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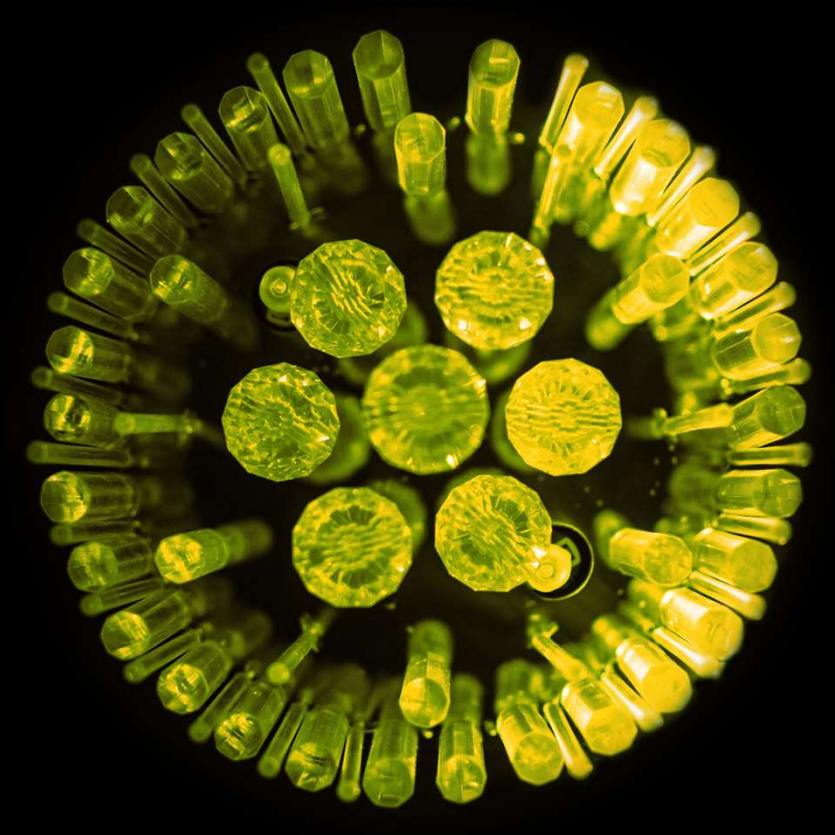

Chasing cashless?

The Rise of Mobile Wallets in the Nordics

January 2019

Disclaimer

This report is based on primary research conducted of over 5000 Nordic respondents as well as interviews with industry experts. The secondary research is done with publicly available sources like European Central Bank, articles and data from four Nordic central banks.

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Due to limited access to mobile payment data, Iceland is not included in this report. Therefore, 'Nordics' is in this report used as a term for Denmark, Finland, Norway and Sweden. Scandinavia is used as a term for Denmark, Norway and Sweden. The four Nordic central banks are called by their national names. These are the Danish central bank 'Nationalbanken', the Finnish central bank 'Suomen Pankki', the Norwegian central bank 'Norges Bank' and the Swedish central bank 'Riksbanken'.

In the report we use a selected peer group of European countries similar in digital maturity, legislation and smartphone penetration to better understand where the Nordics stand in comparison to it's peers.

Please be aware that base used for figures and graphs vary in this report. Therefor please take the bases into account when interpreting any figures in this report. We strongly recommend that you to read through the brief methodology chapter in the appendix before reading through the report. Notes are used to give additional information on more detailed explanations or information regarding sources, all notes are gathered in the appendix.

Foreword

While payment once was considered a very stable industry, the entry of smartphones in the payment market has challenged the way we pay. Payment is, and has been, a key revenue stream for Nordic banks, but new regulation and technology has created new challenges driven by new technology corporations like Google, Apple, Facebook, Amazon ('GAFA') and the rise of FinTech. The Nordic payment market has over the last decades been dominated by cards. Cards are still the main payment instrument in the Nordics, but mobile payments are growing steadily. The growth is driven by smartphone penetration and the creation of customer centric mobile wallets making mobile payments more enticing to use. In our report *Payments disrupted – The emerging challenge for European retail banks* from 2015, we suggested that banks had the following strategic questions regarding payments to focus on:

- How, and how much, should they invest to defend their position in payments?
- Should they do it alone, or should they collaborate with other banks or non-banks?
- Where should the banks be active in the payments industry?
- Should they focus on providing the 'rails' for payments, leaving the front-end interaction via new payments applications ('apps') to FinTech?
- Should they take different approaches for card and non-card payments?

Since the launch of the report three years ago, Nordics have become digital leaders within mobile payments and are seen as leaders in the race towards cashless societies. In the Nordics, the bank has played a vital and proactive role in changes in payment infrastructure. To better understand what has been happening since 2015, this report will look into the current payment situation in the Nordics before deep diving into how we use our mobile to shop and pay in Denmark, Finland, Norway and Sweden.

We hope you find the findings interesting, please do not hesitate to contact us for further discussion about the topics. A list of country contacts is listed in the appendix.

Oslo, 10th of January 2019

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Contents

Executive summary	5
The cashless society	7
The rise of the mobile wallet	13
The smartphone shopper	28
The generation gap	37
Appendix	41

Executive Summary

In the Nordics, smartphones have become more widespread than laptops. Not only have smartphones changed how we interact with banks and each other, they have also given life to new ways of paying. This has brought us the rise of mobile wallets. Although mobile wallets are not a new phenomenon, the last few years have brought mobile wallets from a niche product into the mainstream. Within just a few years of mass adoption, mobile wallets have taken a significant share of peer-to-peer payments. Peer-to-peer payments was traditional a domain dominated by cash.

Cash is under pressure, as the use of cash is declining in the Nordics. Cash withdrawals from both ATMs and POS-terminals are declining. In Norway and Sweden, cash is less than 2,5 % of total money supply (M1). At the same time, card payments and account-to-account payments are increasing rapidly. Cash might still be valid as a legal tender for some time, but we believe it will further demise as a payment instrument in the years to follow.

While mobile wallets are dominating peer-to-peer transactions, cards are dominating in-store payments. Contactless payments cards have a strong value proposition in the payment process but not necessarily in the overall shopping experience. We see a growth in mobile in-store payments; lead by mobile wallets and by retailers own mobile apps.

E-commerce is a payment battleground. The preferred payment method in e-commerce varies across the Nordic countries. Norway and Denmark prefer debit and credit cards for online shopping, while Finland prefer direct payments through bank, and Sweden prefer to pay by invoice. New payment methods, such as mobile wallets, enter the market place and make it more competitive.

We use population averages across the Nordic countries to compare, however it is vital to understand that there are significant gaps in adoption and usage between generations. While the gap in adoption is decreasing, the gap in frequency of usage is increasing.

New technology, changing consumer behavior, and new regulations like the European Union's Payment Services Directive (PSD2), are drivers of change in the payment landscape. With PSD2, retailers, tech companies and new FinTechs can disrupt a significant part of the existing payment industry by providing closed loop systems that are linked directly to the customers' bank account.

The Nordic banks have taken a proactive approach in using digital as a tool for restructuring the bank industry. They have increased their efficiency by removing cash from branches, reducing the number of branches, and becoming digital champions. Instead of waiting to be disrupted by others, the banks have invested in self-disruption to defend their position within the payment market. Through their own FinTech ventures like MobilePay, Swish, and Vipps, the banks are keeping the front-end interaction with the customer in payment, and they are doing it in a collaborative manner.

The success of Nordic mobile wallets has gained international interest. While Swish of Sweden seems to be focusing their efforts mainly in their home market, MobilePay of Denmark and Vipps of Norway have clearly communicated their international intentions.

So, where do we see the Nordics moving forwards? Based on our research, we have developed four predictions for 2025 that can be seen as further drivers for mobile payments. The role of cash in society, mobile wallets' position versus the existence of banks' own mobile apps, mobile phones' role in online shopping and the usage of mobile wallets across the generations.

2025

Mobile payment predictions

1

In 2025, we predict that at least one of the Nordic countries are 'de facto' cashless, with only limited use of cash in segments who can not use other means of payment.

2

In 2025, we predict that mobile wallets will reduce the importance of banks' own 'online bank' platform by adopting more functionalities like invoice, savings, lending and become the most important online banking application.

3

In 2025, we predict that the smartphone has surpassed the laptop as our preferred device for online shopping.

4

In 2025, we predict that the gap will be significantly lower between generations both in adoption and in usage of mobile payments.

The cashless society

The Nordic countries in general, and especially Norway and Sweden, have been seen as heading towards cashless societies. This push towards becoming cashless in the Nordics has also inspired banks in other countries to improve their digital solutions[1]. In many ways, the Nordics have become a benchmark for the cashless society. Cash is under pressure. In Norway and Sweden, the value of cash in circulation has decreased in recent years. In Sweden alone, the value has gone from SEK 77 billion in 2015 to SEK 57 billion in 2017. The use of ATMs is declining, but there is still a wide gap within the Nordics in how often we use the ATM. While Norwegians on average only withdraw cash from ATMs 8 times per year, the Finns average above 20 times per year.

The Nordics' love for their cards is not a well kept secret. It's been just a decade since the first wave of museums, coffee shops and stores stopped accepting cash as payment. While the Danes 'only' have 1,6 cards per capita, the Norwegians have a staggering 3,1 cards. Norway is also leading when it comes to usage, with over 430 transactions per capita per year. This is significantly higher than the Finns who end up at a 'mere' 300 transactions per year, but usage is increasing all over the Nordic countries. A strong growth in account to account based payments is also putting pressure on cash. Finland and Sweden both have over 150 account to account transactions per capita per year.

A cashless society is not a distant utopia, but with it comes new challenges. A cashless society will have to develop mechanisms to avoid misuse of transactional information, and cash might still be needed as a back-up mechanism. Technology will have to remove obstacles for people who today, only have the ability to make payments in cash. Cashless society or not, the Nordics are becoming independent of cash.

In 2025, we predict that at least one of the Nordic countries are 'de facto' cashless, with only limited use of cash in segments who can not use other means of payment[2].

The transition towards a cashless society

Nordics lead on towards the cashless society

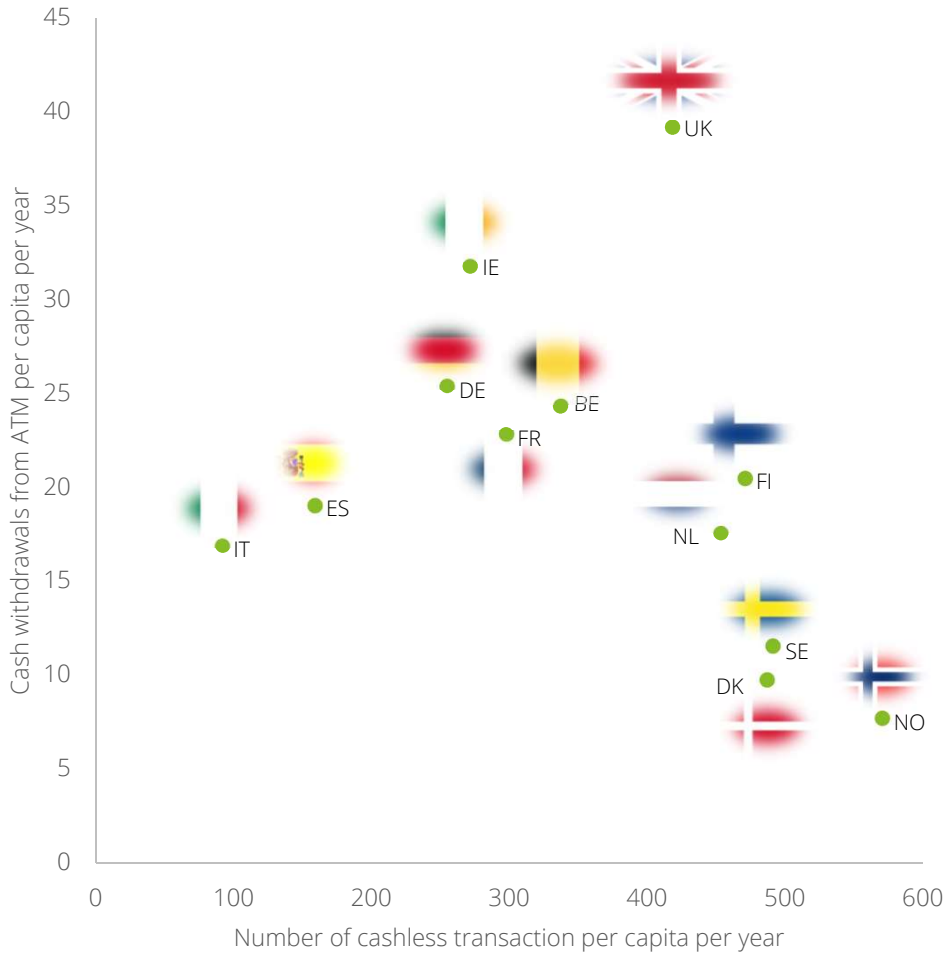
The Nordic countries lead the way in the transition towards the cashless society. At the very forefront we find Norway with both the highest number of cashless transactions per capita and the lowest number of withdrawals from an ATM (see figure 1). Naturally, this is also observed when we examine the means of payment used in different situations in Norway. In a recent survey conducted by Norges Bank (Norway's central bank)[3], they find that cash constitutes only 11 % of the in-store payments. In these situations card is king, constituting 86 %, while smart phones are only 2 % of the payments. Nor when examining the numbers for peer-to-peer payments does cash constitute a major share. 15 % of peer-to-peer payments are carried out with cash, while up to 80 % are transferred by phone or laptop (58 % with app/mobile wallet and 22 % with mobile bank/online bank).

Other Scandinavian countries follow Norway closely. In Sweden this is evident in a survey conducted by Riksbanken (Sweden's central bank) this year. In the survey, 54 % of the respondents have, at least once, experienced cash not being accepted as payment instrument for in-store payments. 10 % of respondents state having experienced this one to three times a month, up from 2 % in 2014, constituting a 400 % growth[4]. Finland still has a significant amount of cash similar to other European countries in the peer group. Still, cash as a payment instrument is in decline in Finland as well, and the Suomen Pankki (Finland's central bank) has previously calculated that Finland could be 'cash free' by 2029[5].

Trends towards increased cash independence are visible in other European countries as well. One example is the UK, where debit card payments out-performed cash as the most used payment instrument for the first time in 2017[6].

Figure 1. Cash withdrawals and cashless transaction per capita (2017).

Transactions per capita. Cashless transactions are based on total card payments issued by resident PSP, credit transfers, direct debit transfers and E-money payments with e-money issued by resident PSP.



Source: ECS, Eurostat, Norges Bank, Deloitte Analysis

Cash and its fall from grace

The reduced importance of cash

Scandinavia is transitioning towards a cashless society. This is reflected in the share cash constitutes of total money supply (M1), the value of bank notes and coins in circulation and the level of withdrawals from ATM. Cash as share of money supply (see figure 2) in the Scandinavian countries are low compared to Finland and the euro area, particularly in Norway and Sweden where the shares are 2,3- and 2,1 % respectively. In Denmark, the levels are a little bit higher, at 5,2 %, suggesting that the transition goes a little bit slower compared to its Scandinavian peers. Still, it is worth mentioning that there are other countries in Europe that have comparable levels to the Scandinavian ones. For example, in UK cash only constituted 4,2 % of M1 in 2016.[7]

Not only are today's level of cash as share of M1 low in the Scandinavian countries, we can also see that the yearly decrease in Sweden and Norway are high compared to the euro area (see figure 3). Sweden has had a stable and steep decrease the recent years, while in Norway the ratio decreased 48 % in 2015. This drop in 2015 might partly be explained by the introduction of both Vipps, the Norwegian mobile wallet, and contactless payment in Norway that year. Conclusively, the trend suggests that Sweden and Norway will continue to be amongst the leaders in the transition towards becoming cashless.

The trend is clear in other historical data as well. According to the aforementioned survey conducted by Riksbanken[8], only 13 % of the Swedes used cash the last time they purchased anything in-store. That is a steep decline from the 2010 levels, where 39 % of the population used cash for their last purchase. As depicted in figure 4 on the next page, the value of currency in circulation is declining in Norway and Sweden. The value decreased by approx. 6 % between 2015 and 2017 in Norway, while the drop in Sweden was almost 26 %. However, in Denmark the value of banknotes and coins has increased with over 5 % from 2015 to

Figure 2. Cash as share of total money supply (M1) (2012 – 2017).
% of total money supply

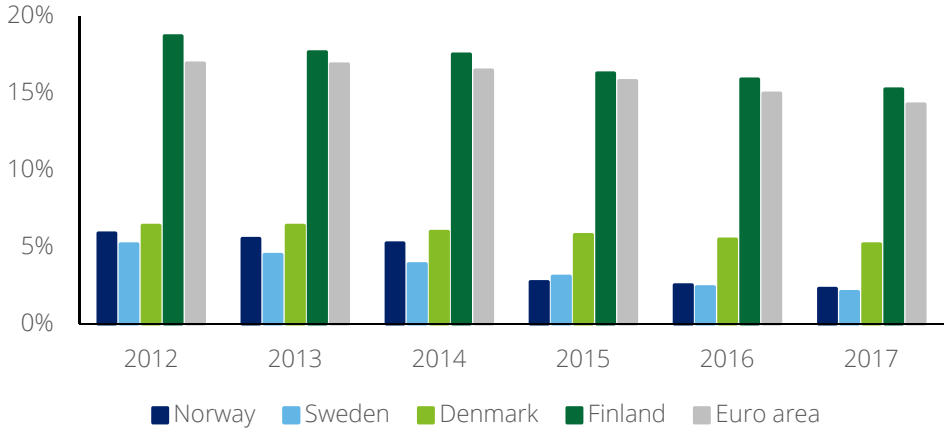
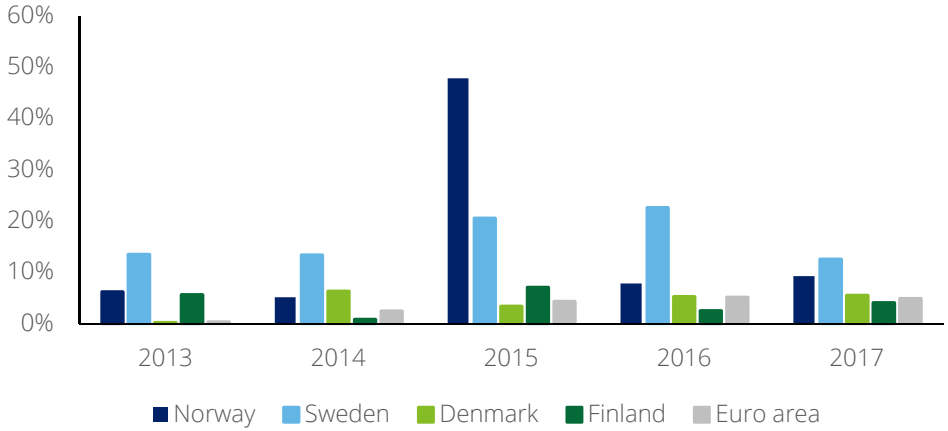


Figure 3. Annual decrease in cash as share of total money supply (M1) (2013 – 2017).
% yearly decrease of cash as share of total money supply



Source: ECB, Norges Bank, Suomen Pankki, Deloitte Analysis

2015 to 2017 (figure 4). This strengthens the hypothesis of a slightly slower transition in Denmark. This is also depicted in a survey conducted by Nationalbanken (Denmark's central bank) in 2017, where 14 % of Danes revealed that they still used cash as a saving instrument[9].

The reduced importance of cash can also be seen in the reduced importance of the ATM, where there is a decline in withdrawals per capita in the Nordics from 2015 to 2017 (see figure 5). Still, we observe that Finland is lagging somewhat behind Scandinavia. Similar to withdrawals from ATMs, withdrawals from POS-terminals have decreased. In Norway, POS-withdrawals have more than halved from 2010 to 2018[10], and the same trend is observed in Sweden. According to the survey conducted by Riksbanken, 65 % of the Swedes have never withdrawn from POS-terminals in 2018, while the same number in 2010 was 44 %[11]. So after examining the development in the historical data, it is evident that we are nearing towards cashless societies. Nevertheless, it is a long way to go, but further rise of online shopping, new mobile payment solutions and increased use of cards will continue to drive the decline in the importance of cash as a payment instrument.

There are challenges associated with becoming a cashless society. Firstly, can we include those who are not able, or wish, to use cards as a payment instrument over cash? The elders tend to prefer cash compared to younger generations, and the very youngest are not able to use cards, or for example mobile wallets, due to age limits. A potential solution for the youngest are services specially designed for them. An example is the recent launch of Vipps without lower age limits, but where users below 15 years of age have some limitations and parental control. Thirdly, how can we deal with becoming completely reliant on the banks system' for conducting purchases. What happens during a power shutdown? Lastly, there are those who are for more or less legitimate reasons skeptical in having the banks or the government monitoring our every cash transaction.

Figure 4. Value of banknotes and coins in circulation per year (2015 – 2017).
Billions in local currency

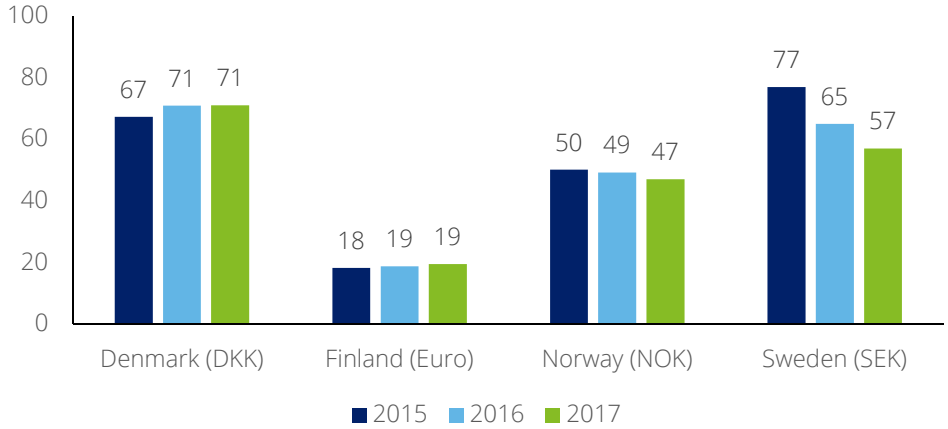
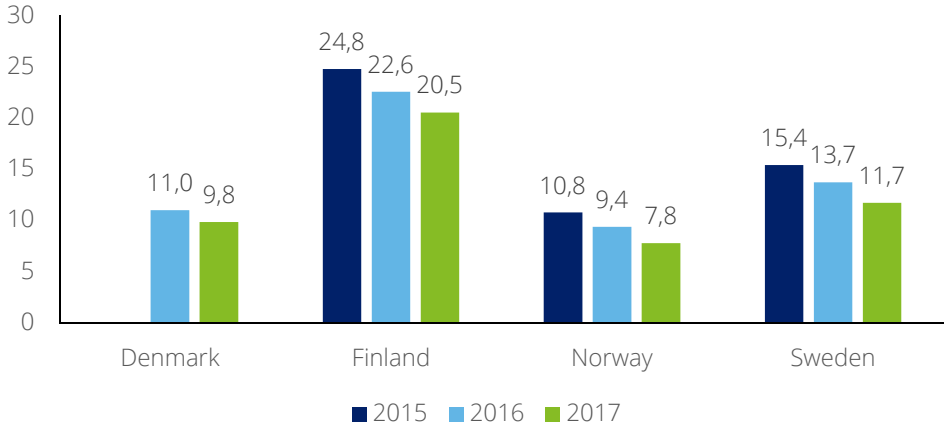


Figure 5. Cash withdrawals at ATM per capita per year (2015-2017)[12].
Per capita calculation of cash withdrawals based on total population - cards issued by resident PSPs.



Source: ECS, Nationalbanken, Norges Bank, Riksbanken, Suomen Pankki, Deloitte Analysis

Card is the current king of the hill

Card as a pillar in the payment infrastructure

Naturally, the usage of cards has increased in parallel with the reduction in the importance of cash in the society. This has allowed cards to become today's leading instrument for consumer payments. Cards are the dominant instrument for conducting online payments, and until the last few years cards were also the most convenient instrument for in-store payments.

The popularity of cards in the Nordics is evident in the number of cards per capita and the average number of card payments per capita. The average Nordic citizen has just above two payment cards. Danes 'only' have 1,6 card per capita, while the Norwegians love their cards with a staggering 3,1 per capita (see figure 6). The number of card payments per capita has grown in the Nordics, and the average Nordic citizen relies on card payments once per day. On one side of the scale, the Finns average 'only' 300 card payments per year, while Norwegians on the other side have 434 card payments (see figure 7). In other words, we see that the usage of cards in the Nordics reflects the decline of the popularity of cash fairly well. It is high in the Scandinavian countries while Finland is behind. According to a recent e-commerce survey, conducted by PostNord[13], card payments is the dominant e-commerce payment in Denmark (75 %) and Norway (51 %).

Although card payments have been a success for the last decade, the launch of an ECB-driven Eurosystem[14] register with mobile numbers linked to consumers' bank account might bring in more competition for payment cards. This is also the case with the increased usage of new account to account based FinTech solutions. E,g, Vipps and MobilePay support account to account transfers as well as transactions using payment cards as payment loading instrument. So while the transition from cash to cards paved the way for new digital solutions, such as mobile wallets, the very same solutions may challenge cards' popularity as a payment instrument, at least in certain situations.

Figure 6. Number of cards with payment function issued by resident PSPs per capita (2015-2017).

Per capita calculation based on total population, excluding cards with 'e-money function only'

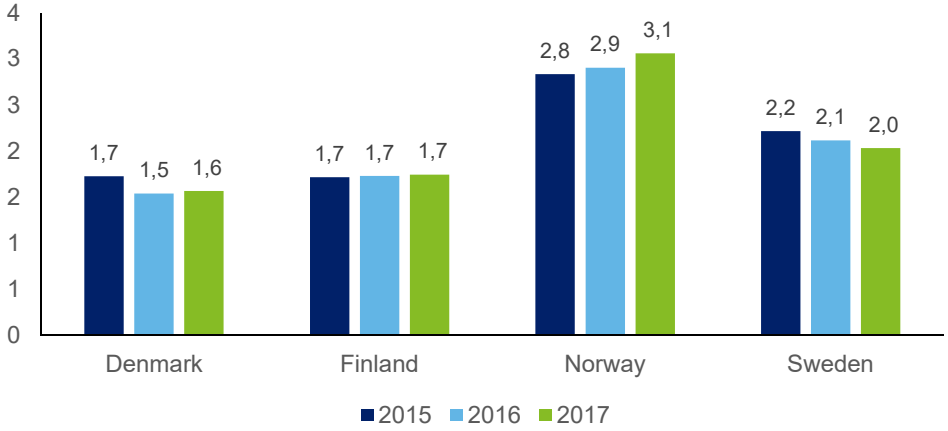
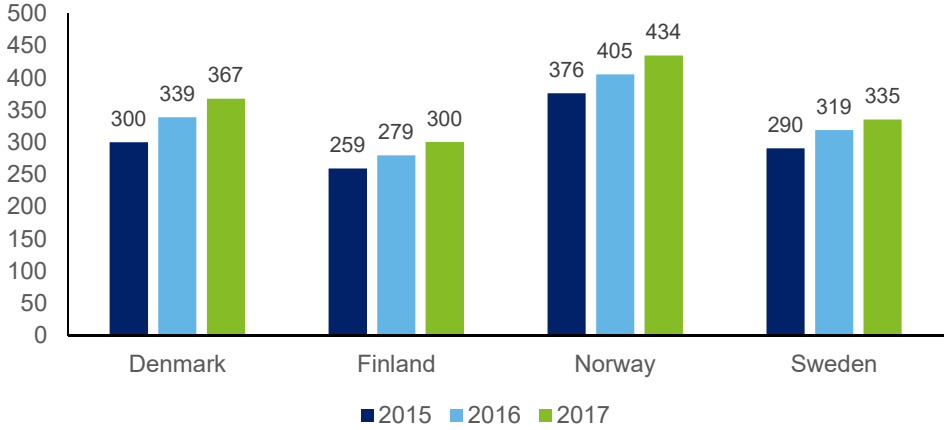


Figure 7. Number of card payments transactions per capita (2015-2017).

Per capita calculation based on total population



Source:, ECS, Eurostat, Norges Bank, PostNord, Deloitte Analysis

Account to account transfer is gaining more traction

Account to account transfer is growing

The rapid rise of cards has not been on the expense of account to account transfers. Finland has the highest number of account to account payments with 172 payments per capita in the Nordics. This due to having the highest numbers of credit transfers per capita, partly driven by e-invoicing replacing local direct debit, no major push to implement SEPA based direct debit solutions, and compared to the Norway and Denmark, a low level of card payments.

In Finland, account to account payment are vital in e-commerce. In the previous mentioned e-commerce study from PostNord, the two most popular Finnish payment methods for e-commerce are direct payment through bank (30 %) and payment by invoice (27 %)[15]. Sweden follows behind with 162 account to account payments per capita. 132 of these are credit transfers while 30 are direct debit transfers. According to PostNord, Invoice (37 %) is the most popular e-commerce payment method.

Norway comes in third place with 141 account to account payments per capita. Denmark has the lowest numbers of account to account transfers per capita with 121, although the Danes are estimated to have the highest usage of direct debit transfers with roughly 36 direct debits per capita. In 2017, MobilePay launched direct debit payments in their mobile wallet.

With the implementation of PSD2, and the further implementation of account to account payments in the Nordic mobile wallets, it is likely that the growth of account to account payments will continue.

Figure 8. Credit transfers transactions per capita (2015-2017).
Per capita calculation

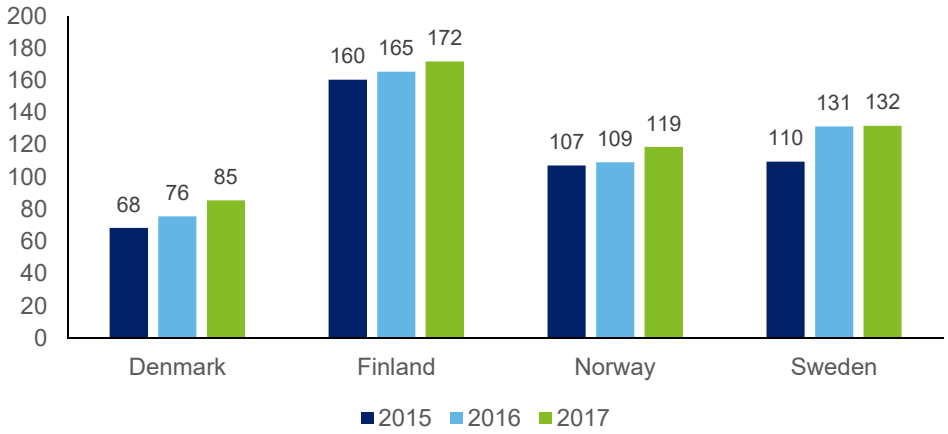
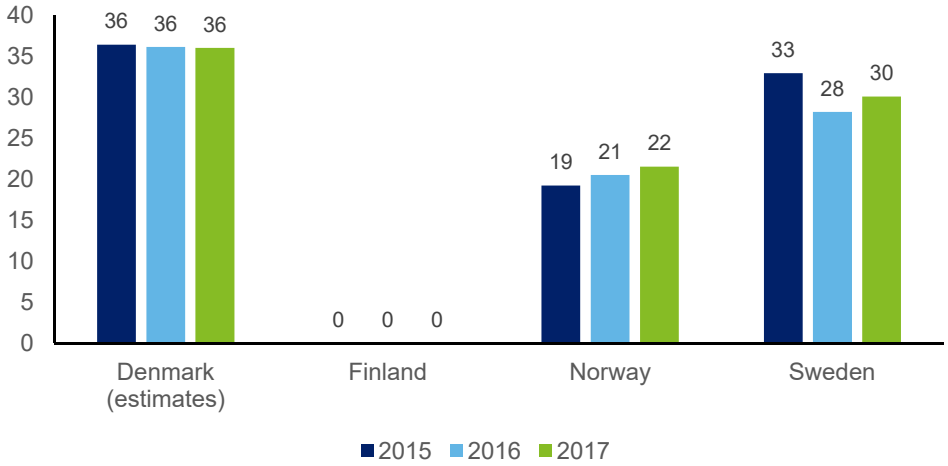


Figure 9. Direct debit transfers transactions per capita (2015-2017).
Per capita calculation. Danish numbers estimates based on 1,25 % growth per year since 2014.



Source: ECS, Eurostat, Norges Bank, PostNord, Deloitte Analysis

Rise of the mobile wallet

The Nordic countries were first introduced to mobile payments when six large banks in Sweden cooperated to launch Swish in late 2012. The app linked bank account details to a phone number, and enabled consumers to transfer money in real time. The following year, in 2013, Danske Bank introduced MobilePay in Denmark in May and in Finland in December. MobilePay was an immediate success and reached over 100 000 downloads in a matter of months in Denmark. Vipps was launched in May 2015 in Norway, and in just over a month the mobile wallet had over 300 000 downloads.

Successful mobile peer-to-peer (P2P) payment providers are capitalizing on offering a seamless experience for their customers. The P2P payment solution providers typically let the customer connect a payment card or a bank account number to an app, and requires only the phone number or e-mail of the recipient to complete the transaction. The convenience of simply using your smartphone to transfer money has most likely contributed to the rapid growth in mobile payments the Nordics have experienced.

Yet, this survey indicates that the adoption of mobile wallets is still on the rise in the Nordics. An increasing share of Nordic consumers are using a smartphone to transfer money, both domestically and internationally, and to manage their personal finances. For authentication of mobile payments, biometric technologies are gaining ground. More than half of the consumers surveyed reported using biometrics to authorize mobile transactions.

In 2025, we predict that mobile wallets will reduce the importance of banks' own 'online bank' platform by adopting more functionalities like invoice, savings, lending and become the most important online banking application.

Paying with phones

Scandinavia in the lead on mobile payments, while Finland lags behind

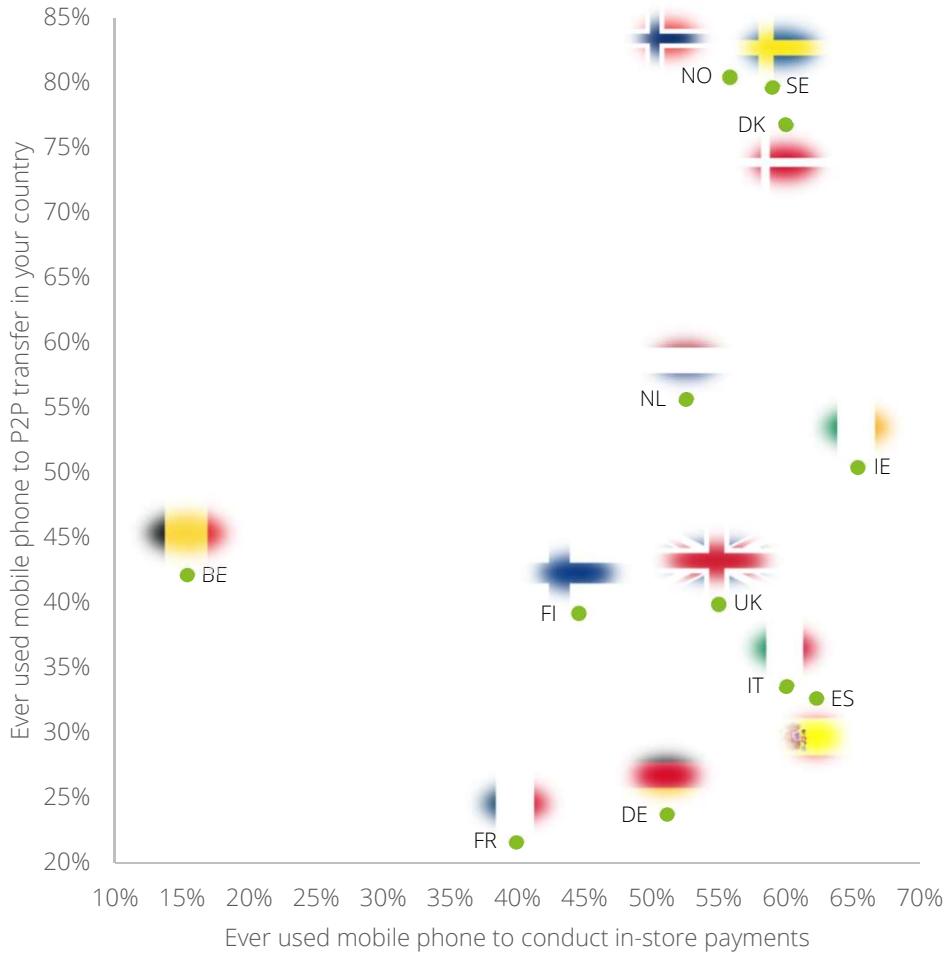
In 2018, mobile wallets have reached a significant footprint in Scandinavia, and mobile peer-to-peer payments has been a key driver for the adoption of these mobile wallets. As depicted in figure 10, Norway, Sweden and Denmark have a high market penetration of mobile peer to peer payments. Each of the Scandinavian countries have a dominant market leader that drives adoption locally. In Norway, the country with highest market penetration, approximately 82 %, have tried mobile peer to peer payments at least once. Unlike their Nordic peers, Finland has a relatively weak market penetration and is the only Nordic country that does not have a dominating market leader that drive penetration.

The widespread use of smartphones change the way we purchase and pay for products and services online and in physical locations. The constant drive for efficiency on retailers and simplicity for consumers put pressures on existing shopping channels and payment methods. Scandinavia has a relatively high penetration of in-store payments. But the highest market penetration is observed in Ireland (65,4 %) and Spain (62,3 %).

Some retailer specific payment applications have had Nordic success, combining in-store payments with rewards. One example is Espresso House which combines its customer reward system and in-store mobile payment functions in the same app. These kinds of apps seem to play an important part in the adoption of mobile in-store payments. This is similar to what we observe is happening with the Starbuck app in North America.

Together Vipps of Norway, Swish of Sweden and MobilePay of Denmark have over 13 million users. We believe that coming generations will demand new mobile payment solutions that deliver convenience, security and cost benefits.

Figure 10. Mobile in-store and domestic P2P-payments (2018).
Base: All adults from 18 to 75 years

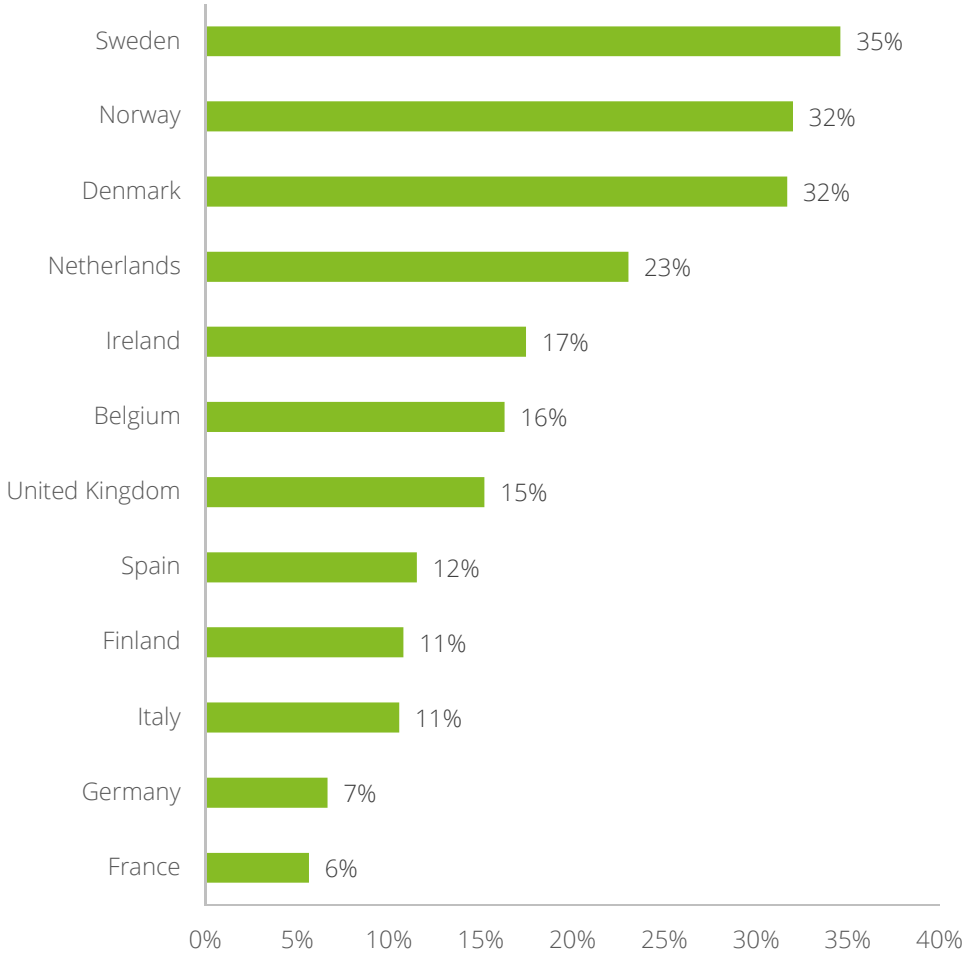


Source: Deloitte GMCS 2018, Espresso House, GetSwish, MobilePay, Vipps, Deloitte Analysis.

If we look more closely to usage (figure 11), Sweden is the country with the highest weekly user rate. Approximately 35 % transfer money domestically to another individual at least once per week with a smartphone. Norway and Denmark are following closely. Netherlands is the country in the peer group that are somewhere near the Nordics, with 23 % of users conducting weekly P2P payments.

The success of Vipps, Swish and MobilePay seems to be unparalleled in Europe. In order to find similar success stories regarding mobile peer-to-peer payments you will have to look outside of Europe. Alipay's success story in China is one out of very few examples[16].

Figure 11. Weekly transfer money to another individual in your country with mobile phone (2018).
Base: All adults from 18 to 75 years of age



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Mobiles are taking over peer-to-peer payments

Figure 12. Transfer money to another individual in your country with mobile phone (Nordics) (2017-2018).
Base: All adults from 18 to 75 years of age

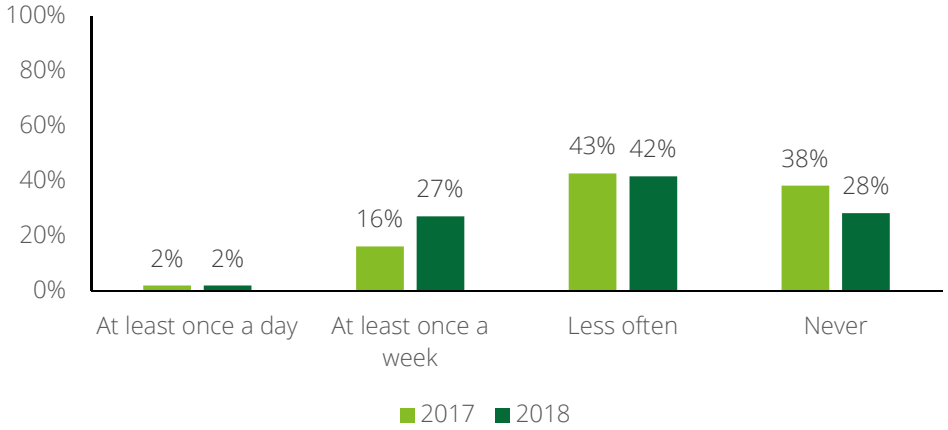
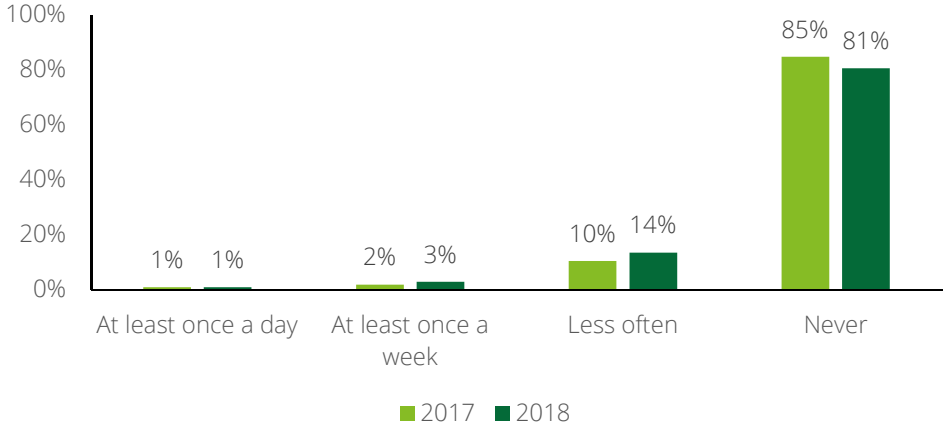


Figure 13. Transfer money to another individual located in a different country with mobile phone (Nordics) (2017-2018).
Base: All adults from 18 to 75 years of age



Domestic mobile peer-to-peer payments are becoming the norm, but not cross-border

In the Nordics, we observe a higher frequency of domestic mobile money transfer when comparing data from 2017 and 2018 (see figure 12). In 2018, 27 % of the consumers reported to perform domestic mobile money transfer at least once a week, 11 percentage points higher than in 2017. Approximately 1/4 report to having never used domestic mobile peer-to-peer payments, a significant decrease from 2017. Furthermore, the previously mentioned study by Norges Bank shows that 58 % of peer-to-peer payments in Norway is conducted with mobiles, an example of how far the Nordics have come in terms of mobile payment solutions.

As shown in figures 14 and 15 on the next page, Finland has the lowest share of consumers reporting to perform domestic mobile money transfer. As we have seen previously in the report, Finland still has a relatively high love for cash compared to their Nordic neighbors (see figure 5). Finland is also a market where there is no universally available mobile wallet dominating the market. However, with the obvious advantages of providing easy mobile money transfer, one could expect to see increased market penetration for peer-to-peer payments in the coming years.

International transfers are less common in the Nordics than domestic transfers. As depicted in figure 13, 81 % of the consumers in the survey report never having executed an international mobile peer-to-peer transaction. The differences separating the Nordic countries are minor, with Denmark and Finland seeming to be the least mature markets (see figure 16 and 17). A key question is whether the European Union's Payment Services Directive (PSD2)[17] will pave the way for new FinTechs with a cross-border market approach, and if the existing local market leaders can find ways of implementing interoperability internationally.

Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Figure 14. Weekly or more frequent transfer of money to another individual in your country with mobile phone (By Country) (2017-2018).
Base: All adults from 18 to 75 years of age

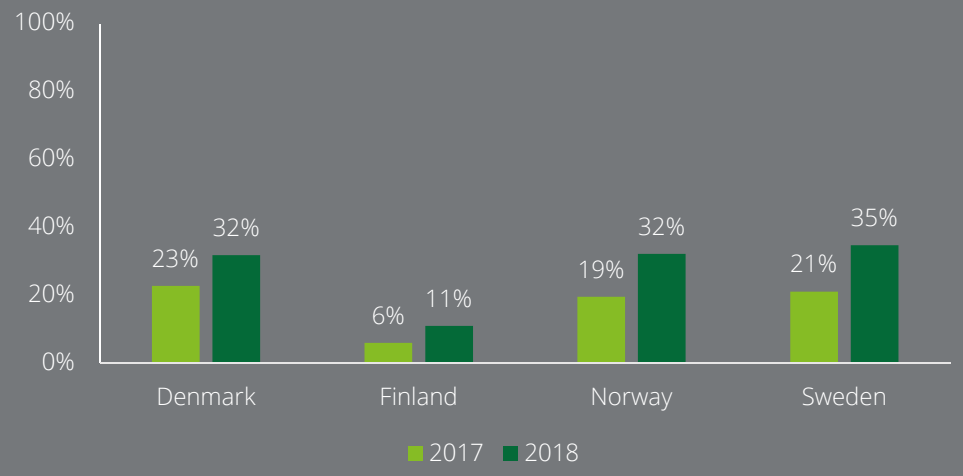


Figure 15. Never transferred money to another individual in your country with mobile phone (By Country) (2017-2018).
Base: All adults from 18 to 75 years of age

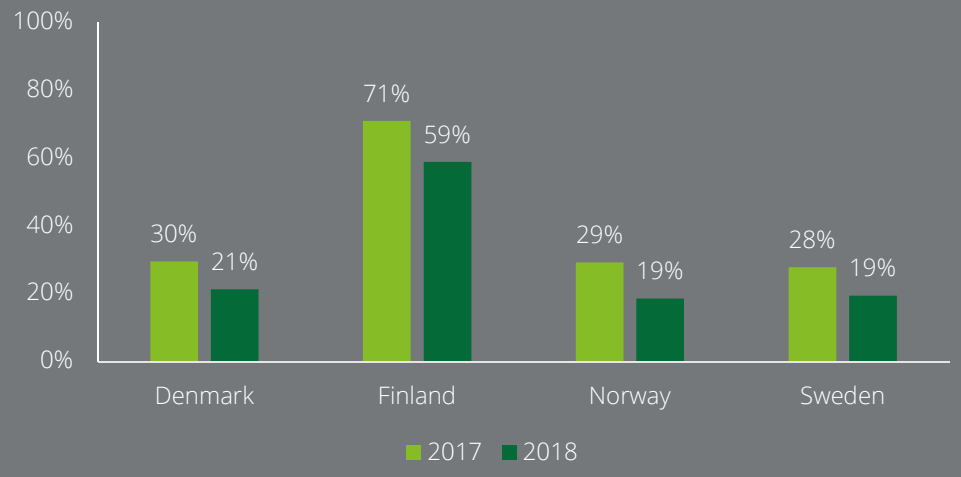


Figure 16. Weekly or more frequent transfer of money to another individual located in a different country with mobile phone (By Country) (2017-2018).
Base: All adults from 18 to 75 years of age

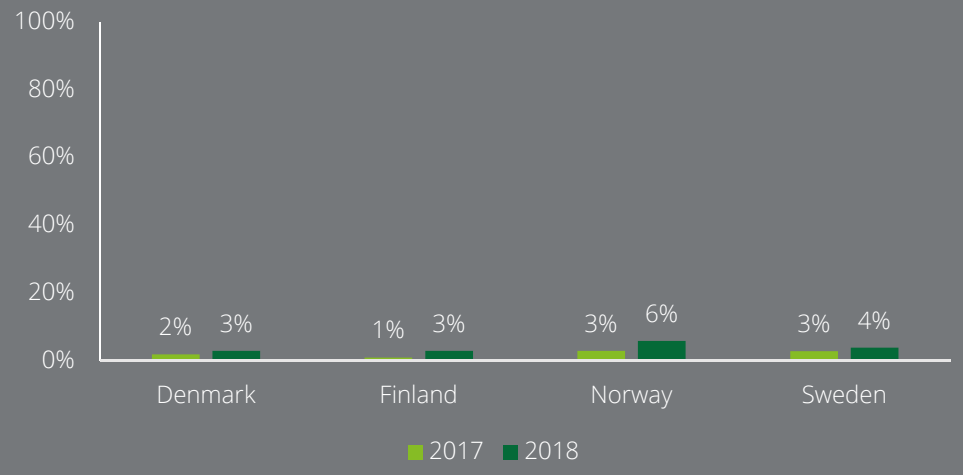
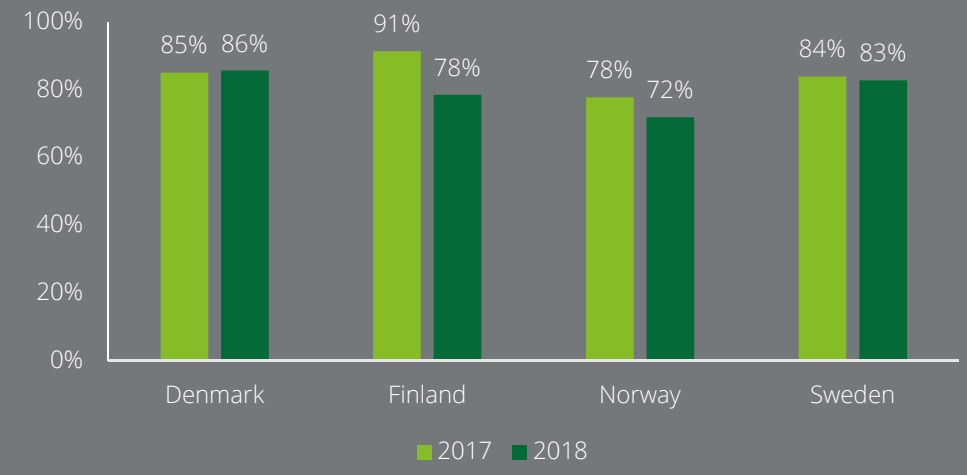


Figure 17. Never transferred money to another individual located in a different country with mobile phone (By Country) (2017-2018).
Base: All adults from 18 to 75 years of age



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Mobile is gaining in-store payment traction

Cards rule the world, but mobile is on the rise

Around the world the use of cash has steadily been declining in favor of cashless alternatives such as cards and mobile applications. The new world of e-commerce has changed how we do business, including the exchange of money in financial transactions. This survey shows that in-store mobile payments are becoming more popular across the Nordics. In 2018, the share of consumers having used mobile payments in-store on a weekly basis grew with 5 percentage points to 12 %. In total, 53 % had used mobile payment in-store at least once, an increase of 10 percentage points from 2017.

Breaking down the data presented in figure 18 by country (see figure 20 and 21) shows that Finland is behind the other Nordic countries in market penetration of in-store mobile payments. Finland has the lowest frequency and growth for in-store mobile payments, and 76 % of the Finnish consumers have never executed an in-store transaction with their mobile phone. In Norway, there has been a massive change in adoption from 2017 to 2018. While 3 out of 4 Norwegians never had conducted a mobile in-store payment in 2017, 2 out of 4 have conducted mobile in-store payments in 2018. The lack of benefits from mobile in-store payments was seen as the main reason for not conducting in-store payments with the smartphone. Security and simplicity were also mentioned as key reasons in 2017 and 2018 (see figure 19). Further development of in-store payments will most likely depend on the supplier's ability to handle technological limitations and pursue the right initiatives to minimize time-to-market for new solutions.

"We have not really been focusing that much on in-store payments until recent days. The value proposition of contactless cards using NFC is strong. So, our focus has been to simply payments where we can create the most value."

- Rune Garborg, CEO of Vipps

Figure 18. Pay for a product or service in-store with mobile phone (Nordics) (2017-2018).
Base: All adults from 18 to 75 years of age

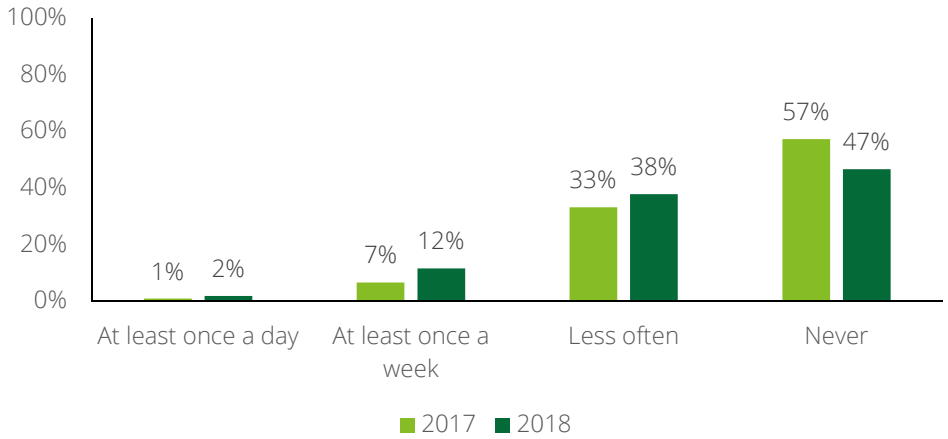
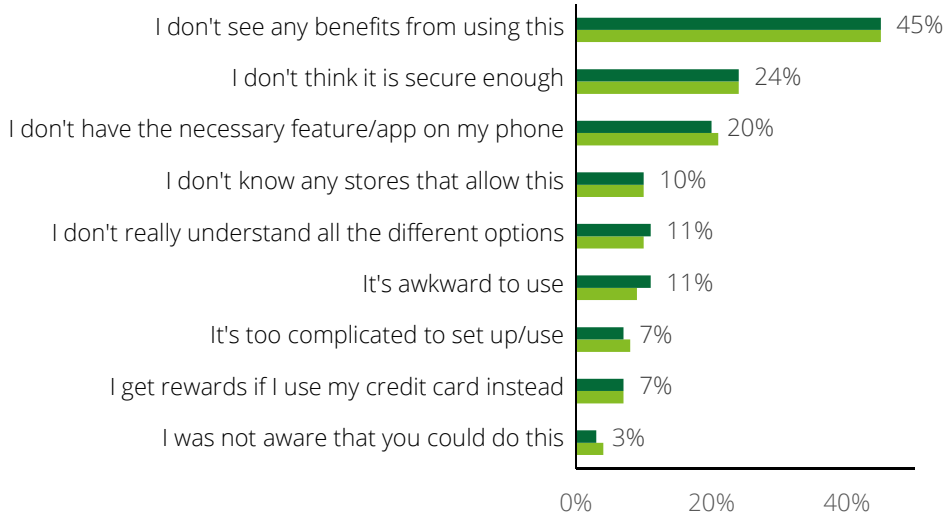


Figure 19. Main reasons to not use phone to make in-store payments (Nordics) (2017-2018).
Base: All adults 18-75 who never use their phone to make an in-store payment



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Figure 20. Pay for a product or service in-store with mobile phone (By Country) (2017).
Base: All adults from 18 to 75 years of age

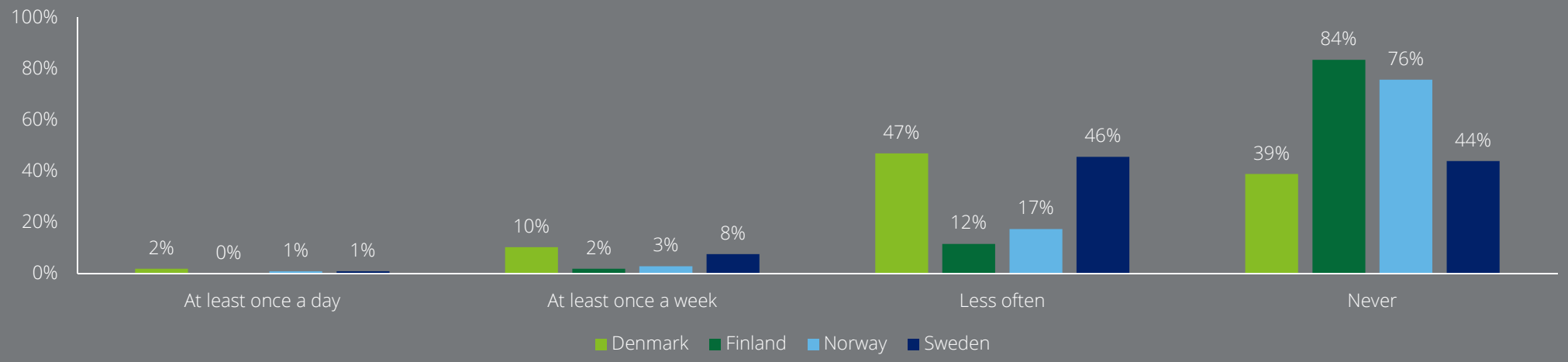
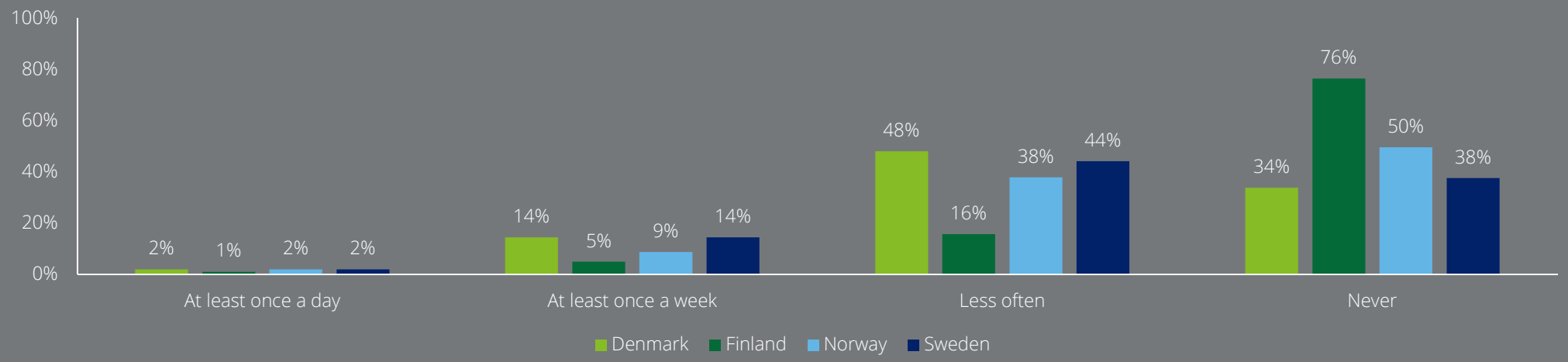


Figure 21. Pay for a product or service with mobile phone (By Country) (2018).
Base: All adults from 18 to 75 years of age



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Smartphones are preferred for checking bank balances

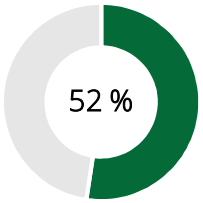
Still a way to go when it comes to using smartphones as a personal finance manager

The digital development in personal finance is transforming how people save, spend and manage their money. Key players in the Nordic market have embraced digital banking by allowing individuals to both overlook and manage their personal finances on mobile devices. Spare, a personal finance app delivered by DNB in Norway, provides the consumer with an overview of bank account balance, mutual fund investments and retirement savings. The app Tink, launched in 2013 by a Swedish FinTech company, allows the consumer to transfer money, pay bills, set saving targets and open new accounts.

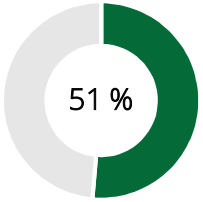
This survey shows that among Nordic countries, 52 % of the respondents are checking their bank account balance on a smartphone at least weekly (see figure 22). Only 1/5 of consumers in the survey have never checked their bank balance with a smartphone. Compared to the other Nordic countries, Norway and Sweden have the biggest share of individuals checking their bank account on a mobile device at least weekly. Checking bank balance on mobile phones has primarily been conducted through the banks' own banking apps. It is likely that the mobile wallets will take a fair share of the usage through integrating bank balance in their apps., The importance of mobile wallets will likely grow with the launch of new services and the adoption of fairly new services like paying invoices with mobile wallets (an offering launched by MobilePay in 2017 and Vipps 2018).

Of the individuals included in the survey that owned a smartphone, 70 % report to never having used the mobile phone to manage investments, only 30 % report they used their mobile phone to manage their investments at least once. Conversely, only 8 % of the consumers claim to weekly use the mobile phone to manage their investments. Sweden seems to be the most mature market, where 13 % report to manage their investments with a smartphone at least once per week.

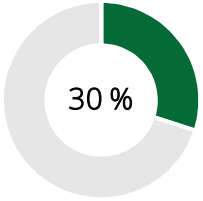
Figure 22. Check bank balance & manage my Investments with mobile phone (Nordics) (2018).
Base: All adults from 18 to 75 years of age



52 % of the consumers check their bank account balance with a smartphone at least weekly.



51 % of the consumers prefer using the mobile phone for checking the bank account balance.



30 % of the consumers have used the mobile phone to manage their investments at least once.

Source: Deloitte GMCS 2017, Deloitte GMCS 2018,DNB, Tink, Deloitte Analysis

Biometrics simplify authentication

Biometrics becoming the key to simplicity

In recent years, there has been a surge in the number of telephone manufacturers offering biometrics as a tool for authentication and as security for facilitating mobile payment transactions. Fingerprint authentication and recognition has gained considerable market penetration and popularity among the majority of telecommunication operators. In the Nordic countries, 56 % of the consumers report that their smartphone has fingerprint authentication (see figure 23). PIN codes are still the most common form of authentication and available for 76 % of those owning a smartphone. Voice and facial recognition are less common biometric features, and approximately 1/10 consumers has smartphones with such technology.

Most of the consumers included in this survey use biometrics to either unlock their device or to authorize payments (see figure 24). 92 % use biometrics to identify themselves, while 54 % use biometrics to authorize transactions. Within the Nordics the differences are minor for unlocking a mobile device and to log into apps, but Finland seems to be behind in terms of authorization of payments and money transfers (see figure 25). This can be said to be expected, as we already know that the penetration of mobile wallets is lower in Finland than in Scandinavia. All in all, the introduction of biometric authentication for mobile wallets has improved the user experience, since it simplifies the process for the user. Both the Nordic mobile wallets and global competitors (such as Apple, Google and Samsung Pay) have introduced biometric recognition for authenticating mobile payments.

Figure 23. Which of the following does your smartphone have? (Nordics) (2018)
Base: All adults from 18 to 75 years of age who have a smartphone


76 % PIN authentication


56 % fingerprint recognition


13 % voice recognition

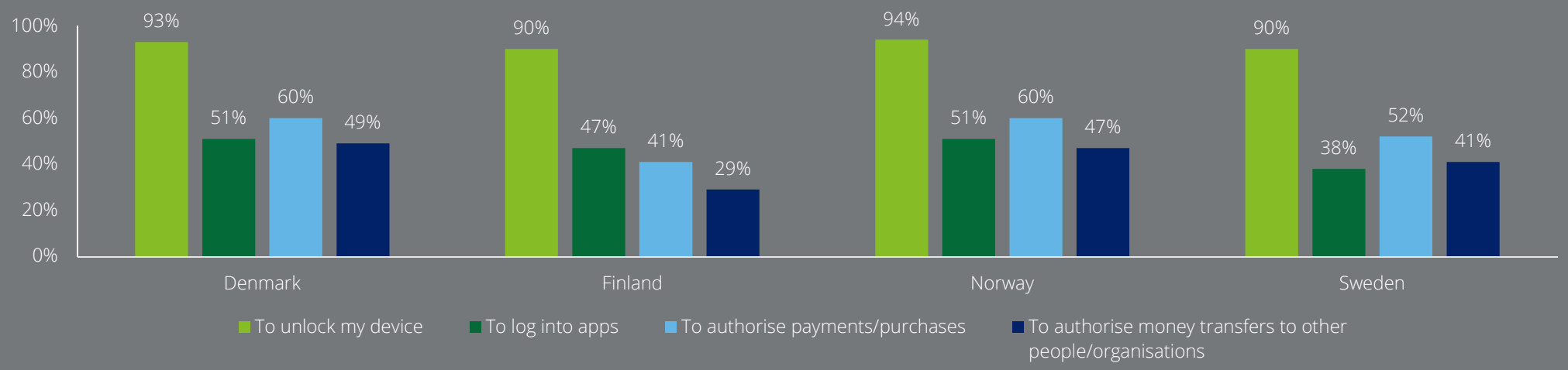

12 % facial recognition


5 % eye/iris recognition

Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Figure 24. How do you use biometrics to identify yourself on your mobile phone? (Nordics) (2018)
Base: All adults from 18 to 75 years of age who use biometric recognition on their smartphone

Figure 25. How do you use biometrics to identify yourself on your mobile phone? (By Country) (2018)
Base: All adults from 18 to 75 years of age who use biometric recognition on their smartphone



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

The dominant mobile wallet players in the Nordics

MobilePay, Swish and Vipps are the dominant mobile wallet providers in the Nordics, with each of them dominating their home market. Although they are similar in a many ways, their business models (especially their approach to retailers/merchants) and international ambitions differ. In addition to this brief introduction to the players, we have had a talk with MobilePay and Vipps, the two mobile wallet providers that have been explicit in having international ambitions.

MobilePay

Launched by Danske Bank in 2013, in both Denmark and Finland, as a peer-to-peer payment service. Offers today services for invoice- and subscription payments, peer-to-business, e-commerce, POS with BLE and QR-codes and other services for end-users as well.

MobilePay is now structured with a CEO for each of their markets and one at group level. This positions MobilePay to continue improving in their existing markets while going after opportunities in new ones.

Over 4 million users in Denmark (69,3 % of the population) and around 800 000 users in Finland (14,5 % of the population)

"For us, the mobile wallet is an ever-changing offering based on consumers' expectations and demands for great payment experiences. We work closely with consumers to adapt our solutions to their expectations"

- Mark Wraa-Hansen,
  CEO of MobilePay

Swish by Getswish

Launched in 2012 by Swedish banks as a peer-to-peer payment service. Today's services include peer-to-business, e-commerce and POS using QR-codes.

Getswish AB operates the solution and is owned by the major Swedish banks. However, GetSwish differs from Vipps and MobilePay in that it focuses on being an infrastructure company.

Has no clear international focus, but states that they are receiving international attention and don't rule out a future export.

Swish has over 6,7 million users in Sweden today (67,3 % of the population)

"The idea behind Swish is to create value for the participating banks in enhancing their offerings for their end-users. It has never been a goal to grow the Getswish organization as big as possible"

- Carl Molinero,
  CoB Getswish
  (from 'Investerarens Podcast')

Vipps

Launched by DNB in Norway 2015 as a peer-to-peer payment service. Today the other Norwegian banks have joined the solution, and offered services now include peer-to-business, e-commerce and invoice payments in app.

Vipps merged with the Norwegian eID solution BankID and the domestic payment scheme BankAxept in 2018. This differs Vipps from Swish and MobilePay, as they deliver wallet with both payment- and eID services.

Vipps has over 3 million users (57,1 % of the population)

"Although I firmly believe our success is built around making peer-to-peer payment effortless, we need to continue to innovate. There is still a lot of different payments where increased simplicity will give consumers great value. "

- Rune Garborg
  CEO Of Vipps

Other solutions in the Nordics

The local mobile wallets are facing competition from several international players. Examples are Apple- and Google Pay which offer wallet solutions for their respective mobile devices in the Nordics, and Samsung Pay in Sweden.

There are no dominant player in Finland and MobilePay compete with two other local competitors in peer-to-peer payments. Siirto delivered by Automatia in collaboration with the Finnish banks, is more of a mobile payment platform than a mobile wallet. The solution is PSD2-ready and it is integrated into the participating banks' respective mobile bank apps. Pivo Wallet is another competitor in Finland. Pivo differentiates itself by providing a personal finance manager.

In e-commerce, mobile wallets also face competition from companies and solutions like PayPal and Klarna.

Source: Klarna, MobilePay, Pivo Wallet, Swish/Getswish, Vipps, Siirto, Investerarens podcast, Deloitte Analysis

From mobile wallet to payment provider

Rune Garborg is the man who led Vipps from being a mobile wallet venture in DNB (the largest Norwegian financial group), into a bank-consortium owned FinTech that is providing mobile wallets, payment schemes, digital identity solutions and tokenization technology domestic and abroad.

Mr. Garborg, first off: what is your definition of a 'mobile wallet'? "A 'mobile wallet' can cover pretty much everything or nothing. For us in Vipps, a mobile wallet is an app that supports payments through devices such as smartphones, support different payment sources, and support different types of payments."

The success of mobile wallets in the Nordics is, according to Garborg, based on a few key factors.

1. Cash already played only a minor role in the payment system, but the areas where cash was still used, technology could drastically reduce the customers' pain of transactions.
2. Norway and the Nordics had the relevant technological infrastructure in place to support mobile peer-to-peer payments.
3. The digital maturity of the population is high, with a high degree of online banking.

> *" Our success in Norway is founded on simplicity. Making P2P-payments easier for people. "*

"Our success in Norway is founded on simplicity. Making P2P-payments easier for people," he says. "We simply replaced the account numbers with phone numbers. In addition we added the social aspect with a chat , Then, having the right people to go after that opportunity, creating a universal solution with acceptable KYC-process that anyone could use, was important."

Garborg also mentioned that the help they got from having around 10 000 employees in DNB as Vipps ambassadors was vital to get a network effect. "A great solution would be a 'dead' solution without users."

Asked in what ways new challengers like GAFA and Fintechs would affect Vipps, Garborg ensures us that he sees

increased competition in a positive manner. "New entrants are good. It keeps us at alert. It motivate us to work harder to increase our value proposition to our users."

When it comes to PSD2, Garborg believes it is leveraging the playing field. "We don't worry too much about PSD2. Yes, it can give new Fintechs access to some basic infrastructure – and I hope it will increase the speed when it comes to innovation." "Innovation should increase the penetration of mobile wallets, and that is fundamentally a good thing."

Asked about what type of innovation we could expect: "Our new invoice solutions is an example of how we as a Fintechs can innovate. Creating smarter payments for consumers as well as merchants".

Garborg believes that the Nordic banks' new payment infrastructure initiative ("P27") is a good thing for the Nordic wallets. It will create more cost efficient ways of dealing with interoperability, as well as provide real time payments across the Nordics. Interoperability between Nordic wallets is something Vipps has been working together with other Nordic wallets to support.

" We have not really been focusing that much on in-store payments until recent days. "

"We have not really been focusing that much on in-store payments until recent days. The value proposition of contactless cards using NFC is strong. So, our focus has been to simplify payments where we can create the most value. That is why we have prioritized P2P-payments and payments to smaller vendors, like food trucks and non-governmental organizations.

With in-store mobile payments we are looking into is developing 'value added services' to have a great value proposition".

In addition Mr. Garborg mention, that their newly announced partnership with Alipay, will strengthen in-store payments. Initially the deal will offer Alipay users in-store payments in Norway, supporting Alipay's dream of a world where mobile payment replaces cash payment. "Vipps will enabling Chinese visitors to pay with their preferred payment mechanism 'Alipay' in selected Norwegian stores", he says.

According to Statistics Norway, the Chinese tourism in Norway has grown significantly in the last years. In 2017 the Chinese accounted for over 475 000 guest nights while accounting for over 390 000 guest nights in 2016. So the partnership with the international payment giant has received significant media interest in Norway.

We asked what is in the partnership for Vipps besides clearing and settlement. "The partnership will open up for our users to use Vipps abroad as well" - he says. "To cater for that – we will implement the same QR-standard."

Vipps recently hired Berit Svendsen as head of their international expansion. Svendsen is one of the most experienced tech leaders in Norway, having been the head of Telenor in the Nordics up until recently.

Therefore, we had to ask about Vipps plans for an international expansion. "I understand why you are asking that question, getting Berit onboard is a strong signal. That said, all our three brands Vipps, BankID and BankAxept, constantly get requests from various international organizations.

"With Berit in place, we can act more preciously on the request, and we can bring our ambition to be an advocate for, and a provider of, consumer friendly payments abroad".

" Although I firmly believe our success is built around making peer-to-peer payment effortless, we need to continue to innovate. There is still a lot of different payments where increased simplicity will give consumers great value. "

We asked Garborg about his thoughts on where Vipps will be positioned in 2020. "Although I firmly believe our success is built around making peer-to-peer payment effortless, we need to continue to innovate. There is still a lot of different payments where increased simplicity will give consumers great value".

"In 2025, Vipps will have disrupted even more business models based on our main ambition: making the life of our customers easier", Garborg says.

Focusing on further growth

You might think MobilePay and their CEO Mark Wraa-Hansen would stop up for a minute, relax and enjoy the recent success of reaching 4 million users in Denmark, entering new strategic partnership with leading local retailers like Coop Denmark and K-Group in Finland, and the successful launch of MobilePay Box the last few weeks. You could not be more wrong. After 5 years of MobilePay, Mark seem keener than ever to improve the way we pay.

Mr. Wraa-Hansen, how would you define a mobile wallet? "I do not think you can create one universal definition. For us, the mobile wallet is an ever-changing offering, based on consumers' expectations and demands for great payment experiences. It has already grown from supporting payment scenarios to supporting purchasing scenarios." Asked if that meant working closely with customers in developing MobilePay, Wraa-Hansen confirms: "We work closely with consumers and merchants to adapt our solution to their expectations."

Wraa-Hansen believes the Nordic success comes down to a few key factors. Firstly, the digital maturity of the population and of the infrastructure is high. He points out that the widespread use of electronic ID and the access to a high-quality national registry not only improves the quality of digital services, it provides building blocks to develop services. Secondly, the Nordic trust culture. High trust in financial institutions has been important. Banks have been behind the three most successful Nordic solutions.

Asked about the success of MobilePay in Denmark, he relates it to a 'winner takes it all' market condition where MobilePay had a first mover advantage by using already existing infrastructure. "First mover advantage was not enough by itself. The Danish market consolidated itself into two competing solutions where hyper-competition drove the need for innovation and constant focus on perfecting the solution," he says. He also believes firmly that creating MobilePay as a separate product with its own value proposition, instead of using it as a built in module in the banks' online banking applications, was the right choice.

MobilePay has for a long time expected competition from Google, Apple, Facebook, Amazon and Samsung. Wraa-Hansen's overall view is that competition is good. They have not seen that the new entrance is having a significant impact on any of their numbers yet, but he is clear: "The worst thing we can do is resting on our laurels. In MobilePay, we use these global players as motivation to up our own game".

> *" As long as we are focusing on improving the customers' experience, PSD2 can be a vehicle to let us improve the value of mobile wallet"*

As for the new payment directive (PDS2), he sees it as a great opportunity: "As long as we are focusing on improving the customers' experience, PSD2 can be a vehicle to let us improve the value of mobile wallet". He also sees the Nordic banks' new payment infrastructure initiative ('P27') as something good for both the banks themselves, and for the mobile wallets. "It shows us how the banks are thinking. Improved and standardized Nordic infrastructure will make

it easier to create network effects, and increase the gains for individual users and merchants," he says.

When it comes to the future of mobile payment, Wraa-Hansen says that the mobile phone will continue to be essential. "For sure, we will certainly pay with face, eyes, fingers… Only the imagination can limit the ways we pay. Even if we are not paying with the mobile itself, the mobile wallet will, however, have a position in the ecosystem. The role might change, but will not perish, as the users will have to enroll somewhere." Whether it is named mobile payments in the future or not, MobilePay seems to focus on containing and expanding its existing position. How? Wraa-Hansen tells us in a forward-looking matter: "Keeping up the good work. Be aware of changing consumer preferences and consumer behavior. Keep our high level of investments in new concepts and solutions. Keep building on our already skilled staff and organization through our dedicated teams. Launch solutions our customers will love."

Regarding any new exciting launches in 2019, he confirms that they have a portfolio of concepts that are at various steps in their product roadmap, but that it obviously will be a trade secret. He is more than willing to talk about the recent launch of MobilePay Box. A joint 'private collections' function, that allows a group of people co-fund gifts to friends and colleagues, as well as joint travel wallets. "In a few weeks, above 30 000 MobilePay boxes have been established. That beats our own expectations in the speed of adoption."

Talking about Finland, why they are lagging behind the other Nordic countries in mobile payment, and how MobilePay is doing in there, Wraa-Hansen is very optimistic. "During the last six months, we have had strong growth. We finally feel that we now are the leading mobile wallet in Finland. It has taken us time to get here. We understand better how our solutions can meet the needs of the local Finnish market. Peer-to-peer payment by itself does not seem to provide enough value for our Finnish consumers. That is why we have actively teamed up with great partners like S Group, K-Group and other leading retailers are in the pipeline. We learned that to succeed in Finland, we need to provide a value proposition focused on the needs and expectations of our Finnish users, catering to factors like the strong concept of loyalty in Finland." To strengthen the progress in Finland even further, MobilePay is planning to launch some of the most successful modules and solutions from the Danish product portfolio in 2019.

> *" During the last six months, we have had strong growth. We finally feel that we now are the leading mobile wallet in Finland. It has taken us time to get here. "*

Wraa-Hansen think we will see stronger in-store mobile payment performance in the Nordics in the coming years. "It takes time to change habits. Cards are a neat payment experience, but not a neat shopping experience. Mobile wallets and retailers have to co-create a consumer shopping experience that is unique." The restructuring of the executive level in MobilePay with a new separate CEO for MobilePay in Denmark is related to stronger international focus. "We have a lot of great ideas for our Danish market that need to be tested, developed and implemented in Denmark. That will need the focus of a dedicated CEO. The same goes for Finland. In addition, the same goes for MobilePay as a group. The new structure will better facilitate us going after new opportunities, wherever they may be." Asked about any focus on new countries, he confirms the changes also will give the MobilePay group increased capabilities to follow up on dialogue in new geographies, dialogue with new international partners, and maximum attention to new propositions.

Wraa-Hansen is very clear that forcing the consumers into digital-only payments is a bad idea. Cashless societies should arrive by choice, not by force. "Our mobile wallet is a great product, and the users should select it by choice. Our success is built on offering a great alternative for the consumers. The consumers' expectations, needs and pains need to be the driver of the way we pay. It is more important for us to offer great solutions for groups that have a high preference of cash, like the elderly generations or visually impaired, to give them more payment opportunities with our products, than catering for a cashless society. In that way we reduce the digital gap between generations and user groups."

Talking about data privacy, Wraa-Hansen mentions that it is nothing new in the financial industry. "Banks are well positioned to protect data and are conservative in how they treat the data. Data is an enabler for creating new costumer solutions, where data is not sold as a commercial product to third parties. In general banks strongly agree that the consumers need to be in control of their own data and decide how they choose to share it."

The smartphone shopper

The 'digital shopper' is clearly in the driver's seat when it comes to the digital purchasing processes, and both technology and connectivity have empowered the consumers. Browsing websites and reading online reviews is becoming more common, and consumer preferences are slightly tilted towards products rather than services when it comes to purchasing online.

Digital shoppers conduct 'in store' purchases differently than a decade ago as well. A study by Deloitte Digital from 2015 show that a vast amount of customers interact with brands or products digitally before arriving at the physical store[18]. They research online, read about their options, decide on what product they wish to buy and where to buy it. This new way of shopping is further driven by aggregators/price comparison tools, such as Google Shopping, Kelkoo and local websites like the Danish Pricerunner.dk, that list the merchants listed prices making them transparent. The 'customer experience' retailers provide is transparent as well, through services like Twitter, Facebook and Google Review. When customers are upset, other potential customers will find out about it.

That we are transitioning towards becoming digital shoppers does not necessarily mean that we use our mobiles. Currently, the laptop is preferred over mobile for online shopping, but approximately 1/3 prefer to use either a mobile or tablet for online purchases. In addition, historical data suggest a trend where the usage of mobile phones for purchasing products or services is increasing. To answer this growth in the popularity of using mobiles for online shopping, it is crucial that retailers are able to provide a customer experience optimized for mobiles as well as computers.

In 2025, we predict that the smartphone has surpassed the laptop as our preferred device for online shopping.

A smartphone takeover in online shopping?

Online shopping – the mobile is making an impact

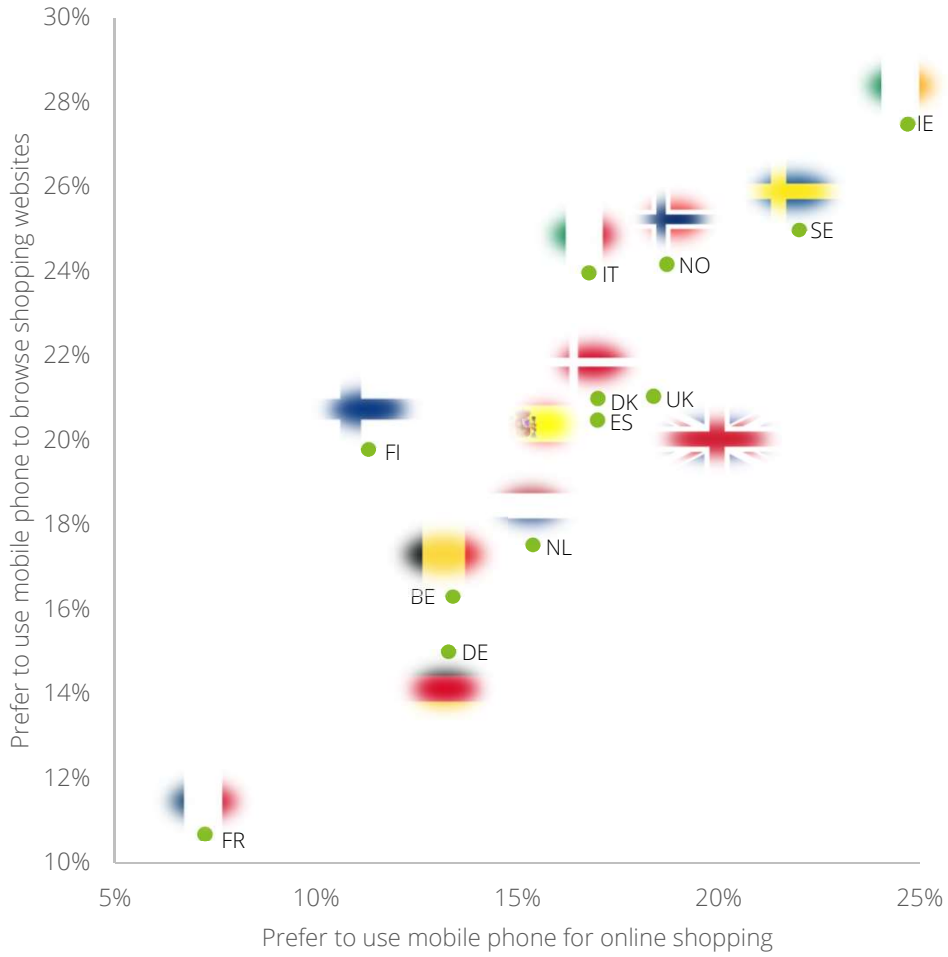
We are in an era where you can buy practically everything online, which further drives the need for transformation in retail. Not only has the traditional physical value chain been hit by digital disruption. Smartphones is starting to make an impact into online shopping, forcing retailers to customize their digital offerings towards various digital channels.

So are we seeing a mobile takeover? The smartphone is clearly making an impact, and the Nordics are actually not leading the way in solitude. Within our peer group of countries, the highest adoption is observed in Ireland where 28 % prefer to use the mobile phone to browse shopping websites and 25 % prefer to use the mobile phone for online shopping.

Sweden is coming in at second place in our peer group and is the leader in the Nordics. 25 % prefer to use their phone for browsing shopping websites, while 22 % prefer to use their phone for online shopping. Norway and Denmark are both in a decent position, where 25 % and 21 %, respectively, prefer to user their phone for browsing shopping websites, while 19 % and 17 % prefer to use mobile phone for online shopping.

Finland is lagging behind the rest of the Nordics when it comes to using the mobile phone for online shopping; 20 % prefer to use the mobile phone to browse shopping websites, while just 11 % prefer to use mobile phone for online shopping. Only France, which lags behind the entire peer group along both dimensions, scores worse for online shopping.

Figure 26. Mobile phones position in online shopping (2018)
Base: All adults from 18 to 75 years



Source: Deloitte GMCS 2018, Eurostat, Deloitte Analysis

Smartphones are becoming the new shopping assistant

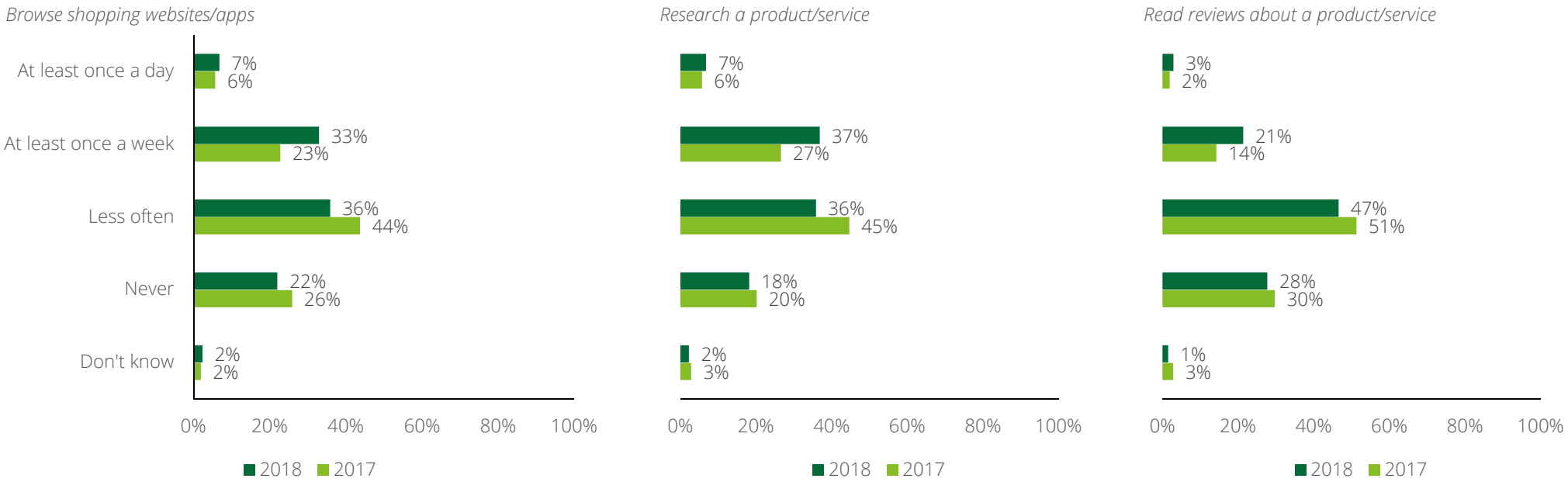
We browse and research products more with our phones

Tools to identify the cheapest price and explore the attributes of products and services are available in all the Nordic countries. Pricerunner.dk (Denmark), prisjakt.no (Norway) and prisjakt.nu (Sweden) are all examples of country specific websites allowing the consumer to compare price and product features offered by different suppliers. Alternatively, consumers can utilize global services such as Google Shopping or Amazon to view and compare products.

According to the results in this survey, digital research and window shopping appears to be gaining ground in the Nordics. Based on figure 27 we observe an increased share of people spending time browsing shopping websites and conducting online research of products and services with their mobiles. Both of these categories experience an increase by 10 percentage points from 2017 to 2018. However, the reduction in the share of consumers who have never browsed or researched a product or service online from 2017 to 2018 is respectively only 4- and 2 percentage points.

These findings indicate that for those consumers who have overcome the initial barrier of adoption, the frequency of usage is increasing. For them the smartphone is becoming a new trusted shopping assistant, but there are still those who are reluctant to change their habits.

Figure 27. Online browsing, research and window shopping with mobile phone (Nordics) (2017-2018)
Base: All adults from 18 to 75 years of age who have a standard mobile phone or smartphone



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Laptops are still the preferred device for online purchases

Mobiles are yet to become our most preferred device

The online shopping market in the Nordic countries is heavily fragmented, with a few large companies alongside smaller and specialized incumbents. The penetration of online retail shopping (in terms of potential users) is quite high, which is an indication of saturation of adoption. Although the number of consumers engaging in online shopping is not expected to increase considerably due to high adoption, there is according to MarketLine studies[19], still an expectation of further growth in the frequency and volume of purchases.

As depicted on the previous slide, mobiles are gaining ground as a shopping assistant. However, that does not necessarily mean that we conduct purchases with the instrument. Our survey shows that the preferences are tilted towards laptops for online purchases.

Figure 28. Preferred device for online purchases (Nordics) (2018).
Base: All adults from 18 to 75 years of age who have a standard mobile phone or smartphone

Following laptops, the preferences are split fairly even between mobile phones, desktop computers and tablets (see figure 28). If we deep dive into demographics, females have a higher preference for mobile phone (25 %) than males (13 %). The mobile phone is most popular in the age group between 25-34 years (33 %) and least popular in the age group 65-75 (6 %).

The results indicate that as of now, product and service suppliers still need to prioritize providing appealing websites for computers. However, roughly 1/3 of the consumers prefer using mobile or tablets, a share we expect to increase in the future. Therefore, it will be decisive for suppliers to optimize the online customer experience for both computer and mobile if they wish to avoid facing lower sales.

19 %

Prefer **mobile phone** for online purchases

42 %

Prefer **laptop** for online purchases

20 %

Prefer **desktop computer** for online purchases

12 %

Prefer **tablet** for online purchases

Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Mobile phones' popularity for online purchases is growing

The smartphone is getting traction as a device for online purchases

So laptops are the preferred instrument for online purchases as of now. However, we can expect this to change in the future. In figure 29 and figure 30, we depict the change in online purchase of products and services with mobiles from 2017 to 2018. Unsurprisingly, the results showcase an increase in the usage of mobile phones for consumers when purchasing online. Moreover, the results showcase the preference for online shopping with mobile phone is tilted towards products rather than services for Nordic consumers. The difference between products and services does not have to be due to mobile preferences per se, but due to differences in consumers' preference for shopping products and services online across all instruments. In 2018, 50 % of the consumers report having bought a product online on their mobile at least once, compared to 36 % for services. The frequency of purchases is relatively low, with only 8 and 3 % of the consumers buying products and services at least weekly.

Figure 31 to figure 34 illustrates the online purchase of products and services broken down by country. For all Nordic countries we observe a growth from 2017 to 2018 in the share of people having bought products and services online. 57 % of the Swedish consumers have performed at least one online purchase of a product in 2018 with a smartphone, the highest share in the Nordics. In comparison, Norway has the highest share of individuals that have performed an online purchase of a service.

According to data gathered in this survey, Finland seems to be the country where online purchase of products are made least frequently (see figure 32), where 56 % of the consumers report to have never bought a product online in 2018. Denmark, on the other hand, has the largest share of consumers reporting to have never bought a service online (see figure 34).

Figure 29. Purchase a product online with mobile phone (Nordics) (2017-2018).
Base: All adults from 18 to 75 years

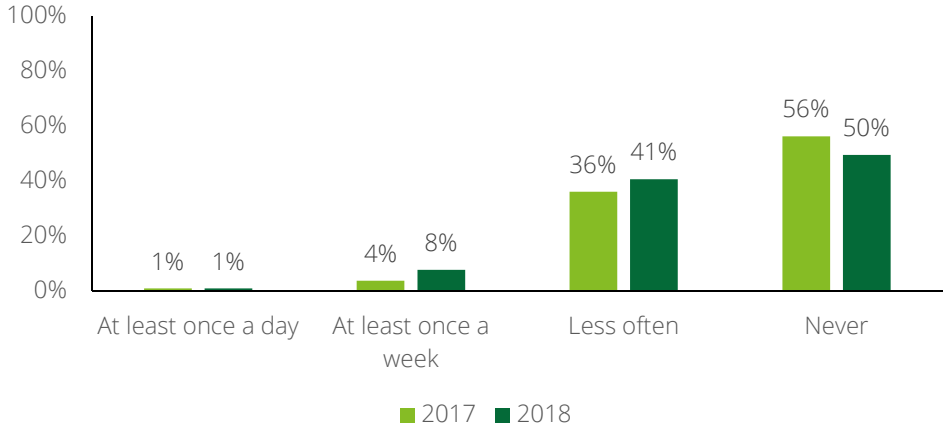
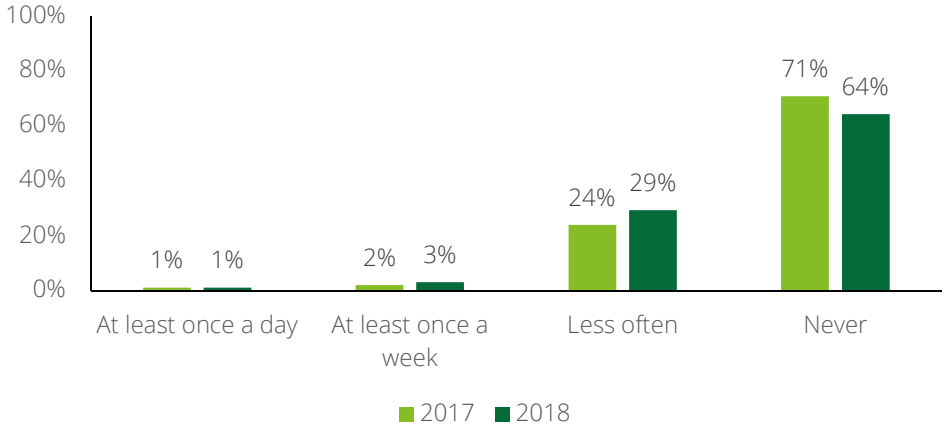


Figure 30. Purchase a service online with mobile phone (Nordics) (2017-2018).
Base: All adults from 18 to 75 years



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Figure 31. Purchase a product online with mobile phone (By Country) (2017).
Base: All adults from 18 to 75 years of age

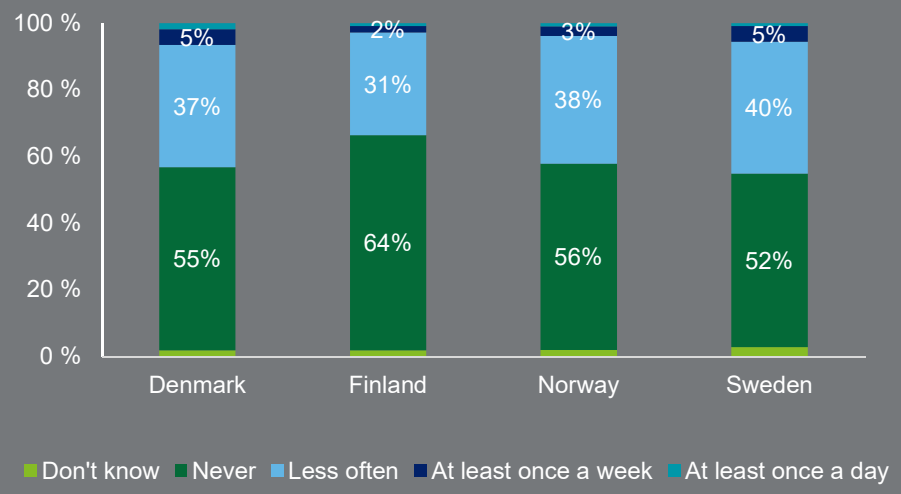


Figure 32. Purchase a product online with mobile phone (By Country) (2018).
Base: All adults from 18 to 75 years of age

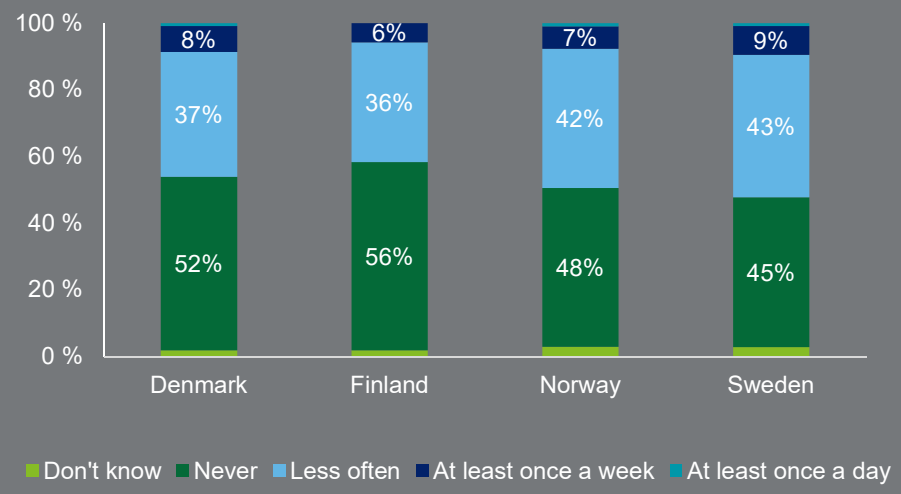


Figure 33. Purchase a service online with mobile phone (By Country) (2017).
Base: All adults from 18 to 75 years of age

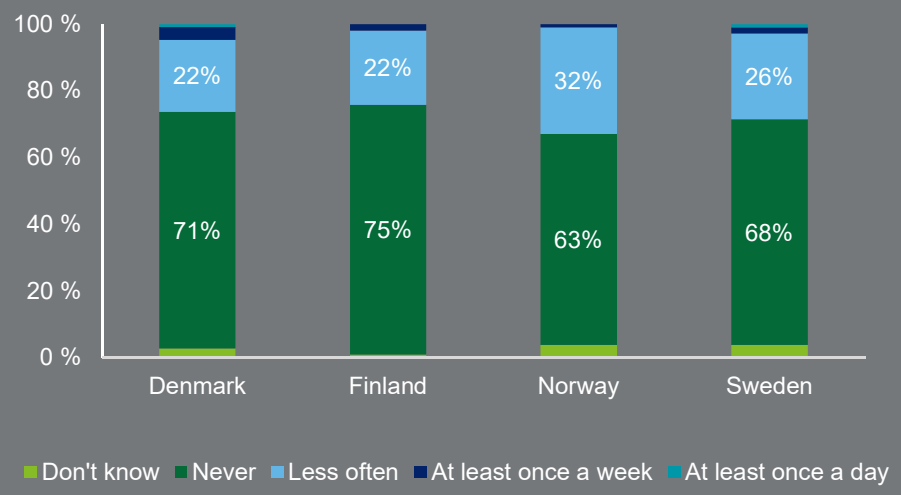
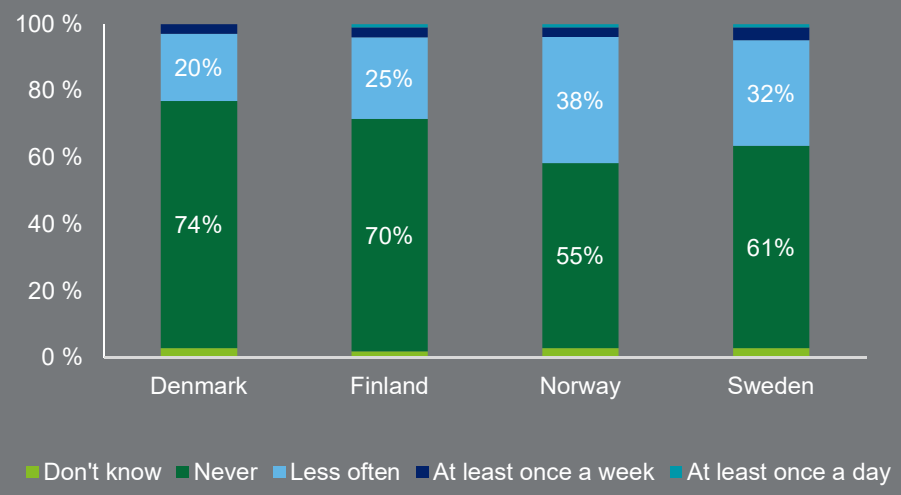


Figure 34. Purchase a service online with mobile phone (By Country) (2018).
Base: All adults from 18 to 75 years of age



Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Mobile shopping of lifestyle items have highest adoption

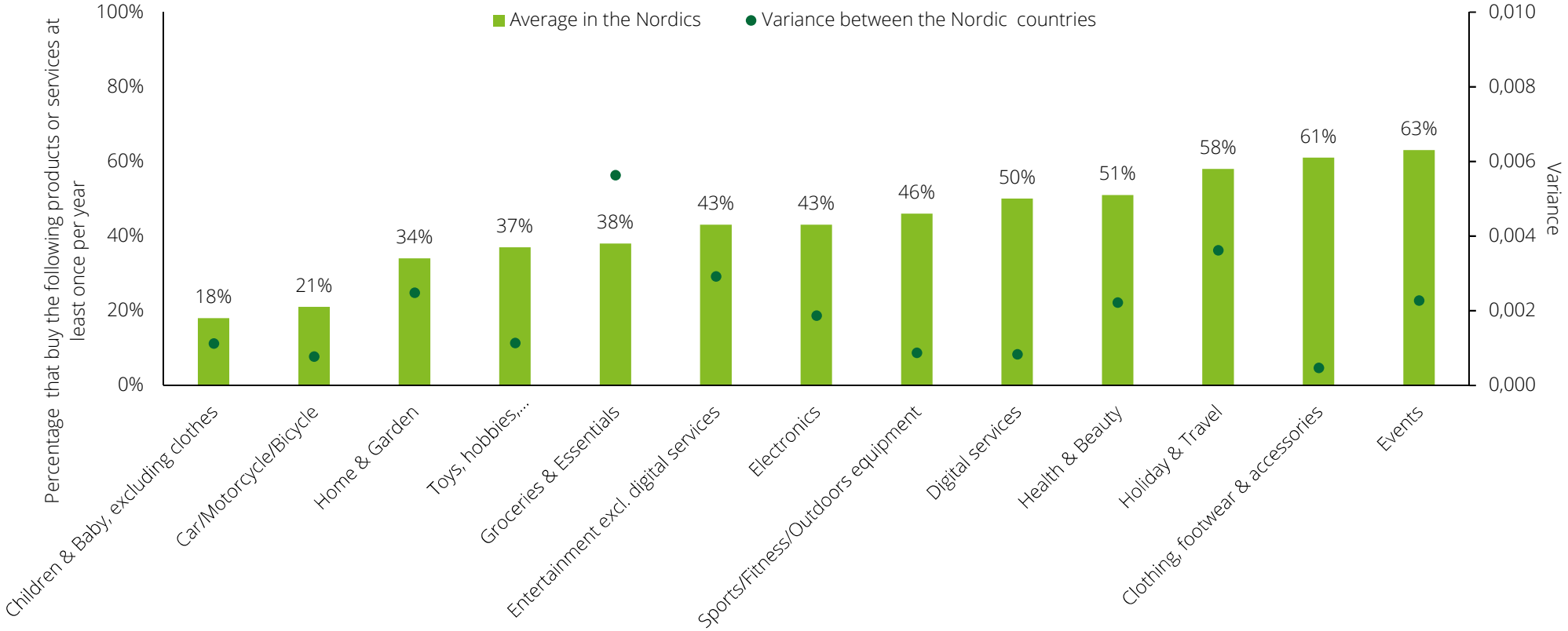
Mobile shopping adoption differs highly amongst product and service groups

In figure 36 we see what type of products and services the consumers in the age group 18-75, who have used their smartphone to purchase a product or service, have bought. *Events*, *Clothing, Footwear & Accessories* and *Holiday & Travel* are the most popular type of products or services to purchase, while *Children & Baby, excluding clothes* are the least popular.

Also depicted in figure 36, the adoption of smartphone purchases varies across the four Nordic countries according to product and service group. Where the variance is small in for example the *Clothing, footwear & accessories* and *Digital Services* categories, the variance is significantly higher in the *Groceries & Essentials*. Over time, the variance in the Nordic countries is likely to be low, but to gain more insight into the variance we will zoom in on a few selected categories (see figure 36) on the following page.

Figure 35. Selected product or services purchased at least once per year through your smartphone (Nordics) (2018)

Base: All adults from 18 to 75 years of age who have used their smartphone to purchase a product or service



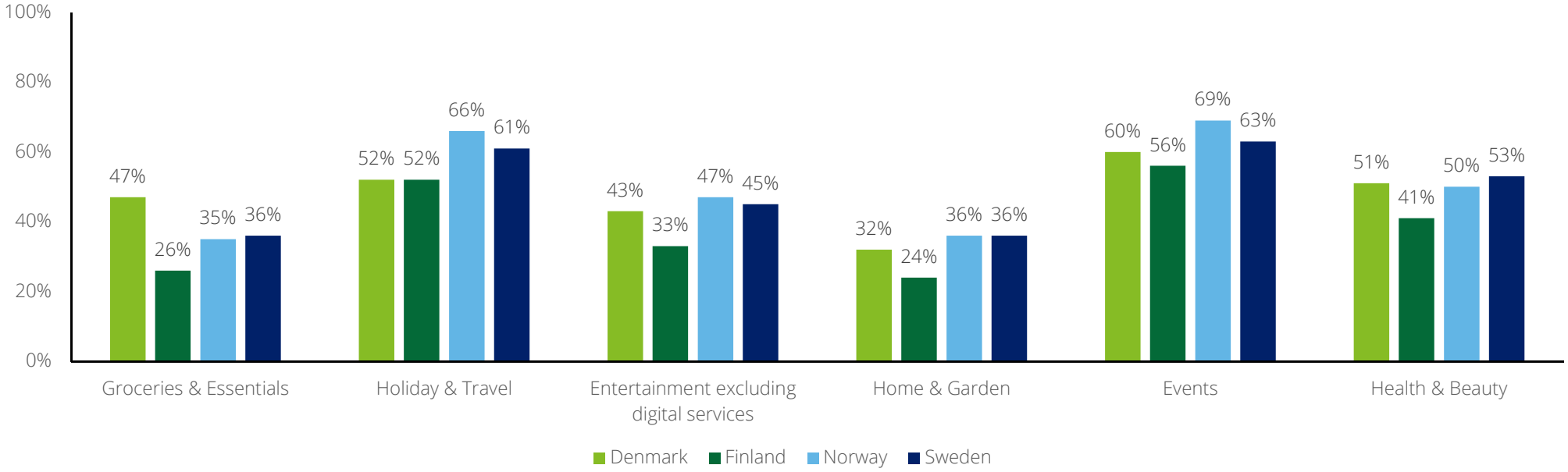
Source: Deloitte GMCS 2018, Deloitte Analysis

In Denmark, 47 % of the consumers who have purchased goods or services through their smartphone, have purchased *Groceries & Essential* at least once a year. This is more than 10 percentage points higher compared to Norway and Sweden and 20 percentage points higher than Finland. The results indicate that consumers are benefitting from the digitalization undertaken by the grocery market in Denmark. One example is the early launch of MobilePay's functionality for in-store payments in Denmark. Another example is Coop Denmark (one of the largest retail companies of consumer goods in Denmark) allowing their customers to pay groceries in-store through Coop's own mobile app[20].

In Norway, 66 % of the consumers who have purchased goods or services through their smartphone, have purchased products and services related to Holiday & Travel through their mobile phones. This is 5 percentage points higher than Sweden, and 14 percentage points higher than Denmark and Finland. Norway is also in the lead for Events where they are 6 percentage point ahead of Sweden and 13 percentage point ahead of Finland.

Overall, besides *Groceries & Essentials*, it seems like Norway and Sweden are in the forefront when it comes to purchasing products or services on smartphones. Finland on the other hand, is lagging behind its Nordic peers. *Home and Garden* is the category where they are closest to the frontrunners, but the gap is still at 12 percentage points. These observations are very much aligned with what we have seen throughout this report.

Figure 36. Product or services categories with the highest variance, purchased at least once per year through your smartphone (By Country) (2018).
Base: All adults from 18 to 75 years of age who have used their smartphone to purchase a product or service



Source: Deloitte GMCS 2018, Deloitte Analysis

Cards are still the preferred payment choice online

Figure 37. Method of payment for online purchase of products or services with a smartphone (Nordics) (2018).

Base: All adults from 18 to 75 years of age who have used their phone to purchase a product or service

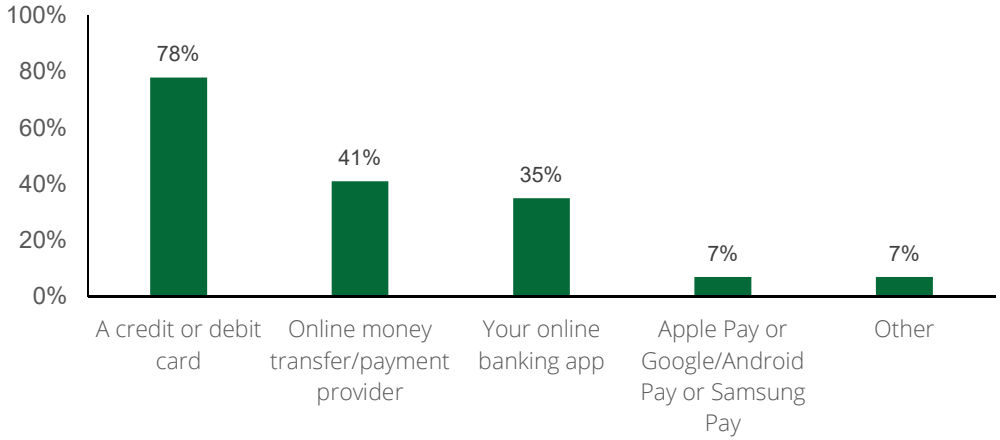
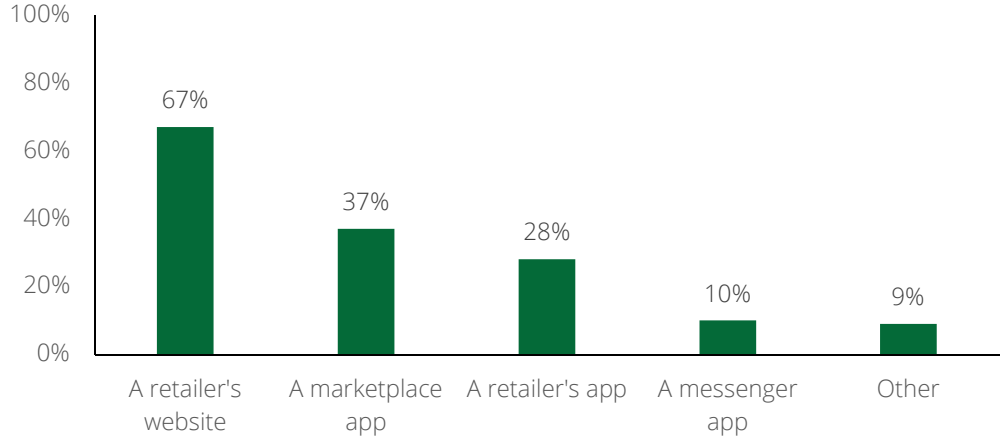


Figure 38. Choice of marketplace when buying products or services with a smartphone (Nordics) (2018).

Base: All adults from 18 to 75 years of age who have used their phone to purchase a product or service



Widespread use of cards, while retailer's own website is the preferred marketplace

Historically, the consumer application of debit and credit cards has been popular because they are widely accepted and allows you to pay upfront for purchases. In the Nordic countries (illustrated in figure 37) paying with a credit or debit card is still the most common method of payment for online shopping. Moreover, 78 % of the consumers report that they normally use a credit or debit card when making online purchases of products or services with a smartphone.

The market penetration for payment services offered by technology or handset companies such as Apple, Android and Samsung Pay is still relatively low, with 7 % of the consumers utilizing these solutions. Of the available online marketplaces (see figure 38), consumers seem to prefer retail websites over marketplace and retail apps. 67 % report that they normally use a retailer's website for online payments of products or services.

As the global mobile payment market matures, the Nordic adoption of FinTech innovations will depend on the degree of consumer acceptance of new technology and digital literacy. One could expect the share of consumers preferring credit or debit cards to decrease as the increasing popularity of mobile devices is increasing the adoption of mobile payments.

However, the perceived risk among consumers related to identity theft and access of financial information by third-party service providers might increase in line with mobile payment adoption. This is not a new issue, and such security concerns were identified in an analysis by Allied Market Research in 2016[21]. Such security concerns could act as a slow down to further growth of mobile payments in the Nordic market.

Source: Deloitte GMCS 2018, Deloitte Analysis

The generation gap

The Nordic mobile payment market is, just as the global market, driven by rapid technological changes, frequent changes in customer preferences and increasing competition among the suppliers of payment solutions. The Nordic region is witnessing steady growth in mobile payments, along with the rise in adoption of smartphones. However, the mobile payment industry faces the challenge of the older generation not adopting and embracing the digital development at the same pace as the younger generation, creating a generation gap. And a growing generation gap can potentially hinder the suppliers of payment services from utilizing the full market potential.

Our survey reveals that a generation gap is present in all Nordic countries across several aspects of mobile banking and payments. That is, the younger generations in the Nordic countries are to a larger extent utilizing the services offered by financial institutions and mobile operators. They manage their personal finance with a smartphone and more frequently execute domestic mobile transactions. Banks and other payment solution providers clearly have some road to travel, and a key question is whether they manage to bring the technology to a convenience level bridging the gap between the younger and older generations.

In 2025, we predict that the gap will be significantly lower both between generations in adoption and in usage of mobile payments.

Increased generation gap in usage, reduced in adoption

Still a wide difference in weekly usage, but the gap in adoption is closing

We analyze the generation gap by calculating the differences between the responses reported by consumers in age group 18-34 and 35-75 for activities performed with a mobile phone either weekly or at least once. The results are presented in figures 39 and 40.

A positive generation gap (which is true for all cases in figures 39 and 40), indicates more frequent use of e.g. domestic mobile money transfer among people in the age group 18-34 compared to people in the age group 35-75. The size of the generation gap depends on the share of consumers in both age group 18-34 and 35-75 reporting to perform the activities listed in figure 39 and 40 weekly or at least once.

The change in the generation gap, marked either by a red (reduction) or black (increase) arrow, indicates whether the difference in responses between the age groups has changed from 2017 to 2018. An increased (decreased) generation gap either indicates higher (lower) adoption among the young generation (18-34) or/and a decrease (increase) in the adoption among the older generation (35-75).

As illustrated in figures 39 and 40, the generation gap is in general higher when considering mobile phone activities performed at least once compared to those performed weekly. The results indicate a higher barrier for engaging in mobile phone activities for consumers between 35 and 75 years of age.

For peer-to-peer payments, the generation gap is highest for domestic mobile money transfers performed weekly (see figure 39). The share of consumers in the age group 18-34 executing domestic mobile money transactions weekly is 18 percentage points higher than for consumers in the age group 35-75, an increase of 5 percentage points from 2017 to 2018. The generation gap for consumers who have performed a domestic mobile money transfer at least once (see figure 40) is decreasing, indicating a larger share of the older generation transferring money domestically to another individual.

"It is more important for us to offer great solutions for groups that have a high preference of cash, like the elderly generations or seeing impaired, to give them more payment opportunities with our products than catering for a cashless society. In that way we reduce the digital gap between generations and user groups"

- Mark Wraa-Hansen, CEO of MobilePay

Considering non-transactional activities performed with a mobile phone (excluding checking bank account balance), the generation gap appears to be decreasing for consumers who have browsed a shopping website or app, researched a product or service or read a review regarding a product or service at least once. The share of young consumers who had read reviews of products or services with a smartphone was 16 % higher compared to older consumers, a decrease of 4 percentage points from 2017 to 2018.

Finally, the overall trend is that the generation gap is decreasing when it comes to adoption (consumers who have done an activity at least once), while it is increasing when it comes to usage (consumer who do the activity at least weekly).

Figure 39. Generation gap in percentage points for the age groups 18-34 and 35-75 across multiple mobile phone activities performed weekly (Nordics) (2017 - 2018).
The generation gap is calculated as a non weighted average between the responses reported in age group 18-34 and 35-74 for activities performed with a mobile phone weekly. A positive generation gap indicates more frequent use of e.g. domestic mobile money transfer among people in the age group 18-34 compared to people in the age group 35-75.

Base: All adults from 18 to 75 years of age who have a phone or smartphone

Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Figure 40. Generation gap for the age groups 18-34 and 35-75 across multiple mobile phone activities performed at least one time (Nordics) (2017 - 2018).
The generation gap is calculated as the difference between the responses reported in age group 18-34 and 35-74 for activities performed with a mobile phone at least once. A positive generation gap indicates more frequent use of e.g. domestic mobile money transfer among people in the age group 18-34 compared to people in the age group 35-75.
Base: All adults from 18 to 75 years of age who have a phone or smartphone

Source: Deloitte GMCS 2017, Deloitte GMCS 2018, Deloitte Analysis

Appendix

Methodology 42

Endnotes 43

List of figures 45

Contacts 46

Relevant thoughtware 47

Methodology

This report is based on primary and secondary research.

The primary data is based on expert interviews and the Nordic data cut of Deloitte's Global Mobile Consumer Survey, a multi-country study of mobile phone users around the world. The 2018 study comprises 54 150 respondents across 35 countries and six continents, where of 5 010 respondents are based in the Nordics. Data cited in this report are based on a nationally representative sample of consumers aged 18-75 in Denmark, Finland, Norway and Sweden. The sample follows a country specific quota on age, gender, region and socio-economic status. Fieldwork took place during July and August 2018 and was carried out online by Ipsos MORI, an independent research firm, based on a question set provided by Deloitte.

The secondary data is primarily used for the "The cashless society"-chapter. This data contains public date sources from The European Central bank (ECB), Eurostat, The Danish central bank ('Nationalbanken'), the Finnish central bank ('Suomen Pankki'), the Norwegian central bank ('Norges Bank') and the Swedish central bank ('Riksbanken'). The secondary data is also based on previous research conducted by Deloitte as well as other sources listed with notes.

Calculation of per capita ratios is done with the use of population data from Eurostat. Population is calculated as the average population per year calculated (Example: Population for 2017 is based on the average of citizens per 1.1.2017 and citizens per 1.1.2018). In figure 5, the number of cash withdrawals for Finland for 2017 is based on an estimate based on the total value of ATM withdrawals in Finland, with an trend adjusted estimate of average value of ATM withdrawals. The number should be seen as highly indicative only. In figure 9, the number of direct debit transfers in Denmark is based 2014 numbers with an annual growth of 1,25 % . The growth rate is estimated based on average the annual reports of Nets per 2015, 2016 and 2017, estimates on Nordic electronic payment growth shared by Nets in investors presentation for Q4-16 and taking into account the already high penetration of direct debit transfers in Denmark. The number should be seen as highly indicative only.

Endnotes

1. Bangkok Post: “GH Bank targets digital service overhaul”: www.bangkokpost.com/business/news/1512458/gh-bank-targets-digital-service-overhaul
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Figures

1. Cash withdrawals and cashless transaction per capita (2017).
2. Cash as share of total money supply (M1) (2012 – 2017)
3. Yearly decrease in cash as share of total money supply (M1) (2013 – 2017)
4. Value of banknotes and coins in circulation per year (2015 – 2017)
5. Cash withdrawals at ATM per capita per year (2015-2017)
6. Number of cards with payment function issued by resident PSPs per capita (2015-2017)
7. Number of card payments transactions per capita (2015-2017).
8. Credit transfers transactions per capita (2015-2017)
9. Direct debit transactions transfers per capita (2017-2017)
10. Mobile in-store and domestic P2P-payments (2018)
11. Weekly transfer money to another individual in your country with mobile phone (2018).
12. Transfer money to another individual in your country with mobile phone (Nordics) (2017-2018).
13. Transfer money to another individual located in a different country with mobile phone (Nordics) (2017-2018).
14. Weekly or more frequent transfer of money to another individual in your country with mobile phone (By Country) (2017-2018).
15. Never transferred money to another individual in your country with mobile phone (By Country) (2017-2018)
16. Weekly or more frequent transfer of money to another individual located in a different country with mobile phone (By Country) (2017-2018)
17. Never transferred money to another individual located in a different country with mobile phone (By Country) (2017-2018)
18. Pay for a product or service in-store with mobile phone (2017-2018)
19. Main reasons to not use phone to make in-store payments (2017-2018)
20. Pay for a product or service in-store with mobile phone (By Country) (2017)
21. Pay for a product or service in-store with mobile phone (By Country) (2018)
22. Check bank balance & manage my investments with mobile phone (2018)
23. Which of the following does your smartphone have? (2018)
24. How do you use biometrics to identify yourself on your mobile phone? (2018)
25. How do you use biometrics to identify yourself on your mobile phone (By Country) (2018)?
26. Mobile phones position in online shopping (2018)
27. Online browsing, research and window shopping with mobile phone (Nordics) (2017-2018)
28. Preferred device for online purchases (2018)
29. Purchase a product online with mobile phone (Nordics) (2017-2018)
30. Purchase a service online with mobile phone (Nordics) (2017-2018)
31. Purchase a product online with mobile phone (By Country) (2017).
32. Purchase a product online with mobile phone (By Country) (2018)
33. Purchase a service online with mobile phone (By Country) (2017)
34. Purchase a service online with mobile phone (By Country) (2018)
35. Selected product or services purchased at least once per year through your smartphone (2018)

36. Product or services categories with the highest variance, purchased at least once per year through your smartphone (By Country) (2018)
37. Method of payment for online purchase of products or services with a smartphone (Nordics) (2018)
38. Choice of marketplace when buying products or services with a smartphone (Nordics) (2018)
39. Generation gap for the age groups 18-34 and 35-75 across multiple mobile phone activities performed weekly (Nordics) (2017 and 2018)
40. Generation gap for the age groups 18-34 and 35-75 across multiple mobile phone activities performed at least one time (Nordics) (2017 and 2018)

Contacts

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- Mark Wraa-Hansen, CEO of MobilePay A/S

Deloitte experts interviewed

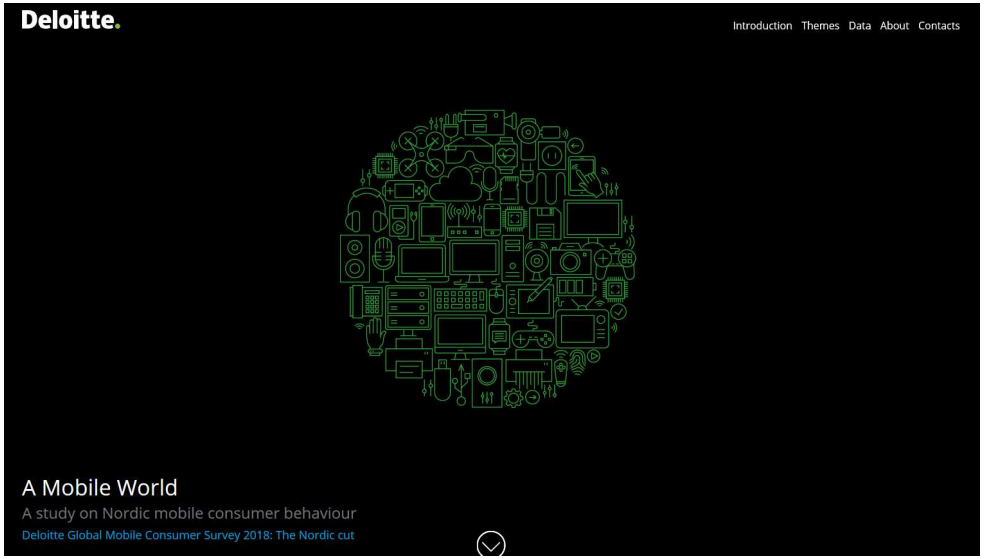
- Johanna Andersen, Deloitte Finland
- Klaus Koefoed, Deloitte Denmark
- Gerry Pelgrims, Deloitte Belgium
- Stephen Ley, Deloitte UK
- Jonas Vedung, Deloitte Sweden
- Jon Waalen, Deloitte Norway

Relevant thoughtware to better understand the Nordics

Global Mobile Consumer Survey 2018 – The Nordic cut

Global mobile consumer trends, provides insight into the mobile consumer behavior of 50 0000 respondents in five continents across more than 30 countries. As was the case in previous years, smartphones are becoming an ever-more indispensable part of people's lives.

With 92 percent of Nordic consumers having access to a smartphone, it is fair to say that smartphone penetration is complete. This report draws a picture of what a typical mobile user looks like, it examine when the mobile phone is used — and for what purposes.

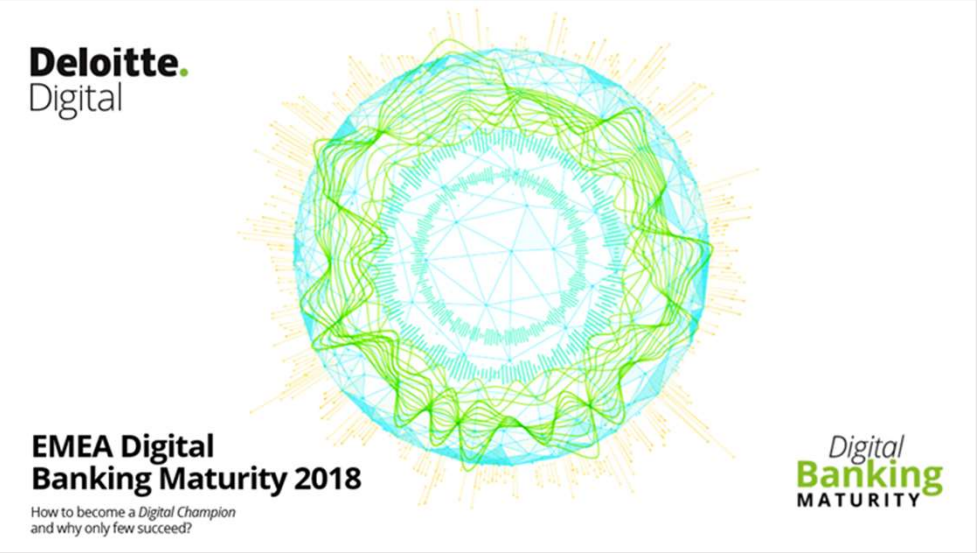


mobiletrends.deloitte.no

EMEA Digital Banking Maturity 2018

Many banks consider themselves to be leaders when it comes to digital but what is the reality? All banks have been forced to invest in digital capabilities but they have developed to a different degree. What has been lacking until now is objective data.

The Deloitte Digital Banking Maturity project, a joint effort of Deloitte member firms across EMEA, is a comprehensive and objective assessment of financial institutions' digital maturity in three critical areas. A functionality review was conducted of 248 financial institutions across 38 countries.



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