



Digitalisation of the payment system: a solution for some, a challenge for others

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Digitalisation of the payment system: a solution for some, a challenge for others

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With thanks to Jurren Brügemann, Pim Claassen, Inge van Dijk, Frank van der Horst, Marc van der Maarel, Jaap Rotte and Coen Voormeulen for their comments on a previous version.

We would like to thank the stakeholder organisations for their help in recruiting the interviewees, and the interviewees for participating in this study.

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# Summary

The increasing digitalisation of the payment system is being accompanied by a decline in the accessibility of the payment system for certain groups of bank customers. This requires particular attention from DNB, which has identified guaranteed access to the payment system as a key focal point of its Payments Strategy 2022-2025 (DNB, 2022a). The central questions that we address in this report are: (1) how many adults in the Netherlands are unable to perform all payment services and related bank services independently? And (2) what obstacles do they encounter, what needs do they have and how can they be helped?

## The impact of increasing digitalisation on accessibility

**The Availability Monitor of the National Forum on the Payment System (NFPS) shows that since 2016 some groups have experienced a decline in the extent to which they can make payments and manage other basic payment services independently (NFPS, 2021).** They are less satisfied with the accessibility of payment services in the Netherlands than before. These are mainly bank customers who are physically disabled, have no internet access, have low digital skills or are elderly. In this study we refer to these as focus groups. The average bank customer has a positive view of the accessibility of payment services in the Netherlands and is even slightly more satisfied than in 2016.

**The fact that different groups do not experience the same accessibility of payment services is due to the ongoing digitalisation of payment services.** There is a risk that increasing digitalisation of the payment system will open up a divide in society. We wish to prevent this and want as many people in the Netherlands as possible to continue to make payments and

manage related banking activities independently. We examine nine basic payment services: cash withdrawals at ATMs, payments in brick-and-mortar stores, payments in online stores, payments to family and acquaintances, companies or organisations, enquiring about bank balances, debits and credits, requesting/blocking debit cards, opening/closing a payment account and using the mobile banking app.

## Number of people who do not perform all payment services independently (or entirely independently)

**53% of the 14.3 million adults in the Netherlands fall into at least one focus group.** We distinguish the following groups: people without internet access, people with low digital skills, low-skilled people, people with a mild intellectual disability, people with a walking impairment, people who have such poor mobility that they use a scooter or wheelchair, people with limited hand function, people who are hearing-impaired, people who are severely hearing-impaired or deaf, people who are visually impaired, people who are severely visually impaired or blind, people aged 65 to 74 and people aged 75 and over.

**More than one in six adults in the Netherlands do not perform all payments and banking independently, but most of them do perform everyday activities themselves, such as checking their bank balance, debits and credits and making everyday payments in stores and to acquaintances.** An estimated 0.5 million adults in the Netherlands do not pay independently for their purchases at the point of sale in brick-and-mortar stores; they need help or get someone else to do it for them. In the case of opening a bank account, the figure is 1.8 million people. For payments and banking in general, the figure is 2.6 million people, or more than one in six. The group of people who are not entirely independent also includes more than half a million Dutch nationals who do not fall into a focus group. About 3% of the adult Dutch population, especially low-skilled and elderly people, have even handed over their payments and related banking activities entirely to someone else.

## Obstacles and needs

**In-depth interviews were conducted with 206 people to gain a clear view of the impact of digitalisation on the way bank customers make payments and any obstacles they encounter.**

In order to obtain the fullest picture possible, interviews were conducted with people in the focus groups covered in the Availability Monitor, as well as with people having low levels of literacy, people with low incomes and people who were not born in the Netherlands (Western and non-Western migration background). The three latter groups were not included in the Availability Monitor.

**Although almost all interviewees can make most everyday payments at home and outside the home independently, interviewees in various focus groups regularly report that they encounter problems.** These are mainly

interviewees without internet access, with low digital skills, low literacy, a mild intellectual disability, a serious physical disability or a non-Western migration background, although people in other groups also encounter problems with certain payment services.

**The interviewees mention a wide range of obstacles.** The most commonly mentioned are as follows: People with physical disabilities indicate that they have difficulty with the location and operation of devices, such as ATMs and payment terminals, but also with mobile telephones and random readers. Visually impaired or severely visually impaired people find it difficult to read the texts on the screens (font size) and cannot find the right buttons on ATMs and payment terminals, as well as in the digital internet or mobile banking environment. Migrants often do not understand the texts and instructions because they struggle with the Dutch language, while people with low literacy do not understand these texts because of the difficulty of the language used. Hence they often exceed the time limit within which the necessary actions must be taken to complete a payment or related service. Many of them, as well as many people aged 75 and over, also have difficulty remembering the many login codes required in order to make payments or perform other banking activities digitally. Empty ATMs and ATMs containing only €50 banknotes are also a problem, especially for people on low incomes, possibly combined with a mild intellectual disability.

**Many people who do not use digital payment services are reluctant to do so, but a small share indicate that they would like to do so in order to overcome their reluctance.** Those who say they are not willing to do so are mainly uncomfortable with mobile banking. They are concerned about security, are afraid of making mistakes, find the

screen difficult to read and are often satisfied with the current way in which they manage their payments. Particularly for payments in stores, the mobile phone offers few advantages over cash or debit cards. They are often more positive about the possibilities of mobile banking when it comes to transferring money to acquaintances. Most of them also use mobile banking to check their bank balance.

**However, the interviewees who currently make many of their payments (possibly independently) by traditional payment methods are very worried about the continued availability of these methods.**<sup>1</sup> They say it is important to know that these services will continue to exist, and to have physical contact points where they can speak to bank staff. Their continued existence is not enough, however: the interviewees encounter various problems when trying to get in touch with their bank and suggested many improvements.

**Full or partial dependence gives rise to various emotions.** Some interviewees say they encounter such serious obstacles that they can no longer manage some or all payment services independently, or have had to hand them over entirely to someone else. This gives rise to various feelings. For example, there are interviewees for whom the dependence gives rise to negative emotions. They experience shame, inferiority, powerlessness, stress or sadness. Some also find it difficult having to rely on others, whereas others welcome help from family members, because then they know that the payments will be handled properly. They are above all grateful and resigned to their situation.

**Although the interviewees need services to help them make their payments, they are not very familiar with existing banking initiatives.**

Banks have taken various initiatives to support their customers. The highest awareness among participants is that of service points (38%). 18% are aware of the existence of training courses and information meetings, while 17% are aware of financial care coaches. Furthermore, three in ten of the interviewees aged 65 and over are familiar with the seniors line.

**A personal telephone customer service, a permanent, personal contact person and service points, where interviewees can actually speak to someone to obtain help and advice, are solutions that arouse the most interest.** During the in-depth interviews, the interviewees were openly asked about improvements that would really help them. They were then presented with various solutions that could help them use digital payment services. Most interviewees were interested in a personal telephone customer service, followed by a permanent, personal contact person at the bank. There was also strong interest in walk-in neighbourhood service points that people could visit. Interest was also expressed in other solutions such as the use of a bank bus, free classroom lessons and one-to-one home assistance. The preferences differ from group to group. It is therefore beneficial to offer a range of different services. It is important that the help is given in the language that the customer understands, and that the person who provides support is patient and familiar with the type of customers and their problems.

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<sup>1</sup> Partly for this reason, it was agreed in the Cash Covenant of the National Forum on the Payment System that the cash infrastructure must be maintained and must continue to function properly, even if the use of cash is declining.



## Focal points

**If the digitalisation of the payment system continues and traditional forms of payment, such as cash and paper transfer forms, come under further pressure, the accessibility of the payment system may be jeopardised for a growing number of people in the Netherlands.**

On the basis of our study, we have identified the following four focal points for banks and other participants in the payment system, such as retailers and manufacturers of payment equipment.

### **Focal point 1: Preserve and improve the non-digital payment world**

People who are still managing with the offline facilities, with or without help, are concerned about further digitalisation. It is important for them to know that non-digital payment services and contact options will continue to exist. Interviewees also suggest improvements in this area: for example, participants in various groups need €5 and €10 banknotes in ATMs. It is also important for them that there are still physical contact points for the bank and its employees and that they can still easily make contact by telephone. Possible improvements include shorter waiting times, better help and more patience and empathy on the part of bank employees. Bank customers can be helped more effectively if they can immediately contact someone who has experience with the focus group and the obstacles they encounter and who also speaks their language (or sign language). If the non-digital payment world were to disappear, more people in these large groups would lose their independence.

### **Focal point 2: Raise awareness of existing initiatives and launch new initiatives**

Banks could raise awareness of existing initiatives to improve the accessibility of the

payment system, but they could also launch new initiatives. Interviewees are particularly interested in a personal telephone customer service, a permanent contact person at the bank and the use of local service points. They are slightly less interested in home assistance, training courses and information meetings. People could be helped more effectively in learning how to deal with the digital payment world.

### **Focal point 3: Make better use of technology to increase accessibility...**

Technology could be used to an even greater extent to increase the accessibility of the payment system. Speech and voice recognition are valuable tools for people in many focus groups, such as people with low literacy, the blind and visually impaired and people with limited hand function. More understandable language, practical visualisations, instructional videos, step-by-step plans and information on the nearest filled ATM are also mentioned as possible improvements. The use of biometrics – such as facial recognition or fingerprints – could provide a solution for people who find logging in complicated or have great difficulty remembering and entering codes.

### **Focal point 4: ... and tailor the digital environment to the user**

There needs to be greater scope to tailor the digital environment to the user. Whereas one group would benefit from more explanatory images, videos and smart use of colours, for other groups straightforward text would be ideal. Technology could be used to create additional user options, for example to specify more time to perform actions, increase the font size, choose the language and turn off features that customers do not wish to use in the mobile banking app. Customers would then need support to make the right choices.



# 1 Introduction

**The 2021 Availability Monitor shows that the average Dutch person has a positive view of the accessibility of payment services and is more satisfied than in 2016, but also that people in some specific groups are actually experiencing a decline in accessibility (NFPS, 2021).** These are groups such as people with disabilities, people with low digital skills and seniors. In this study we refer to these as focus groups.<sup>2</sup> The fact that accessibility is experienced differently by different groups seems to be mainly due to the digitalisation of payments and the associated closure of an increasing number of bank branches and ATMs. There is a risk that increasing digitalisation of the payment system will open up a divide in society. We want as many people as possible to retain the ability to make payments independently. With assistance from research firm Conclusr, we therefore conducted an in-depth study of the impact of digitalisation of the payment system on the accessibility and user-friendliness of payment services for different groups of bank customers. The study examined obstacles, needs and possible solutions. This report contains the results.

**Digitalisation of payments is an irreversible trend that was accelerated by the COVID-19 pandemic.** People in the Netherlands are making fewer and fewer cash payments, for example. On the one hand, this is because they are increasingly buying online, and on the other hand because they are increasingly paying for in-store purchases with their debit card, smartphone or smartwatch. They are also increasingly opening, using and

managing their payment account digitally, on the internet or by means of an app. Bank customers can no longer withdraw cash at branches of the major banks, but only at a Geldmaat ATM. Only a few small banks, such as Regiobank, still enable customers to withdraw money at the counter in a branch. Bank customers visit bank branches less frequently and banks are increasingly closing them. At the end of 2011 there were still 2,654 bank branches, but by the end of 2021 this number had fallen to 726. Partly as a result of these developments, some people in the focus groups have experienced a decline in the availability and accessibility of payment services.

**We are committed to keeping the payment system accessible to everyone. Several focus groups have experienced a decline in accessibility in recent years and it needs to be restored.** One of the three key focal points of the DNB Payments Strategy 2022-2025 is ensuring access to the payment system for everyone in a world that is becoming increasingly digital (DNB, 2022a). We are doing this jointly with banks and interest groups in the National Forum on the Payment System. The aim is that as many people as possible can participate independently in the payment system. This includes, for example, being able to pay independently for purchases in a store, but also such things as independently opening a payment account, receiving and activating a debit card, withdrawing and depositing cash, checking balances, debits and credits and issuing payment orders, the so-called basic payment services.

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<sup>2</sup> These are groups that require attention when it comes to maintaining the accessibility of payment services. This does not mean that all people in the focus groups experience accessibility problems, but that a relatively large number of people may do so.

**Insights from this study into obstacles, needs and solutions will be used in developing targeted activities for the current Action Plan for Accessible Payments of the NFPS.**

Accessibility of the payment system is high on the agenda of the NFPS. The Action Plan for Accessible Payments that was agreed in the NFPS<sup>3</sup> in 2021 aims to guarantee the accessibility of the payment system, jointly with banks and interest groups. This plan includes various activities aimed at banks: (1) improving personal services (at local level) for account holders who need help with changes in payments, (2) better communication with these customers about their chosen solution, and (3) better identification of where customers need specific assistance. This research report contributes to the third action.

## 1.1 Purpose of the study

**The study has two objectives: understanding the size of the group that cannot perform payment services independently and understanding the obstacles they encounter.**

First, it is intended to show which groups of account holders are struggling with the digitalisation of payment services and to assess the overall size of the group that cannot perform payment services entirely independently. These include services such as withdrawing cash, issuing payment orders, making payments in brick-and-mortar stores and online stores, opening a payment account, checking balances, debits and credits and activating debit cards. Second, the study is intended to highlight the obstacles encountered by account holders struggling with the digitalisation of payment services and the improvements required so that they can continue to perform payment services independently.

**We have used various research methods to achieve these goals: literature review, data analyses and in-depth interviews.**

On the one hand, we have done this through a review of the literature and more detailed analysis of recent data already available on the payment behaviour of people in the Netherlands and their experience of the accessibility and availability of the payment system. This has given us a better understanding of the problems arising from the digitalisation of payments and other services. This also enabled us to assess the size of the group of people who do not perform all payment services independently, possibly as a result of the problems they encounter with the digitalisation of the payment system. We also carried out a qualitative study of obstacles and areas for improvement among the focus groups in 2022. This was done with assistance from the specialised research firm Conclusr, which conducted in-depth interviews with 206 people in the summer of 2022. We devoted specific attention to various groups that may have found themselves in a vulnerable position due to digitalisation. Examples are people with low digital skills, seniors and people with physical or mental disabilities.

## 1.2 Structure of the report

**The report is structured as follows.** Chapter 2 describes the basic payment services and outlines the digitalisation of these services. Chapter 3 shows the results of the literature review. Chapter 4 presents our estimate of the number of people who cannot perform all payment services independently (or entirely independently), partly due to the digitalisation of the payment system. The qualitative study is discussed in Chapter 5, and Chapter 6 presents the conclusion.

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<sup>3</sup> See Results of NFPS meeting of 20 May 2021 (dnb.nl) and NFPS report 2021 (dnb.nl) section 5.

## 2 Digitalisation and basic payment services

**Digitalisation of the payment system is continuing and offers countless advantages for many people, but there is also a large group of people who experience disadvantages.**

Innovation in the payment system is nothing new, but whereas new, innovative solutions mainly used to coexist with traditional payment services, some of these traditional services seem to have been phased out in recent years. This means people who depend on these services have encountered actual or potential problems because they find it difficult to participate independently in the payment system or can no longer do so at all. This chapter first describes the digitalisation of payments, the definition of digitalisation we use and the advantages and disadvantages of the digitalisation of the payment system. We then explain the basic payment services and highlight the key trends in each payment service.

### 2.1 Payments are being digitised at a rapid pace

**In this in-depth study we define the digitalisation of the payment system as the process by which financial service providers increasingly offer their customers digital means of participating in this payment system, while the more traditional forms of participation are in some cases withdrawn.** We look at the services people use when doing their banking (the “basic payment services”, see the next section). Financial service providers often encourage customers to use these digital facilities as much as possible instead of traditional physical facilities, such as cash, paper transfer forms and direct debit mandates, inpayment transfers or help from bank employees in the branch. It is notable that banks often make new digital services available initially alongside the traditional services. Digital services are efficient and cost-effective for them. Over time, if the new digital services catch on – they

are attractive to many people – banks encourage their further use and discourage traditional forms of these services, for example by limiting their use or steadily raising fees for account holders. In the long run, these traditional basic payment services may increasingly fade into the background (as in the case of cash, paper transfer cards, paper account statements), may disappear (as in the case of the inpayment transfer) or the infrastructure may be further reduced (as in the case of bank branches and ATMs). As a result, the digitalisation of the payment system and the disappearance of traditional payment services affect the way in which people in the Netherlands can participate in the payment system. Digitalisation also influences the wishes of a large group of mostly young account holders: digitalisation means they expect their bank to keep up with them by implementing and offering new digital services.

**Digitalisation of the payment system offers advantages, partly because it brings greater ease of use for most account holders.**

Digitalisation also encourages further innovation in banks and other financial institutions, enabling them to constantly develop new ways to facilitate (often fast) payments. Innovation has also led to greater ease of use and efficiency for most users. In most cases, digitalisation means fewer people feel the need to carry or keep at home large amounts of cash, contributing to a sense of physical security. On the other hand, not everyone feels sufficiently safe in the digital domain. Across the board, the digitalisation of the payment system, combined with a reduction in traditional payments, has enabled banks to save costs directly associated with the provision of payment services and the processing of payments, such as maintaining and staffing branches. Furthermore, digitalisation often results in fewer

cash payments, leading to cost savings not only for banks but also for retailers at the current rates. On the other hand, digitalisation adds costs in other areas, such as security costs to combat cybercrime, while risk and compliance costs have increased sharply since the Anti-Money Laundering and Anti-Terrorist Financing Act (*Wet ter voorkoming van witwassen en financieren van terrorisme – Wwft*) came into force (Dutch Payments Association, 2022).<sup>4</sup>

**Further digitalisation of the payment system has also put pressure on traditional basic payment services.** By traditional forms of basic payment services we mean the non-digital and offline alternatives to payment services. For example, due to the disappearance of bank branches, it is becoming less common for account holders to visit a bank branch for personal services or to seek assistance from a bank employee. Individuals and businesses are also finding it increasingly difficult to withdraw or deposit cash, although the standard requirement that a resident of the Netherlands or a business must not be more than five kilometres from a withdrawal facility as the crow flies is still being met. The number of ATMs has fallen sharply over the last 15 years.

**These developments mean that certain groups in society can no longer participate independently (or entirely independently) in the payment system.** They experience a decline in the ease of use, efficiency, availability and accessibility of certain payment services, for example because they lack the skills needed to deal with these new digital alternatives, because they have physical

disabilities or because they lack the necessary devices (e.g. computer, tablet and/or smartphone).

## 2.2 Advance of digital basic payment services

**Basic payment services are actions that account holders perform when making day-to-day payments and opening, using and managing a payment account.** For basic payment services, we draw a distinction between traditional and digital services. One of the distinguishing features is the environment in which account holders perform the relevant services: from home, or at another location such as a bank branch or a terminal (in a store). It is important to examine the different payment methods and/or devices that they can use for these basic payment services. Below we explain the basic payment services on which this study focuses:

1. Withdrawing cash
  2. Using a mobile banking app
  3. Paying for purchases in a brick-and-mortar store
  4. Payments to friends, family, acquaintances or colleagues
  5. Paying for purchases in an online store
  6. Transferring money to a store, company or organisation
  7. Requesting, activating and blocking a debit or credit card
  8. Checking balances, debits and credits
  9. Opening and closing a payment account
- Finally, we discuss the support services.

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<sup>4</sup> The Wwft has been in force since 2008, but particularly in recent years banks have increased the effort and expenditure devoted to anti-money laundering (AML) and know your customer (KYC). In the case of large banks, some of these costs are now being passed on to business customers.



### 2.2.1 Withdrawing cash

**The number of places where account holders can withdraw cash has come under pressure in recent years.** Before the advent of ATMs, account holders usually withdrew cash at the counter of a bank branch. Since the arrival of ATMs – often inside or in the wall of a bank branch – it has been possible to perform these operations without the involvement of bank staff. Later on, the arrival of payment terminals also made it possible to withdraw cash with a debit card at some retail locations. Cash can also be withdrawn from ATMs of non-bank operators such as YourCash and Euronet in many supermarkets and at locations frequented by foreign tourists and visitors. Some of Geldmaat’s ATMs are also located in stores.

The coverage rate, based on the standard agreed in the NFPS that a resident of the Netherlands must not live more than five kilometres from an ATM as the crow flies (based on postcodes), has remained stable in recent years (see inter alia NFPS (2022a)). The number of ATM locations has nevertheless decreased in recent years. This is partly due to the arrival of Geldmaat, which manages ATMs on behalf of three major banks. Whereas several ATMs of different banks were sometimes previously located close to each other, these have now been replaced by a single Geldmaat machine. It is therefore no longer located in one of the bank branches. It is no longer possible to withdraw cash at the counter of the major banks. The number of stores offering cash withdrawals when making purchases is decreasing steadily.<sup>5</sup> All these developments have resulted in account holders often having to travel greater distances to withdraw cash.



### 2.2.2 Using a mobile banking app

**Most banks enable their customers to do their banking on a mobile banking app.** The mobile banking app enables bank customers to manage their day-to-day banking remotely, such as opening an account, requesting and/or activating a payment method, checking balances, making transfers or requesting support. This makes it easier and faster for a large group of bank customers to manage their banking affairs. The mobile banking app, combined with the accessibility features on the mobile phone, also enables people in certain focus groups (such as deaf or blind people) to do their banking in their own familiar environment by means of the app, without being dependent on a bank employee.

**Whereas in the past the bank branch used to be central to the performance of these services, banking without a mobile app is now the exception.** Despite this, most traditional banks still offer options for banking without a mobile app. Logging into the bank’s internet banking environment or confirming a payment order in many cases has to be done in a different way, often using a separate device into which the debit card has to be inserted (such as the Rabo Scanner or the ABN AMRO E.dentifier). Certain neobanks<sup>6</sup>, such as Bunq, Knab or N26, are an exception to this: these banks’ services are only available to customers with a mobile banking app on their phone.

<sup>5</sup> In 2022, 27% of SMEs were able to do so, compared to 34% in 2016 (NFPS, 2022b).

<sup>6</sup> A neobank is a type of bank that only operates online.

### 2.2.3 Paying for purchases in a brick-and-mortar store



#### **Consumers increasingly pay for their purchases at the point of sale using digital payment methods.**

Before the arrival of payment terminals in stores, customers paid for most of their purchases with cash. That has now changed: consumers used non-cash methods to pay for 80% of all purchases at the point of sale in 2021, mostly using their debit card (DNB 2022b). A lot of innovation has also taken place with regard to debit cards. Consumers are increasingly able to make contactless purchases, for example by holding their debit card against the payment terminal. Payments by alternative methods, such as a mobile phone or smartwatch, have also increased in popularity in recent years. For example, account holders can pay with digital versions of debit and credit cards which they add to wallet apps, such as Apple Pay and Google Pay, or by scanning a QR code to make an iDEAL payment.

**The popularity of digital payment methods has put the position of cash under pressure.** Many retailers encourage their customers to pay for purchases by debit card, for example by installing signs such as “Pinnen? Ja graag!” (“Debit card? Yes please!”). There are also more and more places where customers can pay for their purchases at self-scan checkouts, which are only equipped with a payment terminal. Some businesses no longer accept any cash payments at all and have a card-only policy (Panteia, 2020). Many parking, coffee or snack machines also only accept contactless payments.

### 2.2.4 Making payments to friends, family, acquaintances or colleagues



#### **People in the Netherlands also increasingly use online alternatives and less cash to make payments to friends, family, acquaintances or colleagues.**

Since 2020, more than half of all peer-to-peer payments have been made online (DNB and Dutch Payments Association, 2022). The rise of online payment requests make remote peer-to-peer payments by mobile phone possible. Nevertheless, people still opt relatively often for cash to make peer-to-peer payments, especially for smaller amounts. This includes pocket money for children, for example.

### 2.2.5 Paying for purchases in an online store



#### **When making a purchase in an online store, it is necessary to use a digital device connected to the internet, such as a computer, tablet or smartphone.**

However, not all payment methods used in an internet purchase have digital origins. For example, it is possible to pay by credit card, one-time direct debit mandate, or to pay on delivery by debit card or cash. iDEAL was introduced as a payment method in 2005 and has since become the most widely used payment method in online stores in the Netherlands. With iDEAL payments, customers can pay for a purchase directly by making an online transfer through their own bank’s internet or mobile banking service. Services like Apple Pay and Google Pay have now also entered the e-commerce market. It is also notable that a large number of new services have emerged in recent years whereby customers pay only after receipt of the purchase.

### 2.2.6 Transferring money to a store, company or organisation



**Traditional methods for issuing payment orders are coming under pressure from the emergence of new digital methods.** Issuing a payment order includes all methods by which money can be transferred from the payer's payment account to that of the recipient. In the past, account holders filled in a bank transfer form or used an inpayment transfer with the beneficiary's name and account number prefilled by the beneficiary and sent it by post to their bank. The arrival of the direct debit meant that payments could be made automatically by issuing a once-only mandate for single or recurring payments.

**New methods have been developed enabling account holders to issue payment orders, in most cases remotely.** For example, account holders can make a transfer using internet banking or their bank's mobile banking app. A direct debit mandate can also be issued digitally. Furthermore, organisations nowadays send many invoices by e-mail, and account holders pay such invoices by clicking a payment link via iDEAL to make a bank transfer online. Many organisations still send their customers paper invoices, which often also include a QR code that the customer can scan with a smartphone to make the payment by iDEAL.

**The use of certain traditional methods is now so low that banks may soon stop offering them.** The inpayment transfer will cease to exist as of 1 June 2023<sup>7</sup>. Certain methods for issuing payment orders are also under pressure due to the closure of bank branches (payments with assistance from a bank employee) or because banks charge their

customers additional fees for these methods (paper transfer forms and/or envelopes).

### 2.2.7 Requesting, activating and blocking a debit or credit card



**It is increasingly easy to request and activate payment methods from home.** To apply for a new or replacement debit card or other payment method such as a credit card, account holders can still often make an appointment in the traditional way with their bank branch. In most cases the card is sent to their home address by post. The associated PIN is sent at a separate time for security reasons. Payment methods can be activated in various ways: most banks enable account holders to do this at a branch, but some also enable them to do so by sending a reply form by post. Digitalisation also allows other methods to be used to request, activate and block payment methods. A new payment method can be requested, activated and blocked by telephone and increasingly by means of internet banking and/or the mobile banking app. In some cases the action has to be confirmed using a card reader. A recent trend is the rise of payment methods on smartphones. Account holders can activate their debit card using their bank's mobile banking app. Alternatively, through their bank, they can store a digital version of the card on their smartphone or wearable (e.g. a smartwatch) by using wallet services such as Apple Pay or Google Pay. Requesting, activating and blocking these types of services is often done entirely digitally.

<sup>7</sup> <https://www.Acceptgiro.nl/>





### 2.2.8 Checking account balances, debits and credits

**Account holders can request a list of their debits and credits and their bank balance by means of internet banking or the mobile banking app.**

However, most banks still offer their account holders the traditional option of receiving regular paper statements by post detailing all debits and credits in a certain period, including the balance. Account holders can also visit a bank branch to obtain information about their credits, debits and balances, and they can also call a balance line. Many ATMs have an option enabling account holders to view the balance of their payment account. Most banks try to persuade their account holders who use traditional methods to switch to digital methods, for example, by charging them additional fees for sending paper account statements by mail. The closure of ATMs and bank branches is making it more difficult for account holders to check their debits, credits and balances at a branch.



### 2.2.9 Opening and closing a payment account

**It has become increasingly common to apply for a payment account online.** In the Netherlands a payment account can be opened by people with a citizen service number and a valid and recognised ID and, as a rule, a residential address in the Netherlands. Traditionally, people used to go to a bank branch to open a payment account, because it was mandatory to confirm their identity on site by means of a valid (European) identity document. New artificial intelligence techniques enable the identity document to be checked and the applicant's face to be scanned via the app or computer, and for some banks it is no longer necessary to visit a branch. There has been an increase in the number of customers of "online-

only" banks, where a payment account can only be opened online due to the lack of bank branches. At more and more banks the closure of a payment account can also be carried out entirely online by means of internet banking or the mobile app, but it can still often be done by telephone or at a bank branch.



### 2.2.10 Support services

**Banking is increasingly being carried out remotely, making it more difficult for account holders who do not use digital means – or who only do so with great difficulty – to get in touch with a bank employee.** Some people need support with their banking. For this they rely in the first place on a bank employee, who can offer them assistance at a bank branch or service point. As a result of digitalisation, banks have developed increasing ways in which customers can receive assistance from a bank employee without visiting a branch. For example, account holders can call customer service, often after going through a menu of options. Banks also use external call centres. It is also increasingly common to chat with a bank employee (or chatbot) on the internet or to make an appointment for a video call. These new ways of providing services mean that many people no longer have to visit a bank branch to receive support. However, the closure of many bank branches has made it more difficult for customers who are struggling with digitalisation or want an in-person meeting with a bank employee to get support, although a number of banks have introduced financial care coaches and advisors who can visit the customer. Other banks are opening service points where they can support customers with their banking, for example, or help them to use online banking.

## 2.3 Conclusion

**Digitalisation of the payment system affects the actions that account holders have to perform in order to use the nine basic payment services covered in this study.** New digital payment and banking methods are making it increasingly common to perform basic payment services online or remotely. Whereas the bank branch and the bank employees working there traditionally played a central role in providing services for account holders, the mobile banking app is now often the first place to which account holders turn to perform basic payment services such as issuing a payment order. Increasingly, this means that the traditional – offline – service will disappear, or will only remain available for a fee. Account holders who are unwilling or unable to go along with these developments consequently face growing difficulty and experience a decline in services (NFPS, 2021).

## 3 Literature review

**This chapter reviews what is already known about the impact of the digitalisation of the payment system on the focus groups covered in the qualitative study.** We have surveyed the knowledge and discuss the current insights with regard to each group.

### 3.1 Current insights with regard to each group

#### 3.1.1 People without internet or smartphone

**The first focus group consists of people without the internet or a smartphone. It includes many people aged 75 and over.** Internet access is a prerequisite for internet or mobile banking. In 2021, 97% of the Dutch population aged 12 and over had internet access at home and 88% used it daily. Access and internet use among people aged 75 and over is relatively low: 80% had internet access and 52% used it daily (Statistics Netherlands, 2021b).

**People without the internet experience a deterioration in the everyday use of banking and payment services.** The 2021 Availability Monitor shows a decrease in satisfaction with payment services among people who have no internet access; the score fell from 7.6 in 2016 to 6.8 in 2021 (NFPS, 2021). In particular, they are less satisfied with the depositing of coins and banknotes, the opening hours of the branch, the bank's helpdesk and the distance to the ATM. Half of this group can perform banking activities independently. Issuing a payment order is one of the payment services that they find difficult, according to previous research on behalf of DNB and the NFPS (Motivaction, 2018).

#### 3.1.2 People with low digital skills (who have internet/smartphone)

**The second focus group consists of people with low digital skills who do have access to the internet.** Having access to the internet does not mean that someone has sufficient digital skills. For example, it is no guarantee that someone who has signed up for internet banking or downloaded the app from the bank will cope with internet and mobile banking and regularly use it. In 2021, 85% of the Dutch population aged 12 and over said they used internet or mobile banking (Statistics Netherlands, 2022d). For people aged 75 and over, the figure is 55%.

**Digital skills concern the extent to which people are able to use digital tools and the extent to which they can properly assess the associated risks.** Van Deursen and Helsper (2020) use the following definition: *“At the highest level, digital skill is the extent to which a person is able to achieve (high-quality) benefits using the internet (or internet technology) and to mitigate the risks, now and in the future.”* The study on “Use of ICT by households and individuals” identifies digital skills based on the number of activities in five areas (Statistics Netherlands, 2022d; Eurostat, 2022). First, information and digital literacy (searching, assessing and processing digital information). Second, online communication (using digital means for social and communication purposes). Third, computers and online services (being able to tackle and solve computer problems). Fourth, privacy protection (protecting your own data and online persona). Fifth, software use. A person is deemed to have novice digital skills if he or she performs at least one activity in the first two areas: information and digital literacy and online communication. A person is only deemed to have basic skills if he or she also performs one or two activities in the other areas: computer and

online services, privacy protection and software use. A person falls into the “more than basic skills” category if he or she can perform two or more activities in the field of information and communication and three or more in the other areas.<sup>8,9</sup>

**In 2021, 21% of the Dutch population aged between 16 and 74 had no basic digital skills.**

27% had basic skills and 52% had more than basic skills (Statistics Netherlands, 2022d; Eurostat, 2022). Digital skills are highest in the field of online communication and lowest in software use and privacy protection. The digital skills of the Dutch population are lowest among seniors, low-skilled people and women. Non and Dinkova (2021) conclude, on the basis of figures from Statistics Netherlands and the OECD, that although young people have relatively high digital skills, there is at the same time a group of young people with low skills. In addition, people with low digital skills often have low literacy and low incomes. The specific problems encountered by people with low digital skills are affected by the extent to which they belong to other “vulnerable” groups (Veldman-Marsman, 2021).

**People with low digital skills are often unfamiliar with all existing forms of help and typically focus on personal contact and courses available in their own area.** These are the findings of research conducted on behalf of the Ministry of the Interior and Kingdom Relations (Kantar Public, 2019). The better able people are to cope with digital methods, the more familiar they

are with the help options, because they can find them through the digital channels. People with low digital skills therefore have a greater need for personal contact and make more frequent use of courses available in their own area to develop their digital skills. In general, both people who are digitally skilled and people who lack digital skills usually seek help first from friends and family when they encounter problems.

**Satisfaction with banking and payment services could be improved for people with low digital skills.**

Their average overall satisfaction was 6.5 in 2021, which is lower than that of other groups (NFPS, 2021). 53% of people with low digital skills manage their banking affairs themselves. People with low digital skills report that their independence decreased in the three years before the measurement. This applies to almost all services, such as opening a payment account and withdrawing cash.

**3.13 People with low literacy**

**The third focus group concerns people with low literacy.**

Literacy is the ability to passively and actively use information, in other words to be able to read, write, spell, listen and speak (van Deursen and Helsper, 2020). In 2012, more than 2.5 million people over the age of 16 had difficulty with language and/or arithmetic. This is according to calculations by the Netherlands Court of Audit on the basis of OECD figures for 2012 (Netherlands Court of Audit, 2016). We distinguish between people with low digital skills and people with low literacy. If you have no difficulty with language

<sup>8</sup> The scope of digital skills can be conceptualised in various ways. Van Deursen and Van Dijk (2011) describe a general framework for digital skills that can be applied to different media. Digital skills can be divided into operational, formal, informational and strategic skills, on a basis similar to the definition used by Eurostat (2022).

<sup>9</sup> Studies on digital skills are often limited by their reliance on survey data with statistics that are measured indirectly (e.g. on the basis of frequency of use of digital services) or on the basis of self-assessments. Both methods only have limited validity, as they are an inaccurate measure of actual digital skills (van Deursen, 2018).

and arithmetic, that does not automatically mean you will be able to cope in the digital world. For example, there are elderly people who are literate but not (yet) able to manage their money online. Compared to someone who does not have low literacy, a person with low literacy is three times more likely to have insufficient digital skills (Baay et al., 2015).

**The ability to read, understand, evaluate, use and apply texts is generally important in order to be financially self-reliant.** Low literacy increases the risk of poverty (Christoffels et al., 2016). For example, people with low literacy already have great difficulty understanding accounts and keeping track of their income and expenses (Reading and Writing Foundation, 2018).

**In addition, people with low literacy usually have a smaller social safety net to fall back on.** A social network can be important, as people can fall back on it if they encounter financial problems (Reading and Writing Foundation, 2018). Because of their more limited social safety net, people with low literacy have to rely on institutions. People with low literacy are overrepresented among people applying for debt relief (Madern et al., 2016), although they find it difficult to access it on their own (National Ombudsman of the Netherlands, 2016). This can also be a factor in the search for help with banking matters.

**Low literacy is particularly common among people with a low level of education.** This is demonstrated by Buisman et al. (2013) (see also Reading and Writing Foundation, 2019). Compared to people with a higher education level, people with a low level of education make less use of online payment methods (van der Crujisen and Plooij, 2018; van der Crujisen and van der Horst, 2019; Jonker et al., 2022; van der

Crujisen and Knobben, 2021). They are also less likely to have a preference for debit cards, both of the traditional kind (with a PIN) and contactless (Jonker et al., 2022). This may be because they have more difficulty with the digitalisation of the payment system. Studies on payment behaviour do not examine the effect of low literacy. The 2021 Availability Monitor shows a decline in low-skilled people's ability to manage their banking independently (NFPS, 2021). No separate study was made of people with low literacy.

#### 3.1.4 People aged 65 and over

**The fourth focus group consists of people aged 65 and over.** Most studies show that seniors generally score lower for digital skills than young people (Doerr et al., 2022). According to Van Deursen (2018) the picture is more mixed. This study showed a wider spread in the extent of digital skills among younger internet users. Seniors who have sufficient basic technical skills to operate the internet (operational skills, or button knowledge) and cope well with digital media also score higher for information navigation skills than younger internet users.

**People aged 75 and over in particular have low scores for digital skills.** Van Deursen (2019) shows that digital skills of people aged 65 and over are lower than those of 18- to 64-year-olds. People aged 75 and over score much lower for digital skills than the younger group of seniors. In terms of operational skills, mobile skills (basic technical skills needed to operate mobile internet devices such as smartphones), information navigation skills, communication skills and content creation skills, 51%, 24%, 28%, 47% and 7% respectively of respondents aged 75 and over achieved a satisfactory score in 2018. Nine out of 10 respondents aged 75 and over need help with using the internet. They usually ask their children for help.

**Seniors use fewer different devices to access the internet and use the internet less often, especially those aged 75 and over.** On the basis of data for 2018, Van Deursen (2019) shows that this is the case for people aged 65 and over compared to 18- to 64-year-olds. In particular, the use of the internet on a smartphone is much lower. As mentioned earlier, another factor is that people aged 75 and over have less internet access. In 2021, 80% of people aged 75 and over had internet access and 52% used it daily. 39% of them used the internet on a tablet and 49% on a mobile phone or smartphone. By comparison, 96% of 65- to 74-year-olds had access to the internet and 79% used it daily. 54% accessed the internet on a tablet and 78% on a mobile phone or smartphone (Statistics Netherlands, 2021b).

**People aged 70 and over have more difficulty with digital banking than with generally keeping up with digital developments.** A quarter of respondents aged 70 and over in an online survey on the use of digital payment services are sometimes unable to use digital banking (ABN AMRO and DirectResearch, 2022). Seniors feel they are less independent than younger generations. Almost half of them would consider using a financial care coach or would like to do so. The first point of contact for seniors is still usually the children. With regard to this study, it should be noted that it is an online study, which may mean the share of people struggling with the digitalisation of payment services is underestimated.

**The use of digital payment methods is lower among people aged 65 and over than among other groups of adults.** In particular, debit card use is relatively low among seniors, even when other background characteristics are taken into account (van der Crujisen and Plooi, 2018; van der Crujisen and van der Horst, 2019; van der Crujisen and Knob, 2021; Jonker et al., 2022). 20% of point-of-sale transactions by people aged 12 and over were settled in cash in 2021 (DNB and Dutch Payments Association, 2022). The use of cash in the Netherlands is highest among people aged 75 and over. In 2021, they paid for 28% of their point-of-sale purchases in cash. In the 65-74 age bracket, the figure was 25%. Since the beginning of the pandemic, the use of debit cards among seniors has risen sharply, and this change is largely permanent (Jonker et al., 2022). In short, previous research shows that it is important to distinguish between young seniors and older seniors. In the qualitative study, we therefore distinguish two subgroups of seniors: 65- to 74-year-olds and people aged 75 and over.

### 3.1.5 Low-income people or people who struggle to make ends meet

**The fifth focus group consists of low-income people or people struggling to make ends meet.**

Statistics Netherlands defines income poverty in the Netherlands as "... *having insufficient money (income) to achieve a certain level of consumption that is considered the minimum necessary in the Netherlands*" (Statistics Netherlands, 2021a). In 2020, 513,000 of the more than 7.5 million households had income below the low-income threshold. Financially vulnerable groups face a combination of problems: a lack of skills, a poor

labour market position and/or lower income (Wijzer in geldzaken and Nibud, 2020).<sup>10</sup>

**Having a financially vulnerable position has an impact on the extent of technology use and the way it can be used.** In the literature, the term “usage gap” is used to describe this difference in usage between people from a lower and higher socioeconomic milieu (Van Deursen, 2018, p. 49). Someone on low income can afford few or no devices, for example. In addition, lower-income jobs provide fewer opportunities to develop digital and other skills.

**The use of digital payment methods is lower among low-income people than higher-income people.** In 2021, people with an annual gross household income of up to €23,400 paid for an average 30% of their transactions in cash (DNB and Dutch Payments Association, 2022). For middle-income people the figure is 20% and for people with high incomes (over €65,000) the figure is 11%. This is also reflected in their preferences. Low-income people are more likely to prefer cash payments and less likely to pay by debit card than people in other income groups (Jonker et al., 2022).

**Digital payment methods do not sufficiently help some low-income people to use money wisely.** In addition to the fact that low-income people may find it more difficult to use new technologies, digital payment methods may not sufficiently help them to make ends meet and to avoid debt and impulse purchases. Hernandez et al. (2017) show that low-income people and people who struggle to make ends meet prefer

cash as a means of budgeting. This preference strongly influences their payment behaviour. On average, households find cash and debit cards equally useful for monitoring household finances, according to this study. Other research centred on Germany and the United Kingdom also highlights the importance of cash for low-income people in avoiding impulse purchases, making it easier to make ends meet and reduce debt (Von Kalckreuth et al., 2014; Access to Cash Review, 2019). The UK research also indicates that since financially vulnerable people have limited access to the digital infrastructure and are more dependent on cash, they risk having to pay more for alternatives. They also lose money because they are less able to take advantage of discounts in online stores or compare prices of goods.

### 3.1.6 Visually impaired people

**The sixth focus group consists of people with visual impairments.** A visually impaired person has vision that is impaired to some extent, even with the use of visual aids. Blindness is defined as having a visual acuity of less than 0.05 (5%) in the best eye, including with correction. Visual impairment is defined as visual acuity between 0.05 and 0.3 (5% to 30%) in the best eye, with correction (WHO, 2021). It is estimated that 3.4% of the Dutch population over the age of 12 have a visual impairment (Statistics Netherlands, 2022b).

**People with limited vision struggle to find their way around and navigate on the internet and digital systems.** The accessibility of a digital medium for visually impaired people depends on consistent positioning of text or images, colour contrast and font size. Technologies such as a

<sup>10</sup> Groups at high risk of poverty are: single-parent families, single people up to state pension age, households with a non-Western migration background, welfare recipients and low-skilled people (Statistics Netherlands, 2021a).



screen reader and magnification software can help visually impaired people to navigate on a screen, tablet or smartphone. Several banks offer visually impaired people special tools, such as talking login devices with large keys. Visually impaired and blind people experience the most problems with withdrawing and depositing cash at ATMs (Motivaction, 2018). In 2020, Geldmaat introduced new ATMs with voice support and more accessible screens, which were developed in consultation with the Eye Association Netherlands (NOS, 2020).

**The overall satisfaction of blind and severely visually impaired people with banking and payment services has decreased in recent years.** The score fell from 7.4 in 2016 to 6.6 in 2021, according to the 2021 Availability Monitor (NFPS, 2021). People are least satisfied with the distance between their home and the bank branch, and with the mobile banking app. Only 45% of blind and severely visually impaired people do their banking completely independently. The trend in independence presents a mixed picture. In particular, independence with regard to cash withdrawals has decreased since 2016, while independence with regard to cash deposits, for example, has increased slightly. However, the number of respondents involved is still less than half of those surveyed in the study.

**Visually impaired people benefit from uniformity, continuity, the retention of useful features and intuitive design.** This is evidenced by a qualitative study by the Perspective research firm conducted on behalf of the Dutch Payments Association and the Eye Association Netherlands among visually impaired and severely visually impaired people having at least some digital skills (Zwaan et al., 2022). This group prefers to make contactless debit card payments at the point

of sale. They do not have to search for the right notes and coins and there is usually no need to enter a PIN. They have difficulty with the lack of uniformity of the payment terminals. Visually impaired people find mobile banking more comfortable to use than internet banking, because they find it difficult to locate the right information on a large screen containing a lot of information. They do also encounter problems with mobile banking. For example, not all bank apps can be displayed with sufficient contrast. The tools that visually impaired people can use are not known to the entire target group. The study includes various recommendations, including better information about adaptations and solutions, involving visually impaired people in the design process and more exchanges of knowledge between banks.

### 3.1.7 People with reduced mobility

**The seventh focus group concerns people with reduced mobility, i.e. people who are unable to use a particular joint properly.** According to OECD indicators (Statistics Netherlands, 2019), someone has reduced mobility if they have difficulty moving, lifting, bending and walking. According to Statistics Netherlands, 7.3% of the Dutch population over the age of 12 have reduced mobility (Statistics Netherlands, 2022b). Research often focuses on the opportunities afforded by digitalisation for people with reduced mobility in healthcare and the labour market (Biesma et al., 2017; Sohaib et al., 2017). The difficulties they experience in the physical world occur less or not at all in a digital environment.

**Satisfaction with banking and payment services has decreased among people with reduced mobility.** For people who have a walking impairment, the satisfaction rate decreased from 7.4 in 2016 to 7.0 in 2021 (NFPS, 2021). The lowest score was for the distance to the bank branch.

Among wheelchair users, the decrease in overall satisfaction was even greater, from 7.8 to 6.8. In particular, this group are less satisfied with the distance to the bank branch and the availability of the mobile banking app. 63% of people with reduced mobility manage their banking independently. Research by Motivaction (2018) shows that people using a walker, mobility scooter or wheelchair are largely able to use payment services independently.

### 3.1.8 People with limited hand function

**The eighth focus group comprises people with limited hand function.** These people have limited motor skills in their arms and hands, as a result of which they have difficulty tying knots and laces, writing or operating equipment. There are no known statistics on the size of this group and hitherto there is little known research on the impact of digitalisation on them. In the study by Motivaction (2018), three out of twelve participants with limited hand function reported problems with depositing money. In particular, they encountered difficulties in operating the deposit device and inserting banknotes correctly. For similar reasons, two out of 12 respondents reported having difficulty withdrawing money. No one reported problems with issuing a payment order, requesting and activating a payment method and checking debits and credits.

**Overall, people with limited hand function were satisfied with various banking and payment services in 2021.** The score in the 2021 Availability Monitor is 7.1 (NFPS, 2021). Distance to the bank branch receives the lowest score in this group, 6.2. 58% manage their banking independently.

### 3.1.9 People with an auditory impairment.

**The ninth focus group comprises people with an auditory impairment.** Their hearing is limited to some extent. Impaired hearing (in one or both ears) and deafness (full hearing loss in both ears) are forms of auditory impairment. There are an estimated 1.5 million people with an auditory impairment in the Netherlands (Stichting Hoormij, 2003). According to figures from Statistics Netherlands (2022b), 2.8% of people aged 12 and over in the Netherlands experience limitations in their daily life due to loss of hearing.

**The use of digital devices such as smartphones and tablets is just as high among people with an auditory impairment as among people without an auditory impairment.** This is according to research by Van Wier et al. (2021). They compared the use of digital devices (smartphones, smartwatches, tablets etc.), apps (fitness, weather forecasting and mobile banking etc.) and social media (Facebook, Instagram etc.) among people with hearing problems and people without hearing problems. The researchers concluded that people with an auditory impairment make greater use of digital devices for social media and their work than those without a hearing impairment. The study also found no difference in the use of types of apps between people with an auditory impairment and people without an auditory impairment. The use of apps for financial purposes such as mobile banking was the same in the two groups examined. Deaf people in particular experience problems when applying for and activating payment methods (Motivaction, 2018). Four out of 12 participants in the study report such problems. With regard to the other payment services, including online purchases, participants with an auditory impairment experience hardly any difficulty.

### 3.1.10 People with a mild intellectual disability

**The tenth focus group comprises people with an intellectual disability.** A person is deemed to be intellectually disabled when he or she cannot fulfil the social expectations associated with his or her age. A mild intellectual disability is reflected in an IQ score between 50 and 70 (Landelijk Kenniscentrum LVB, 2022). About 370,000 people in the Netherlands have a mild intellectual disability (Woittiez et al., 2019).

**People with a mild intellectual disability are financially vulnerable due to a range of factors, including a lack of financial, digital and reading skills.** This is evidenced by research (Jurgmann et al., 2018). People with intellectual disabilities are also more likely to be excluded from public transport through digitalisation (Durand et al., 2018). Digitalisation does not increase independence, because help is needed to use public transport. As well as reduced independence, people with a mild intellectual disability have an increased risk of being victims of cybercrime. However, there is no clear indication of this in research (Chadwick, 2019; Chadwick 2022). Other factors may also affect the negative impact of digitalisation, such as a smaller social safety net, lower mental well-being and more limited judgement. The barriers faced by people with intellectual disabilities as a result of digitalisation may therefore depend greatly on their skills and social network.

**People with a mild intellectual disability indicate that their independence with regard to the payment system has decreased in recent years.** Most people with mild intellectual disabilities need help with their banking (NFPS, 2021). 45% can do it independently. 88% can make payments independently in a brick-and-mortar store. 59% can open a bank account on their own. This focus group indicates that it is generally satisfied with banking and payment services (score: 7.4). The lowest subscores are for opening hours and the distance to the bank branch.

### 3.1.11 People with a migration background

**The final focus group consists of people with a migration background.** A person has a migration background if at least one of his or her parents was born abroad. Statistics Netherlands figures show that as at 1 June 2022 more than a quarter of people in the Netherlands (4.6 million people) had a migration background. 2.5 million Dutch nationals are first-generation migrants. They and at least one of their parents were born abroad. 2.0 million Dutch nationals are second-generation migrants. They were born in the Netherlands and have at least one parent born abroad (Statistics Netherlands, 2022c).<sup>11</sup> 2.0 million Dutch residents have a Western migration background and 2.6 million have a non-Western migration background. We include the largest migrant groups in the qualitative study. People with a Western migration background are those from Belgium, Germany, Indonesia, Italy, Poland and the United Kingdom. In the case of persons with a non-Western migration background,

<sup>11</sup> It should be noted that Statistics Netherlands introduced a new population classification by origin in 2022: born in the Netherlands and country of origin (Statistics Netherlands, 2022a).

we distinguish the following countries of origin: China, Iraq, Morocco, the Netherlands Antilles, Suriname, Syria and Turkey.

**Payment behaviour depends on the country of origin and whether someone is a first- or second- generation migrant.** This is demonstrated in the research (Kosse and Jansen, 2013). First-generation migrants from a country where cash is the main payment method (e.g. Germany, Morocco and Turkey) are more likely to use cash as a payment method than native Dutch people. Second-generation migrants, on the other hand, often adopt the payment habits of native Dutch people. In our qualitative study, we focus on first-generation migrants (see Chapter 5).

**Migrant groups are also a heterogeneous population in terms of payment behaviour.** Research commissioned by the Dutch Payments Association shows that Polish people have a stronger preference for contactless debit card payments, more than the average Dutch person, and are very active users of online banking (Dutch Payments Association, 2020). With regard to people of Turkish, Moroccan, Surinamese or Antillean origin in the Netherlands, there was found to be a shift in preference towards digital payments at points of sale: *"In 2006, 68% preferred to pay for everything in cash. By 2019 this group had halved in size."* The study also shows that the four migrant groups mentioned above use internet banking less than Polish migrants, with one in five respondents of Surinamese, Antillean, Turkish and Moroccan origin saying they do little or no internet or mobile banking.

**The obstacles to the financial infrastructure experienced by people with a migration background in the Netherlands depend among other things on their level of education, digital skills and the migration and integration phase in which they find themselves.** This is shown in the study by the AFM (AFM, 2021). In particular, people in the Netherlands with a non-Western migration background have a lower level of education on average and therefore a weaker labour market and income position than Dutch nationals without a migration background. There are indications that income disparities between Dutch nationals with and without a migration background do not diminish rapidly over generations (particularly in the case of second- and sometimes third-generation non-Western migrants) (CPB, 2019). Refugees and status holders also have relatively high financial vulnerability, because they often have debts when they start living in the Netherlands, do not master the language well and are unfamiliar with the Dutch financial system (Wijzer in geldzaken and Nibud, 2020).

**Digitalisation and the closure of bank branches are often difficult for older, first-generation migrants, but also for younger migrants who have not acquired digital skills in their country of origin.** Suggested solutions mentioned by the AFM are the physical provision of accessible, independent information, ideally in different languages, keeping bank branches open with guidance being offered in several languages by a person they can identify with, as well as information at secondary schools for young people (AFM, 2021).

### 3.2 Conclusion

**This literature review shows that the digitalisation of the payment system poses a major challenge for people from various groups and raises inevitable follow-up questions.**

Independence and satisfaction with banking and payment services have decreased among many focus groups in recent years. Much is still unknown about the problems faced by specific groups at present. Little is known in any event about the impact of digitalisation of the payment system, for example on people with a migration background and people with low literacy. This in-depth study will look further into the extent of the problem, the obstacles and the possible solutions.

## 4 Number of people not participating independently or fully independently in the payment system

**Of the 14.3 million people aged 18 and over in the Netherlands,<sup>12</sup> it is estimated that around 2.6 million (over 18%) do not carry out their banking entirely independently.** Others help them with their banking, because they are unable or unwilling to do it entirely on their own. Nearly 400,000 people (approximately 15%) in this group report that they have handed over their banking entirely to someone else.

**In this chapter we consider the calculation of the number of people in the Netherlands aged 18 or over who do not participate entirely independently in the payment system.** We do this by first determining how many people fall into one or more focus groups (section 4.1). We then apply an adjustment to eliminate double counting in cases where someone falls into multiple focus groups (for example where someone is aged over 65 and hearing-impaired). This creates net focus groups (section 4.2). Based on these net focus groups, we use data on the degree of independence in focus groups from the 2021 Availability Monitor (NFPS, 2021) to estimate the total number of people in the Netherlands who do not do their banking independently and the total number of people who do not make payments or perform non-everyday payment services independently (section 4.3).

### 4.1 Method for determining the size of the focus groups

**We use various data sources to determine the number of people who fall into one or more focus groups.** The analysis starts with the data from the Point-of-sale Payments study by the Dutch Payments Association and DNB. For that study, more than 10,000 respondents were asked to state which focus groups they belonged to in the first

half of 2022. They are a representative reflection of society, making this study a good starting point for estimating the number of people falling within a focus group. We validate the size of the groups in this study using external sources, such as Statistics Netherlands (Statistics Netherlands) and the Eye Association Netherlands. People who have difficulty performing basic payment services often belong to multiple focus groups. This leads to double counting when the different groups are added together. We apply an adjustment for this: for example, only half of the individuals who fall into two focus groups are counted in those two focus groups. A more detailed explanation can be found in the step-by-step plan in Annex 1.

**People with low literacy are not shown as a separate focus group in this quantitative analysis, but they are counted because they mostly fall into the low-skilled group (see section 3.1.2).** The reason why people with low literacy are not included as a separate group in this quantification is that data from the Point-of-sale Payments study do not indicate whether a respondent has low literacy. However, since we do include the group of people with a low level of education in the quantitative analysis, the impact of this is expected to be limited.

**First-generation migrants are similarly not taken into account separately, but they often also form part of other focus groups.** Most first-generation migrants are now somewhat older, so they are often included in the 65- to 74-year-old focus group or the group aged 75 and over. In addition, Dutch nationals with a non-Western migration background have a lower level of education on average (see section 3.1.11), so they are already included in this quantitative analysis through that

<sup>12</sup> In June 2022, there were a total of 17.7 million people in the Netherlands according to Statistics Netherlands.

group. People in the first generation of migrants who do not fall into focus groups are included in the group of people who do not belong to a focus group.

### 4.2 Size of the focus groups

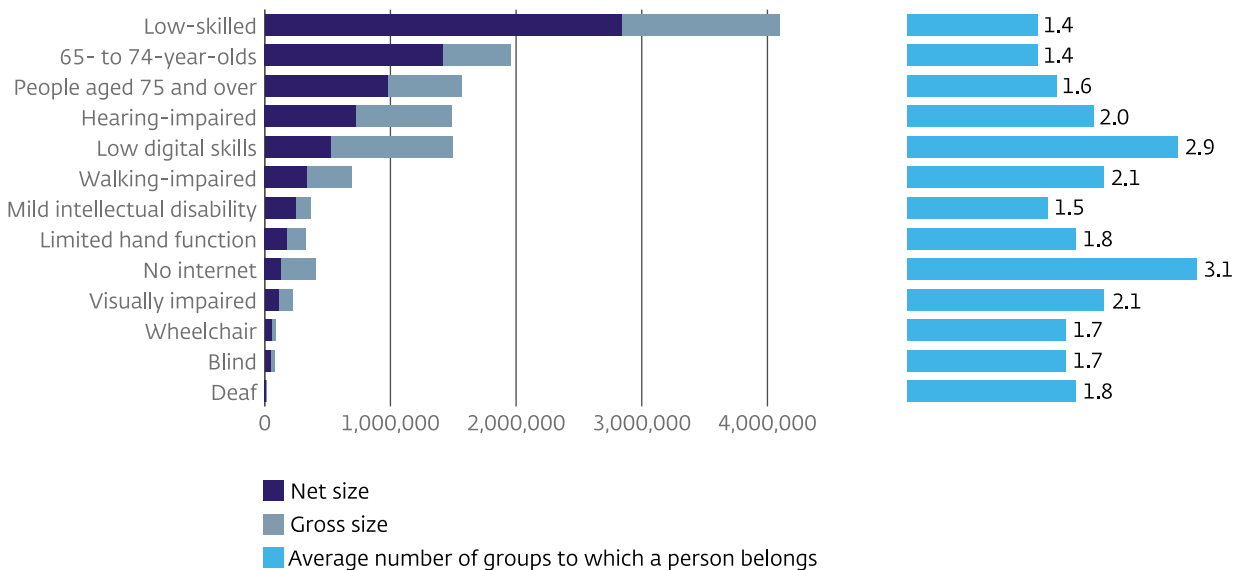
**7.6 million of the 14.3 million people in the Netherlands aged 18 or over (53%) fall into at least one of the focus groups.** Figure 4.1 shows the gross and net size of each focus group. The gross size includes the total number of adults in the Netherlands belonging to a particular group, while the net size is the size of the group after adjustment for double counting. By far the largest group comprises people with a low level of education: 4.1 million people in the Netherlands over the age of 18 fall into this group. However, many of them also fall into at least one of the other focus groups. The groups aged 65 to 74 and 75 and over are also relatively large: the gross sizes of these groups are almost 2 million and over 1.5 million people. Determining the net size of the individual focus

groups is particularly important for estimating the total number of people in the Netherlands who belong to at least one focus group.

**In order to adjust for double counting, it is important in the first place to know how many groups people in the individual focus groups fall into.** The overall gross size of a focus group will require a bigger adjustment the more often people in this focus group appear in other groups and are therefore counted twice. This adjustment will ensure that, for example, a person who is aged over 65 and also has a walking impairment is only counted once in the total size.

**The right-hand side of Figure 4.1 shows how many focus groups a person belongs to on average.** For example, people without internet access fall into 3.1 focus groups on average. This means that – in addition to having no internet – they also belong to just over two of the other

Figure 4.1 Gross and net size and average number of groups to which a person belongs, broken down by focus group





focus groups referred to above. People with low digital skills also belong fairly often to at least one of the other focus groups. On average, they belong to 2.9 focus groups. This picture is different for the largest groups in particular. For example, 65- to 74-year-olds fall into 1.4 focus groups on average. The same applies to the group of people with a low level of education. People who belong to these groups are often only part of this group.

### 4.3 Estimated number of Dutch nationals who do not perform payment services independently or entirely independently

**In order to estimate the number of people in the Netherlands who do not perform payment services independently or entirely independently, we combine the net size of the focus groups with data on the degree of independence of each group.** These data have been taken from the 2021 Availability Monitor (NFPS, 2021) concerning the availability and accessibility of payment services for consumers. In that study, respondents were asked about their independence with regard to banking in

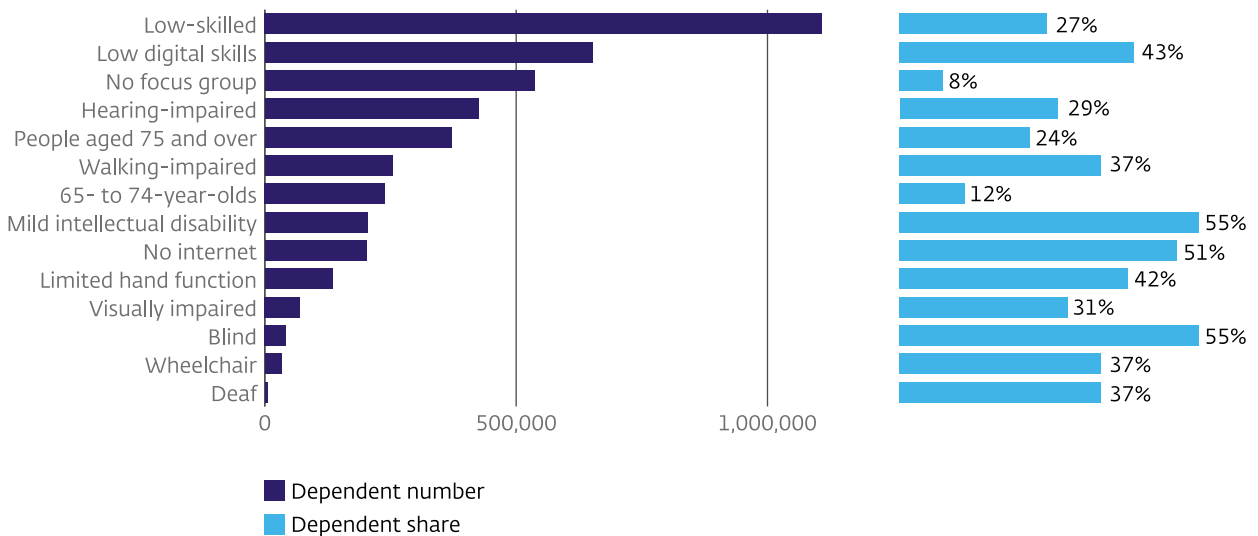
general: “Which statement about banking applies to you?” They could state whether they managed their banking entirely independently, with help from their partner or from others, or whether they handed it over entirely to someone else. This breakdown provides additional insight into the seriousness and extent of the problem. We combine the degree of independence of the different focus groups with the previously calculated net size of these groups (section 4.2). By combining these figures we obtain a picture of the number of people in the Netherlands who do not perform these payment services independently or entirely independently.

### 4.4 Independence

#### 4.4.1 Number of Dutch nationals who do not do their banking independently or entirely independently

**There are an estimated 2.6 million Dutch nationals (18%) who do not carry out all their banking entirely independently.** 1.6 million people (11%) manage their banking with their partner and more than 600,000 people (4%)

Figure 4.2 Number and share of people who do not carry out all banking independently by focus group



do so with help from someone other than their partner. Nearly 400,000 people (3%) have handed their banking over entirely to someone else. The largest group of people who do not carry out all banking independently are low-skilled people or people with low digital skills (Figure 4.2).

**More than 500,000 people in the Netherlands who do not fall into one of the focus groups indicate that they do not carry out all banking independently or entirely independently.** The percentage of people in this group who do not carry out (some or all) banking independently may be low (8%), but because the total size of this group is large (6.7 million), it still amounts to a lot of people.

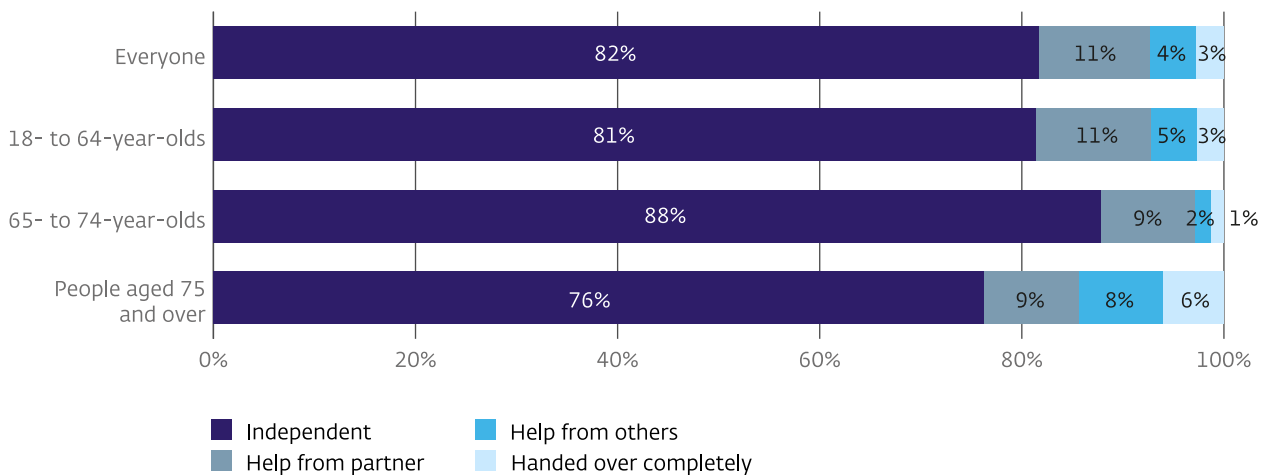
**The share of people who are unable to carry out their banking entirely independently is highest in relative terms among people who are blind or have a mild intellectual disability (both 55%) or have no internet access (51%).** By contrast, in the focus groups comprising 65- to 74-year-olds, people aged 75 and over, low-skilled and hearing-impaired people, fewer than 30% of people are dependent.

#### 4.4.2 Degree of independence by age group

**The degree of (full or partial) independence varies by age group and is lowest among people aged 75 and over.** Among all people aged 75 and over, 76% manage all their payment services independently, while 82% of all people in the Netherlands over the age of 18 do so independently. 18- to 74-year-olds most often receive help from their partner, while people aged 75 and over receive help from others almost as often. They are also more likely than people in other age groups to hand over the management of payment services entirely to others.

**18- to 64-year-olds are less independent than 65- to 74-year-olds.** 18- to 64-year-olds are more likely to use payment services with the help of people other than their partner, and are also more likely than people aged 65 to 74 to hand over the performance of payment services to others. The data do not provide a clear explanation for these findings, but several factors may play a role. We identify two factors here. First, people in the 65- to 74-year-old age group are likely to have gained more experience using bank services independently than 18- to 64-year-olds, because

Figure 4.3 Degree of independence by age group



they are older. The 65- to 74-year-old group may consequently have greater independence. In addition, during their working lives, they are likely to have come into contact with the use of online payment methods and other digital developments (such as mobile phones and computers), so they may also have less difficulty using the payment services independently compared to people aged 75 and over.

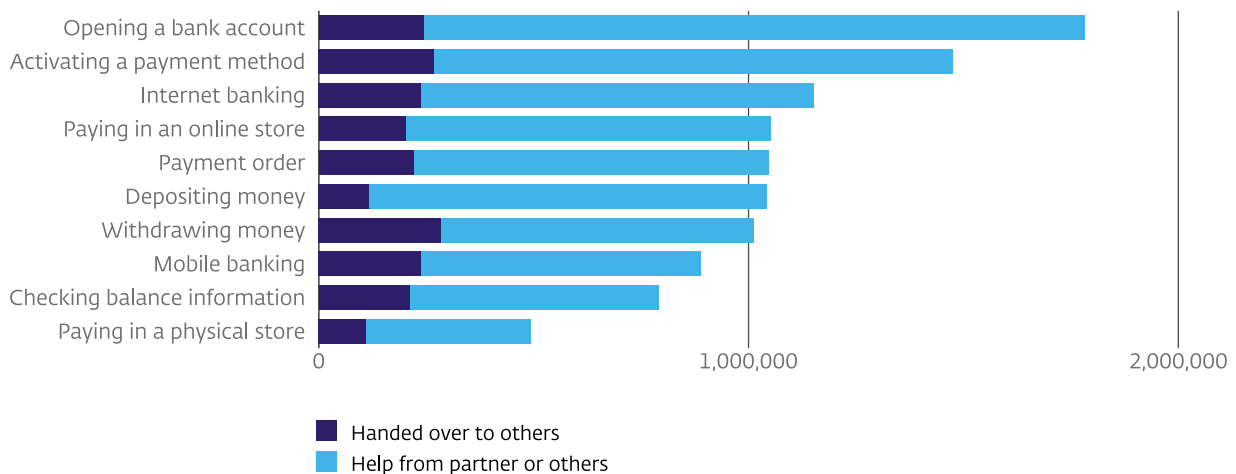
#### 4.4.3 Independence by payment service

**Independence is lowest in the case of the basic payment services that most people do not use frequently, such as opening an account and activating a payment method.** The payment service where full independence is lowest is the opening of an account (see Figure 4.4): almost 1.8 million people need help to do this. Of these, almost a quarter hand it over to other people. Cash withdrawals are the service most often handed over to others, by almost 300,000 people in the Netherlands. On the other hand, relatively few people receive help with daily actions such as paying for a purchase in a brick-and-mortar store and checking their bank balance.

**Payment services requiring the use of a computer or mobile phone, such as internet or mobile banking, are also relatively often handed over to others.** Using these payment services requires a certain level of digital skill. Moreover, the digitalisation of the payment system makes it virtually impossible for account holders not to use these services (see Chapter 2). It is therefore to be expected that people will more often hand over these services to other people.

**Age does not have a major impact on which payment services are less often used entirely independently.** In all age groups (18 to 64, 65 to 74 and 75 and over) there are similar services where people are less independent. For example, help is most often sought when opening an account and activating a payment method. People aged 75 and over relatively often indicate that they hand over online payments or the use of mobile banking entirely to others, compared to the other two age groups.

Figure 4.4 Dependence by payment service (number of people)



### 4.5 Satisfaction

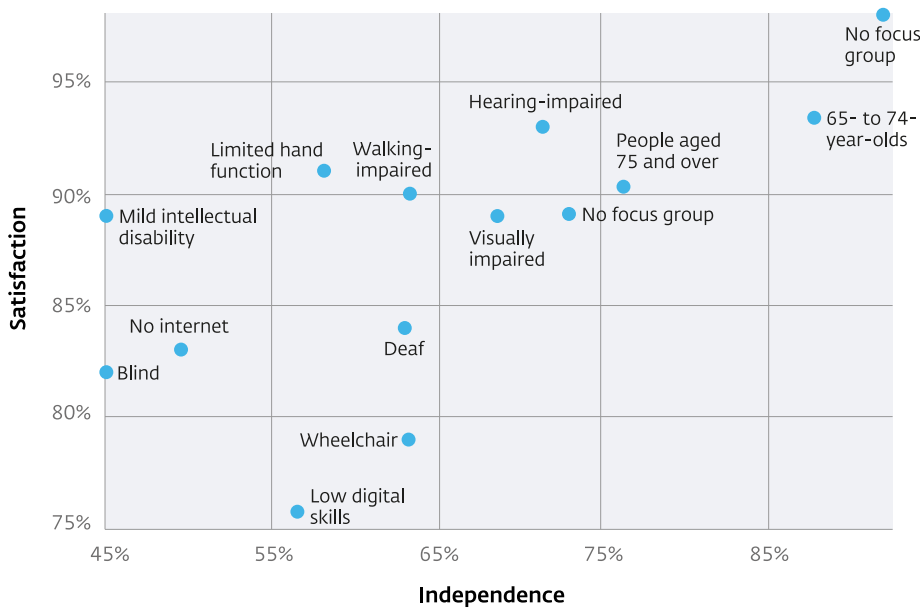
**People in the Netherlands are generally highly satisfied with the way in which they can make payments: more than 93% of all residents over the age of 18 are satisfied.**<sup>13</sup> Nevertheless, there are groups of people in the Netherlands who are less satisfied. Figure 4.5 shows the satisfaction and independence of each focus group. The most satisfied are those who do not fall into any focus group: 98% of them are satisfied with the way they can pay. People with low digital skills (76%) and wheelchair users (79%) are the least likely to be satisfied.

**There is a positive relationship between the independence with which groups can perform payment services and their satisfaction.**<sup>14</sup>

The groups of people in the Netherlands who have a high degree of independence – those who do not fall into a focus group, hearing-impaired people, visually impaired people and 65- to 74-year-olds – are most satisfied (>85%). It is not entirely surprising that, without exception, the groups with low satisfaction are also less often fully independent. For example, only 57% of people with low digital skills are fully independent, and 76% of people in this group are satisfied.

**There are also groups that are relatively less often fully independent, but are still quite satisfied with the way they can make payments.** It is notable that people with a mild variant of a particular disability (walking impairment, visual impairment) are often relatively satisfied, but

Figure 4.5 Independence and satisfaction of the various groups



<sup>13</sup> Respondents were asked to answer the following question: "To what extent are you satisfied with the way you can make payments in the Netherlands?" They were able to give a score between 1 (very dissatisfied) and 10 (very satisfied). A respondent is considered satisfied when he or she awards a score of 6 or higher.

<sup>14</sup> The linear correlation between the satisfaction and independence of the groups in Figure 4.5 is 0.66 and is significant at a significance level of 5%.

people with a more severe form of disability (wheelchair use, blindness) are often relatively dissatisfied. People with limited hand function, for example, are relatively dependent (63%), but 90% of them are nevertheless satisfied. Both groups of seniors (65- to 74-year-olds and those aged 75 and over) have a similar level of satisfaction, while 65- to 74-year-olds have a higher level of independence.

#### 4.6 Conclusion

**According to our estimates, 2.6 million people aged 18 and over in the Netherlands do not carry out their banking entirely independently.**

Most of them do it with the help of their partner or others. Around 400,000 people in the Netherlands have handed over their banking entirely to someone else. Seniors and low-skilled people are particularly strongly represented in this group. It is notable that a substantial part of this group also comprises people who do not fall into any of the focus groups.

**Less frequent services, such as opening an account, are less often carried out completely independently, whereas most people perform their everyday banking and payment services independently.** For example, 1.8 million people in the Netherlands do not open bank accounts independently, while 0.5 million seek help with their daily payments or have handed them over completely to someone else.

There is also a positive relationship between the independence with which groups perform payment services and their satisfaction with making payments in the Netherlands.

## 5 In-depth qualitative study

**This chapter focuses on the in-depth qualitative study of the impact of digitalisation of the payment system.** This research was conducted by Conclusr on behalf of DNB. In this chapter we describe the main results. A more detailed description of the research can be found in the report by Conclusr (2022). The aim of this research is to gain insight into: (1) obstacles encountered by each group, (2) the impact of the digitalisation of the payment system on the (possible) decline in the accessibility and user-friendliness of payment services for different focus groups, (3) how people in these groups deal with these obstacles, and (4) what improvements they would like to see that would really help them. The aim of this research is not to gather representative figures, but to gain in-depth insights.

### 5.1 Approach and method

**In the summer of 2022, in-depth interviews were conducted with 206 people in different focus groups.** Table 5.1 provides an overview of these groups, including the number of people interviewed per group. There are twelve main groups, and a total of 27 subgroups based on a breakdown in terms of the severity of a disability or the country of origin of people with a migration background. The research was carried out among groups that may have found themselves in a vulnerable position due to the digitalisation of the payment system. The research firm visited and interviewed each participant at his or her preferred location. In such one-to-one interviews, there is ample scope for in-depth discussion, providing a better understanding of the nature of any obstacles. All basic payment services were discussed on the basis of a discussion guide.

Adopting the same approach for all groups ensures optimum comparability of results. Since all interviews were conducted at the participants' homes, it was also possible to include people who were less mobile or lived in remote areas in the study. Interviewing people in person avoids people being prevented from participating in the study because they cannot handle video calls or have difficulty with telephone calls.

Table 5.1 Number of participants per focus group

Focus group	Size
(1) People without internet or smartphone	12
(2) People with low digital skills (but having internet/smartphone)	12
(3) People with a visual impairment	
a) Blind and severely visually impaired	6
b) Visually impaired	6
(4) People with reduced mobility	
a) Wheelchair or mobility scooter user	9
b) Walking impairment (wheeled walker or walking stick)	6
(5) People with limited hand function	12
(6) People with an auditory impairment	
a) Deaf and severely hearing-impaired	7
b) Hearing-impaired	7
(7) People with a mild intellectual disability	13
(8) Seniors	
a) 65- to 74-year-olds	6
b) People aged 75 and over	6
(9) People with low income or people who struggle to make ends meet	12
(10) People with low literacy	12
(11) People with a Western migration background (first generation)	
a) Belgium	6
b) Germany	6
c) Indonesia	7
d) Italy	6
e) Polans	6
f) United Kingdom (UK)	6
(12) People with a non-Western migration background (first generation)	
a) China	6
b) Iraq	6
c) Marocco	6
d) Netherlands Antilles	6
e) Suriname	6
f) Syria	6
g) Turkey	6
<b>Total</b>	<b>206</b>



## 5.2 Results for each payment service



### 5.2.1 Withdrawing cash

**In most focus groups, interviewees regularly withdraw cash independently, but those who have a physical disability or who struggle with the Dutch language may find this difficult.** Some interviewees who have difficulty withdrawing cash therefore do it with someone else – usually their partner or one of their children – or have someone else collect cash for them. Many of them prefer to withdraw cash inside a shop or bank branch, as they consider it safer than ATM withdrawals on the street due to their vulnerability. The majority withdraw cash weekly or monthly and use it for payments in brick-and-mortar stores and peer-to-peer payments to family and acquaintances.

**People with a physical disability report a variety of obstacles to cash withdrawals related to the positioning and design of the ATM.** For example, people who are blind or visually impaired encounter problems if an ATM does not have a speech function or a headphone port, as they cannot clearly see the instructions on the screen and the buttons. Several participants found that the ATM swallowed their card because they had not pressed the ATM buttons in the right order or entered an incorrect PIN. They were nevertheless very satisfied with the headphone port provided by Geldmaat. People with a walking impairment that means they have to use a wheelchair or mobility scooter say that they have difficulty with ATMs because they are too high for them, with the result that they cannot reach the keypad. People with limited hand function are affected in the same way and also have difficulty pressing the buttons because they are flat and hence difficult to feel. People from all three focus groups

mentioned above report that the ATM screen is difficult to read in certain light conditions.

**People in a wide range of focus groups have great difficulty reading and understanding the instructions on the ATM screen.** These are people with low literacy, people with a mild intellectual disability, deaf people who have mainly learnt sign language but have no written language and people with a non-Western migration background who have little knowledge of the Dutch language. Like blind and severely visually impaired people, many of them follow their own “step-by-step plan”, pressing keys in a fixed order, and they run into problems if the screen interface changes. A participant with low-literacy says: *“There are new ATMs now, with more text on them. I have to read that text quickly, but I struggle to do so. When there are people queuing behind me I get anxious. Then I feel unhappy for myself. I always choose the amounts shown on the screen. I never enter an amount myself, because I find it scary. Who knows, I might enter the wrong figures.”*

**There are also obstacles that participants in all focus groups have to contend with, but the consequences of which vary greatly depending on the focus group.** For example, many people in different focus groups say they would prefer small denominations from ATMs, but they often mainly receive €50 notes. This is problematic for people with a low income or a mild intellectual disability, because they sometimes have less than €50 in their account and then cannot get cash. A participant with a low income says: *“... they must take into account people who cannot get €50 out of the machine because they simply do not have it. I want to be able to get smaller notes too!”* These people prefer to pay in cash to keep track of their expenses. The disappearance of ATMs and the closure of bank branches providing cash withdrawals is

also often cited as an obstacle. This is particularly problematic for physically disabled people who have difficulty with the greater distance they have to travel. Similarly, people often report that they have stood in front of an empty or non-operational ATM.

### **Interviewees suggest the following improvements for cash withdrawals from ATMs:**

#### **Better service**

- Place more small-denomination notes in ATMs, especially in neighbourhoods with low-income households;
- Provide more ATMs, including inside bank branches;
- Place ATMs indoors, and shield them for privacy and security reasons;
- Also provide ATMs at lower heights for shorter people and people in wheelchairs;
- Also place ATMs in places with good parking facilities for people in wheelchairs;
- On ATMs, state where the nearest functioning and filled ATMs are located, in case of a malfunction or empty ATM;
- Also allow withdrawals of large amounts in small denominations.

#### **Better information**

- Place icons or photos on the ATMs so that people who cannot read Dutch can see what they need to do in order to withdraw cash;
- Place videos, possibly in sign language, on the ATM or the website, so customers can see how to withdraw cash, possibly with subtitling in the customer's desired language;
- Display an icon on the screen if an ATM is empty or malfunctioning;
- Offer a choice of languages on the ATM so that customers can read instructions in their own language.

#### **Better use of technology**

- Make sure the keys are easy to feel and press;
- Shield the screen from light so it remains readable;
- Include a stop button to enable the customer to halt the transaction and get the card back;
- Equip ATMs by default with a speech function and/or a headphone port;
- Ensure uniformity in the design of ATMs.



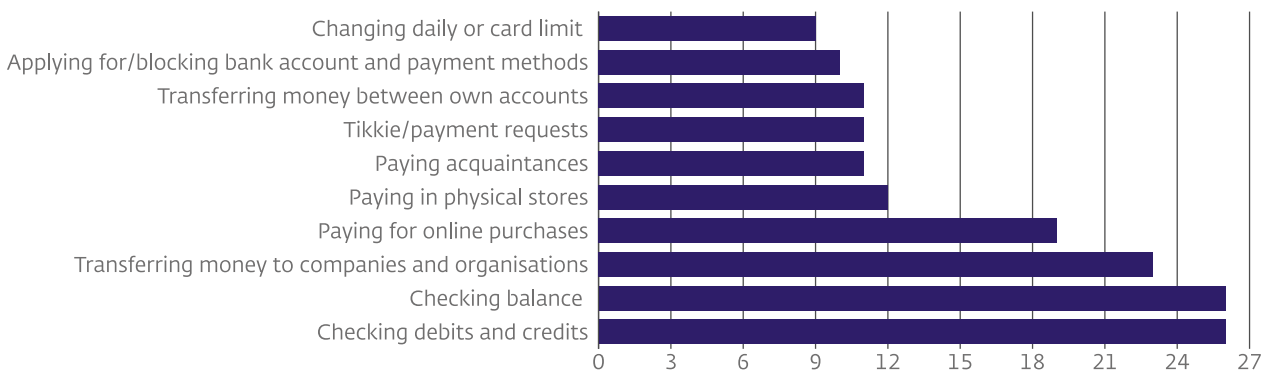
### 5.2.2 Using a mobile banking app

**There are big differences in the use of the mobile banking apps among the interviewees in different focus groups.** More than 90% of interviewees in the study have a smartphone with an internet connection, and more than 70% have a mobile banking app on it. The vast majority of participants with a mobile banking app on their phone use it independently. Most of them also installed the app on the phone themselves. About one in eight participants with a mobile banking app report that they get help with using the app, and a few hand it over for other people to use. The person who helps them is usually their partner, or the participant's son or daughter. They are also often the ones who helped them install the mobile banking app. Some participants say that they receive help from someone in their circle of friends or from a social organisation. There are also participants who received help with the installation of the app from a bank employee. The use of the mobile banking app is lowest among people with low digital skills, people aged 75 and over and people from China or Iraq.

**People in all focus groups who use mobile banking use the app to check their balance, debits and credits.** In many groups, the app users also use it to transfer money to companies and organisations and make online purchases (see Figure 5.1). Adjusting the card or daily limit was mentioned least, namely in nine out of the 27 groups. Applying for or blocking payment methods via the app is also something that occurs in few groups. People with a visual impairment, limited hand function, a mild intellectual disability or low income, as well as people from Italy or the Netherlands Antilles, use the largest number of services offered by mobile banking, namely eight or more. People with low literacy and people born in China use the fewest services, namely four or fewer.

**Independent use of the mobile banking app is highest among 65- to 74-year-olds, people from Germany and people from or the Netherlands Antilles, and lowest among people who have low literacy, who have low digital skills or who come from Morocco or China.** When they use mobile banking, they get help from others, usually their partner, son or daughter, but there are also people who hand over the mobile banking entirely to another person.

Figure 5.1 Number of groups using specific mobile banking services



**People with low digital skills, low literacy and limited hand function are most likely not to use mobile banking at all, even with the help of others or by handing it over to others.** They do not understand the texts on the app, are afraid to make mistakes and lose money or are unable to perform the necessary actions due to their limited hand function. A participant with limited hand function describes it as follows: *“The screen on a phone is much too small to read things properly, and the keys are too small to get everything right at once. Before you know it, something goes wrong and, if you’re out of luck, you lose your money. My hands don’t work well now, I have rheumatism in them. I have enough difficulty sending a WhatsApp message, let alone entering numbers to do my banking.”*

**Physically disabled people who use mobile banking also find it difficult to use and read the app, but security is also a barrier.** For example, it is difficult for people with limited hand function to operate the app or the colour code scanner because they have problems with the strength and coordination of their hands. The many codes that have to be entered for each payment via the app is a problem for them because of the small buttons on the screen. Visually impaired people and people in all kinds of other focus groups, such as seniors, have difficulty with the small letters and buttons in the app. They therefore regularly state a preference for internet banking using their PC or laptop. They often also find this safer than mobile banking, because they do not trust internet connections outside the home. Many groups mention this security aspect, in addition to the fear of losing their mobile phone, and hence also their money. This also explains why people who do mobile banking do not perform all transactions through the app, but also manage their payments and banking in other ways.

**Blind people, people with low literacy and migrants struggle with the amount of information in apps, the complex language used in apps and changes in design.** The speech function in mobile banking cannot handle the large amount of information and (possibly unnecessary) advertising in some mobile banking apps; everything is read aloud, making it difficult for the user to retrieve the relevant information. The language used in the apps is too complex for people with low literacy, so they do not understand fully how to operate the app and are afraid of making mistakes. In addition, people with a migration background who are not proficient in the Dutch language often do not understand the instructions in the app. Some participants learn the sequence of actions to be performed by heart, but run into problems if the app design changes. A problem that also regularly arises for physically disabled people and those who have difficulty with the Dutch language is the limited time available to complete an action. They often fail to complete an action and all the intermediate steps within the time limit and then have to start the action all over again. A blind participant reports the following: *“The ING app is reasonably accessible. But if it takes too long, you’re logged out and have to log in again, which takes a lot of time. It should be possible to rewind the reader and then you should be able to enter data at the same time. Because when the time is up I’m logged out. I have to log in again on average four to six times because of that time limit.”*

**Many people in the focus groups are satisfied with the mobile banking app and the many features that it offers.** The app clearly caters for many people who need to manage their payments and banking easily and quickly. People do nevertheless say they would like to understand the differences in functionality between internet banking and mobile banking. For example, there is uncertainty about the permitted daily

payment threshold on the mobile banking app. It is also sometimes difficult to find all the possible mobile banking functions available in the app. In addition, there are people who want to increase the services available in mobile banking, such

as the use of credit card payments and issuing print commands via the app. In some banks these features are already included in the app. Some people also have concerns about security.

### Interviewees identify the following areas of improvement for the mobile banking app:

#### Better service

- Provide assistance from an interpreter (or sign language interpreter) or a bank employee who speaks the customer's language to answer questions about mobile banking;
- Appoint specialised customer service staff with knowledge of customer needs in specific focus groups.

#### Better information

- Use short, simple instructions in the app and avoid using difficult words or punctuation marks;
- Place fewer advertisements and promotions in the app;
- Provide labels for images and buttons in the app so that the information is also available as text and can be read with the speech function;
- Provide instructional videos (with subtitles) on the use of the mobile app;
- Offer the app in multiple languages, including language options for app installation instructions;
- Offer lessons in the customers' own language about the use of the mobile banking app.

#### Better use of technology

- Reduce the use of verification codes;
- Make sure customers can give voice commands to the app, which then performs the necessary action itself;
- Allow sufficient time for customers to perform all the actions;
- Make sure that if the app fails to complete an action, the customer returns to that action after logging in again;
- Enable customers to enlarge the text on the screen;
- Keep existing readers or devise a suitable alternative for people who have difficulty using QR scanners.

#### General matters

- Make it easier to find all the features in the mobile banking app;
- Minimise changes in the operation of the app when it is updated;
- Make the daily limit visible in the mobile banking app;
- Enable customers to send multiple instructions at once, using a single code rather than separate codes.

### 5.2.3 Paying for purchases in a brick-and-mortar store



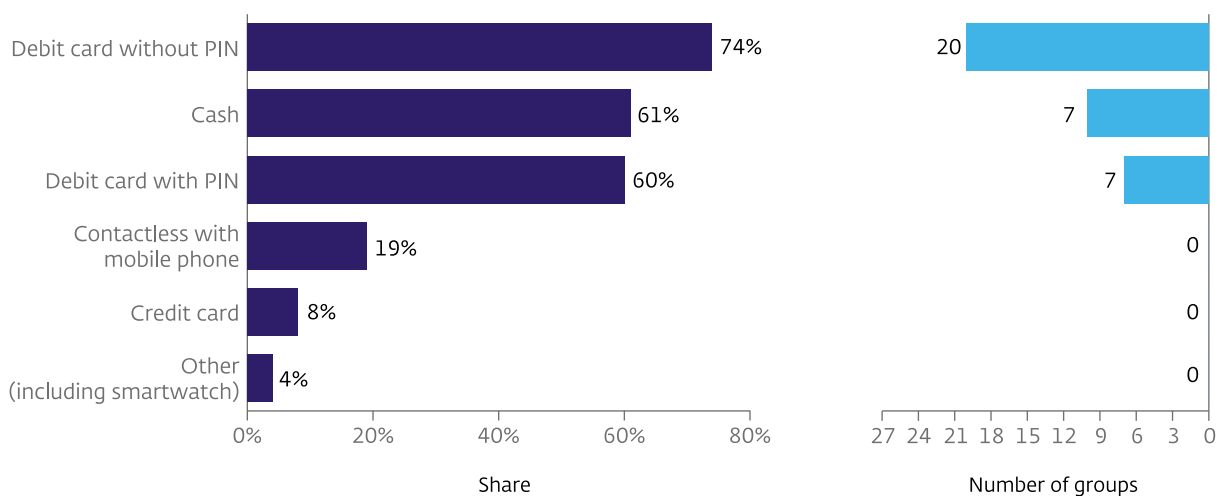
#### Almost all interviewees pay for their purchases in stores themselves, without the help of others.

They therefore do this regularly, often several times a week or daily. Most people make contactless payments for their purchases using their debit card, preferably without entering the PIN (see Figure 5.2). In twenty groups contactless payment by debit card, without a PIN, is the most frequently mentioned payment method used by participants to pay in stores.<sup>15</sup> Many of them, but not all, also use cash. Cash is the most commonly used payment method in 10 groups. Cash is often the main payment method for interviewees without the internet or a smartphone, people with low incomes and people from Turkey and Morocco. A person with low income explains his preference: “I usually pay in cash because I can keep track of things. Otherwise I’m afraid that I wouldn’t manage the account properly,”

and another person says: “I want to be able to pay in cash because then I have the money in my hand and I know for sure that I won’t look stupid at the checkout if my balance is insufficient.” Most blind and severely visually impaired participants and participants from Germany and the UK pay for all their purchases with their debit card. The number of participants who pay for shop purchases with their smartphone is low, but they outnumber credit card users.

**Some of the interviewees with limited hand function report that they get help with paying for purchases in stores or leave it entirely to someone else.** It is difficult for them to carry out all the actions necessary to be able to pay by cash or debit card themselves. The smartphone is not a solution, because it is much too large and heavy to handle, and also requires good hand coordination. These people lack such coordination, so they find it difficult to enter a PIN.

Figure 5.2 Use of payment methods in stores



<sup>15</sup> The sum of the groups is higher than 27, because in some groups the most commonly used payment methods have the same number of users.

**Interviewees with a physical disability encounter various problems when paying in stores.** For example, wheelchair or mobility scooter users are often unable to access the payment terminal because it is too high. One participant pays in cash, whereas he would prefer to use a debit card. Sometimes there is too little space in the checkout queue for the mobility scooter or wheelchair. Participants who are blind or visually impaired cannot read the screen on the payment terminal properly, due to the small letters and insufficient contrast. They do not know when they have to perform an action or when a payment has been completed. Also, it is often unclear where they need to hold their debit card against the payment terminal, as this differs from machine to machine. Participants who are blind or severely visually impaired or who have low literacy also say it is difficult for them to distinguish between the various debit cards that they have. That is awkward, because these cards have different PINs.

**People are unsure why contactless in-store payments by debit card sometimes requires a PIN to be entered.** Interviewees in many focus groups, including a number of participants from other countries, do not understand why they should do so. Is their card defective? Is it because they are not holding the card properly against the payment terminal? Did something go wrong? These are examples of the questions that this evokes. There are also participants who would like a higher limit so that they do not have to enter a PIN so often. An older participant from Indonesia is concerned about whether he will be able to cope with PINs in the future: *"I'm worried about my age and forgetfulness. How will I be able to make payments if I become forgetful?"*

**Most migrants experience few if any obstacles when paying in stores.** Some interviewees from Belgium and Poland report that they sometimes have problems with acceptance of their foreign debit card.

**Concerns about security, fear of making mistakes and satisfaction with the debit card and cash as payment methods are the main reasons for not using a smartphone to pay in stores.** These reasons are mentioned by participants in almost all focus groups. A lot of people are fearful of using insecure internet connections outside the home or fear that their smartphone might be stolen, preventing them from making payments or enabling others to make payments with their smartphone or withdraw money from their account. A participant originally from the UK explains: *"I'm against it, I think it's unreliable, it's all to do with security. I could easily lose my phone. I never lose my computer. I'm from the computer world, I was Head of Automation in the Army. I know that things can go seriously wrong in terms of security. And I don't need that."* and someone with low digital skills says: *"I don't think it's secure. Hackers can always outsmart the system. I don't trust myself with it either, because I often press the wrong key."*

**Many participants also say they find the debit card much more useful and convenient to use than a smartphone.** Someone with limited hand function says: *"My phone is too big, bulky and heavy to use every time; a bank card is much easier."* Another reason is that they do not always have their smartphone with them. Interviewees also often do not know how to pay with a smartphone in a store, or cannot read the instructions on their smartphone.



This may be because they cannot read the text on the screen properly (visually impaired participants) or do not understand what it says (participants from China and Turkey). There are also participants who have used their smartphone to pay in stores but have now stopped doing so. They found it far too easy and had doubts about the security.

### **Interviewees suggest the following improvements for payments in stores:**

#### **Better service**

- Fit a cover on payment terminals to maintain privacy;
- Provide more space in the checkout line for people with wheeled walkers and wheelchairs;
- Use wireless payment terminals, which can be handed to customers;
- Issue different coloured debit cards to help people use the right PIN if they have several different cards;
- Place a sticker or border on the debit card so that different debit cards can be distinguished by touch.

#### **Better information**

- Use pictures to show how to use the payment terminal;
- Use simple language on payment terminals and smartphones;
- Provide language options on payment terminals and for contactless payments with smartphones;
- Prevent speech software from reading out privacy-sensitive information;
- Explain why contactless payments sometimes require the PIN.

#### **Better use of technology**

- Provide a larger and higher-contrast display on payment terminals, for better visibility of text and numbers;
- Issue sound signals when an action is expected from the customer or the payment has been completed;
- Ensure greater uniformity of payment terminals (where the card needs to be held etc.);
- Use biometrics (fingerprint or facial recognition) to approve payments instead of the PIN.

#### **General matters**

- Continue to accept cash payments and debit cards in all stores;
- Enable customers to change the limit for contactless payments themselves;
- Accept foreign debit cards.

### 5.2.4 Payments to friends, family, acquaintances or colleagues



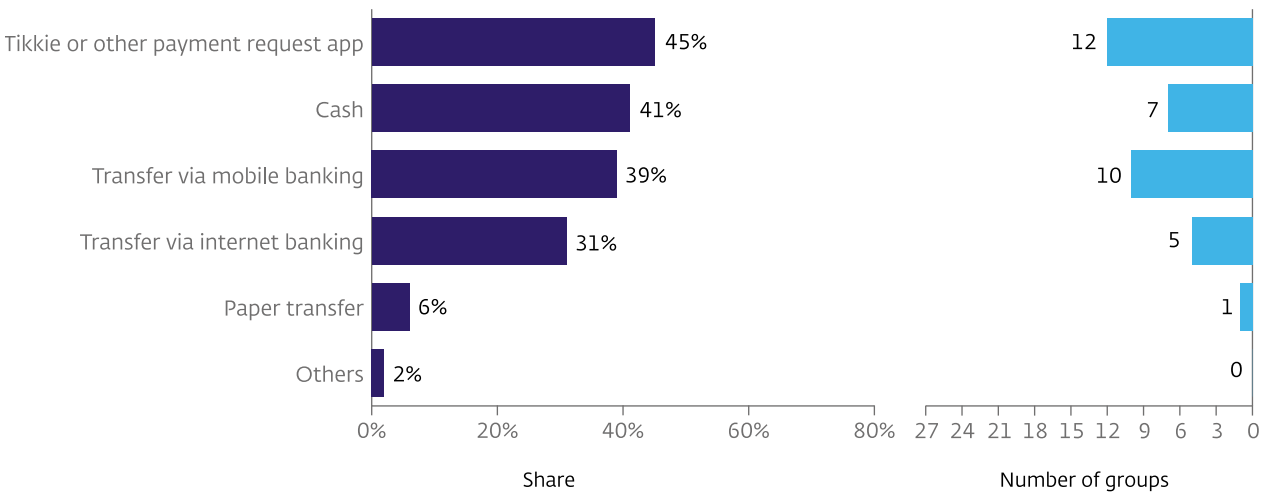
**Some, but by no means all, interviewees without the internet or a smartphone, with limited hand function or mild intellectual disability, with low literacy, having a non-Western migration background or aged 75 or over request help (at least occasionally) from their partner or other family member when giving or transferring money to acquaintances.**

Sometimes they hand this over entirely to others or simply do not do it. Almost all interviewees in the other focus groups do this entirely independently and are satisfied with it. Tikkie or another type of payment request is the most frequently mentioned payment method, followed by giving cash and transferring money by mobile banking or internet banking (see Figure 5.3). In one group – people without the internet or a smartphone – paper transfer forms are the most frequently mentioned payment method for transferring money to acquaintances.

### Interviewees with a physical disability encounter various problems.

Participants who are blind or severely visually impaired have problems completing payments on time due to the time limit and reading the many codes that need to be entered from different devices or apps. They also experience problems in navigating the internet banking environment, because it contains a lot of (sometimes irrelevant) information and their speech software reads everything out. A visually impaired participant has difficulty using internet banking because of the small letters on the screen. And someone with limited hand function cannot handle the Rabo Scanner. He cannot aim it properly and he finds it difficult to enter the many, long codes. There are also participants – with or without a physical disability – who prefer to transfer money to an acquaintance by internet banking rather than mobile banking or Tikkie because of the large screen and the sense of security and control that comes with using their own PC with their own internet connection at home.

Figure 5.3 Use of payment methods for payments to friends, family, acquaintances and colleagues



**Digital payment methods are a challenge for many interviewees with low digital skills or low literacy.** The speed with which Tikkie transactions and transfers must be made via the internet or mobile banking, the difficult language and the large amount of information in the digital environment, combined with the use of complex verification methods and sometimes long codes that need to be entered, mean that many participants prefer cash and paper transfers. A participant with low digital skills who uses internet banking has problems with what he sees as the illogical arrangement of the beneficiary names in his internet banking environment.

**Interviewees with a migration background sometimes encounter obstacles when transferring money abroad due to language and complex verification procedures.** Transferring money to acquaintances outside the euro area is somewhat more difficult than within the euro area due to a different bank account numbering system. Together with the increasingly complex verification procedures, it would be good if people could read instructions in their own language. Some participants who currently need help when transferring money could then do it themselves. Participants with a migration background also have difficulty with the amount of information on the actions required of them in the internet or mobile banking environment, which leads to uncertainty. They also report that the processing of non-euro payments is slow and entails high costs. A participant born in Belgium comments that he cannot transfer money to his family in France by mobile banking, but can by internet banking. Finally, these people transfer (sometimes high) amounts to their family abroad. When doing so, they encounter limits in the mobile banking environment, so they have to switch to transferring money by internet banking.

**Most interviewees who use payment request services such as Tikkie are very satisfied, but there is room for further improvement.** A participant aged 75-plus says: *"Tikkie is a fantastic service,"* and a participant from Turkey says that he likes receiving a reminder from Tikkie if a payment has not yet been made. In general, participants with a migration background who use digital payment methods are enthusiastic about payment request services such as Tikkie. A participant from Belgium would like Tikkie be able to be used outside the Netherlands, because it works so well. A participant of Surinamese origin says that Tikkie means "steal" in Surinamese, possibly giving the name a negative connotation for people from Suriname. Participants from Suriname are also slightly more likely to transfer money to acquaintances by mobile or internet banking than by Tikkie. Several interviewees say that they would like to see the reason why they made Tikkie payments, for their records. At present, only the amount and the account number of the beneficiary are shown. Also, not all participants are aware of which operators are behind Tikkie, and people are sometimes suspicious about the revenue model behind it. Some people also say that paying with Tikkie is very easy, and some worry about whether the money will go to the right person, because that is hard to see when you receive a Tikkie as a payer.

**Most people who do not transfer money to acquaintances by digital payment methods are satisfied with the use of cash and paper transfers, do not know how to transfer money electronically and are therefore afraid to make mistakes. They consider digital methods – especially mobile banking and Tikkie – unsafe.** A person with low literacy, for example, is frightened of making mistakes with Tikkie “*Suppose I accidentally entered accidentally too many zeros?*”

There are also people who still transfer money to acquaintances by the traditional method, but are open to digitalisation. For example, a person with a non-Western migration background says: “*Yes, I want to know how the world is progressing around me. I don't like being left behind. Everything that has to go electronically goes very fast and the instructions are very short and not explained in sufficient detail, so I would like the instructions to be clearer and better written and available in multiple languages.*”

## Interviewees suggest the following improvements for payments to friends, family, acquaintances and colleagues:

### Better service

- Speed up the processing of paper and international payment orders;
- Keep the possibility of using paper payment orders.

### Better information

- Show the daily and/or weekly limit for each payment account;
- Maintain a logical sequence in the list of beneficiaries' names in internet banking;
- With Tikkie payments, include a field to describe the reason for the payment and show it on the account statement;
- Use simpler language for instructions for internet banking, mobile banking and Tikkie;
- Make the screen less cluttered for internet banking and mobile banking: show less text about promotions and advertising;
- Provide separate, customised pages for internet banking on the bank website, which are suitable for speech software and describe actions such as how to pay online;
- Offer language options (text and speech) in the native language of banking customers in internet and mobile banking;
- Clearly indicate whether a payment received through Tikkie or a payment request has been completed;
- Make information available about the operation and features of Tikkie and payment requests (including revenue model, privacy).

### Better use of technology

- In the case of mobile payments, enable multiple transactions to be approved simultaneously with one PIN;
- Enable customers to approve payments by voice, facial recognition or fingerprint, and to issue payment orders by speech;
- Allow sufficient time to complete operations in the internet banking environment;
- In mobile banking, enable payments to be made without always entering the name and account number of the beneficiary yourself.

### General matters

- Ensure that bank websites comply with applicable accessibility standards;
- Include a security check in Tikkie to ensure that the money is transferred to the right person;
- Make Tikkie and other payment request solutions suitable for payments to acquaintances outside the Netherlands;
- Make it possible to transfer large amounts to beneficiaries abroad by mobile banking.

### 5.2.5 Paying for purchases in an online store



**Paying for purchases independently in an online store is by no means a straightforward matter for everyone.** Interviewees in numerous focus groups do this with the help of others, have handed it over to others or do not shop online. None of the interviewees without the internet or a smartphone shop online. Interviewees with low digital skills, interviewees with low literacy and interviewees with a mild intellectual disability or a non-Western migration background make relatively few independent payments for purchases in online stores. Only in the case of interviewees with a mobility impairment, interviewees aged between 65 and 74 and interviewees born in Belgium or the UK does everyone pay for their online purchases without help.

**There are various reasons why interviewees avoid online shopping or seek help when making purchases in an online store.** For example, some of the interviewees do not want to use the internet and there is a lot of distrust of the digital world. This is greatest among interviewees in the group without the internet or a smartphone and the group with low digital skills. A participant with low digital skills says: *“Nothing can be improved. The internet is just not suitable: it can never be made secure enough! So you must still be able to make payments outside the internet.”* A participant with a Chinese migration background says: *“I don’t want to make any more purchases online, even if people help me, because I think there are too many scammers on the internet.”* Experiences and stories about scams stop people shopping online. Another reason not to shop online is that there is no need to; there is sufficient supply in brick-and-mortar stores, it is good to be able to see the product before purchasing and people want this

option to remain available. Some interviewees are also frightened of spending money online too easily. There are also interviewees who are very frightened of making mistakes and losing money and who say they cannot shop online without help. This is a major factor among people with low literacy, for example, but it is also mentioned by participants with a migration background. Language is a barrier. To illustrate this, a person with low literacy says: *“It didn’t work for me; the bank would not accept the amount. Then you have to enter some reference or other and that’s a disaster for people with low literacy. I’d like to see pictures used, as there is too much text or there are too many words.”* Interviewees who do not want to be dependent on others do not shop online.

**Some of the interviewees regret that they cannot shop online independently.** A participant in the group without the internet or a smartphone says: *“I know what I’m getting. But I do feel trapped by the fact that sometimes I can’t buy something in a brick-and-mortar store and have to do it online. I’m forced to buy online with the someone’s help and become dependent. Also I don’t like encouraging the trend towards online shopping, because I would prefer brick-and-mortar stores to remain.”* A participant with a mild intellectual disability says: *“It’s hard to pay online because I don’t understand the internet. Recently I was in a store, but I still I had to buy it online anyway and then I got very angry because they sidelined me.”*

**Finally, there are interviewees who want to shop in an online store but find it difficult and do not feel safe and skilled enough.** They would benefit from having someone sitting next to them giving them step-by-step explanations. Some of the interviewees have never learnt how to make online payments.

**While most interviewees are enthusiastic about the different ways of paying online, there are also interviewees who encounter problems.**

Many are enthusiastic about paying by iDEAL, but there are also interviewees who find this payment method too difficult. Interviewees in various groups – such as people with low incomes – would like the pay later option to be available more often. There is also a need for a simple, globally standardised method for payments by participants with a migration background, among others. What is useful for some people may be difficult for others. For example, a participant in the blind and severely visually impaired group says: *“It would help to have an alternative to the QR code for iDEAL, because it’s hard to scan if you’re blind as you don’t know exactly where it is.”*

**Interviewees suggest various improvements.**

Technology could be used more effectively to simplify online shopping, for example by using speech more often and including options to give people more time to complete actions. People with low literacy and people with limited hand function, for example, would appreciate this. A person with low literacy says: *“I find it all terrifying. You have to do quite a few actions. When you have to enter numbers, I don’t think there’s enough time for it. I’m too hasty and more likely to make mistakes. I don’t know exactly how much time I have, but if I knew for sure that I could do it calmly, at my own pace, that would be great. I feel that time pressure. Because if it takes too long, you have to start all over again.”* Various groups would benefit from explanations with pictures and less text. A participant with a Chinese migration background explains what is needed: *“Clear pictures, small steps, easy language, good layout to maintain clarity, maybe some pop-ups so that nothing unexpected happens.”*



## Interviewees suggest the following improvements in payments for purchases in an online store:

### Better information

- Make sure there is no unnecessary text on the web page;
- Make sure the name of the business you are buying from always matches the name associated with the payment;
- Provide statistics indicating which online stores are safe and which are not;
- Provide explanations with pictures and fewer with text.

### Better use of technology

- Provide an alternative to scanning QR codes;
- Make sure all buttons on the website are labelled;
- Make sure account numbers can be copied and pasted in the app;
- Make optimum use of autofill;
- Allow sufficient time to perform actions;
- Enable payments to be made with the fewest possible actions;
- Enable customers to pay multiple bills with a single code;
- Enable customers to make an online purchase by speech;
- Tailor the form of explanation to the customer;
- Provide spoken explanations of the steps required;
- Clearly indicate whether a payment has been completed;
- Ensure that only one device is needed to pay online;
- Require the fewest possible codes to be entered;
- Ensure that fingerprint identification is possible.

### General matters

- Ensure that debit card payment on delivery or payment by paper transfer card is always possible;
- Avoid updates that change the environment;
- Provide an easy, globally standardised method for payments.

### 5.2.6 Transferring money to a store, company or organisation



#### **Most focus groups include people who do not transfer money independently to a store, company or organisation.**

Particularly interviewees with mild intellectual disabilities and participants with a Chinese, Moroccan or Syrian migration background receive help with this activity. In each group, these amount to a maximum of half of the interviewees. Participants in the following groups all independently transfer money to a store, company or organisation: visually impaired, walking-impaired, seniors, people born in Belgium, Germany, the UK or Suriname.

#### **Digital methods for transferring money to a store, company or organisation are a solution for some interviewees.**

For example, a visually impaired participant says: *“I find it easier to make my payments online, because then I can use braille and the reader function.”* Some people with low literacy find direct debits useful, because then they are less bothered by difficult texts. Someone born in China says: *“The police recently sent me a fine with a paper inpayment transfer. I think that’s old-fashioned and I paid the fine by internet banking. I believe that organisations, especially government bodies, should not send paper payment orders, which are old-fashioned and environmentally unfriendly.”*

**On the other hand, there are interviewees for whom digital money transfer methods pose a big challenge.** Someone who was born in Morocco says: *“I can’t do it, I’m frightened that I’ll make mistakes and that the money will go to the wrong place. I’ve never had the courage to do it, because I’m always careful with money. As you’re closing branches,*

*I am always forced to turn to a friend and many no longer have time nowadays. Sometimes the bills are paid a bit too late. I would like to, and someone should teach me how it works these days. Because I can’t do it myself. I’m low-skilled and have a lot of difficulty with the language. And in Morocco we don’t have all that, so I’ve never learnt it.”*

#### **Further digitalisation will be accompanied by a decrease in independence, which some of the participants are concerned about.**

Some people without the internet or a smartphone are worried about the disappearance of the inpayment transfer. It even causes panic for three of these interviewees, because they do not know how they will pay bills in the future.<sup>16</sup> In particular, interviewees without the internet or a smartphone and those with low digital skills say they make heavy use of paper payment orders and inpayment transfer. Reasons for not using iDEAL, internet banking or mobile banking are: it is too difficult, fear of abuse and lack of confidence. For example, a participant with low digital skills says: *“It’s all far too complex and I really don’t want to learn it now. Especially with all those passwords. That wouldn’t work for me.”* And someone with limited hand function says: *“I save up all my bills every month and go to the bank. It used to be a bit closer, but now I have to go by tram. In the branch there’s a computer that I use to go onto the bank’s website and transfer everything by internet banking. I go to the bank because I don’t have such a device myself. But also because the people at the bank can help me enter numbers and codes. There’s no need to improve anything, because it works well as it is. I’m just worried, because when the time comes that I’m no longer mobile, how am I going to pay my bills?”*

<sup>16</sup> It is not clear whether these interviewees are confusing the inpayment transfer and the paper transfer form. The inpayment transfer is due to be withdrawn in 2023, but the paper transfer will remain.

**There are various reasons to get help from others when transferring money to a company, store or organisation.** Many participants find it too difficult to do it themselves and think there is too little time to enter numbers. They are afraid to make or repeat mistakes, have not grown up with digital payment methods or find it difficult to read texts in Dutch or in some cases cannot read at all. For example, a deaf participant reports having an insufficient command of written Dutch to do it without help and a Syrian participant says he does not understand technology and did not grow up with it. Laziness and a lack of willingness to learn are also mentioned as reasons to have someone else do it. In the case of interviewees with a migration background, things sometimes turned out that way simply because they did not yet speak Dutch when they arrived in the Netherlands. Finally, there are also interviewees who have handed over bill payments to others because they are not good with money or are going through a debt restructuring process. Dependence on others implies a need to plan well. Some would like to learn it themselves.

**Various problems arise when transferring money to a store, company or organisation.**

Sometimes the processing of inpayment transfers and paper transfers is inefficient, fails completely or amounts are debited twice. Respondents also mention excessively high costs of paper transfers, long processing times, uncertainty about which company is going to debit the money and finding it awkward to have to use multiple devices. A Turkish participant says: *“E.identifiers, Raboreaders and things like that need to be phased out. Replace them with customer-friendlier methods.”* A person with low literacy says: *“They need to be clearer about what you have to enter and where. The reference on the letter is “ed”, but on the screen it’s slightly different. That’s confusing. Then I call the bank to ask*

*precisely how to do it.”* Participants with a migration background say international payments could be improved. For example, someone of Belgian origin reports having faced IBAN discrimination: *“There should be more awareness of international payments, especially now. Most people have a Dutch bank account number, of course. But in the EU you should simply be able to use a foreign account number. It’s a fundamental right! Also there should be no technical barrier. The fact that an account number starts with “BE” should not be a problem.”* And someone born in the UK says: *“International payments should be better standardised and verified, making international payments easier and safer for smaller firms.”*

## **Interviewees suggest the following improvements for money transfers to a store, company or organisation:**

### **Better service**

- Provide better, customer-friendlier help if the customer cannot cope independently;
- Reduce the waiting times to get an appointment at a branch;
- Try to empathise better with the customer and help overcome fears;
- Explain everything slowly with a lot of repetition;
- Reduce the cost of paper transfers;
- Reduce the processing time.

### **Better information**

- State more clearly what needs to be entered;
- Make sure the terms used in the invoice and on the screen match;
- Make sure it is clear which company is going to debit the money;
- Provide a better overview of the direct debits, information about when and by which company the payment will be taken, any change in the amount and how to stop direct debits;
- Send an updated list of direct debits every year and make sure the customer can clearly state which should continue and which should not.

### **Better use of technology**

- Avoid long strings of numbers or make sure these can be spoken more slowly than the rest of the text by default;
- Reduce the number of codes that have to be entered;
- Consider alternatives to the use of passwords;
- Make sure only one device is needed to log in;
- Provide more legible text on devices;
- Enable all bills to be paid in one go;
- Allow more time for actions to be completed;
- Make it easier to correct mistakes;
- Always include an automatic check that the account number matches the company name;
- Make better use of colours: green if you receive something and red if you have to pay something;
- Provide fingerprint identification;
- Use QR codes more often, so the customer does not have to enter invoice details.

### **General matters**

- Provide multiple non-digital alternatives such as money transfers by telephone;
- Improve international payments.

### 5.2.7 Requesting, activating and blocking debit or credit cards



**Compared to other basic payment services, there is only limited independence when it comes to requesting, activating and blocking debit or credit cards.** Independence is particularly low among participants who are deaf or severely hearing-impaired, participants with mild intellectual disabilities and participants born in China, Morocco, Iraq or Turkey. This is the experience of someone with low digital skills: *“I wanted to block my debit card because I had lost it. I started to do it myself using internet banking. But because I had no idea if I was doing it right, I actually didn’t dare to press confirm, agree or whatever, I just called the bank. It was only then that they blocked my card. I didn’t trust myself to do this on my own, it really didn’t make me feel good. I’d like to be able to do it myself, but the bank should state more clearly how and what to do. I don’t know where to click or anything.”* The reasons people give for not doing it independently include that it is too difficult, that they are too slow, that they are afraid to make mistakes, that they find it easier to do it with someone else or that they lack sufficient knowledge of Dutch.

**Several interviewees say obtaining a debit or credit card is a long process and that a lot of information is required.** This is mentioned particularly by people with a migration background. For example, a participant who was born in Poland gave up after three months and opened a payment account with another bank.

**Several interviewees believe the service that banks offer could be improved.** They share

negative experiences of telephone customer service: long waiting times, unfriendly staff and people being referred to the online environment where they cannot find what they are looking for. A person aged 75-plus says: *“I called the bank to say I’d lost my debit card, but would have preferred to go to the branch. There used to be one here, but it has gone. When there was still a branch, the bank employee took care of the new card, but now you have to do everything yourself. Things used to be better, with genuine attention and helpfulness towards the customer.”* Someone born in Italy shares his experience that blocking the debit card through telephone customer service did not go smoothly. He had to report to the police first. In the meantime, money had been taken from his account. Other interviewees also say that too much information is required before the debit card can be blocked. There are also negative comments about bank branches: you cannot go without an appointment, correcting mistakes takes a long time and getting there often involves long travel time. On the other hand, many interviewees are satisfied with the assistance provided by the bank.

**Several participants are also inconvenienced by the fact that it takes a while for the new debit card to arrive, because in the meantime they cannot make payments.** One person solved this by withdrawing cash from a branch, but he wonders how to do this now that the branch has gone. Not everyone thinks receiving a debit card by post is very safe.

**Some of the interviewees need personal contact, on the telephone or by visiting a branch.** A person born in Suriname says: *"I might have been able to do it online, but in a panic situation like losing or maybe having your bank card stolen, you want that personal contact, from people who immediately say: 'no problem, we'll sort that out for you.' A device does not do that, it can't show empathy or understanding at such a time."*

**Here too, digitalisation can be a solution for certain focus groups.** A participant in the blind or severely visually impaired group says instructions to activate a debit card should also be available digitally. Currently the instructions are sent by letter to the home address and someone else has to read the instructions to activate the debit card, including the card number and the PIN. It would be good if this remained unchanged.

## **Interviewees suggest the following improvements for requesting, activating and blocking debit or credit cards:**

### **Better service**

- Be more customer-friendly;
- Make sure customers can still have face-to-face contact with a bank employee they know;
- Make sure the opening hours on the website are correct;
- Reduce waiting times in branches, on the telephone and when chatting online;
- Include the customer service number on the bank's letters;
- Make sure the customer does not have to go through a long telephone menu of options;
- Do not refer people to the mobile banking app;
- Increase bank employees' knowledge;
- Provide help not only with blocking debit cards but also with getting money refunded;
- Make sure the new card arrives quickly and provide a temporary solution;
- Make sure it is possible to speak to an employee in the customer's own language or provide an interpreter (or sign language interpreter).
- Make sure debit cards without contactless payment can be issued;
- Enable customers to collect the debit card without it having to go by post.
- Do not make customers pay for a debit card if they are already a customer.

### **Better information**

- State clearly what customers should do to block their card if their phone is also stolen;
- Provide clearer instructions for activating a debit card, stating when it can be used and that the PIN can be changed. Help people with low literacy to write a clear letter;
- Provide a step-by-step plan and explain it in multiple languages, including sign language, and with videos that are easy to find;
- Make it easier to apply and complete the forms: a lot of information is required.

### **Better use of technology**

- Include simple steps that do not change;
- Maintain the same layout;
- Provide a chatbot that understands customers;
- Provide an emergency button to block the payment account temporarily if someone tries to hack the customer and notify the customer that the blocking has been successful;
- Provide multiple language options in the digital environment;
- Make it easier to enter strings of numbers;
- Allow sufficient time for actions to be completed;
- Make it easy to enlarge the text;
- Place larger dots with pictures in the mobile banking app that are easily recognisable, as that will save searching;
- Provide a screen reader function;
- Make sure nationals of another EU country can easily apply for a debit or credit card;
- Enable customers to log into the bank using DigiD;
- Enable customers to carry out all operations using the banking app;
- Send the activation code digitally so there is no need to wait.





### 5.2.8 Checking balances, debits and credits

#### **Checking balances, debits and credits is an activity that many interviewees do independently.**

Groups in which not everyone does this independently are: people without the internet, people with a mild intellectual disability, people of low literacy, people born in China, Morocco, Syria or Turkey. These amount to up to a quarter of the interviewees.

**Participants in various groups use the facility to check their balance, debits and credits and statements by non-digital means.** In the case of people without the internet or a smartphone, everyone who does this independently uses paper copies. There are also interviewees who do this at the ATM, by telephoning the balance line or by visiting a bank. People in various other groups, such as people low digital skills and people born in China, also use the non-digital methods. A participant in the blind and severely visually impaired group does it with a paper copy in braille. Reasons for not using digital facilities are fear, reluctance to use digital methods, having no internet access, not being able to use a computer, and the idea that a paper copy is much clearer and safer. On the other hand, there are interviewees with positive experiences with the digital facilities. For example, a person in the group with low literacy says: *“I do find it clearer now: an amount in green has been paid in. That’s great, I think the colour indication is clear. My app also has pluses and minuses for credits and debits. That’s also nice and clear.”*

**Some interviewees experience problems.** A participant without internet access said: *“The balance line is risky to use because there’s a high chance of making mistakes: it’s been made too complicated, you have to keep pressing keys to get what you want!”* Also, it’s not always clear what

the debit is for, because it’s not always obvious from the description. Many interviewees find this inconvenient. A disadvantage of checking the balance, debits and credits and statements digitally is that you cannot do it if the system is down. Here too there are participants who have problems with characters that are too small. A person in the 65- to 74-year-old group says: *“Those dreadful small characters. I have a magnifying glass, but it doesn’t help. The developers are young people and they have fantastic eyesight. But when you’re elderly it’s a nuisance.”* There are examples of interviewees who have received effective help with their problems. For example, a visually impaired participant was no longer able to see certain details on the website because there were pictures instead of text. An update was released to fix this. And someone in the group of people using a wheelchair or mobility scooter says: *“The banks recently made changes to the layout of the website. I thought: “What am I supposed to do with that?” Fortunately I was able to go back to the old layout. If that’s no longer possible, I’ll just find another bank. Customers should just be able to keep their familiar layout and features.”*

**For customers to remain independent it is important that the non-digital methods for checking balances, debits and credits remain available.** A participant without the internet or a smartphone says: *“No, it works well. But I do hope this service will stay! I think all bank services and government institutions should remain available on paper and by telephone.”* And a participant with low digital skills says: *“I don’t have any problems. Balances are always correct and understandable. The banks must continue to send them. I’d be very sorry not to receive them any longer.”*

## **Interviewees suggest the following improvements for checking balances, debits and credits**

### **Better service**

- Simplify the balance line;
- Make paper copies cheaper or free;
- Deliver paper copies in time by post;
- Send paper copies once a week;
- Only run updates at night.

### **Better information**

- State clearly what the debit is for (which organisation, over what period and for which service) and what the abbreviations mean;
- Include less data on the screen and not in illogical places that make it impossible to do a quick check;
- Ensure a simpler website layout that does not change unnecessarily;
- Provide a step-by-step plan, making it clear when particular actions need to be completed and when codes and passwords need to be entered, so there are no surprises;
- Provide step-by-step instructions with pictures and explain what comes next.

### **Better use of technology**

- Provide better information on debits: balance before and after the debit, also balance information going further back in time;
- Provide a notification when the balance reaches zero;
- Send an SMS text message whenever the balance changes;
- Send a warning if a large amount goes out of the account;
- Use a colour to show the customer's position, e.g. a red flag for a low balance;
- Make sure past statements are available digitally over a longer period;
- Enable better searching in digital statements, for example for a specific person;
- Make it easier to log in by means of iris scanning, facial recognition or fingerprint;
- After a debit enable customers to view the balance without having to log in;
- Enable the mobile banking app to be controlled by speech;
- Enable the customer to specify the sequence of the amount and account number when checking a balance, so that the speech function on the computer does not read all the IBAN numbers out loud before getting to the balance;
- Provide a magnifying button or high-contrast display on the ATM;
- Enable the text in internet banking and mobile banking to be enlarged;
- Also include a setting that enables buttons to be enlarged. That makes it easier to enter the correct numbers and letters.

### **General matters**

- Create a single mobile banking app common to all banks.

### 5.2.9 Opening and closing a payment account



**Opening and closing a payment account is an activity associated with a low degree of independence compared to other services.**

This is mostly because people do not carry out this activity. This applies, for example, to a majority of the interviewees in the following three focus groups: deaf and severely hearing-impaired, people with a mild intellectual disability and people with low literacy. Independence is lowest among participants with low literacy and participants of Chinese descent. In the latter group, a majority have handed over the opening and closing of a payment account to someone else. Various participants with a migration background say they cannot do it themselves because they have no command of the language.

**Some interviewees experience problems.** This applies, for example, to the closure of a payment account after the death of a relative. This requires a lot of information and fees are charged for supplying a copy of the statement. When opening an account, some participants also struggle with the fact that so much information is required. A person of Belgian descent said it was a very difficult process, because at that time he did not have a DigiD or BSN number. Several other participants with a migration background also say that a lot of patience is needed to get a debit card and a payment account. Closing a payment account can require a lot of time and energy and switching does not always go smoothly.

**Some interviewees need personal contact for this basic payment service.** A person in the 65- to 74-year-old group says: *"I just want to go to a counter. Then I can put my trust in a person. I have an old-fashioned sense of trust. I have less of that when I'm looking at an anonymous screen. This is particularly useful for important things such as opening or closing a payment account."*

## Interviewees suggest the following improvements when it comes to opening and closing a payment account:

### Better service

- Enable this to be done at a bank branch;
- Make it easier to have personal contact;
- State clearly where the customer needs to go to speak in person to someone with the required knowledge;
- Make sure there is at least one full-service branch in each province that can provide proper help without an appointment;
- Be customer-friendly, even if someone wants to close an account;
- Ensure that customer service can put customers in touch with the right expert or has knowledgeable people available by telephone;
- Handle data with care;
- Reduce bureaucracy. If a payment account is required in order to save, make sure the debit card does not have to be activated;
- Make it unnecessary for existing customers to visit a branch to provide a signature;
- Enable an interpreter to be called in or employ someone who speaks the customer's language (or sign language).

### Better information

- Make it easier to find out on the website how to open and close a payment account;
- Produce video tutorials with subtitles;
- Offer courses in small groups.

### Better use of technology

- Install a hearing loop system to make sounds louder;
- Reduce the number of actions and speed up the process;
- Have fewer tabs on the bank's website;
- Simplify online identification, e.g. by iris scan or fingerprint;
- Provide multiple language options in the online environment.

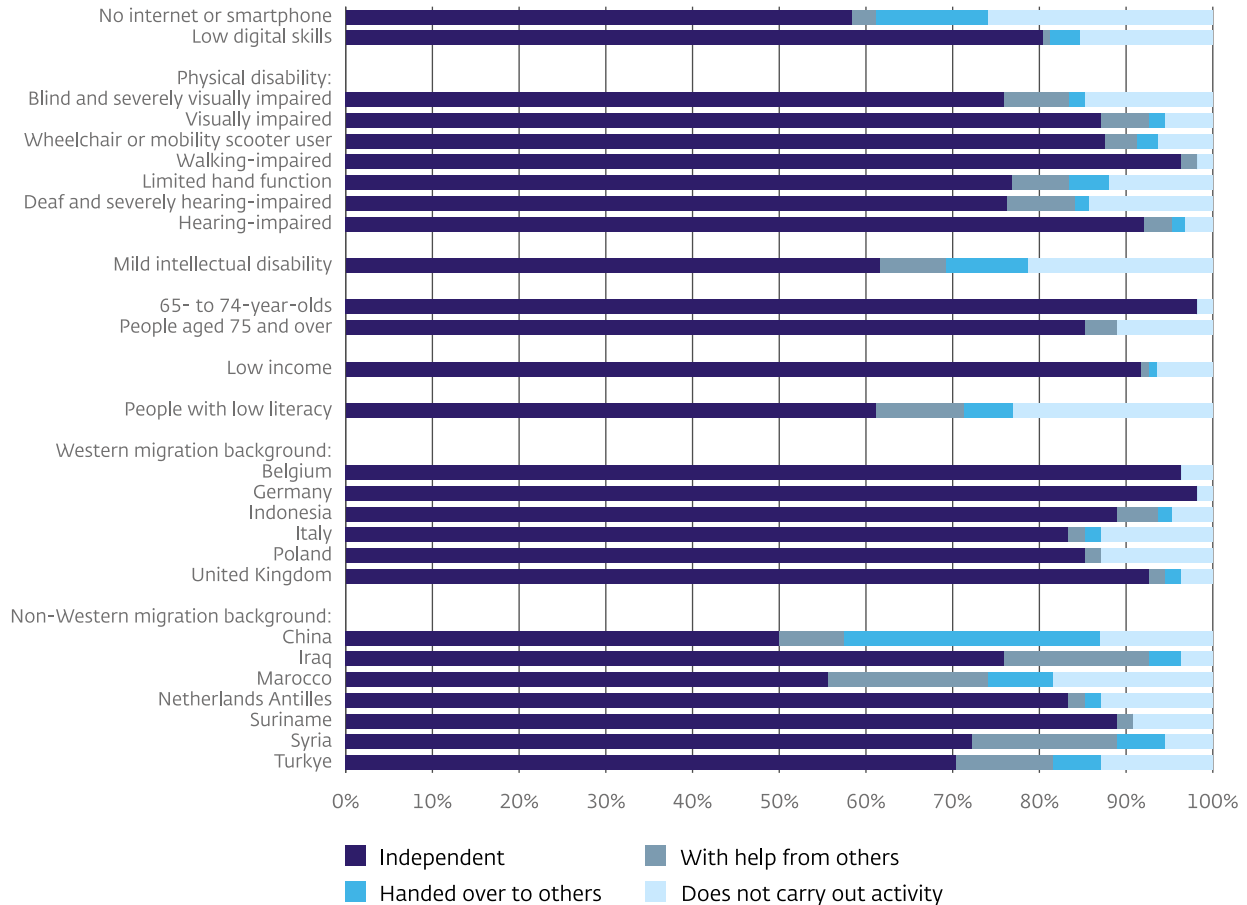
### 5.3 Overall picture

#### 5.3.1 Degree of independence

**In twelve of the twenty-seven groups/focus groups, a minimum of one in five interviewees is dependent on average across the various basic payment services.** They need help, arrange for someone else to perform the activity or simply do not do it. Figure 5.4 shows the average degree of independence in relation to the nine basic payment services. Independence is the lowest among participants born in China. On average,

across all nine payment services examined, half of these interviewees perform the activity independently, 7% do so with the help of others, 30% have handed it over to others and 13% do not perform the activity at all. Independence is also relatively low in the following groups of people with a non-Western migration background: participants born in Morocco, Turkey, Syria or Iraq. Participants from Suriname or the Netherlands Antilles are more independent, probably because they have a better command of the Dutch language. Other groups with a low degree of

Figure 5.4 Average degree of independence across nine basic payment services



independence are: the group without the internet or a smartphone, people with low digital skills, the blind and severely visually impaired, people with limited hand function, deaf and severely hearing-impaired, people with a mild intellectually disability and people with low literacy.

**The independence differs greatly depending on the basic payment service and is lowest for use of the mobile banking app.** Figure 5.5 shows the degree of independence for each basic payment service based on all interviewees. The picture that emerges from this is consistent with the picture presented in Chapter 4. Independence is greatest when it comes to paying for purchases in a brick-and-mortar store and checking the balance, debits and credits. 97% and 95% of interviewees respectively perform this activity independently. Independence is lowest when it comes to using the mobile banking app, followed by opening

and closing a payment account and paying for purchases in an online store. 62% of interviewees use the mobile banking app independently, 9% need help from others, 3% have handed it over to others and 26% do not perform the activity.

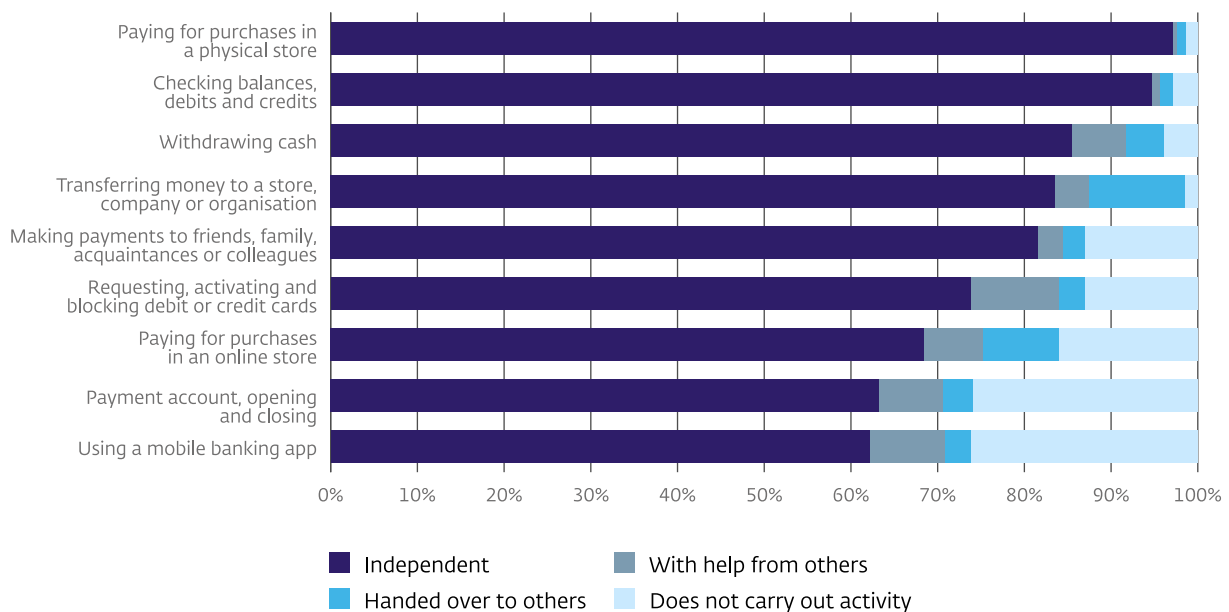
### 5.3.2 Support

**Some of the interviewees seeking support from a bank say they are not satisfied with the service.** For example, it may take them

a long time to get an appointment to talk to a knowledgeable person in a branch. Bank employees often refer customers to the internet. *“They’d rather lose me than get rich, because they think I’m a nuisance. Their reasoning is the less service we offer, the faster I’ll walk away,”* says a participant without internet access. Bank employees do not share customer information properly with each other, there are long telephone waiting times and some interviewees find it difficult to go

Figure 5.5 Independence by basic payment service

In order of independence



through menus of options. Many people do not get the right answer from the chat function. An interviewee in the 65-74 age group says: *"A major area for improvement: chatbots. They make me so angry that I want throw the computer out the window. They can't understand my problem. Sometimes I think I've stated it clearly, but they still don't understand. The human brain is much better at this than an automatic one."* There are also various examples of interviewees who did not receive proper help in the branch. Customers need more patience, a calm explanation and a lot of repetition. On the other hand, there are also interviewees who are satisfied with the support they receive.

**Participants in many different focus groups say the bank branch is too far away.** Someone in the blind and severely visually impaired group says: *"Making a physical appointment is quite a challenge because it is 15 kilometres away and I have to get there by taxi."* And someone with limited hand function says: *"I used to go to a branch, but now there's nothing within a 15-minute drive. Totally unacceptable. We even opened an account at another bank because it still had a branch near us. It really is extremely customer-unfriendly to close all the branches."* There is a need for clearer information about which bank branches are available and how to reach them. Bank employees also refer customers to branches that have already closed.

### 5.3.3 Impact

**There are many interviewees whose dependence on others evokes negative emotions in them.** They feel shame, stress, powerlessness, anger, irritation, frustration, inferiority, sadness or a tussle between trust and distrust. For example, a participant who has no internet or smartphone because he gets a bad headache from screens says: *"I think it's terrible. With the internet everything happens so fast. I always*

*have to explain that I can't do certain things because I don't have the internet. Then people shout: "you just have to do it that way!" But I can't. I increasingly feel on the edge of society. Life goes on in the fast lane but I get bogged down in the swamp. It's unimaginable to many other people, but it's always difficult. Of course, I would rather do everything myself. You can really sense the power relationship. You're no longer equal. I feel dependent, and that makes me angry."* A participant in the blind and severely visually impaired group says: *"I find it frustrating, it makes me feel excluded. Actually, it's discrimination, you can't participate and you can't manage your own affairs. I feel dependent and powerless and I get frustrated."* Some of the interviewees are saddened by it. A participant with low literacy says: *"I really hate it, I want to do everything myself, but I have an overdose of fear and low self-confidence. I hear so many awful stories, so I don't get started. It makes me sad."* Some people have to summon up the courage to ask for help. They feel little empathy from others, which causes anger and a sense of inferiority. It is also difficult to have to rely on help from others and not be able to decide for yourself when to pay a bill, for example. This causes stress.

**Various participants say this has a major impact.** A deaf participant says: *"The impact is huge and it bothers me. I always have to wait for someone to be available. I have to ask someone if they have time for me so we can take a look together. It gets sorted out, but it can never be done when I want. It also means I have less control of my finances."* Someone with a Moroccan migration background puts it as follows: *"The impact is very big. It's a shame that progress and the internet are so dominant these days. It means I can't do things myself and my children have to help me. What I do differently is that I usually only buy my products in the store and not online, whereas nowadays everything goes through the internet. But I still can't buy things over the internet. That means*



*you have no control over your situation, unfortunately, because everything is so digital. You have to be digital to understand any of it."*

**Many of them clearly need greater independence.**

A visually impaired participant says: "Any dependence is one too many." Someone without the internet or a smartphone says: "I want to continue to be able to do everything myself, it's discrimination when I have to turn to the neighbours to do things digitally. We don't belong anymore. Seniors should live independently for as long as possible, but the authorities must make sure that's actually possible. And I absolutely don't want to be dependent. I feel very angry that I'm being treated like this! The staff are very friendly and they treat me well. But the way the system is now they can no longer help me!" And a person of Moroccan descent says: "My dependence makes me very stressful, I want to develop independence and feel better about myself." An interviewee born in Poland says: "Sometimes it's hard. Other people's reliability is a difficult issue. I would rather do it independently, because that's the best solution for me. The fact that I always have to involve someone else is a pain." A person born in Turkey says: "I would like to do all this independently and not depend on others. In Turkey I always did these things myself. I feel like I'm a burden on my partner and that makes me feel dependent. Actually, I'm young and independent, but this gives me a sense of impotence and inferiority. Nevertheless, there's no impact: things do get sorted out, I trust my partner, so everything is in order."

**For some interviewees, the dependence on others when using basic payment services arouses positive feelings: they are pleased with the help they receive.**

Here is an example of someone aged 75-plus who is happy with the help: "I feel blessed that my son is able and willing to help me. I always got very frustrated trying to log in and always failing to enter the codes on time, after which I

*had to start all over again. I have a lot of confidence in it now. If my son does it, I know it will be fine. I have no problem with that dependence." A participant born in the UK says: "I've never needed help in my life. It feels a bit weird, it makes me feel rather young and inexperienced. But I'm not afraid to ask for help. And people are generally very helpful. My in-laws are very sweet." And a person of Chinese origin says: "It's frustrating at times, but I'm grateful for the help and I appreciate all the effort people put in." And here is an example of someone with a mild intellectual disability who is resigned to being dependent: "That's how life is for me, I'm being helped, and that's how it is." A person with low literacy says: "I'm relaxed about it and resigned myself to it a long time ago. If the bank is flexible, it's fine. They need to know that people have low literacy so that they can take it into account. But people must tell them."*

**5.4 Solutions**

**5.4.1 Own ideas**

**When asked what would really help people to manage their banking better, many of the points previously mentioned for each payment service arose again.**

Interviewees would like better service: personal contact close to home from knowledgeable bank employees, preferably in their own language, more bank branches and service points with computers that people can use there and shorter waiting times. It would be good for people in focus groups if they could quickly get in touch with bank employees who understand accessibility. A participant in the blind and severely visually impaired group says, for example: "It took days to sort out the labelling of the Rabobank Website buttons. There is no contact point for this kind of thing. It would be good if the organisation designated a person to deal with accessibility and if people were put in contact with that person to explain how particular aspects of accessibility could be improved. Telephone

customer service is not sufficiently aware of the problems encountered by the blind target group. These people could also be trained for the blind target group to give them greater awareness and understanding."

There is also a need for better information: an information page about accessibility of banks as a whole, insight into the things that can be dealt with at a particular bank branch, simpler use of language, clear step-by-step instructions (e.g. audio CDs, videos), use of images and subtitles and information in multiple languages. Interviewees say they would benefit from one-to-one explanations and trainings and workshops in multiple languages and information on the security of digital payment methods. Once again, solutions are put forward concerning better use of technology. Examples are more accessible versions of the bank website and mobile banking app and greater use of voice recognition and speech. Some of the interviewees also say it is important to maintain non-digital facilities, including the inpayment transfer, paper transfer cards, paper statements, cash and ATMs. Someone with a walking impairment says: "I think the most important thing is that there are plenty of points where you can withdraw cash. I'm lucky that there's one in my supermarket. But I think it's a bit of an excuse when

they say people don't use cash anymore. You could turn it round the other way and say there are not enough cash withdrawal facilities, so people make fewer cash payments.

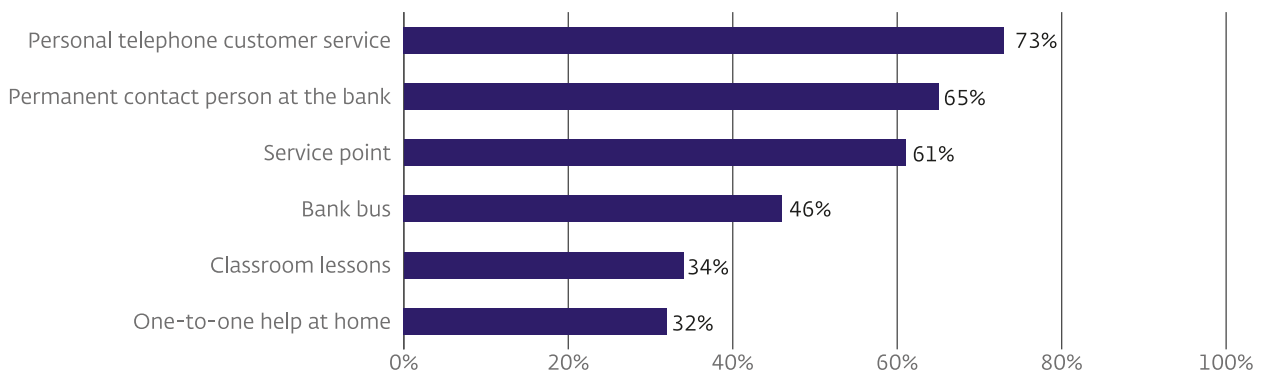
### 5.4.2 Proposed solutions

**The solutions in which people are most interested are personal telephone customer service, a permanent, personal contact person and service points.**

We presented participants with six different solutions to reduce the impact of the digitalisation of the payment system. The solution generating most interest is a personal telephone customer service, with an employee immediately on the line rather than a call centre employee via a menu of options. Nearly three out of four interviewees say they would like to use this. The second most popular solution is a permanent, personal contact person at the bank who can always be contacted or regularly contacts the customer to discuss any problems and provide further assistance. 65% of interviewees would use this. There is also strong interest in walk-in service points that customers can visit in the neighbourhood (e.g. in a library or town hall). Just under half of the participants say they would use a bank bus. A

Figure 5.6 Share of interviewees stating a willingness to use various solutions

In order of interest



bus in the bank's colours would come to the customer's neighbourhood at predetermined times. Customers could then pose their questions to expert bank employees in the bus. Around one in three interviewees are interested in free classroom lessons. Almost as many people say that they would like to use one-to-one help at home. The preferences vary depending on the group. It is therefore sensible to offer various services that reduce the impact of digitalisation.

### 5.4.3 Existing initiatives

**Although customers need services to help them with their banking, they are not very familiar with banks' existing initiatives.** Banks have developed various initiatives to support people. The offer differs from bank to bank. The participants were presented with four different measures that had been taken. Figure 5.7 shows the awareness of these measures. The participants are most familiar with local service points. Only 38% are familiar with them. Three out of 10 of the interviewees aged 65 and over have heard of the seniors line. 18% of interviewees are aware of the availability of courses/information meetings and 17% know about the existence of financial care coaches.

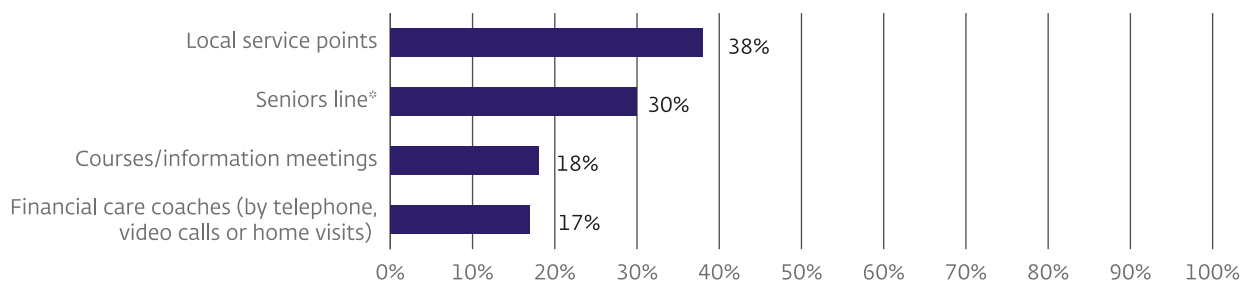
## 5.5 Conclusion

**The people struggling with digitalisation are a very diverse group according to the in-depth interviews conducted with over 200 people in a wide range of focus groups.** Compared to other groups, the independence is lowest among people without internet access, people with low literacy, people with mild intellectual disabilities and people with a non-Western migration background. There are interviewees for whom digital payment services are too complicated or for whom language is a barrier. For others, factors include fear of the digital world and a sense of insecurity or simply a preference for traditional banking methods, for example. The dependence therefore evokes different feelings: from stress, shame, frustration, anger and vulnerability to joy about the help provided.

**It is important to preserve and improve the non-digital world.** Interviewees who are still managing with the non-digital facilities, with or without help, are concerned about further digitalisation. It is important for them to know that non-digital services will continue to exist. They also need to maintain physical contact points. Maintaining them is not enough:

Figure 5.7 Awareness of existing initiatives

In order of awareness



Explanatory notes: \*The seniors line was only presented to the 107 respondents aged 65 and over. The response share for the seniors line relates to this group.

participants encounter many obstacles and have many suggestions for improvement. The study also shows that awareness of existing initiatives to support people could be increased and that new initiatives are needed.

**Technology could be used more effectively to improve accessibility and adapt the digital environment to the user.** From the use of biometrics for easier login to wider use of speech and voice recognition for the various groups struggling with the language. Whereas one group would benefit from more explanatory images, videos and smart use of colours, for other groups straightforward text would be ideal. Technology can be used to create additional user options, such as enlarging the text and allowing more time to perform actions.

## 6 Conclusion

**Our study increases the knowledge of the impact of the digitalisation of the payment system on its availability and accessibility for people in the Netherlands.** With new digital banking and payment methods, it is becoming increasingly common to access basic payment services online or remotely. Increasingly, this means that the traditional – offline – services will fade into the background or only remain available for a fee. Account holders who are no longer willing or able to go along with these developments therefore face increasing difficulty. Independence and satisfaction with banking and payment services have therefore decreased in many focus groups in recent years (NFPS, 2021). Our literature review shows that the digitalisation of the payment system poses a major challenge for people in various groups, but also that there is still little knowledge about the scale of the problem that specific groups are currently encountering and possible solutions.

**We estimate the size of the group that enlists help and show that independence in everyday payments and banking is much higher than in non-everyday actions.** An estimated 0.5 million adults in the Netherlands do not make payments independently at the point of sale in brick-and-mortar stores. In the case of opening a bank account, the figure is 1.8 million people. For banking in general, it is 2.6 million. The qualitative study conducted among more than 200 people who are potentially vulnerable confirms that independence in everyday payments is greater than in less frequent payment-related operations. The qualitative study also provides insight into the reasons for the lack of independence. Frequently cited reasons are: fear of the digital world and making mistakes, lack of the right physical and mental skills and a language barrier.

**The interviews among a wide range of focus groups confirm that the digitalisation of the payment system is a solution for some but a challenge for others.** Compared to other groups, the following groups in particular experience problems: people without the internet or a smartphone, people with low literacy, the blind or severely visually impaired, people who are severely hearing-impaired or deaf, people with limited hand function, people with a mild intellectual disability and people with a non-Western migration background. The latter group mainly concerns people born in China, Morocco, Turkey, Syria and Iraq. Sufficient attention must also be paid to people in these groups in future studies. People with low literacy and people with a non-Western migration background are not yet sufficiently taken into account.

Based on our study, we arrive at four focal points for banks and other operators playing an active role in the payment system (such as retailers and companies that produce ATMs or payment equipment). These are explained on the next two pages.

### **Focal point 1: Preserve and improve the non-digital payment world**

People who are still managing with the offline facilities, with or without help, are concerned about further digitalisation. It is important for them to know that non-digital payment services and contact options will continue to exist. Interviewees also suggest improvements in this area: for example, participants in various groups need €5 and €10 banknotes in ATMs. It is also important for them that there are still physical contact points of the bank and its employees and that they can still easily contact their bank by telephone. Possible improvements include shorter waiting times, better help and more patience and empathy on the part of bank employees. Bank customers can be helped more effectively if they can immediately contact someone who has experience with the focus group and the obstacles they encounter and who also speaks their language (or sign language). If the non-digital payment world were to disappear, more people in these large groups would lose their independence.

### **Focal point 2: Raise awareness of existing initiatives and launch new initiatives**

Banks could raise awareness of existing initiatives to improve the accessibility of the payment system, but they could also launch new initiatives. Interviewees are particularly interested in a personal telephone customer service, a permanent contact person at the bank and the use of local service points. They are slightly less interested in home assistance, training courses and information meetings. People could be helped more effectively in learning how to deal with the digital payment world.

### **Focal point 3: Make better use of technology to increase accessibility...**

Technology could be used more effectively to increase the accessibility of the payment system. Speech and voice recognition are valuable tools for people in many focus groups, such as people with low literacy, the blind and visually impaired and people with limited hand function. Technology could also be used, for example, to provide more comprehensible language, practical visualisations, instructional videos, step-by-step plans and information on the nearest filled ATM. The use of biometrics – such as facial recognition or fingerprints – could provide a solution for people who find logging in complicated or have great difficulty remembering and entering codes.

### **Focal point 4: ... and tailor the digital environment to the user**

There needs to be greater scope to tailor the digital environment to the user. Whereas one group would benefit from more explanatory images, videos and smart use of colours, for other groups straightforward text would be ideal. Technology could be used to create additional user options, for example to specify more time to perform actions, increase the font size, choose the language and turn off features that customers do not wish to use in the mobile banking app. Customers would then need support to make the right choices.

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# Annex 1 Method for calculating the size of groups and independence

**The estimate of the number of people who have difficulty performing basic payment services independently consists of several steps.** These steps are explained below.

## A.1 Calculation of the size of the groups

**The Point-of-sale Payments study contains data on how many people belong to a particular focus group.** This study was conducted in the first half of 2022 on behalf of Dutch Payments Association and DNB. A total of 10,376 respondents in the study stated whether they belonged to focus groups, and if so which. Figures from Statistics Netherlands (Statistics Netherlands, 2022e) show that there are about 14.3 million people in the Netherlands aged 18 and over. By combining these data, we obtain an estimate of the gross size of the focus groups. This gross size of the focus groups serves as a starting point for calculating the group of people who do not participate independently in the payment system.

**External sources have been used for most focus groups.** This is because some focus groups may not be fully represented in the Point-of-sale Payments study, for example because they may not be able to participate properly in this study due to the nature of their disabilities.<sup>17</sup> If the external sources are likely to provide a better indication of the group size, the results of the external sources are used. This is the case for most focus groups, because the figures come from reliable external sources such as Statistics Netherlands, the Eye Association Netherlands, Stichting Hoormij or the Dutch National

Health Care Institute. For some groups, it was deliberately decided not to use external sources, because the data obtained were inconclusive (the number of wheelchair users<sup>18</sup>) or reliable data could not be found (people with limited hand function or people with a walking impairment). For these groups, it was therefore decided to estimate the gross size on the basis of data from the Point-of-sale Payments study.

**Since individuals can fall into multiple focus groups, we apply an adjustment for double counting.** For example, people who are visually impaired and also have lower digital skills, and hence fall into two focus groups, are counted only once instead of twice. In order to be able to apply the adjustment, we have determined for each focus group the average number of groups into which the respondents fall on the basis of the Point-of-sale Payments data. We have used these averages to calculate the net number of people in each focus group. We have only counted half of the individuals who fall into two focus groups when calculating the net size of each of these two focus groups. Individuals who fall into three focus groups are counted on the basis of one-third per focus group. The same logic has been applied to individuals who fall into more than three focus groups. These calculations show, for example, that of the 508 people who stated they were hearing-impaired, 249 remain after adjustment for double counting. That means that hearing-impaired people fall into just over two focus groups on average, so besides being hearing-impaired they often belong to one other group.

<sup>17</sup> Around 98% of all respondents completed the Point-of-sale Payments questionnaire online. 2% of all respondents participated by telephone.

<sup>18</sup> In most cases the external sources concerning the number of wheelchair users also include those who are temporarily using a wheelchair, but this group is outside the scope of this study. Furthermore, given the nature of this focus group, it is unlikely that they are over- or underrepresented in the data set, because most wheelchair users should be able to participate properly in this study.

**Based on these findings, we calculate an adjustment factor in order to convert the gross size per focus group into the net size.** These factors, expressed as a number greater than 0 and less than or equal to 1, are shown in Table A.1. The adjustment factor is calculated by dividing 1 by the average number of focus groups in which individuals in the group are found. A factor of 1 means that an individual in that group falls on average into only one focus group, namely the focus group for which the adjustment factor

has been calculated. A factor of 0.5 means that a person is on average in two focus groups and must therefore be counted as half a person in order to calculate the net size. A lower adjustment factor means that the people in a particular focus group more often fall into several other focus groups, so a larger adjustment must be applied to the gross group size. The results of adjusting the gross size to the net size without double counting are also shown in Table A.1.

Table A.1 Size of focus groups

	Gross size	Correction factor	Net size
No internet	400,000 <sup>19</sup>	0.32	129,195
Low digital skills	1,500,000 <sup>20</sup>	0.35	521,837
Low-skilled	4,100,000 <sup>21</sup>	0.69	2,838,228
65- to 74-year-olds	1,960,000 <sup>22</sup>	0.72	1,420,356
People aged 75 and over	1,567,000 <sup>22</sup>	0.62	976,855
Visually impaired	222,000 <sup>23</sup>	0.49	108,142
Blind	76,000 <sup>23</sup>	0.58	43,858
Walking-impaired	692,449	0.49	336,464
Wheelchair	90,858	0.58	52,289
Limited hand function	320,757	0.55	177,462
Hearing-impaired	1,485,000 <sup>24</sup>	0.49	727,668
Deaf	15,000 <sup>24</sup>	0.54	8,129
Mild intellectual disability	370,000 <sup>25</sup>	0.66	242,753
All focus groups	-	-	7,583,236
No focus group	-	-	6,700,764
<b>Total</b>	-	-	<b>14,284,000</b>

19 (CBS, 2020)

20 (CBS, 2022d)

21 (CBS, 2021c)

22 (CBS, 2022e)

23 (de Klerk et al., 2012)

24 (Stichting Hoormij, 2003)

25 (Woittiez et al., 2019).

## A.2 Calculation of the degrees of independence

**The next step involves determining the number of people who do not conduct banking business independently.** In the 2021 Availability Monitor concerning the availability and accessibility of payment services for consumers respondents were asked about their independence with regard to banking in general: “Which statement about banking applies to you?” They could state whether they managed their banking entirely independently, with help from their partner

or from others, or whether they handed it over entirely to someone else. This question therefore covers more than just payments. This breakdown not only provides insight into the share of people who cannot manage their banking affairs independently, it also provides insight into the seriousness and extent of the problem. We combine the degree of independence of the different focus groups with the previously calculated net size of these groups. The combined figures are set out in Table A.2.<sup>26</sup>

**Table A.2 Number of adults in the Netherlands who do not do their banking independently**

Focus group	Net size	Dependent	Help partner	Help others	Fully handed over to others
No internet	129,195	51%	5%	21%	25%
Low digital skills <sup>26</sup>	521,837	43%	17%	14%	12%
Low-skilled <sup>26</sup>	2,838,228	27%	16%	6%	4%
65- to 74-year-olds <sup>26</sup>	1,420,356	12%	9%	2%	1%
75 and over <sup>26</sup>	976,855	24%	9%	8%	6%
Visually impaired	108,142	31%	23%	8%	1%
Blind	43,858	55%	28%	20%	8%
Walking-impaired	336,464	37%	11%	15%	11%
Wheelchair	52,289	37%	24%	8%	4%
Limited hand function	177,462	42%	32%	6%	4%
Hearing-impaired	727,668	29%	16%	10%	3%
Deaf	8,129	37%	25%	12%	0%
Mild intellectual disability	242,753	55%	17%	25%	13%
All focus groups	7,583,236	27%	14%	8%	5%
No focus group	6,700,764	8%	7%	1%	0%
<b>Total</b>	<b>14,284,000</b>	<b>2,621,740</b>	<b>1,582,868</b>	<b>641,703</b>	<b>397,229</b>

<sup>26</sup> For the groups of people with low digital skills, people with a low level of education, people aged 65 to 74 and people aged 75 and over, we use the independence and satisfaction percentages both of respondents who have functional impairments (see NFPS, 2021) and of those who do not. We create weighted averages for each of these four groups based on the proportions in the Point-of-sale Payments dataset.

**We then break down the independence by basic payment service.**

The degree of independence per payment service was also calculated in the 2021 Availability Monitor (NFPS, 2021).

Respondents were asked: *“How do you carry out the following activities?”*, in response to which they could indicate for each payment service whether they carried it out independently, with the help of others or handed it over to others. These percentages are shown in Table A.3. We combine these percentages with the calculated net size of the focus groups to obtain a full picture of the total number of people who cannot perform a particular payment service independently. The results can also be found in Table A.3. The dependence is greatest when it comes to opening an account.



Table A.3 Shares of dependence with regard to basic payment services by focus group

	Opening bank account	Activation payment method	Internet banking	Payments in online store	Payment order
No internet	26%	28%	86%	43%	23%
Low digital skills <sup>26</sup>	29%	27%	29%	29%	23%
Low-skilled <sup>26</sup>	16%	13%	11%	10%	12%
65- to 74-year-olds <sup>26</sup>	7%	8%	5%	4%	5%
75 and over <sup>26</sup>	15%	14%	6%	12%	10%
Visually impaired	27%	32%	23%	23%	17%
Blind	57%	59%	36%	39%	40%
Walking-impaired	32%	26%	21%	19%	16%
Wheelchair	29%	34%	19%	19%	21%
Wheelchair	32%	33%	21%	32%	22%
Hearing-impaired	21%	22%	20%	22%	14%
Deaf	25%	21%	21%	18%	17%
Mild intellectual disability	41%	29%	31%	22%	29%
No focus group	6%	3%	1%	0%	1%
<b>Total number of persons</b>	<b>1,783,378</b>	<b>1,475,336</b>	<b>1,150,922</b>	<b>1,053,017</b>	<b>1,047,605</b>

	Money deposit	Money withdrawal	Mobile banking	Checking balance information	Paying in physical store
No internet	14%	22%	66%	14%	16%
Low digital skills <sup>26</sup>	23%	19%	24%	13%	10%
Low-skilled <sup>26</sup>	11%	8%	7%	8%	3%
65- to 74-year-olds <sup>26</sup>	6%	5%	5%	4%	2%
75 and over <sup>26</sup>	10%	12%	9%	3%	5%
Visually impaired	18%	28%	19%	18%	13%
Blind	25%	62%	24%	25%	20%
Walking-impaired	12%	22%	24%	12%	15%
Wheelchair	21%	46%	19%	21%	32%
Limited hand function	19%	33%	22%	19%	20%
Hearing-impaired	11%	18%	13%	11%	6%
Deaf	22%	19%	23%	21%	17%
Mild intellectual disability	30%	17%	21%	31%	12%
No focus group	2%	1%	0%	2%	1%
<b>Total number of persons</b>	<b>1,042,581</b>	<b>1,011,967</b>	<b>889,382</b>	<b>790,561</b>	<b>491,946</b>

**Finally, we show the figures for satisfaction per group.** The satisfaction figures have also been taken from the 2021 Availability Monitor. Respondents were asked to answer the question: *“To what extent are you satisfied with the way you can make payments in the Netherlands?”* Respondents were able to give a score between 1 (very dissatisfied) and 10 (very satisfied). A respondent is considered satisfied when he or she awards

a score of 6 or higher. The satisfaction rates for each focus group are set out in Table A.4. Based on these percentages and the net size of the focus groups, we calculate an overall picture of the number of dissatisfied people in the Netherlands. The results are set out in Table A.4. More than 940,000 people in the Netherlands aged 18 years and over are dissatisfied.

Table A.4 Satisfaction by focus group

	Satisfaction	Number dissatisfied (net size)
No internet	83%	21,963
Low digital skills <sup>26</sup>	76%	126,626
Low-skilled <sup>26</sup>	89%	309,938
65- to 74-year-olds <sup>26</sup>	93%	93,565
75 and over <sup>26</sup>	90%	94,931
Visually impaired	89%	11,896
Blind	82%	7,895
Walking-impaired	90%	33,646
Wheelchair	79%	10,981
Limited hand function	91%	15,972
Hearing-impaired	93%	50,937
Deaf	84%	1,301
Mild intellectual disability	89%	26,703
Focus group	89%	806,352
No focus group	98%	134,015
<b>Total</b>	<b>93%</b>	<b>940,368</b>

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