communities and discussion forums. Finland is a country of associations; there is an association for everything, even for Siamese cats. Whatever it is they like, they can find it on the Internet. And they need e-payment, e-invoicing and e-identification. All those services are required to manage your Siamese cat association! Then, those senior citizens will get so much more out of their lives, because there is such a huge window that opens up into the world – a new dimension. And e-banking is just one part of it.

While targeting senior citizens with its e-banking, marketing these services to the younger, Internet-savvy generation is not at the top of Nordea’s agenda. Bo Harald says:

I wouldn’t spend any money on marketing to people younger than 30; there is no need for that . . . You can start with e-banking when you are 15; to get the message through to these people, you let them know what’s possible. That’s worthwhile putting some marketing money into. But from 18 to 30 or 40, there is not much you need to do. Instead, I would put all my money into the 60 years and above group.

Pricing

e-Banking is not free because every transaction has a cost. Customers who use it should pay for it, not those who don’t. If a bank comes out and says that their e-banking services are for free, they are lying. It is only a question of who pays. (Bo Harald)

Nordea’s rates for retail customers contain fixed and variable elements. The monthly fee for basic services, regardless of usage, is €2 per month. Access to the credit card balance costs an additional 40 cents, and mobile WAP services an additional 30 cents; these charges are now being removed. Customers who want to do equity trading pay from €4 per month for a basic version and up to €20 for the most advanced version. Nordea’s competitors tend to be cheaper. E*Trade, for instance, charges a fee of €10 per trade, a quarter of Nordea’s price. However, Nordea’s fees seem still to be reasonable, as Magnus Grann, a 40-year-old software engineer, points out: ‘Nordea’s fees just aren’t high enough to make a difference.’²¹

But other customers struggle with the pricing of Nordea. Tuukka Seppa, a Nordea customer from Finland, points out:

Nordea is definitely not cheap and charges some fees for every additional service. For instance, I really don’t like it that there are additional monthly payments for accessing my investments.²²

Tomas Bauer, a Nordea customer from Sweden, goes even further:

I think Nordea’s pricing practices are a little dubious. I actually feel that they tricked me into opening a savings account when they offered me an interest rate slightly above market level. After one year they dropped the rate to almost 1% below the comparable market level.²³

On average, for its online services, Nordea generates revenues of slightly more than €2 per customer, which amounts to €7 million per month. These revenues cover all costs for the online banking channel and also generate a profit (which is not disclosed).

Corporate customers pay from €20 to €5000 depending on the level of service. To be a member of the e-marketplace, merchants pay a €200 connection charge up front and a monthly fee of €20. For each

21 ‘The dynamo of e-Banking’, Business Week online, 16 April 2001.

22 Personal interview, 5 October 2003.

23 Personal interview, 5 October 2003.

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transaction, an additional fee of 35 cents is levied. In contrast to credit cards, the transaction fee does not depend on the volume of the purchase. This is due to the fact that with credit cards, the bank has to finance the period – up to 30 days – between when the merchant gets the money and when the customer pays the bill. Since the Solo direct payment is similar to a debit card, there is no time gap to be refinanced. Merchants benefit because they no longer have to send out invoices by mail. In addition, while previously they had to wait to be paid, they now receive payment in real-time before even shipping the goods, thereby eliminating their credit risk.

We pay attention to the profitability of our e-banking operations. Our basic principle when introducing new applications is that we don't give added value for free. Our customers pay a monthly fee for Internet banking. If further services are taken up such as brokerage, credit card reporting or WAP, then it costs more. Customers accept it if they benefit from it, for example, if a transfer becomes more favorable and simpler. The added value which is created here cannot be free. Many companies have just started to understand it.²⁴

The pricing of banking services is also used as an effective tool for steering customer business into certain channels. Bo Harald shares his personal experience:

In 1983, we introduced a charge of 10 cents for all cheque forms, which were very popular at that time and my wife was very good at writing these cheques. But once this fee was introduced, she didn't write out one single cheque any more. In fact, chequebooks just disappeared because it wasn't worth even 10 cents to the people. Instead, they started to pay with a debit card and afterwards they used the debit card at payment terminals to pay bills. Those same people later on started using computers at their workplace to do the transactions. . . . In the US, people write somewhere around 50 billion cheques a year. That amount of paper is transported by airmail to the banks and back. It costs somewhere around \$75 billion a year to pay for these transactions and, on top of that, it's an environmental problem. It takes a lot of time and costs a lot of money. If you don't put an upfront price tag on costs, you still have to pay for them and you don't direct the activities of your customers. Showing the customer what it really costs allows the customer to make rational choices because they are paying for these costs.

Nordea has implemented similar pricing structures between branches and Internet banking to entice customers to move online. For instance, a foreign currency wire costs \$7 online but \$14 in a branch. Bill payment is free online, whereas it costs \$3.50 per bill in a branch.

Customer authentication

Nordea's customer authentication procedure has been in place since the early 1980s. For all contact with the bank, whether via the Internet, mobile phone or call centre, customers use one identification number: the one-time code (OTC). These OTCs, which are printed on a card, are comparable to the transaction number which customers use for transfers. To access their bank account through any one of the above-mentioned electronic channels, customers need to have the OTC handy. Bo Harald considers the Nordea authentication approach to be superior to most others:

To connect to Nordea, customers need to have their code, which is given after opening an account with us. The latter can be done only if the customer shows up in person at the bank branch and presents an ID document. Other banks, especially Internet banks, are not so rigorous. There, all you need to do is send in a phone bill where you can see the customer's address. That's easy to forge and then you can get into the money laundering business quickly.

He points out additional advantages of the OTC:

With the one-time-password and the identification number they [the customers] get access to a safe e-business marketplace, which they can visit from everywhere and on which they can do much more than traditional banking transactions. For example, they can sign contracts with their energy and telecom suppliers, buy credit online, or assign attorneys. Plus, they don't need any pedantic installations of card readers or programs. At the moment, we have a very interesting situation since the Ministry of Finance recommends that for future transactions in the public sector which require an electronic identification this should be done through e-banking platforms. Again, that's trust, which upholds our services. 'You want to know something concerning your pension? Please click here.' We – and the other banks in Finland – offer the use of OTC to everyone who has to offer identification and signature possibilities. Millions of customers already have this code, and for them it's an additional service if they can interact with other companies or governmental agencies.²⁵

However, the OTC is not popular with everyone. Kaisa Juhanni, a Nordea customer from Finland, points out: 'What I really dislike about the Nordea online banking

24 'Learn from the largest Internet bank of the world', accessed at www.tietoenator.lv.

25 'Learn from the largest Internet bank of the world', accessed at www.tietoenator.lv.

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is that you always need to carry the pass-code list with you in order to access the service.'

For the future, Nordea plans to develop a public-key infrastructure (PKI)²⁶ that would allow customers to log on to PCs or mobile phones using smart-cards equipped with chips.

Technology

The evolution of the technological platform at Nordea – the backbone of all its e-banking operations – has been strongly influenced by the original individual banks which all had different technology platforms. For instance, the Finnish Merita bank had an e-banking infrastructure that allowed customers to log on to their system with just a browser and a simple password system. At the Swedish Nordbanken, on the other hand, customers needed to install special software and get a smart-card reader before going online.

After the completion of the merger, Nordea was faced with a very complex IT infrastructure which included the following:

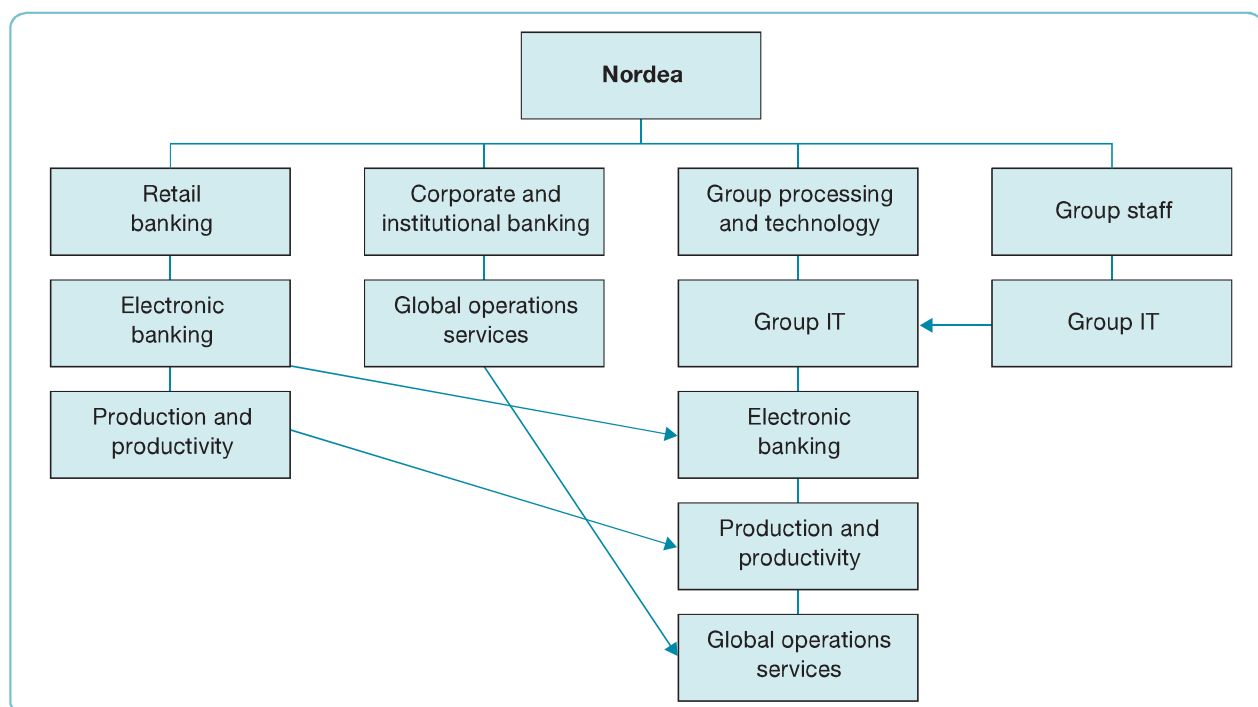
- *Production:* four main production centres with multiple platforms.

- *Applications:* roughly 9,000 applications.
- *Networks:* four different branch networks.

Since then, Nordea has undergone efforts to integrate the various IT systems and organizational structure to streamline its activities. For example, real-time processing systems, which have been in place since 1985, needed to be aligned. On the organizational side, the changes are reflected in the increased importance of the group processing and technology unit (see Exhibit 7). The electronic banking and production and productivity units were moved over from retail banking. The corporate and institutional banking unit handed over the

²⁶ Public key infrastructure is an electronic framework for trusted security. Participants in a PKI each obtain a digital certificate from a trusted certificate authority (CA), which then authenticates their identity when initiating a secure transaction. Individual transactions are encrypted by each participant using their own pair of electronic keys, one of which they keep for their own private use, while the other – the 'public key' – is made available to other participants. PKI has been widely adopted as the basis for secure Internet and web services transactions.

Exhibit 7 Change of business structure to support the integration of IT and processes



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global operations services while group staff handed over the group IT. Several reasons led to this concentration of technology functions in one unit, including focusing on integration and cost efficiency, releasing time for business areas to focus on customers and capitalizing on change management.

Today, IT costs correspond to 20% of total expenses, averaging around €200 million per quarter. These costs are almost evenly divided between development costs (47%) and production costs (53%). Nordea has formulated a philosophy to drive its IT operations, which includes the following elements:

- *A comprehensive governance and control structure* on IT development and IT production.
- *Business-driven development*, i.e. business decides the 'what', IT decides the 'how'.
- *Strict prioritization of development* to support integration and cost efficiency.
- *Gradual creation of common Nordic platforms*, including consolidated production and applications.
- *Business-case-driven approach to consolidation*, assuming that the integration of all systems will most likely not be profitable.

In relation to overall IT costs, e-banking expenses were low. From 1981 to 2000, the Finnish arm of Nordea spent a cumulative total of €19 million on its e-banking technology. However, today expenses are significantly higher because 17 different e-banking systems throughout the Nordea group need to be maintained and improved. The main cost item is the development of an integrated e-banking system, which Nordea is jointly pursuing with TietoEnator, a Finnish company specializing in consulting, developing and hosting its customers' business operations. The annual e-banking costs are in the 'two-figure millions' range.

In the late 1990s, at the peak of the dot.com years, Nordea considered selling its technology systems to other banks in Europe. Bo Harald explains:

In the end we didn't do it because all banks are very different and it would cost a lot of effort to make them work. Banking is a complicated business and if you really want to have the best return on equity, you should have high-touch and high-tech. We ended up making money but it wasn't enough to justify the effort of selling our technology. Instead, we decided to focus all of our energy on our customers.

Competition

Even though Nordea has achieved a dominant role in the Nordic region, a number of Swedish and Finnish banks compete head-on with Nordea – also with regards to e-banking services. Swedbank, for instance, which had 1.3 million online banking customers in 2002, is planning to allow its m-banking customers to view their mobile phone account statements, update their subscription contracts and access itemized calls.

Okobank in Finland has 720,000 retail customers on the Internet. Matti Korkeela, Executive Vice-President at OKO, believes in the quality of the bank's e-offerings:

We have estimated that active users of the system make up approximately 80% of our Internet-banking clients. I believe this figure is higher than that of our competitors. With OKO Bank, Internet banking per customer is more intensive than with most other banks. To be honest, I do not believe in pure Internet banking. We at OKO have a multi-service concept, where the banking outlet still plays an important role.²⁷

In 2002, the bank saw a 48% increase in web-based transactions. In total, 40% of 110 million invoices were handled online. Other competitors with sophisticated e-banking services include Rabobank, Enskilda Banken and Svenska Handelsbanken. Says Bo Harald:

There has been no real price competition . . . Cost savings have been passed on in two ways. First, if you pay your bill in a branch today, you pay a lot of money, but if you pay it online you only pay the monthly charge. Second, competition has moved to housing mortgages. All the cost savings have been pushed into mortgages with margins down from 1.6% to 0.8%. Most banks have done the same thing and have passed on the cost savings, so it's always the customer who, in the end, wins the most.

At Nordea, pure online banks are not viewed as a major threat:

We haven't lost a significant amount of business to pure e-players . . . They may be cheaper than us but an e-bank has no personal selling capabilities, no customer base, and it costs them a fortune to acquire customers. I am convinced people value the safety of branches and a trusted relationship. Our vision is to be high-tech and high-touch. That will make us invulnerable to cyber-attacks. I believe traditional banks will play a central place in the e-economy. They have trust. They have established brands. Today, nobody would

²⁷ 'The massive e-habit as a natural resource', Nordicum.com, No. 1, 2003.

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try to set up an Amazon.com-type bank any more. It's just too expensive and it doesn't work in our business.²⁸

Customers who have been clients of Nordea for a long time are a major asset for the bank. Tuukka Seppä said:

Initially, I was a customer of Kansallis-Osake-Pankki (KOP), which became Merita in 1976. For personal purposes, I started using the Solo online service in 1995. Through it I pay all my bills, review my account transactions as well as my credit card charges. I also use it to authenticate access to my electronic mailbox which is hosted by the Finnish Post.²⁹

Where will new competition for Nordea come from? Will it be from software houses, large international banks (such as Citibank or Deutsche Bank) or others? Bo Harald replies:

These companies don't have the local branch structure and they don't have our cost-income ratios . . . Telecom operators that have very broad access to their mobile phone customers might enter the competition.

However, contrary to popular belief, he does not believe that customer retention has gone down as a result of e-banking:

The idea that the next bank is only one click away is absolutely not true. To become a customer, you need to go to the bank and open up an account. When you are used to one system, you don't want to change.

Growth opportunities

In its domestic markets, where Nordea operates its branch network, there is limited opportunity for growth. Bo Harald explains:

We can't grow very much in Finland. In Sweden, we are the second biggest bank. In Denmark and Norway, we are still too small in private and corporate banking, which leaves plenty of room for growth. In neighbouring markets such as Estonia, we are already the third largest bank with substantial growth potential. In Poland, we bought four banks, which we now need to consolidate before we can start thinking about further growth.

Moving into other European markets as a pure e-bank without a branch network is not a real option for Nordea:

As a pure play, you might be able to attract the tech-savvy people who are constantly checking interest rates. Those guys easily sign up for anything new but this market segment is very small. Our experience has been that if you don't have a strong brand name and a solid branch structure that allows you to get in personal contact with your customers, you will have problems addressing the mass market. I mean, if we went to southern France and said, 'Hi, we are Nordea.

Come and do your banking with us on our great website!' – what would people say? That's why we have never tried to penetrate foreign markets where we don't have a physical branch network.

In addition to expanding geographically, another main growth area for Nordea is expanding its service range:

Even in our Finnish market, we can expand quite a lot by offering new services that we didn't have before. If you look at these services, you can only offer some of them over the Internet, but not at a branch. For instance, customers won't come to the branch to check the balance on their credit card but would like to do it through their mobile phone.

For Nordea, there are two promising future e-business opportunities. First, to develop further customer relationship management, the bank is turning towards triggered data mining, which works as follows: when there is a change in a customer account – for instance, a large incoming money transfer, change of address or marital status – a trigger in the database is set off and informs the bank of the change, which then raises a number of questions: what does it mean for financing, for long-term payments, for insurance and e-services? Based on the answers to these questions, Nordea plans to make an offer either via mail or face-to-face in a branch. While Bo Harald sees substantial value in this approach, he wants to go a step further:

Triggered data mining is not enough because it looks into the past. Instead, we should ask the customer directly: What are you going to be doing next? What's your next life event, as we call it? For instance, the most important thing that can happen to a man in Finland is the purchase of a new car. We want to invite the customer to tell us about it and then ask ourselves: What can we do? What can the private sector do? What can the public sector do? Well, he'll have to look for a car. Our Solo partners can send him car offers. He'll have to buy the car and sign a contract – this can be done through e-signature. He'll have to pay for the car – this opens up the opportunity for financing arrangements. He'll have to have his car inspected – again an opportunity for one of our partners on the Solo marketplace . . . Of course, when we think about these services, a major concern is always the issue of data privacy, to which we are very sensitive. Nordea never shares any information with anyone outside the bank. Customers voluntarily decide to share information with, say, the car seller. During the initial stage it's even possible to have a protected identity which is unknown to the merchant.

28 'Online extra: Q & A with Nordea's Bo Harald', Business Week online, 16 April 2001.

29 Personal interview, 5 October 2003.

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The second major opportunity is risk management services for e-businesses:

In the electronic world, business partners do not know each other well. At the same time, market volatility is very high, which has led to numerous big crashes. Therefore you shouldn't trust anybody. To accommodate this you can either use direct payment [e-payment as explained above] or get credit ratings. Today, most companies have a lot of people working in risk management. They pay tens of millions for credit information and insurance in order to reduce credit loss. In general this works well but it raises the question: How much should you pay? If you could use the bank's knowledge and its ready-made credit information and integrate it into the billing process, you could save a lot of money. That's what we plan to make available in the future. Every company in the world has a bank and usually the bank has made a credit evaluation of that company and established a credit line. These banks have the most in-depth information and therefore it's probably the best credit evaluation anybody can get. If all banks made these evaluations available electronically by issuing trade-related bank guarantees on the Internet, companies could save a lot of money. It would be a lubricant on the e-business machinery. This is a very obvious idea but sometimes the things that are so simple and self-evident don't take off. That's the way the world works – never quite perfectly.

Future outlook

In spite of its successful e-banking and e-business initiatives, Nordea's stock performance has been below average in the last few years, falling 28% in 2002. This was due, in part, to a drop in the bank's total income

which fell by 4% while expenses increased by 2%. However, Harald believes that another important factor is that investors do not value e-banking activities appropriately at the moment:

Those who know e-banking know that we are the number one in the world. During the dot.com bubble we had investment bankers and analysts here every single day – I could've spent all my time just talking to them! They told me: 'You shouldn't really be classified as a bank, you should be an IT company and have a valuation that is ten times higher than your current valuation.' Actually, our valuation went up quite a bit. But now, how many analysts come to see us? What I am complaining about are the analysts. Now that the real thing is happening, why are they not interested in it? They were only interested in sensation. The underlying problem is that people tend to overestimate new technology in the short run but underestimate its influence in the long term.

Regarding the future, he sees the importance of e-banking and e-business in a broader perspective:

Getting people accustomed 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 [labour] unions, we can't afford not to increase productivity. To achieve this, the all-important thing is the national resource of e-habit that we have been building up [over the years]. That's the key to the future. Nonetheless, you can't plan or foresee the future, you can only create it – and that's exactly what we want to do at Nordea.³⁰

30 'Learn from the largest Internet bank of the world', accessed at www.tietoenator.lv.