More than just a phone
A study on Nordic mobile consumer behaviour
Deloitte Global Mobile Consumer Survey: The Nordic Cut 2017
Welcome to the Nordic cut of the 2017 edition of Deloitte’s Global Mobile Consumer Survey. This year marks the first year of a joint Nordic report, and the data collection has expanded so that it now includes Denmark, Sweden, Norway and Finland, which ensures a more comprehensive view of the Nordic consumer and makes it possible to compare mobile behaviour across the Nordic countries.

The smartphone is a mere decade old and has every year become ever more integral to people’s lives. Over the next ten years, we are likely to witness the arrival of gigabit connectivity speeds, ever more processing power, clever applications empowered by artificial intelligence, a proliferation in transactional capabilities and further applications of augmented reality.

The smartphone’s growing capability and ubiquity strengthens its strategic importance to both the private and public sector. It will increasingly become regarded as the primary way to communicate and interact with customers and citizens. While 2017 is an exciting year for the smartphone, the best is yet to come.

Deloitte’s Global Mobile Consumer Survey provides a unique insight into the mobile behaviour of approximately 53,000 respondents across 33 countries globally; the part covering Sweden, Norway, Denmark and Finland includes around 5,000 respondents. We are proud to say that this makes the survey one of the largest publicly available information sources of its kind.

This report is a summary of our survey data and we hope that you find the insights useful. Please do not hesitate to reach out to any of us for further conversations based on the content or the full data sets.

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### The Nordic Mobile Consumer

<table>
<thead>
<tr>
<th>Category</th>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers with ready access to any connected device</td>
<td>Sweden</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>Norway</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>75%</td>
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<tr>
<td></td>
<td>Finland</td>
<td>67%</td>
</tr>
<tr>
<td>Consumers who look at their phone at least 50 times a day</td>
<td>Sweden</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Norway</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>16%</td>
</tr>
<tr>
<td>Consumers who think they use their phone too much</td>
<td>Sweden</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Norway</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>22%</td>
</tr>
</tbody>
</table>
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Percentage of consumers with iOS and Android operating systems

<table>
<thead>
<tr>
<th></th>
<th>Finland</th>
<th>Denmark</th>
<th>Norway</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>iOS</strong></td>
<td>12%</td>
<td>42%</td>
<td>42%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Android</strong></td>
<td>56%</td>
<td>42%</td>
<td>48%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Consumers who use their phone to pay for a product/service in-store at least once a day, week or month

<table>
<thead>
<tr>
<th></th>
<th>Finland</th>
<th>Denmark</th>
<th>Norway</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>26%</strong></td>
<td>6%</td>
<td>30%</td>
<td>10%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Consumer who use social networks on their mobile phone at least once a day

<table>
<thead>
<tr>
<th></th>
<th>Finland</th>
<th>Denmark</th>
<th>Norway</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>55%</strong></td>
<td>42%</td>
<td>47%</td>
<td>62%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). For the question related to access to connected devices, the base is all adults aged 18-75 years in Sweden (1867), Norway (977), Denmark (1097) and Finland (1067).
The connected consumer

A smartphone in every pocket
The impact of smartphones on consumers’ lives have never been greater. With the opportunity to be assisted whenever and wherever, consumers are becoming more efficient and productive in their daily lives.

Smartphone adoption in the Nordic countries is continuing to rise and reached 88% as of mid-2017. Norway had the highest adoption this year with 92% compared to 86% in Denmark and Finland. In Finland, 6% more consumers became owner of a smartphone since last year, which was the largest increase among the Nordic countries.

Figure 1. Smartphone, laptop, tablet and desktop penetration among Nordic adults
Question: which, if any, of the following connected devices do you personally own or have ready access to?

Base for 2017: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Base for 2016: all adults aged 18-75 years in Sweden (2007), Norway (1009) and Finland (1000). 2016 data for Denmark is not available.

Ownership among the older age groups has been steadily growing in recent years, and smartphone adoption for this age group is now almost as high as for younger age groups, which proves that smartphones are not just for millennials and digital natives. This year, smartphone penetration among the age groups 55-65 and 66-75 reached 84% and 79%, respectively, in the Nordics. The highest smartphone penetration was found among the 35-44 year olds of which 95% own or have access to a smartphone.

The smartphone has now established a lead as the most popular device within consumer electronics, with a 3-percentage point lead over the laptop and a 25-percentage point lead over the tablet. It is also clear that more and more consumers switch from using desktop computers to more mobile devices, especially for their daily tasks. The ownership of desktop computers has been steadily declining, and more than half of today’s consumers do not own or have access to a desktop computer. For irregular or non-daily tasks, the laptop is still the preferred device.

The popularity of the smartphone should lead to more content, content creation tools and functionalities being designed for it, which should lead to even more prolific use of the device. A growing number of everyday or common applications are likely to be optimised for smartphones – from paying for parking to finding the fastest way to the best lunch restaurant, booking a haircut or purchasing flight tickets. More work-related tasks such as logging working hours, submitting expenses and planning work will most likely also become more smartphone-optimised in the coming years.

As the set of optimised applications grow, the rationale and incentives for owning a smartphone should increase even further, and it may become even harder to live without one.
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Not a day without the smartphone
The smartphone is, by a fair distance, the most intensively used device among Nordic consumers, beating laptops by almost 30 percentage points in daily use.

The percentage of Nordic smartphone owners who use their smartphone on a daily basis is 96%. The daily use for laptops and tablets ranges much lower and is 67% and 57%, respectively, which shows that the smartphone is taking over more and more of the tasks that were previously carried out on a laptop or a tablet. As the most common and routine tasks can be handled on smartphones, laptops and other devices are likely to be used for more specialised, complex and irregular tasks.

There is also a clear correlation between a device’s frequency of use and the purchase intention.

Figure 2. Frequency of usage, by device
Question: when was the last time you used each device? Was it within the...?

<table>
<thead>
<tr>
<th>Device</th>
<th>Last day</th>
<th>Last week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone</td>
<td>96%</td>
<td>67%</td>
</tr>
<tr>
<td>Laptop computer</td>
<td>57%</td>
<td>59%</td>
</tr>
<tr>
<td>Large tablet: over 9 inches</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>Desktop computer</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Small tablet: between 7-9 inches</td>
<td>2%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Figure 3. Intent to purchase devices in the next 12 months, by those who use devices daily
Question: which of the following devices (new or pre-owned), if any, are you likely to buy or get in the next 12 months?
Thinking of when you last used each device – was it within the...?

Base: For “intent to purchase devices in the next 12 months”, all Nordic respondents aged 18-75 years (5009). For “proportion of respondents who use their devices daily”, all Nordic respondents aged 18-75 years and having access to a smartphone (4426), laptop computer (4238), large tablet over 9 inches (2494), desktop computer (2396), small tablet between 7-9 inches (1090), fitness band (860).
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In addition to adopting mobile devices more and more, the Nordic consumers are also increasing their use of social media platforms. From reminding you of your friends’ birthdays to live streaming, interacting with customer services, reading magazine articles, watching virtual reality videos or posting daily stories – today, only a few methods of communication cannot be handled through social media platforms, and the range of their functionalities is expected to increase even further.¹ Many social media platforms have successfully added e-commerce solutions in other parts of the world, and it is most likely only a matter of time until they also reach the Nordic consumers.²

Interestingly, there are some stark contrasts among the Nordic consumers as to how they use social media. In general, social media are most frequently used by the Norwegian consumers and the least by the Finnish consumers. However, in Finland, WhatsApp is vastly more used than in other Nordic countries with 57% of Finnish consumers using it daily compared to only 10% in the rest of the Nordics. Similarly, Snapchat is also considerably more popular in Norway. Among Norwegian consumers, 44% use it on a daily basis whereas only 14% of the Swedish, Danish and Finnish consumers use Snapchat daily.

57% of Finnish consumers use WhatsApp daily compared to 10% in other Nordic countries

44% of Norwegian consumers use Snapchat daily compared to 14% in other Nordic countries

Figure 4. Daily usage of social media platforms by app (last year in brackets)

Question: below is a list of apps that you may have on your phone. Please state how often you use any of these.

56% (53%)
Facebook

39% (29%)
Messenger

29% (26%)
Instagram

21% (19%)
Snapchat

20% (22%)
Whatsapp

Base for 2017: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Base for 2016: all adults aged 18-75 years who used IM, social networks or email in Sweden (1647), Norway (865) and Finland (778). 2016 data for Denmark is not available.

**Connected Devices - is there anything that we won't connect to the Internet?**

The Internet of Things (IoT) is a new way of creating, collecting and transmitting digital information about the tangible world, and it is set to disrupt the way people are living and working. Smart homes, products and cars are connected with the purpose of making our lives easier and more comfortable, and to create a world where everything is connected with the opportunity to constant measure, control and communicate. Consumers can interact with almost any home appliance via voice commands, gestures or by pressing a button. The market for IoT is rapidly growing, and the number of connected devices worldwide is forecast to reach 31 million in 2020. By 2025, this number is projected to triple and reach nearly 100 million.³

When it comes to Nordic consumers, adoption has increased for all connected devices since last year. The category that enjoyed the highest increase in adoption was connected entertainment devices. Connected home devices, on the other hand, remains to be quite niche.

### Question: which, if any, of the following connected devices do you own or have ready access to?

![Adoption of connected devices](image)

**Figure 5. Adoption of connected devices**

<table>
<thead>
<tr>
<th>Connected entertainment</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart TV</td>
<td>30%</td>
<td>29%</td>
</tr>
<tr>
<td>Games console</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>Wireless speaker / wireless soundbar</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>Video streaming device for the TV</td>
<td>17%</td>
<td>25%</td>
</tr>
<tr>
<td>Fitness band</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>Connected self</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart watch</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Connected car system</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Connected home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home camera or surveillance systems</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>Smart home appliances</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Smart lighting systems</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

All devices within the connected entertainment category grew with at least 8 percentage points year-on-year. Adoption of smart TVs grew from 30% to 45%, which means that almost half of all consumers in the Nordics now own a smart TV that can be used for on-demand media streaming, accessing apps, etc. This is to be expected, seeing as almost all new TVs on sale today are in fact smart TVs.

In addition, during the last year, more consumers have started to adopt fitness bands and connected car systems. Almost one in five Nordic consumers now owns a fitness band. Despite some regional variation, this may not come as a surprise, since the Nordic countries have some of the highest exercise rates per week in Europe.¹

Even though adoption is increasing in the connected home category, the demand for these products is still relatively weak. The most popular connected home device is the home surveillance system, which 11% of Nordic consumers own. However, no other connected home device is owned by more than 4% of consumers.

The main reasons why the connected home devices have not been adopted to a larger extent are that in many cases they were too expensive, too complicated to use or lacked compatibility with other connected devices.² This makes consumers wary of investing too much and too early in any connected home device. In many cases, the consumers may decide to postpone a purchase until more functionality and interoperability have been added.

Although there has been a platform war among several actors who are all competing to make their communication protocols become the standard for IoT devices, some product manufacturers are now making connected devices that can communicate with several standards at the same time. An example is the range of connected home products from IKEA.³ If the popularity of these product types start to grow, perhaps more manufacturers will also follow suit and make connected devices more useful to all consumers.

The main reasons why the connected home devices have not been adopted to a larger extent are that in many cases they were too expensive, too complicated to use or lacked compatibility with other connected devices
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**Entertainment leads connected devices’ way into Nordic homes**

The adoption of connected devices is generally consistent across the Nordic countries, but there are certain exceptions.

In general, the Norwegian consumers have the highest degree of adoption of all connected entertainment devices, whereas the Finnish consumers have the lowest degree of adoption. This is particularly noticeable with TV video streaming devices, which are owned by 32% of the Norwegian and 15% of the Finnish consumers, respectively.

Fitness bands have been widely adopted by a large portion of the Norwegian and Finnish consumers. 26% of the Norwegian consumers and 21% of the Finnish consumers owned a fitness band, up from 16% and 15%, respectively, in the previous year. The fitness bands are most popular among consumers in the age groups 25-44 in all Nordic countries.

Connected car systems have enjoyed a moderate adoption over the last year in Norway and Sweden. In Sweden, the connected car systems are particularly popular among those older than 45. A contributing factor is likely that these systems have become more advanced and received more attention by car manufacturers in recent years. For example, in addition to remote car location and emergency services, Volvo has also added in-car delivery functionality to their connected car systems. This allows the customers to have goods from online shopping services dropped off directly in the boot of their car without having to be physically present.¹

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**Figure 6. Adoption of wearables and connected car systems**

*Question: which, if any, of the following connected devices do you own or have ready access to?*

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Norway</th>
<th>Denmark</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness band</td>
<td>12%</td>
<td>21%</td>
<td>13%</td>
<td>8%</td>
</tr>
<tr>
<td>Connected car system</td>
<td>3%</td>
<td>8%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Smart watch</td>
<td>10%</td>
<td>6%</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>

More than just a phone

Smartphone zombies

Smartphones have become a hub of much of what we do; they are content heavy and include a myriad of applications such as videos, music, in-store payment, emails and social media. It is possible to spend countless hours engaging with them, scrolling up and down endless feeds of text, pictures and videos. With constant vibrations, beeps and flashing screens, the smartphones capture our attention with the newest information from around the world and updates from friends and family.

Smartphones are our companions 24 hours a day

Smartphones are a large part of Nordic consumers’ everyday lives. The phone is by their side from when they wake up in the morning and until they go to bed at night. According to this year’s survey, slightly more than one third of Nordic consumers look at their phone within 5 minutes or less of waking, and more than half have looked at their phone within 15 minutes of waking. Among 18-24 year olds, 23% look at their phone immediately after waking, and 58% within 5 minutes or less of waking.

Figure 7: Interval between waking up and checking smartphone
Question: typically how long is the interval between waking up and looking at your phone for the first time (not including turning off your phone’s alarm clock)?

- All within 5 mins or less: 35%
- All within 15 mins or less: 55%
- All within 30 mins or less: 71%
- All within an hour or less: 88%

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.

Figure 8: Interval between going to bed and checking smartphone
Question: at the end of the day, typically how long is the interval between you looking at your phone for the last time and preparing to sleep (not including setting the phone’s alarm clock)?

- All within 5 mins or less: 27%
- All within 15 mins or less: 44%
- All within 30 mins or less: 61%
- All within an hour or less: 79%

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.
While almost none (1%) fall asleep with their phone in their hand, 61% look at their phone 30 minutes or less before going to sleep. Among 18-24 year olds, 79% do so. They expose themselves to the smartphone’s bright blue light, which can affect the sleep quality, cause insomnia and increase symptoms of fatigue. The light prevents the brain from releasing the hormone melatonin, which regulates the body’s perception of when it is time to sleep.⁶ ⁷ ⁹

While the majority of Nordic consumers do not check their phone during the night, some are not able to resist the temptation. One out of ten Nordic consumers check instant messages or SMS and 9% check social media notifications. In Denmark and Finland, only 6% and 5% of consumers in the respective countries check social media notifications at night, while 11% of consumers in Sweden and 13% of consumers in Norway do so. Sleeping disorders are among the most common health issues in the Norwegian population and a debut symptom in most mental disorders. Insufficient sleep over time can reduce the quality of life and lead to poorer coping strategies.⁵⁰

Among the younger generation, the figures are quite different: almost half (46%) say they check the time, while as many as 27% check social media notifications and 23% check instant messages or SMS during the night. It seems like the traditional bedside alarm clock has gone out of fashion – maybe to the detriment of consumers’ health.

**Smartphones – our greatest temptation**

Our smartphones demand constant attention by displaying notifications every time someone wants to connect with us, a news story is released, someone likes your picture on Instagram – and the list goes on. For some, it is hard to resist the smartphone’s constant demand for attention and the unstoppable flow of content and apps. Silicon Valley is even engineering the phones and apps to get people hooked and check them more and more, according to former Google Product Manager, Tristan Harris¹¹.

One out of five consumers in the Nordics looks at his/her phone at least 50 times a day, and 7% report that they look at their phone at least 100 times a day. However, there is some variation in how frequent the consumers in each of the Nordic countries look at their phones. In Norway, 29% of consumers look at their phone at least 50 times a day, while in Denmark and Finland only 14% and 16%, respectively, do so. Among the 18-24 year olds the shares are considerably higher, i.e. 39% look at their phone at least 50 times a day, and 16% look at their phone at least 100 times a day. Furthermore, as many as 42% of Nordic consumers use their phone *almost always*, *very often* or *sometimes* when spending time with family or friends.

**Figure 9: The number of times that consumers look at their phone in a day**

*Question: how many times would you estimate that you look at your phone in a day?*

![Figure 9](chart.png)

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.
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In the Nordics, 44% of consumers use their phone almost always, very often or sometimes while walking, and 14% do so while crossing the road. In response, some people and cities are starting to take action to cope with this changing behaviour. In Sweden, unofficial signs showing two people – a man and a woman – walking with their noses stuck to their smartphones were placed around the city to make people more careful when walking around glued to their phones\textsuperscript{12}.

Approaches adopted by other countries include placing a set of traffic lights into the edge of the pavement to direct pedestrians who are constantly looking down at their screens as they walk instead of looking up at road signs\textsuperscript{13}, and opening a phone lane for texting pedestrians\textsuperscript{14}.

Figure 10: A day in the life of a smartphone

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). For questions related to work, the base is all adults aged 18-75 years who have a phone or smartphone and are working in Sweden (1166), Norway (664), Denmark (627) and Finland (607).

Alcohol, tobacco, drugs... and smartphones?

We have reached the point where smartphones have become an integral part of people’s lives, but has it gone too far? One third of consumers in the Nordic countries say they use their phone too much. However, in Finland only 22% of consumers think they use their phone too much, while almost half of Norwegian consumers think they do. Among 18-24 year olds, around half think they use their phone too much, while the 65-75 year olds have a much lower self-diagnosed incidence of over-use.

When asked, when the consumers are over-using their phones, 41% of consumers say in the evening, while the second and third most common times are, maybe more worrying, when with family and all the time with 34% and 29%, respectively.

When considering the immediate family, 25% think their partner uses their phone too much, and 26% think their child/children over-use(s) their phone, while only 7% think their parents use their phone too much.

The good news is that 77% of those who think they use their phone too much say they make an effort or would like to limit their phone usage. The bad news is that only 17% say they make an effort and succeed, 32% try without much success, while 29% say they would like to limit their phone use, but don’t even try. This indicates that for some consumers smartphone usage has become an addiction that is hard to beat.

Psychologist Larry Rosen and his team at California State University Dominguez Hills have found that when people spend time away from their phones, their brains release the hormone cortisol. Cortisol triggers a fight-or-flight response to danger, and while it may have been convenient for the primitive man to keep him hyperaware of his surroundings for safety, today it compels us to check our phones.

Among those who try to limit their phone use, 48% say they try to do so by keeping the phone in a bag or pocket when meeting with people, 45% say they turn off audio notifications, and 31% say they turn on do not disturb or airplane mode; the common theme being to distance yourself from the smartphone, while keeping it sufficiently close to you in case you need it.

The most extreme option of changing to an older phone is not very common, with only 3% saying they adopted that method to limit their phone use. Several apps that aim to constrain phone use exist, e.g., the Norwegian app Hold, which supervises students’ smartphone use and rewards the students with coffee or experiences if they are able to keep their hands of their phones. However, only 2% of those who are trying to reduce the phone use actually downloaded apps that constrain phone use.

Figure 11: Phone usage

Question: overall, do you think you use your mobile phone too much, or not?

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Norway</th>
<th>Denmark</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, definitely</td>
<td>7%</td>
<td>7%</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Yes, probably</td>
<td>18%</td>
<td>25%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>No, I use it a lot, but it is not too much</td>
<td>28%</td>
<td>25%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>No, I don’t think I use it too much</td>
<td>37%</td>
<td>30%</td>
<td>42%</td>
<td>51%</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.
Smartphone use: A generational view

Base: all adult phone or smartphone owners 18-24 year olds (551), 45-54 year olds (948) and 65-75 year olds (690). As to the question concerning mobile ownership, the base is all adults aged 18-24 (608), 45-54 year olds (977) and 65-75 year olds (723). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.

YOUNG ADULTS
18-24 year olds

68 Phone checks per day

Smartphone usage

90% Access to a smartphone

52% Uses smartphone too much

21% Think their parent(s) use phone too much

Morning & night routines

58% Checks the phone within 5 minutes or less of waking

47% Checks the phone within 5 minutes or less before going to sleep

Social behaviour

38% Voice calls at least once a day

77% Use social networks at least once a day

48% Watches short videos, live posts or stories at least once a day
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PARENTS
45-54 year olds

- Phone checks per day: 35

91% Access to a smartphone

- Uses smartphone too much: 31%
- Think child/children use phone too much: 42%

33% Checks the phone within 5 minutes or less of waking

23% Checks the phone within 5 minutes or less before going to sleep

Voice calls at least once a day: 65%

Use social networks at least once a day: 49%

Watches short videos, live posts or stories at least once a day: 14%

GRANDPARENTS
65-75 year olds

- Phone checks per day: 15

79% Access to a smartphone

- Uses smartphone too much: 6%
- Think their partner use phone too much: 13%

17% Checks the phone within 5 minutes or less of waking

10% Checks the phone within 5 minutes or less before going to sleep

Voice calls at least once a day: 61%

Use social networks at least once a day: 25%

Watches short videos, live posts or stories at least once a day: 5%
More than just a phone

Video killed the radio star

Short videos to fill the gaps in your day
The proportion of Nordic consumers watching video on their smartphones has increased significantly since last year. This increase concerns all types of video, ranging from watching short live posts or stories to streaming films and TV series. Although an increase can be observed, the consumption still occurs primarily on a weekly basis and not yet on a daily basis. This is especially true for long-form content such as movies and TV programmes.

Figure 12. Weekly video consumption on smartphones by format type (last year in brackets)
Question: Below is a list of activities that you may do on your phone. Please state how often you do any of these.

Base for 2017: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Base for 2016: all adults aged 18-75 years in Sweden (1893), Norway (966) and Finland (960). Denmark 2016 data not available.

The predominant video format consumed is short video. As of mid-2017, 46% of Nordic smartphone owners used their phones weekly to watch short videos, live posts or stories. A year earlier, only 37% did so. Today, roughly one in five of Nordic smartphone owners watch short videos or live posts on a daily basis.

Short-term video viewing skews higher among younger age groups with as many as four out of five 18-24 year olds watching short videos at least once a week. This stands in contrast to the over 65-year olds of whom barely a fifth watch short videos weekly. Among the 18-24 year olds, as many as 48% watch short videos every day.

Long-form video consumption (films and TV programmes) on smartphones is growing at a rapid pace, but the frequency has yet to reach levels anywhere close to those for short-form videos. It is, however, natural that the frequency is lower for long-form videos as it is more time consuming and therefore performed on a more irregular basis.

In 2017, the percentage of consumers who claimed to watch live TV on their smartphones at least once a week more than doubled from 7% to 17%. Similarly, the percentage of consumers who streamed films or TV series on their smartphone also doubled from 8% last year to 16% this year.

When looking at age groups, however, it is clear that the primary users of long-form video consumption are the younger age groups. Roughly, 40% of 18-24 year olds stream film or TV series on their phones every week, whereas less than 5% do so among the 55+ year olds. Even though the smartphone is becoming more popular for long-form video consumption, its role as a fallback screen remains. Among all age groups, television remains the preferred device for long-form videos such as live TV, TV programmes and streaming. This is true for all age groups and both genders.

Video watching on smartphones is generally more widespread in Sweden and Norway, where around half of consumers watch short videos weekly, compared to Finland and Denmark where around four-tenths do so on a weekly basis. However, watching shared videos on instant messaging networks is particularly popular among the Finnish consumers with 45% doing so weekly.

A growing trend is that more online content is being transformed into video format. This can be seen, among other things, by the increased availability of news in video format. In Sweden, for example, several of the major national newspapers have started to broadcast their business news in the short video format in 2017.

Figure 13. Weekly video consumption on smartphones by format type and age

Question: Below is a list of activities that you may do on your phone. Please state how often you do any of these.

<table>
<thead>
<tr>
<th>Activity</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch short videos</td>
<td>79%</td>
<td>63%</td>
<td>48%</td>
<td>27%</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>Watch videos shared on IM networks</td>
<td>61%</td>
<td>51%</td>
<td>40%</td>
<td>31%</td>
<td>24%</td>
<td>18%</td>
</tr>
<tr>
<td>Stream films and/or TV series</td>
<td>38%</td>
<td>28%</td>
<td>16%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038).

Several drivers exist for increased smartphone video consumption

Video consumption on smartphones is likely to continue to grow over the coming years. There are multiple, complementary drivers of increased video activity on smartphones, most of which will likely sustain over the coming years. One of the drivers for increased consumption is that smartphones are developed to provide a better viewing experience. Screens are improved in terms of size, colour range as well as pixel density, making the video viewing experience more pleasant. Technologies such as HDR (contrast levels) and 4K (very high resolution), which are typically found in televisions, are now all being incorporated into smartphones.

As smartphone manufacturers have started to remove the bezel, the dimensions of the screen are also increasing. The new iPhone X has a bezel-less 5.8 inch screen with a pixel density of 458 pixels per inch, the highest resolution for any iPhone so far. Samsung’s Galaxy Note 8 is another example of larger screen size. The new model launched in September 2017 with a 6.3 inch near bezel-less, end-to-end infinity display.

A further major driver is that video content is increasingly being made available for smartphones. This includes high production value created for streaming platforms, such as Netflix and broadcasters. More and more of this content is also made available for downloading instead of only streaming.

Another major trend is that social media and instant messaging platforms are offering an ever-widening range of video content. Both ads and user-generated content are increasing rapidly and they vary greatly in length, quality, format/content and complexity. During 2017, several social media and instant messaging platforms launched “Stories” features, which allow users to share photos or videos that expire after 24 hours. This, in turn, has also further pushed consumers to both create and watch video content on their smartphones.

One step at a time: Virtual reality is still in its cradle

Even though adoption of virtual reality (VR) headsets has increased in the Nordics, the penetration of VR is still only a fraction compared to the penetration of other devices. Whilst several major tech companies began to mass market and offer their VR headset devices to regular consumers in 2016, there are still uncertainties as to when mass adoption will truly begin. Among Nordic consumers, only 5% claimed to own or have access to a virtual reality headset.

The VR headset base comprises a massive span of devices, in terms of cost and capability, from free cardboard self-assembled VR kits that can be used with any smartphone, to high-end headsets that work with powerful PCs and game consoles. Looking at the base more closely, about a third were budget versions, costing less than EUR 50, or even given away in a promotion, two-fifths were mid-range (specialised cases costing between EUR 50 and EUR 100, designed for pairing with high-end smartphones), and a quarter were high-end (with the headset and controllers costing from EUR 400, and the accompanying console or PC purchased separately).

Figure 14. Type of adopted VR headsets

Question: Which of the following best describes the VR headset(s) that you own or have access to?

24% High-end virtual reality headset
41% Mid-price virtual reality headset
34% Budget virtual reality headset
5% of Nordic consumers own or have access to a virtual reality headset
6% Don’t know
The data for the Nordics fits in with the global trend: awareness of VR is high, but ownership is far lower. As of mid-2017, two to three million high-end VR headsets had been sold worldwide. By comparison, global smartphone sales average over four million units every single day.

Among the consumers who do have access to the devices, VR headsets are still used infrequently. Only 5% of VR headset owners use their devices daily and only 39% used them at least once during the past month. This daily user frequency is far lower compared to other devices such as smartphones (96%), laptops (67%), desktops (59%), large tablets (57%), smart watches (56%), and small tablets (38%).

Purchase intent for VR headsets remains equally low and only 3% of consumers report that they intend to purchase a headset during the coming year. Some of the major constraints on VR adoption have so far been high equipment costs and a lack of content. During 2017, several of the major VR headset manufacturers reduced the prices of their VR headsets in an effort to attract more buyers. With the release of development kits that support AR for all major phone manufacturers, it is highly likely that we will see more AR content being developed over the next few years. There have also been significant investments made in VR and AR companies: In 2016 alone, EUR 2 billion were invested in AR and VR start-ups.

Augmented reality – the new virtual reality?

It is not unlikely that over the coming years, there will be a surge in VR content that encourages adoption of VR headsets. However, it will probably take some time before VR headsets will be regarded as a common device in Nordic homes as both the levels of ownership, use and intent to purchase have remained low so far.

While more attractive VR content is being developed, another trend that has already shown many use cases is that of augmented reality (AR). During 2017, AR has been shown off increasingly at industry exhibitions and certain applications of it, such as Pokémon Go, have already enjoyed widespread adoption.

Although most use cases for AR so far have been games-related, there are also many examples of AR being used for sales. For instance, IKEA recently launched an app that is able to use AR technology in order to place virtual furniture directly into consumers’ living rooms. Other examples of AR use cases include Snapchat who recently added AR functionality that allows its users to send cartooned versions of themselves that can interact with their environment.
Money, money, money

Payment via mobile phones as a concept has been around for a while. In the beginning of the century, researchers noted that mobile airtime had become a sort of pseudo-currency in several African countries, because it was easy and cheap to transfer among individuals, unlike money, which was both expensive and difficult to transfer. In 2007, an application called M-Pesa was launched in Kenya and today 70% of Kenyan adults use the application\(^2\).

Similar services have become available in the Nordic countries starting in 2012; five years after M-Pesa went live in Kenya. In this section of the report, we will explore how Nordic consumers have embraced mobile commerce, banking and payments.

Do you find what you are looking for? Over half of Nordic consumers are using their phones to research products or services, check on bank balances and browse shopping websites or apps on at least a monthly basis, and almost half use other banking services, such as paying bills, and transfer money to other individuals in the same country every month. Swedes and Norwegians have been more eager to use their phones to access banking services, with over 60% using their phones to research products and checking bank balances regularly. Over half of consumers in Sweden, Denmark and Norway use their phones to transfer money to other individuals in their own country at least once a month, leaving Finns behind, of whom only 15% are transferring money to other individuals at least once a month.

While most mobile banking and mobile payment activities are regularly performed by less than one fifth of Nordic consumers, one third of Norwegians use their phones to pay for public transportation every month, over twice as many as in any other Nordic country. Swedes and Danes, on the other hand, are more prolific users of in-store payments, with almost a third of consumers make in-store payments on a monthly basis.
Over half of Nordic consumers are using their phones to research products or services, check on bank balances and browse shopping websites or apps on at least a monthly basis.

Figure 15. E-commerce activities that consumers use their mobile phones for
Question: Which of the following activities do you use your mobile phone for at least once a month?

- Research a product/service: 57%
- Check bank balances: 56%
- Browse shopping websites/apps: 51%
- Other online banking transactions: 47%
- Transfer money to another individual in your country: 47%
- Read reviews about a product/service: 39%
- Pay for a product/service in-store: 19%
- Make reservations/bookings: 17%
- Make an online purchase of a product: 17%
- Pay for car parking: 17%
- Pay for public transport: 15%
- Interact with businesses via messenger apps: 14%
- Place or redeem a bet/gambling: 13%
- Make an online purchase of a service: 8%
- Pay for a taxi: 6%
- Transfer money to another individual located in a different country: 6%

Base: All adults 18-75 who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038)
One for me, one for you...
Of those consumers who have transferred money to another individual, three fifths have used online banking apps and apps that link the consumer’s phone number to their bank account, and just under a third have used online money transfer providers. Swish was introduced in Sweden in 2012, Danske Bank’s MobilePay in Denmark and Finland in 2013 and Norway in 2016, Swipp in Denmark in 2013, DNB controlled Vipps in Norway in 2015 and Siirto in Finland in 2017.

The late introduction of a more generic phone number-linking app in Finland has clearly impacted the penetration, with only 17% of consumers, who have transferred money, having used one. However, OP Group has launched pivo, an app that combines mobile banking, mobile payment, payments based on recipients’ mobile number, special offers and loyalty schemes into one app. This, together with the other banks’ Siirto-based offerings, will likely boost Finnish consumers’ interest in mobile payments. Vipps is exceedingly popular in Norway, which seems to be the main factor in phone number linking apps’ and social payment apps’ popularity there. Financial institution apps are particularly popular in Finland, where about a third of consumers making money transfers have used them.

Figure 16. Popularity of various methods of transferring money to other individuals in the same country
Question: In which, if any, of the following ways have you ever used your mobile phone to transfer money?

- **61%** An app that links your mobile number with your bank account
- **57%** Your online banking app
- **29%** Online money transfer provider
- **18%** Social payment app
- **12%** Financial institution app
- **6%** Don’t know
- **4%** Mobile operator app
- **4%** App/service provided by mobile manufacturer or operating system provider
- **3%** Facebook
- **2%** Other

**Cash, card or mobile?**

In-store payments are a mixed bag across the Nordics, though 45% of those, who have used mobile in-store payments, report having used a contactless payment app offered by their bank, with Swedes at 22% and Danes at 82% making up the extremes. Swish, which is a joint effort and not directly attributable to any single bank, is a popular payment solution in Sweden, which explains the low figure for the bank-offered apps and the particularly high figure for ‘None of these’. In Denmark, the presence of MobilePay and Swipp since 2013 may have contributed to both businesses’ and consumers’ willingness to adopt mobile payments.

MobilePay has expanded its in-store payment capability to Finland, and McDonald’s, among others, has adopted MobilePay as a payment option. Vipps has also launched an in-store payment option in Norway, and we expect the large existing user base to aid in making mobile in-store payments more popular. Mobile operators have also offered mobile payment solutions, which have some users in Finland and Norway, 9% and 2% respectively. In Finland, operators are withdrawing from the payments market and mobile operator Elisa has sold its payment solution to Aktia Bank last year²⁸.

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**Figure 17. Popularity of various in-store mobile payment methods**

*Question: Which of the following in-store mobile payment solutions have you used?*

- Contactless payments app offered by your bank: 45%
- PayPal app (Scan and pay): 19%
- Pay by SMS: 9%
- Scan and pay app offered by a retailer: 4%
- Contactless payments app offered by a mobile operator: 2%
- Android Pay: 2%
- Apple Pay: 2%
- Samsung Pay: 2%
- None of these: 36%
- Don’t know: 4%

**Base:** All adults 18-75 who have used their phone to make an in-store payment in Sweden (959), Norway (204), Denmark (607) and Finland (141)

The biggest challenge seems to be convincing consumers to adopt mobile payments; the most common reason for not using mobile payments is the lack of perceived benefits, with 45% of consumers naming it. In theory, Nordic consumers should be rather accepting of mobile payments, as most payments are already made with credit or debit cards instead of cash. On the other hand, Near Field Communication-enabled (NFC-enabled) debit cards are already providing unprecedented ease of use, which means that the value proposition to consumers is harder to make appealing than in many other countries where cash, checks, wire transfers and other, more cumbersome and expensive, payment and money transfer methods are the norm. Despite the low threshold to use mobile payments, the small difference in ease of use might slow down widespread adoption of mobile payments in the Nordic countries. At least in Norway, the issue is compounded by credit card companies or their partners offering rewards to consumers for using their credit cards.

A quarter of consumers not yet using in-store mobile payments cite security concerns as a reason for not doing so. Despite this perception, mobile payments are actually just as, if not more secure than credit card payments. App developers need to pay more attention to providing the feeling of security in addition to actual security.

Figure 18. Main reasons for not using in-store mobile payments

Question: What are the main reasons why you don’t use your phone to make payments in-store?

- I don’t see any benefits from using this: 45%
- I don’t think they are secure enough: 24%
- I don’t have the necessary feature/app on my phone: 21%
- I don’t really understand all the different options: 10%
- I don’t know any stores that allow this: 10%
- It’s awkward to use: 9%
- It’s too complicated to set up/use: 8%
- I get rewards if I use my credit card instead: 7%
- I was not aware that you can do this: 4%
- I look like I’m showing off: 1%
- I tried it but it didn’t work: 1%
- This is not available in my country: 0%
- I don’t know: 14%

Base: All adults 18-75 who never use their phone to make an in-store payment in Sweden (770), Norway (717), Denmark (405) and Finland (871)

Especially with fingerprint readers becoming ubiquitous, PIN codes may not be needed to authorize payments, making transactions more secure, while contradicting the notion that secure solutions are impractical and difficult to use. A third of consumers with a fingerprint reader are using it to authorize payments, and about a fifth are using it to authorize money transfers. As more app developers roll out support for fingerprint readers, the share is likely to increase. Norwegians are ahead of their Nordic peers in both the number of fingerprint readers and transaction authorization frequency.

**What’s next?**
The European Commission passed the revision of the Payment Services Directive (PSD2) in 2015, and it becomes effective in January 2018. Among other things, it forces banks to open up their interfaces to third parties as authorized by consumers, enabling new providers to offer banking, payment and other financial services that have traditionally been the purview of banks.

With the requirements of PSD2, banks will be facing more intense competition in the payments market from companies such as Apple, Google, and Samsung, who have not launched their services in the Nordics yet. The exception is Samsung, who launched Samsung Pay in Sweden this year and has conducted pilots in other Nordic countries as well. Despite this, 2% of consumers making in-store payments report having used Android Pay, Apple Pay and Samsung Pay. We expect these three to enter the mature Nordic market with more extensive PSD2-compatible solutions and services.

Chinese payment provider AliPay has entered the Nordic markets quite successfully, for example tapping into merchants’ frustration with credit card companies, by providing easy-setup starter packs in Sweden and winning over important brands such as Finnair and Stockmann in Finland. Competition from existing market players, such as PayPal will no doubt also intensify. These global players will gain access to customer data and seek to take over the value-added services, leaving the banks to provide the basic banking and financial infrastructure. More localized players are also working on solutions that will be launched once PSD2 becomes effective.

Banks have two major advantages: consumers have an inherent trust in banks, at least in regards to handling monetary transactions, and the banks know the change is coming. In order to maintain their strong position in consumer services, banks need to increase their agility and satisfy customer needs and requests without burdening the consumers unduly. Banks need to leverage consumers’ trust, provide services that are on par with the competition and gain customer commitment to the new services.

There is strong evidence that banks have understood that the market is about to change drastically. IT, software and service developer recruitment is up and banks are developing their consumer applications with a vengeance. Because banking services have an inherent dullness to most consumers and small businesses, banks and other incumbents need to do more in the marketing and sales arenas to get their message through to consumers.

**Figure 19. Ways to use fingerprint readers in Nordic**
*Question: How do you use your fingerprint reader?*

Base: All adults 18-75 who have used fingerprint recognition on their smartphone in Sweden (509), Norway (421), Denmark (310) and Finland (199)
Show me your phone and I’ll tell you who you are

The battle between smartphone brands is largely analogous to the battle between operating systems. The two most popular mobile operating systems are Android and iOS, which currently serve 99.8% of the world’s smartphone users. Android is the global market leader with around 85% market share, while iOS has a market share of around 15%\textsuperscript{11}. The main difference between the two operating systems is that Android is open source and can be customised by hardware vendors while iOS only runs on iPhones. This results in more patchy support and less frequent updates on Android-phones, which increases the risk of malware infection\textsuperscript{12}.

The market share for mobile operating systems in the Nordics looks quite different from the global picture. According to data from this survey, the total market share for iOS and Android in the Nordics is 84%. Around 49% of Nordic consumers prefer Android, while 35% prefer iOS, but these preferences vary between the Nordic countries. In Finland and Sweden, users strongly prefer Android, while in Norway and Denmark there is almost a 50/50 division in preferences. Interestingly, the users of the two operating systems make up under 70% of the users in Finland, due to Nokia’s lingering popularity. What lies behind these user preferences and what are the typical differences between users? Can I look at your phone and tell you who you are?
Who’s using what?

Looking at the data from this year’s survey, making a clear demographic distinction between users of the two operating systems is difficult. This is a natural result of Android and iOS covering such a large market share and Android devices straddling pretty much all but the very lowest price groups. It is, however, possible to look at users’ choice of operating systems in order to point to some user segments that are typical for iOS or Android.

In the Nordic countries, the percentage of female and male users of the two operating systems is almost the same. Slightly more females prefer iOS – 56%, while men have a slight majority among Android users – 52%. However, when it comes to age, there is a more distinct difference between operating system users. People aged 18 to 24 strongly prefer the iOS operating system. Denmark is an extreme example, where over 60% of users in this age group prefer iOS. On a Nordic scale, 24% of iOS users are aged 18-24, while only 15% of Android users are in the same age group.

Students seem to prefer iOS to Android. While the Android users in this survey were relatively evenly divided between the categories employed, out of work, and studying, IOS users show a more defined split. Compared to 33% of Android users not being in work, 22% of iOS are not in work and, in contrast, 43% of iOS users are students.

Income is closely tied to working status; the general trend is that although relatively evenly distributed, a slightly larger share of Android users are in lower income categories, while iOS users are slightly more concentrated in higher income categories. Most likely, this can be explained by the fact that Android phones are sold across a much wider price range than iOS devices. In addition, a typical iOS user is more likely to live in an urban area, as 57% of iOS users, compared to 48% of Android users, are situated in urban areas. This effect is especially noticeable in Sweden, where as many as 60% of iOS users live in urban areas, while only 45% of Android users do.

In general, the typical Android user seems difficult to pinpoint. In addition to the wider price range, this is very likely due to the variety of smartphone brands that use the Android system, as those brands may appeal to a broad range of users. The iOS users also have a wide demographic profile, but it is slightly easier to define typical users. Young, urban students with relatively high income are likely to be iOS users. So, although your phone cannot be used to pinpoint who you are, choice of operating system does not seem to be arbitrary.

Figure 20. Percentage of users with iOS and Android operating systems

Question: Thinking about your main phone, what is the brand and model of your current handset?

<table>
<thead>
<tr>
<th>Region</th>
<th>Android Phone</th>
<th>iOS Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Norway</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Denmark</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Finland</td>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (1047), Denmark (1028) and Finland (1038).

Can behaviour be attributed to the choice of operating system?
From segmenting the contents of this year’s survey on operating systems, it is clear that there are significant differences between the average behavioural traits for iOS and Android users. The overarching difference is that iOS users are more active than Android users. Mobile addiction, app usage, multitasking and use of social media are all more dominant amongst the average Nordic iOS user.

A separate study found that smartphone adoption is dependent on the underlying social network, and that such networks typically are larger for iOS users. Hence, it seems like iOS users have more friends and therefore have a greater need for communicating via their mobile phones. This may be one explanation for the behavioural trend found in this survey.

Figure 21. Comparison of Android and iOS user behavior

<table>
<thead>
<tr>
<th>Android users</th>
<th>iOS users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android users are less “addicted” to their mobile. <strong>Only 13%</strong> of Android users often look at their phone while walking, while the same figure for iOS users is <strong>21%</strong>.</td>
<td><strong>38%</strong> of iOS users, compared to <strong>21%</strong> of Android users, download more than 30 apps.</td>
</tr>
<tr>
<td><strong>32%</strong> of Android users think they use their phone too much, while <strong>42%</strong> of iOS users have the same thought.</td>
<td><strong>Over half</strong> of Nordic iOS users have used in-store mobile payments while <strong>10%</strong> fewer Android users have done so.</td>
</tr>
<tr>
<td><strong>12%</strong> of Android users compared to <strong>16%</strong> of iOS users make monthly online purchases via their phone.</td>
<td><strong>43%</strong> of iOS users look at their phones within 5 minutes of waking up, while only <strong>34%</strong> of Android users do so.</td>
</tr>
<tr>
<td><strong>Only 16%</strong> of Android users take photos with their phones on a daily basis, while <strong>24%</strong> of iOS users do the same.</td>
<td>It is slightly more common for iOS users to take use of their phone for personal purposes at work - <strong>14%</strong> as compared to <strong>11%</strong> report doing so.</td>
</tr>
<tr>
<td><strong>While around 60%</strong> of Android users look at their phones less than 25 times daily, <strong>60%</strong> of iOS users look at their phones more than 25 times daily.</td>
<td><strong>iOS users are more active</strong> on their phones in social settings - <strong>43%</strong> compared to <strong>31%</strong> of Android users report using their phones sometimes to very often while talking to family or friends.</td>
</tr>
<tr>
<td><strong>Less than 1/3</strong> of Android users have used a fingerprint reader while more than <strong>50%</strong> of iOS users have done so.</td>
<td><strong>As many as 28%</strong> of iOS users have used the virtual assistant “Siri”, while only <strong>9%</strong> of Android users have used a similar service.</td>
</tr>
<tr>
<td><strong>61%</strong> of iOS users look at their phones within 15 minutes of going to bed, while the same figure for Android users is <strong>44%</strong>.</td>
<td><strong>61%</strong> of iOS users look at their phones within 15 minutes of going to bed, while the same figure for Android users is <strong>44%</strong>.</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who use an iOS or Android operating system in Sweden (1687), Norway (875), Denmark (781) and Finland (404). Source: Swedish, Norwegian, Danish and Finnish edition, Deloitte Global Mobile Consumer Survey, 2017.

Figures 21, 22, 23 and 24 are based on the individual country survey data due to the need to segment data on operating system per country, and therefore the base figures do not not add up to the weighted Nordic base.
More than just a phone

There are many myths about how tech-savvy a typical iOS and Android user is. The topic is discussed in numerous discussion forums, where there are claims both for iOS users being ahead and for Android users being ahead. The information collected in this survey paints one picture by segmenting consumers’ responses to questions related to tech savviness.

One way to think of tech-savviness is the degree to which a person has the “latest” products on the market. Such consumers are typically more concerned about having the latest technology and being up to date on new features and apps. The consumers in the survey have assigned themselves into one of four categories, which is illustrated on the right.

Tech-savvy early adopters and stagnant replacers?

There are many myths about how tech-savvy a typical iOS and Android user is. The topic is discussed in numerous discussion forums, where there are claims both for iOS users being ahead and for Android users being ahead. The information collected in this survey paints one picture by segmenting consumers’ responses to questions related to tech savviness.

One way to think of tech-savviness is the degree to which a person has the “latest” products on the market. Such consumers are typically more concerned about having the latest technology and being up to date on new features and apps. The consumers in the survey have assigned themselves into one of four categories, which is illustrated on the right.

Figure 22. Technology behaviour for iOS and Android users

Question: Which of the following best describes your attitude toward new devices?

Base: all adults aged 18-75 years who use an iOS or Android operating system in Sweden (1687), Norway (875), Denmark (781) and Finland (404).


- I buy the latest devices as soon as they enter the market
- I buy devices after they've been out for a while
- I tend to buy the latest devices if I really like them
- I only replace devices when they malfunction or break
Nordic iOS users seem more eager to explore new technology and features than Android users. The difference is mainly due to a larger part of Android users buying new products only when the current device malfunctions, which stands in contrast to the larger part of iOS users who buy new products if they really like them. This hints to Nordic iOS users typically being early adopters of technology.

Another way of measuring tech savviness is to examine how many digital devices users have. Typical Nordic iOS users own 3.9 digital devices each, while typical Android users own 3.7 devices each. Ownership of tablets stands out, where as many as 78% of iOS users compared to 62% of Android users have such a device. Apple’s lock-in effect may be part of the reason for these trends.

The finding for connected IoT devices is similar. The iOS users seem more connected by IoT devices, as 84% of iOS users compared to 76% of Android users own at least one of the connected devices listed in this survey. Hence, also from the device ownership perspective, iOS users seem to be, on average, more tech-savvy.

Awareness of modern smartphone functions can also be a proxy for tech savviness. Although use of such functions may be related to the ease of use and utility for different operating systems, awareness is likely to be a good indication for users’ level of interest in technology and technological trends.

Nordic iOS users are equally or more aware of the machine learning functions that are integrated in modern smartphones. Route suggestions, voice assistant, automated photo classification and automated calendar entries stand out as better known among iOS users. This adds to the picture of iOS users being on average more tech-savvy.

Figure 23. Percentage of iOS and Android users who are aware of machine learning functions on smartphones

*Question: Features/apps on mobile phone or tablet - aware of*
Can I get you another iPhone?
From the discussions above, it is clear that there are some differences between typical iOS users and typical Android users. Although it is difficult to pinpoint one type of user of the two operating systems, some demographic segments seem to prefer iOS, the iOS user is more active on their phone and they are more tech-savvy. So why does this matter, is choice of operating system even a deliberate choice?

Actually, data from this year’s survey shows that people do care about their choice of operating system, and that loyalty to operating systems is very high. As only 29% of iOS users and 33% of Android users are passive in regards to promoting or criticizing their phone brand, it seems like most people have an opinion as to what operating system is preferable. Most people are promotors of their own phone brand, where the number of iOS users who would actively promote their brand is higher – 55% compared to 46% of Android users.

When comparing consumers’ previous operating systems to the system on their current phones, it is also apparent that users have a high degree of loyalty. Most users choose the same operating system as they had on their previous phone, and the trend is strongest for iOS users, where 73% also used iOS on their previous phone. For Android users the same figure is 61%.

Consumers seem to have a strong affinity to the operating system they use and care about which operating system they have. The iOS users are generally the most loyal, which is likely to be linked to their higher activity levels and the lock-in effect created by Apple. Android users are also persistent in their choice of operating system, but may still be switching phone brands. Nevertheless, it is clear that the choice of operating system can say something about a smartphone user.

Figure 24. Overview of previous operating system for current iOS and Android users

<table>
<thead>
<tr>
<th>Previously iOS</th>
<th>73%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previously Android</td>
<td>13%</td>
</tr>
<tr>
<td>Previously other</td>
<td>14%</td>
</tr>
</tbody>
</table>

Base: all adults aged 18-75 years who use an iOS or Android operating system in Sweden (1687), Norway (875), Denmark (781) and Finland (404).
The telecom industry in the Nordic countries is quite concentrated, with a few competing companies delivering services through a handful of sub brands. Some companies have significant influence in more than one Nordic country, while some are only present in one country. Fierce competition in the industry has enabled consumers to enjoy more value for money in their subscriptions than they could a couple of years ago. The question then is; what drives the value for consumers – what do they want from their mobile operators?

Consumers want bang for their buck
Since the breakthrough of smartphones in the mid-2000s, usage patterns on mobile phones have undergone drastic changes. Traditional communication methods, such as voice calls and SMS, remain important to consumers, as more than 50% of Nordic consumers still make use of such forms of communication on a daily basis. Nevertheless, there has been a sharp increase in data use via mobile phones in all of the Nordic countries\(^{14}\). One reason for this is that Internet-based over-the-top communication via mobile phones has become increasingly popular. When comparing data from this year’s survey to the data from Sweden, Norway and Finland in last year’s survey, it is apparent that the percentage of Nordic consumers who have used instant messaging apps, email and social media channels via their mobile phones has increased by 8, 10 and 9 percentage points respectively since 2016\(^{16}\).

There has also been an increase in availability and use of other Internet-based activities on mobile phones. The Internet-based activities that consumers perform range from entertainment activities to mobile payments and other practical activities such as navigation. In addition, operating systems are integrating Internet-based machine learning functions into apps to a larger degree than earlier, which will result in even more Internet use. Collectively these trends have affected the consumers and their key purchasing criteria for mobile operators.
The percentage of Nordic consumers who have used instant messaging apps, email and social media channels via their mobile phones has increased by 8, 10 and 9 percentage points respectively since 2016.

Figure 25. Consumers’ rating of purchasing criteria for mobile subscriptions by importance

*Question: Which services are important to you? Very important, Fairly important, Not important.*

- No hidden / surprise costs: 67% Very important, 24% Fairly important, 9% Not important
- Total monthly cost: 59% Very important, 31% Fairly important, 10% Not important
- Quality and coverage of network when accessing the Internet: 53% Very important, 33% Fairly important, 14% Not important
- Quality and coverage of network for voice calls: 52% Very important, 34% Fairly important, 14% Not important
- Availability / price of unlimited data tariff: 31% Very important, 39% Fairly important, 30% Not important
- Quality of customer services/technical support: 30% Very important, 51% Fairly important, 19% Not important
- Availability of a preferred phone: 25% Very important, 41% Fairly important, 34% Not important
- Roaming tariff costs (i.e. when abroad): 24% Very important, 36% Fairly important, 40% Not important
- Availability of early phone upgrade/shorter contract: 11% Very important, 33% Fairly important, 56% Not important

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (847), Denmark (1028) and Finland (1038).
Consumer preferences are shifting from prioritising the quality and accessibility of voice call networks to focusing more on the quality and accessibility of mobile data networks. As many as 53% of consumers consider the quality and coverage for data networks to be very important, while 52% of consumers consider the same attributes for voice call networks to be very important. The difference is currently marginal, but is expected to increase in the coming years. This trend can also be observed from similar surveys performed by Deloitte in previous years. For example, observations from Sweden, Finland and Norway in 2016 show that 23% of Nordic consumers expected the quality of the data network to be the decisive factor for them when choosing their next mobile operator, as opposed to 13% who believed that the quality of the voice call network would be decisive.

The shift is representative for our digital age and the continuous developments of smartphones. The phone is no longer a simple communication device used to reach other people. Rather, it is a toolbox that requires Internet access for the consumer to make full use of the tools provided. Consumers are expected to continue to adopt these tools and hence that the importance of Internet access will persist and grow in the future. Consequently, quality and accessibility of mobile data will be a key purchasing criterion moving forward.

Although quality and accessibility of networks are very important to the consumer, costs are still consumers’ main concern. This is likely to be due to a low variety in subscriptions and similar quality of subscription offerings. Interestingly, consumers actually put more weight on the transparency of costs than total costs. Extra charges and unexpected costs are clearly a hassle for consumers, and consequently consumers want a predictable service from their operators.

For younger Nordic consumers, the emphasis on mobile data as a purchasing criterion is more distinct than for consumers in older age groups. Young consumers are quicker to adopt new technologies and activities offered on mobile phones, such as streaming services, apps and other functions. As a result, these consumers prioritise the services that will enable them to perform such Internet-based activities.

Consumers in younger age groups are especially concerned with price, quality and access to mobile data as well as the price and availability of unlimited data access. Older age groups, who have lived in the pre-mobile world with its rather more inconvenient communication methods, are not quite as demanding. In addition to pointing out differences in preferences across age groups, this also indicates the growing importance of mobile data in the future, as the coming generations will be even more used to and dependent on ubiquitous Internet access.

Figure 26. Percentage of consumers who consider the following criteria to be very important
Question: Which services are important to you? Very important.

![Figure 26: Percentage of consumers who consider the following criteria to be very important](image-url)

Base: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038).
Data is the de facto standard

In a global comparison, the Nordic countries have outstanding coverage and speed when it comes to their data networks. Denmark is lagging slightly behind when it comes to coverage, but is superior when it comes to 4G speed. As of today, most Nordic consumers have access to mobile data. Nordic mobile operators are differentiating their subscriptions on either data allowance or speed. In Finland, the mobile operators usually differentiate their subscriptions on the speed of the data rather than on data allowances. On the other hand, operators in Sweden, Denmark and Norway have taken to limiting the data allowances, which is reflected in only 5% of consumers in these countries having access to unlimited data.

Of the consumers who have limited data access, the median consumer in Sweden, Denmark and Norway have monthly access to 1-3 GB, 10-20 GB and 1-3 GB respectively. Only 6% of these consumers exceed their data limit often. Interestingly though, as many as 45% of Danish consumers exceed their limit occasionally, while the number is 29% and 35% for Sweden and Norway. Consequently, it seems as if consumers who have access to large amounts of data generate habits of using more data. This again creates a spiral where they need even more data access in the future.

Seeing as most consumers in the Nordics never or only occasionally exceed their data limit, provision of extra data packages or monthly data-rollover to mobile subscriptions should be enough to satisfy the consumers’ data needs: consumers do not actually need unlimited or large amounts of data, but they still want it. This may be due to consumers noticing their increased use of Internet-based apps and functions, but not necessarily knowing how many GB each activity actually contributes to their data usage.

When it comes to prices of data packages, these are quite different in the Nordic countries. Finland, as mentioned, is a special case where it is quite cheap to get unlimited data access. While Norwegian consumers on average pay around EUR 3 per GB, Danish and Swedish consumers can enjoy considerably lower prices for data access, around EUR 1.2 per GB. This is partly due to the higher overall price levels in Norway, but also due to higher market concentration and a topography that is more complex.
More than just a phone

What more do consumers want?
When consumers choose their mobile subscriptions, they often get options for additional services that they can choose to bundle with their purchase. Subscription to additional services is popular in the Nordics. Over half of the Nordic consumers reported having at least one additional service offered by mobile operators. Traditionally, consumers have subscribed to services such as fixed lines for voice calls, cable TV and fixed broadband connections, however, consumer trends and digitalisation are changing these needs.

There is a gap between which additional services that currently are the most popular and which services that are likely to be the most popular going forward. Home broadband is still the most popular additional service. Broadband penetration is still growing and is likely to persist in the near future due to the increasing use of connected devices. For other additional services, consumers’ preferences are shifting away from traditional services, to more modern services such as streaming subscriptions.

This is a natural result of changes in consumer behaviour. As smartphone penetration in the Nordics is reaching almost 90% and networks are of such high quality, the need for fixed voice lines is decreasing. In addition, entertainment channels are continuously shifting towards streaming platforms, which will reduce the demand for cable TV and increase the demand for streaming in the future. Hence, streaming services can be expected to define the new competitive front for additional services provided by mobile operators.

Figure 27. Percentage of consumers who currently subscribe to the additional service and the percentage of consumers who don’t currently subscribe to the service, but want to add it to their subscription

Question: Which of the following services offered by your mobile operator do you subscribe to/are you using? Question: Which, if any, of the following would you like to add to your existing package with your mobile operator?

<table>
<thead>
<tr>
<th>Service</th>
<th>Currently Subscribed</th>
<th>Currently Not Subscribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home broadband/Internet</td>
<td>29% (7%)</td>
<td></td>
</tr>
<tr>
<td>Music streaming services</td>
<td>17% (9%)</td>
<td></td>
</tr>
<tr>
<td>TV/Film streaming service</td>
<td>13% (11%)</td>
<td></td>
</tr>
<tr>
<td>Fixed line voice calls</td>
<td>12% (3%)</td>
<td></td>
</tr>
<tr>
<td>TV via cable or satellite</td>
<td>10% (6%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2% (2%)</td>
<td></td>
</tr>
</tbody>
</table>

Base 1: all adults aged 18-75 years who have a phone or smartphone in Sweden (1769), Norway (947), Denmark (1028) and Finland (1038). Base 2: all adults aged 18-75 years who have a phone or smartphone who have not already subscribed to all the services in Sweden (1764), Norway (946), Denmark (1028) and Finland (1038). Source: Nordic edition, Deloitte Global Mobile Consumer Survey, 2017.
More than just a phone

Endnotes

1. Zendesk. Providing great customer service through social media. URL: www.zendesk.com/resources/customer-service-through-social-media/
2. Entrepreneur. The evolving role of social media in ecommerce. 2017. URL: www.entrepreneur.com/article/288952
8. The Jana Network. Association between portable screen-based media device access or use and sleep outcomes. 2016. URL: www.janetwork.com/journals/jamapediatrics/article-article/2571467
14. Hold student. A mobile app that helps focus in school and gives the opportunity to get rewards for not using a phone. URL: https://www.holdstudent.com
16. Hold student. A mobile app that helps focus in school and gives the opportunity to get rewards for not using a phone. URL: https://www.holdstudent.com
19. Hapticil. The latest virtual reality headset sales numbers we know so far. 2017. URL: www.hapticil.at/latest-virtual-reality-headset-sales-so-far-9553e42f60b5
23. Ars technica UK. Oculus rift and touch now just £400 after second price cut this year. 2017. URL: www.arts technica.co.uk/gaming/2017/07/oculus-rift-touch-discount-price/
24. IKEA. IKEA launches IKEA place, a new app that allows people to virtually place furniture in their home. 2017. URL: www.ikea.com/us/en/about_ikea/newsitem/091217_IKEA_Launches_IKEA Place/
25. Recode. Snapchat’s new augmented reality feature brings your cartoon bitmoji into real world. 2017. URL: https://www.recode.net/2017/9/14/16305890/snapchat-bitmoji-ar-facebook
29. CNN. This could be the first country to go cashless. 2017. URL: www.cnn.com/2016/06/02/technology/cashless-society-denmark/
31. IDC. Smartphone OS market share. 2017. URL: www.idc.com/promo/ smartphone-market-share/os
35. Data only based on GMCS survey in Sweden, Norway and Finland.
About the research & contacts

The Nordic data cut is part of Deloitte's Global Mobile Consumer Survey, a multi-country study of mobile phone users around the world. The 2017 study comprises approximately 53,000 respondents across 33 countries and six continents.

Data cited in this report are based on a nationally representative sample of consumers aged 18-75 in Sweden (2002), Norway (1002), Denmark (1003) and Finland (1000). The sample follows a country specific quota on age, gender, region and socio-economic status. Fieldwork took place during July 2017 and was carried out online by Ipsos MORI, an independent research firm, based on a question set provided by Deloitte.

This brief report provides a snapshot of some of the insights that the survey has revealed. Additional analyses such as: smartphone purchase channel, brand penetration, attitudes towards triple/quad play, bank-specific loyalty, media content consumption and creation, machine learning, attitudes towards data security and refurbished phones are available upon request.

Results for other countries are also available on request.

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