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The impact of digitalisation on the accessibility of electronic retail payments in the EU – perspective of associations representing vulnerable citizens

Executive Summary

This report presents the outcome of a survey with national associations representing people in vulnerable positions, such as people with physical disabilities (e.g. visual or hearing impairments), seniors, homeless individuals and those with cognitive impairments, which was conducted at the level of the European System of Central Banks (ESCB). The purpose of this survey was to get an understanding of how increasing digitalisation affects vulnerable people's ability to make payments, from the perspective of associations representing them. 134 associations from 25 EU countries provided input, providing a good overview of the perceived situation.

Overall, a majority of associations perceive a worsening situation for their members when it comes to making payments, both in-store (41%) and online (35%). In terms of vulnerabilities, a worse situation is especially perceived for those with intellectual and cognitive impairments, and those with housing difficulties. The main reasons for a worsening of the payment situation are the increasing request to pay digitally even in physical shops, a lack of digital skills and knowledge of how to use digital payment methods, insufficient accessibility considerations in payment services including payment terminals and online checkout processes, and the fear of fraud.

Amidst the perceived worsening by some, having the option to pay with cash is considered important or very important by more than 80% of respondents.

However, digitalisation of payments is also seen as beneficial. An improvement of the situation is perceived by 21% of associations, notably for people with mobility impairments. Seniors, and people with visual and hearing impairments also partly benefit from digitalisation in payments, as it can make payments easier and faster, provided basic digital skills are available. Improvements are additionally seen in payment authentication using biometrics, and accessibility features such as voice-over or screen reader functionalities.

Overall, the increased variety of payment choices brought about by digitalisation was highlighted as a positive development.

Given the survey has certain limitations regarding its representativeness – due to significant variations in response numbers across countries and types of vulnerabilities – some caution should be exercised when drawing conclusions from its findings, particularly in quantitative terms. Therefore, it seems recommendable to conduct further work, also in light of the European Accessibility Act (EAA) being in force since June 2025.

1. Introduction

Ongoing digitalisation and technological innovation are affecting our lives in profound ways, including the way we make payments. Innovations such as contactless payments, payments via mobile devices or authentication via fingerprint or facial recognition, to name a few, can make payments easier and faster for most consumers. However, many people are unable - or find it difficult - to take advantage of these developments, for various reasons, such as certain physical and/or cognitive disabilities, low literacy, limited digital skills or simply because they cannot afford the necessary devices.

Supporting accessibility in retail payments is one of the goals of the Eurosystem's retail payment strategy[1]. It is becoming increasingly clear that growing digitalisation bears the risk of excluding certain individuals from making retail payments in a safe and efficient manner. However, the extent to which the increasingly digitalised payment landscape poses problems to individuals is not always well understood, particularly on a European level. Research in this regard seems limited, although a notable national study by De Nederlandsche Bank (DNB) has investigated the challenges faced by different groups in society by surveying potentially affected consumers[2].

To understand better this impact, a survey was conducted at the level of the European System of Central Banks in February 2025 by reaching out to EU national associations representing vulnerable citizens with a questionnaire[3]. It aimed at getting associations' perspective on how increasing digitalisation has impacted individuals' ability to make payments, both in shops and online, and what factors make increasing digitalisation a challenge – or an improvement. Recalling the requirements of the European Accessibility Act entered into effect on 28 June 2025, the survey intended to capture a snapshot of the situation prior to its implementation.

A total of 134 associations from 25 EU countries returned completed replies. However, the number of submitted responses varied between countries, showing no clear correlation between a country's population and the number of replies. Hence, it is important to note that the relatively low number of replies from many countries and unclear representativeness of the results might impact the completeness and reliability of the survey results. Given this, some caution should be exercised when drawing conclusions from its findings, particularly in quantitative terms.

This note presents the outcome of the survey and is structured as follows: Section 2 looks at the groups of vulnerabilities considered in the survey and their prevalence in the EU. Section 3 describes reported baseline abilities of assocations' members and access to technological devices, both of which are prerequisites for participating in the digital world. Section 4 reports on preferences with regard to shopping and paying in a store online. Section 5 examines the perceived impact of digitalisation on individuals' payment situation as well as reasons for any potential difficulties. Section 6 reports on the importance of the option to pay with cash and electronic payment methods, with comparison to results from the Study on Payment Attitudes of Consumers in the Euro area (SPACE)[4]. Finally, Section 7 concludes.

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[1] The Eurosystem's retail payments strategy – priorities for 2024 and beyond.

[2] "Digitalisation of the payment system: a solution for some, a challenge for others" (2023).

[3] See Annex 1 for the questionnaire.

[4] See 3.1: The importance of having the option to pay with cash in the SPACE 2024 report.

2. Capturing groups of vulnerabilities and their prevalence in the EU

2.1 Number of replies by vulnerability

Respondents were asked to identify which group of vulnerable people their association represents. They could select one or several goups from 16 predefined answer options, including a category for "various types of vulnerable people". If respondents selected "various", they were asked to provide separate replies for each group – theoretically allowing for a straightforward analysis of group-specific experiences. In practice, this was mostly unsuccessful and it is not clear how many associations submitted replies for each separate represented group.

Due to overlapping vulnerabilites within some target demographics (e.g. elderly with reduced mobility or visual impairments as a result of their advanced age or individuals with intellectual disabilities who are reliant on government support may also be low income), respondents also often selected multiple categories of vulnerable people rather than the 'main group' their organisation represents. Allocating replies to certain vulnerable groups was therefore not straightfoward.

To address this, responses were manually grouped into 16 categories[5], combining the multiple-choice answers with insights from free text replies to indentify specific vulnerabilities. In some cases, it was not possible to identify or isolate one main group of vulnerable people, thus three broader categories were also included to categorise such cases. Some special cases, such as organisations representing seniors with migrant backgrounds, were still included in two categories to reflect their dual (but still narrow) focus.

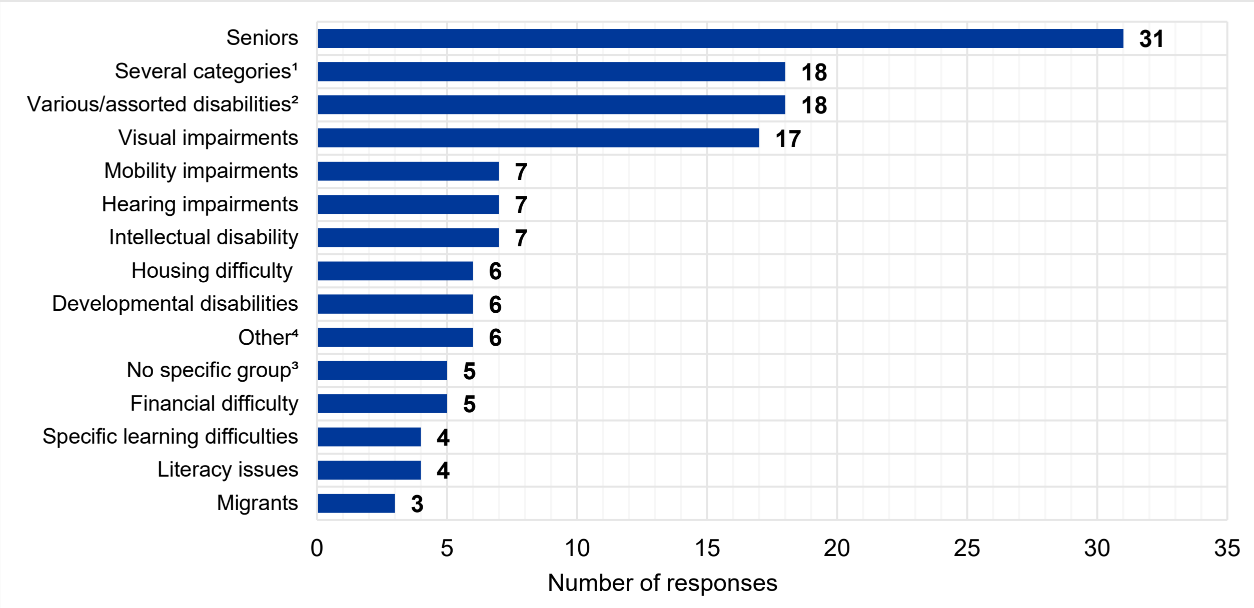

Figure 1: Number of responses by vulnerable group

1 Associations representing several categories of vulnerable people which could not be categorised under one main group.

*2 Associations representing multiple or unspecified types of **physical or cognitive disabilities** (i.e. not socio-economic vulnerabilities). Predominantly 'umbrella' associations representing "all/any" **disabilities***

3 Associations not specifically aiming to represent vulnerable groups (e.g. general consumer organisations).

4 Includes, inter alia, associations representing: people living in rural areas, individuals with mental illnesses, LGBTQ+ youth, people with Wolfram Syndrome.

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[5] See Annex 2 for an overview of the original and manually constructed categories.

Figure 1 shows the number of replies received according to the vulnerable group represented by the responding association. Based on this mapping, seniors (31 replies) and people with visual impairments (17 replies) were most represented vulnerabilities among the responding associations (excluding umbrella associations or those representing several categories of vulnerable people). Associations representing individuals with mobility impairments, hearing impairments and intellectual disabilities are next most represented in terms of number of replies, with 7 each.

It is important to note that several countries were unable to successfully reach associations representing homeless individuals and migrant communities, explaining the relatively low share of migrants in Figure 1. As a result, their perspectives are underrepresented, or entirely absent, in survey responses from certain countries. This gap highlights a structural limitation in the data collection process and underscores the need for more targeted engagement strategies in future surveys to better capture the experiences and needs of some vulnerable groups.

2.2 Estimated prevalence of vulnerabilities in the EU

Publicly available data highlights the scale and diversity of vulnerabilities across the EU, emphasising the importance of inclusive payment systems and policies that meet the needs of all individuals, including those facing barriers due to age, physical or cognitive disability or socioeconomic challenges. Table 1 depicts the approximate share of the EU population belonging to a selection of the vulnerable groups included within this survey. The public statistics highlight areas of potential underrepresentation within the presented survey, suggesting that a number of vulnerable groups may not be adequately reflected in its findings.

Table 1: Approximate prevalence of vulnerabilities within the EU population

	Approx. share of EU population	Definition and source
Seniors	29.4%	*Share of total EU population aged 60+.* *[Source: Eurostat]*
Disability (all)	23.9% of individuals aged 16+ [6.7% severe]	*Self-reported disability (activity limitation) due to ongoing/long-term health problems. Severe limitations make completing daily tasks extremely difficult, if not impossible (without support).* *[Source: Eurostat]*
Visual impairments	20.3% of individuals aged 16+ [2.6% severe]	*Moderate or severe difficulty with seeing, even when wearing glasses or contact lenses.* *[Source: Eurostat]*
Hearing impairments	11.8% of individuals aged 16+ [2% severe]	*Moderate or severe difficulty with hearing, even when using hearing aids.* *[Source: Eurostat]*
Mobility impairments	18.5% of individuals aged 16+ [5.9% severe]	*Moderate or severe difficulty with walking or climbing stairs.* *[Source: Eurostat]*
Intellectual disabilities	1.06% [0.23% severe or profound]	*At least mild (developmental) intellectual disability (IQ<69) characterised by significant limitations in both intellectual functioning and adaptive behaviour, originating before childhood.* *[Source: Global Burden of Disease 2021]*

	Approx. share of EU population	Definition and source
Housing difficulty	4.9% of those aged 16+	*Have at, any point in their lifetime, lacked a permanent and stable home, forcing them to rely on temporary accommodation* *[Source: Eurostat]*
Renting difficulties	13% of those aged 16+	*Have, at any point during the last 12 months, been unable to cover the cost of their accommodation using their own resources, without having to borrow money, take out a loan, or resort to other financial means to pay their rent* *[Source: Eurostat]*
Financial difficulty	21%	*Individuals who are either at risk of poverty, or severely materially and socially deprived or living in a household with a very low work intensity* *[Source: Eurostat]*
Migrant background	6.5% (non-EU) 3.5%* (excluding Europe, US, Canada, Australia and New Zealand)	*Individuals holding foreign citizenship.* *[Source: Eurostat]* **Average based on only 18 EU countries due to a lack of specific data from all member states*

2.3 Limitations of survey

While directing the survey to associations on behalf of the people they represent has been an efficient and uncomplicated way of gathering insights, limitations of this approach should be kept in mind.

Firstly, the answers represent the views of association employees and not necessarily those of vulnerable individuals themselves. Hence, the views expressed may be biased and influenced by the respondents' own experiences and value systems, particularly regarding questions of a more explanatory nature. Still, associations can be considered well placed to assess the situation of their members, especially if they represent groups with one specific vulnerability, such as those with visual impairments.

As described in Section 2.2, replies were manually allocated to the category of vulnerable people they seemed to represent on a best effort basis. This should be kept in mind when considering the results of particular vulnerable groups, which may be slightly skewed as a result of the adopted categorisation method.

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3. Foundations of digital participation: core skills and technological barriers

As a preliminary step, the questionnaire first aimed to identify the level of literacy and access to the internet/digital devices possessed by members of the responding associations. Both are essential prerequisites for participating in a digitalised world and can pose major barriers to accessing retail payment systems.

3.1 Literacy: ability to create and understand text

When asked about ease of creating and understanding text, a majority of respondents indicated that their members would require some level of support for both activities (Figure 2). Regarding the ability to create a text specifically, over 50% of respondents reported that their members would require some assistance (e.g. from another person or accessible technology) in order to do so.

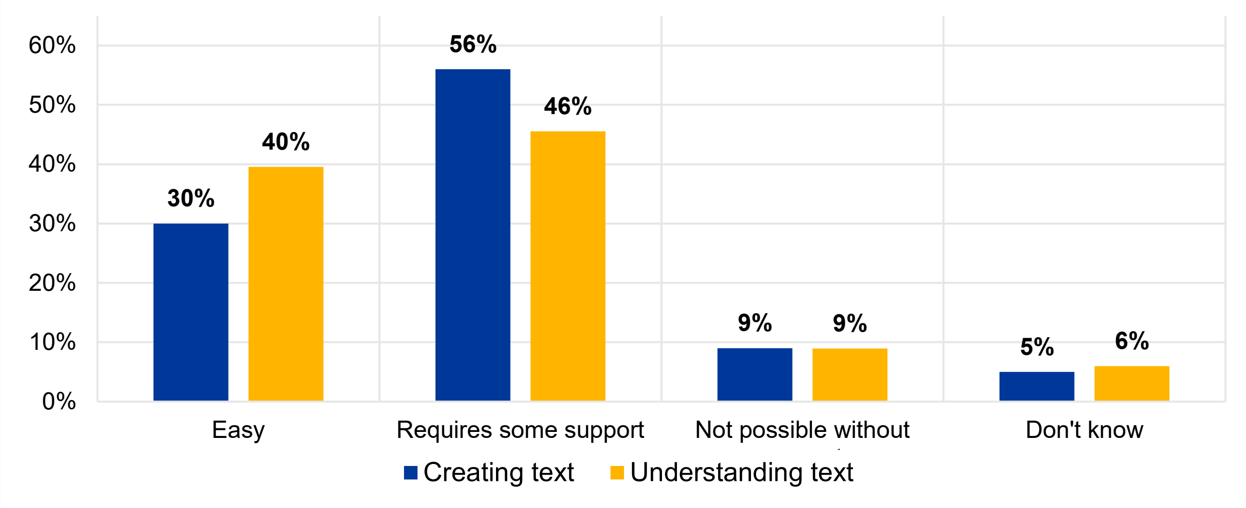

Figure 2: Ease of creating and understanding text

However, as Box 1 highlights, traditional concepts of literacy issues (i.e. difficulty reading or writing) are not the only literacy-based barriers relevant to electronic retail payments. Four of the associations responding to this survey can be categorised as representing individuals with literacy issues, also including financial and digital literacy.

Box 1: Digital and Financial Literacy in the European Union

Digital and financial literacy in the European Union

Focusing on digitalisation in the context of retail payments places an additional spotlight on digital and financial literacy issues faced by a significant share of the population, which present a major challenge for accessibility to innovative payment services.

- A 2023 study by the European Commission found **10.64% of individuals aged 16-74** to have **below basic information and data literacy** skills.
- Additionally, **9.74%** were found to possess **below basic problem-solving skills** related to activities such as downloading and installing apps, making online purchases, using online learning resources and internet banking.
- A Eurobarometer survey that same year also reported that **24%** of respondents received **a low financial literacy** score, while **21% were not comfortable using digital financial services**.

[Sources: Eurostat, Flash Eurobarometer FL525]

3.2 Access to technological devices and the internet

Associations were also asked whether the majority of their members have access to technological devices such as laptops, desktop computers, smartphones or tablets (Figure 3). Based on the responses received, access to digital devices themselves does not seem to be a major issue for most vulnerable groups. A majority of associations (78%) believed that most of their members have access to technological devices, whereas only 17% felt that this was not the case. However, the share of respondents reporting that the majority of their members do not have access to such devices was larger for some groups. For example, in the case of people with intellectual disability and those in housing difficulty, 43% and 33% of associations respectively reported a lack of access for most of their members.

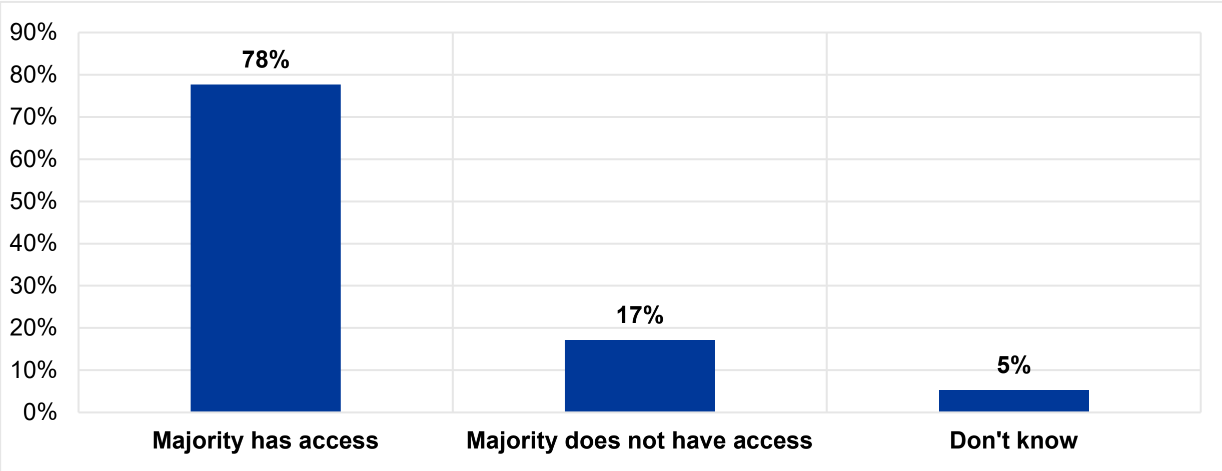

Figure 3: Perceived level of access to technological devices

When asked about their members' difficulties accessing or using the internet including the reasons behind these challenges, half of the associations reported that their members struggle to use the internet because websites and apps do not cater for their specific needs. Additionally, at least 40% of respondents cited high costs for home internet connections and poor internet coverage in certain areas as key barriers. The urban-rural disparity of internet access across the EU (see Box 2: **Internet access in the European Union**) showcases the extent of this issue. Interestingly however, approximately a fifth of respondents do not perceive their members as facing any major difficulties in accessing or using the internet, highlighting the spectrum of accessibility barriers and needs.

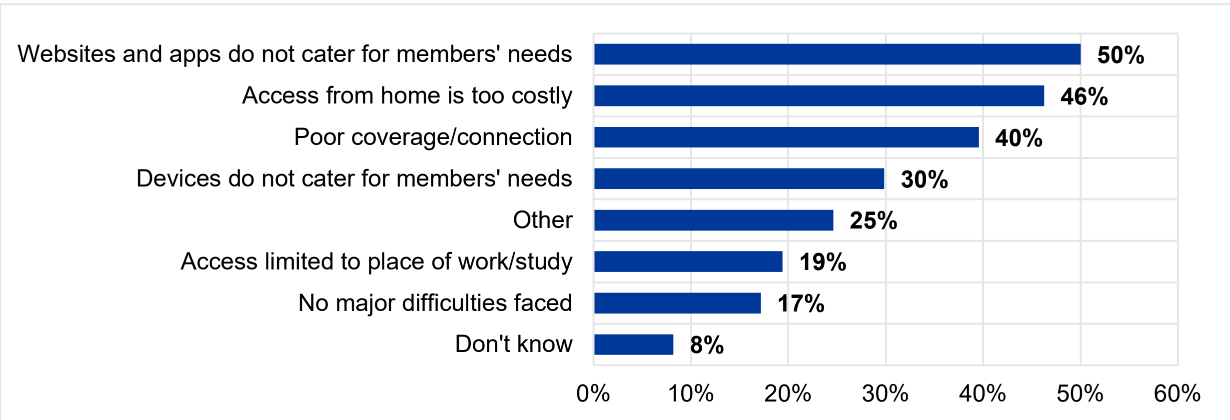

Figure 4: Reported barriers to internet access and use

Box 2: Internet access in the European Union

Internet access in the European Union

As of 2024, 94.19% of EU households had internet access, however lower levels of connectivity are notable in rural areas (92.45%) and in some member states, fewer than 90% of households have access to the internet.

While internet access is increasingly widespread across the EU, gaps remain that limit the full inclusion of some groups in digital ecosystems. A notable portion of the population still lacks access to the basic internet connectivity needed to engage with digital payment systems in their own home. For those who *are* connected, disparities in internet quality, affordability and their own level of digital skills may further hinder effective participation in an increasingly digitalised work.

[Source: Eurostat]

4. Preferred shopping and payment situation

When asked about preferences regarding shopping in a store versus shopping online, a majority (58%) of associations believe that their members would rather shop in a physical store than online (Figure 5). Looking at ease of payment specifically, an overwhelming majority (72%) consider paying in store to be easier for their members. A comparatively low share of respondents reported online shopping and payment preferences (3% and 4% respectively).

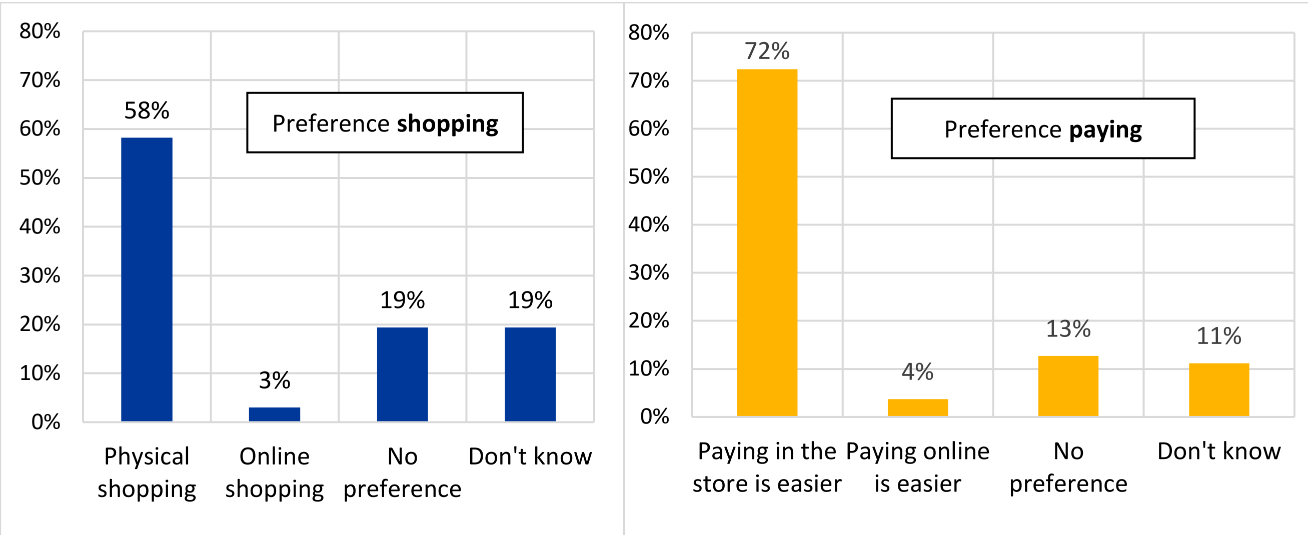

Figure 5: Preference for shopping and paying in store vs online

Physical shopping remains the preferred choice for several reasons, as highlighted by additional insights shared by some responding associations[6]. Most responses stressed that shopping in a store is perceived as easier, notably for those with limited digital skills or knowledge. Older individuals in particular, tend to

[6] See Figure 20 in Annex 3 for chart of reasons why shopping in store is preferred over shopping online.

favour more traditional approaches that they have used throughout their lives, finding the habit more straightforward and reliable compared to navigating new digital platforms.

Trust and security concerns also play a significant role. Many individuals worry about online scams, data security, and the reliability of digital transactions. As a result, physical shopping is seen as the more secure option, offering the reassurance of immediate product verification and on-the-spot transactions. Related to this is the sensory experience of physical shopping, a consideration which is particularly important for visually impaired people.

Human interaction and assistance were cited as additional reasons to value in-person shopping. Direct interaction with staff, who can help and provide guidance, is particularly important for those who find digital interfaces confusing or inaccessible. This can also apply to individuals with certain physical or cognitive impairments faced with inaccessible digital services that do not accommodate their particular needs. Moreover, shopping in physical stores offers social engagement, which is valued for maintaining community connections and reducing feelings of isolation, particularly among seniors.

Some groups also face particular barriers which preclude them from shopping online such as lacking access to a payment account or a device required to access electronic payments. This issue is particularly acute for homeless individuals, who face the added challenge of not having a fixed address for product deliveries. Indeed, 67% of representatives of people with housing difficulties believe that shopping in-store is easier. As a result, for these individuals, physical stores provide a critical point of access to goods and services that online shopping simply cannot accommodate.

While shopping in a physical store is most preferred, a substantial portion of respondents could not comment on their members preferences (19%). This may be a result of surveying associations on behalf their members rather than vulnerable individuals directly, as well as the broad membership of some associations (e.g. umbrella associations).

5. Impact of digitalisation on vulnerable citizens’ ability to make payments

5.1 Impact of digitalisation on the payment situation in store and online

When asked about the impact of digitalisation on their members' ability to make payments, a significantly larger share of associations reported that the situation had worsened rather than improved, both in-store and online (Figure 6). For in-store payments, 41% of the associations see a worsening of the situation, against 21% who see an improvement. The online situation seems more balanced, but a slight majority (35%) still believe that the situation has become worse. The share of respondents unable to provide an answer is relatively high for both payment contexts, much like in the previous question.

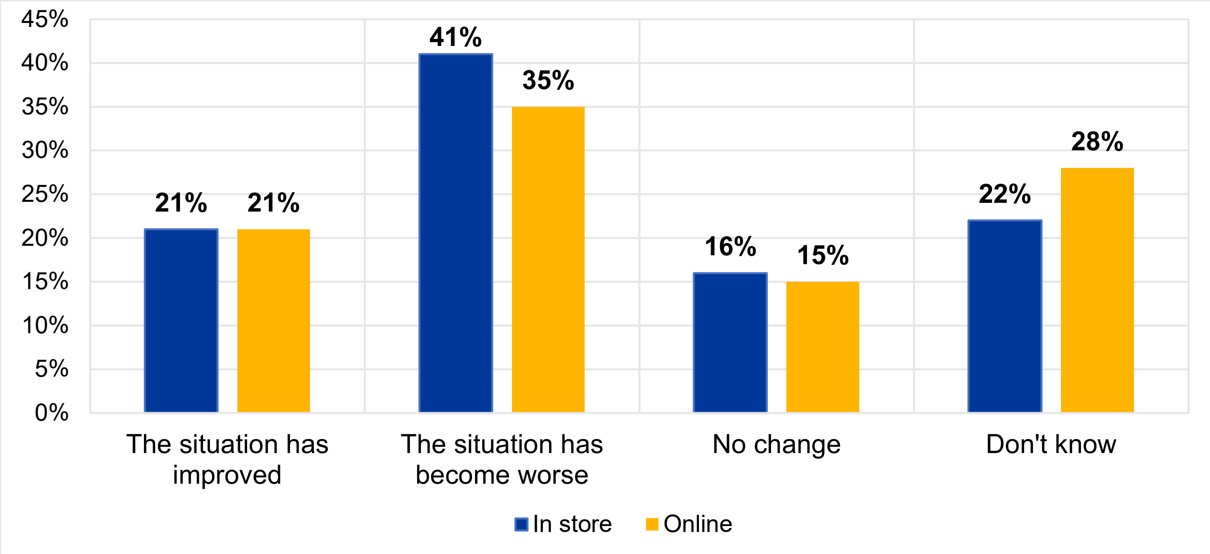

Figure 6: Impact of digitalisation on retail payments in physical stores and online

5.1.1 Breakdown by vulnerable group

Assessing the views by various associations representing the same vulnerable groups indicate that the perceived impact remains broadly negative. For those facing housing challenges (67%), as well as individuals with intellectual (71%) or developmental disabilities (83%), the shift towards digital payment systems has purportedly worsened their situation, with no noticeable improvements reported. In contrast, perceptions appear more mixed for individuals with hearing impairments, where 14% have observed a deterioration in payment accessibility, while an equal proportion have noted improvements[7].

On the other end of the spectrum, most associations representing individuals with mobility impairments have perceived a positive change, with 57% reporting improvements in their members' payment experience. This implies a significant benefit gained from digitalisation for certain groups. This may potentially be attributed to reduced physical barriers to payments, such as the need to handle cash, travel to a store, or interact with physical payment terminals.

[7] A caveat should be noted for this group, as 29% of respondents observed no change and the majority (43%) could not provide information on the situation.

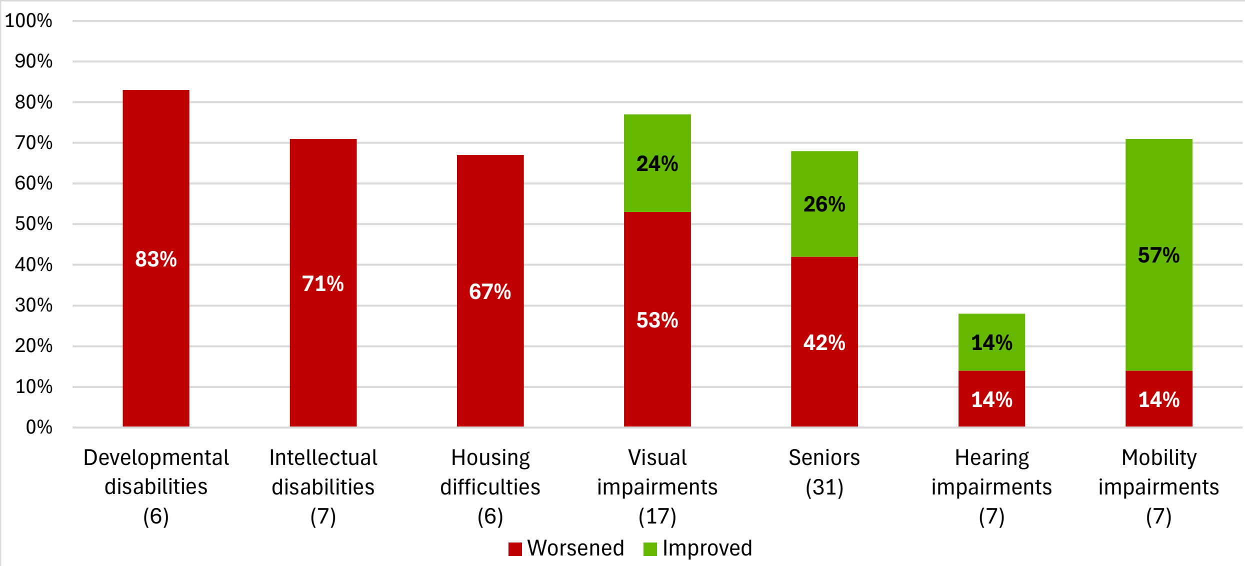

Figure 7: Impact of digitalisation on retail payments in physical stores - share of respondents perceiving improved/worsened situation, by vulnerable group[1]

[1]Vulnerable groups for which more than 5 associations provided responses, number of responses provided in brackets.

5.2 Main reasons why the situation has improved

Among the associations who reported that the payment situation has rather improved because of digitalisation, most said so because they see the increased variety of payment options as a plus (82% for in store payments, 71% for online payments), especially when paying in physical shops. This could be to some extent related to the smaller share of respondents who find that the increasing availability of more and better accessibility features (e.g. voice recognition and audio services) is a key positive contribution of digitalisation, particularly in an online shopping context.

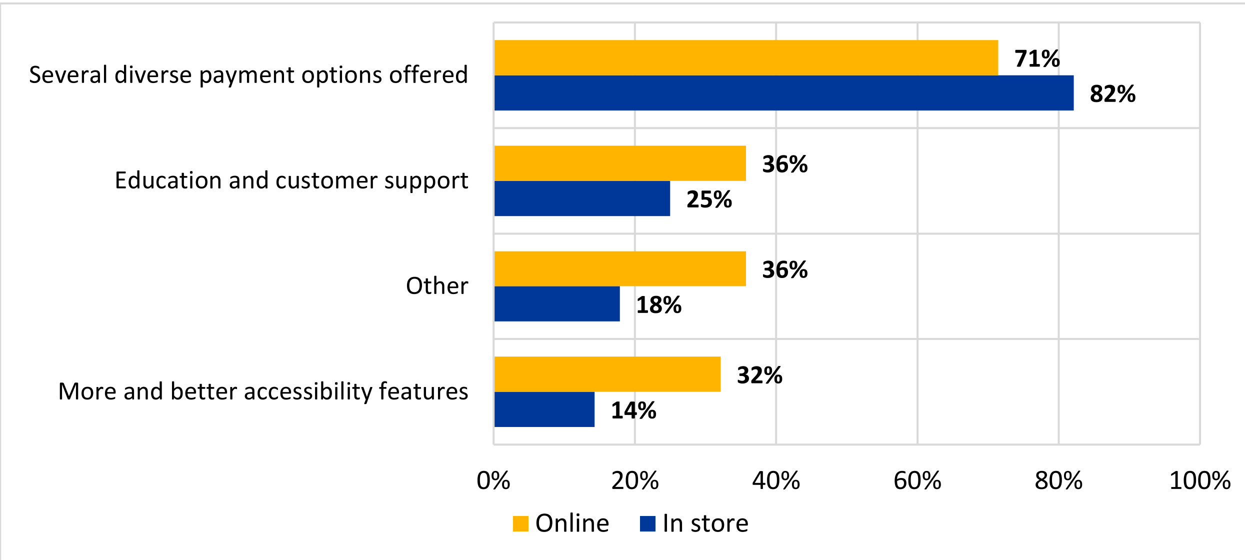

Figure 8: Main reasons why the payment situation has improved

5.3 Main reasons why the situation has become worse

Of the associations perceiving a worsening situation for in-store payments, the majority (78%) cited being increasingly required to pay digitally – presumable rather than using cash – as a reason for the deterioration. This contrasts heavily with the most cited reason for improvements - several diverse payment options being offered. Also, in contrast to perceived improvements to accessibility features, a notable share of associations highlighted the lack of consideration for their members' specific needs as a key issue, particularly online (Figure 10). Some representatives of visually impaired people also explained that the situation has become worse for their members due to the increased use of touch screens that do not meet accessibility requirements, making it difficult to enter a PIN code without assistance (lack of Braille stickers and audio or tactile feedback). Others cited the time pressure or the perceived increase in fraud as reasons why the situation has become worse.

This disparity highlights an issue stressed by associations throughout their survey responses: while digitalisation can bring advantages to vulnerable individuals in some areas, it can also often leave behind others such as those with low digital skills, limited financial resources or people with disabilities whose particular accessibility needs are not addressed. As some respondents have argued, to ensure inclusivity to retail payments, a balance is needed between making digital options accessible and user-friendly and preserving cash as a reliable option.

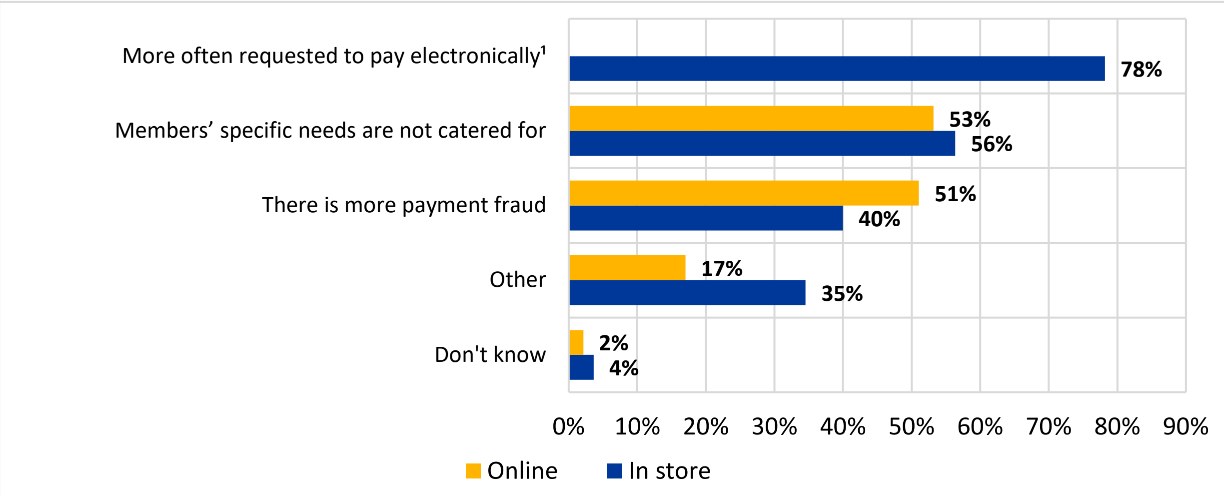

Figure 9: Main reasons why the situation has become worse
[1] This answer option is not applicable to online payments.

5.3.1 Breakdown by vulnerable group

For respondents who indicated that the situation has worsened (Figure 11), the primary concern appears to stem from the increased reliance on electronic payment methods, which disproportionately affects individuals facing housing difficulties, as they may lack access to internet and devices required to pay electronically. This increased digitalisation is equally troubling for those with literacy issues and seniors (92%), as it exacerbates existing barriers to accessing essential services. For individuals with visual impairments, the worsening situation has been primarily attributed to a lack of tailored accessibility measures. Respondents who selected "other" reasons, once again primarily highlighted the increased usage of touch screens that do not meet accessibility requirements. This concern was particularly pronounced among people with intellectual disabilities (80%) and seniors (92%), where a larger share of respondents cited it as a key reason for the worsening situation.

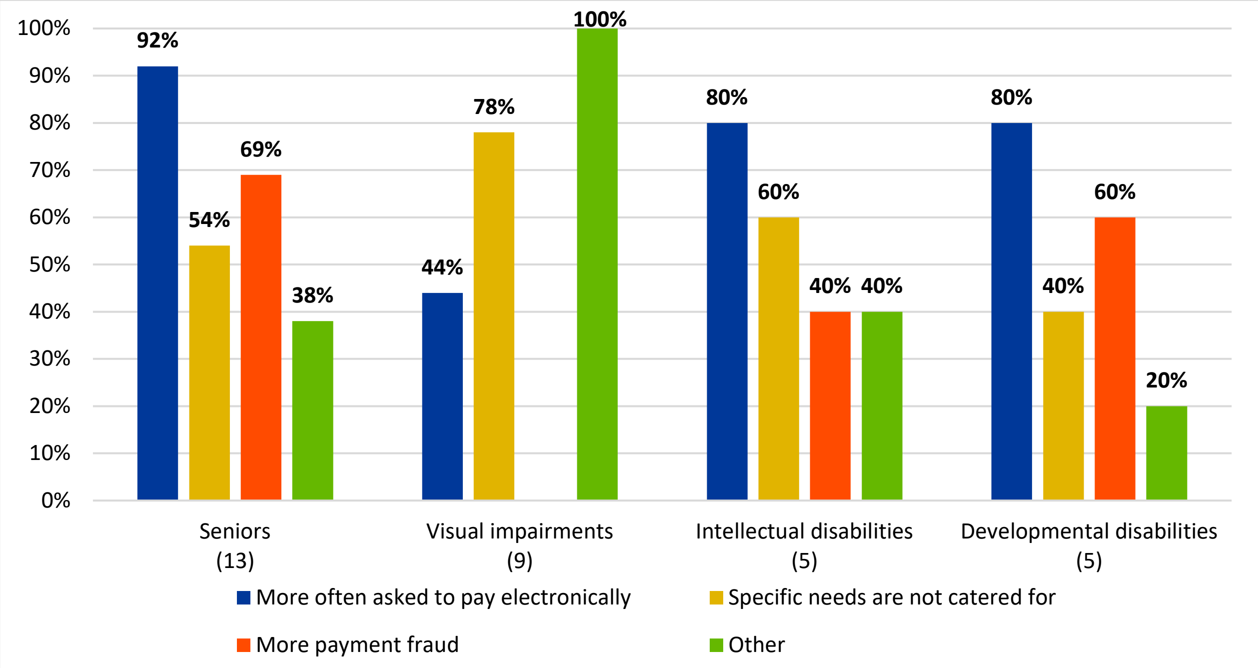

Figure 10: Main reasons why the situation in-store has become worse, by vulnerable group[1]
[1]Categories for which more than 4 associations provided responses, number of responses provided in brackets.

5.4 Challenges with electronic payments

5.4.1 Difficulties with paying with a card or mobile device in a physical shop

The majority of associations identified a lack of knowledge about how to use electronic payment instruments as the primary obstacle faces by their members[8]. This includes not understanding how to initiate or complete a payment using a smartphone, which some respondents describe as overly complex for some vulnerable consumers. Physical difficulties also seem to present significant barrier, both when handling cards and interacting with PoS terminals. Some of associations noted that users often require human support during transactions due to insufficient accessibility features—particularly for blind or visually impaired individuals.

Language was cited as a key difficulty by 15% of associations, an effect which is particularly evident when users struggle to understand on-screen instructions or verbal prompts provided by machines or staff. Social harassment during payment (e.g. rushing when users need more time or assistance), further discourages vulnerable groups from using digital tools.

[8] See Figure 21 and 22 in Annex 3 for detailed charts of difficulties paying digitally in-store.

5.4.2 Difficulties with paying online

When it comes to paying online the main difficulty reported by 68% of the associations is identifying fraudulent websites[9]. In addition, 48% of associations believe their members do not trust other with their private data. These findings demonstrate a wider fear related to privacy and security of online and digital payments. As with in-person electronic payments, the key theme of a lack of digital skills and difficulties at understanding how they work is evident in the results, even more so in the case of online payments. Here 61% have reported a struggle to understand how online payment works, while 50% report difficulties with payment confirmation. When facing those situations, finding help at the online checkout is perceived as a key issue.

The need for assistance with digital payments has also been highlighted in SPACE 2024[10], where 9% of respondents reported that they require assistance when paying online. In the 65+ age group, this figure rises to 10% while a further 8% state they do not make online payments at all. The study did not investigate reasons for these responses, but notes that the avoidance of digital payments in this age group could stem from a lack of knowledge or ability – an argument consistent with the responses received here from associations representing seniors. Given more respondents believed physical shopping was preferred by their members, in many cases due to the availability of in-person guidance and support, this highlights a key gap in the accessibility of online payment.

5.5 Helpful digital payment solutions

Associations highlighted a variety of payment methods as helpful, depending on individuals' specific needs and capabilities. For those with basic digital skills, card payments and contactless options are particularly valued, especially by individuals who are visually impaired or blind, as these methods simplify transactions and reduce reliance on cash.

Payment systems utilising near-field communication (NFC) technology, as well as platforms like Swish, Revolut, Payconiq, Apple Pay, Google Pay, and PayPal, were also praised for their convenience and accessibility, with the latter three being especially beneficial for visually impaired users due to their user-friendly interfaces. They are also valued for the increased sense of physical security brought about by a decreased need to carry cash. Invoices with scannable QR codes further enhance accessibility, allowing payments to be made easily via smartphones.

However, it is important to note that not everyone finds electronic payment methods accessible. Despite best intentions, new digital solutions can be difficult to use which could in fact hamper accessibility to retail payments for some groups. For seniors, people with disabilities and those with low digital literacy, maintaining the option to pay with cash in physical stores is crucial. Associations also emphasised that digital solutions alone are not sufficient. Support systems, such as trained staff who can explain and assist with electronic payment methods, can help some vulnerable individuals navigate digital payment systems more effectively. Features like voice controls also play a critical role in making electronic payments more accessible to a wider audience.

Ultimately, preserving the option to choose between digital and physical payment options, while providing guidance, targeted accessibility measures and enhancing digital security measures, is key to ensure payment systems meet diverse needs and promotes inclusivity.

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[9] See Figure 23 and 24 in Annex 3 for detailed charts of difficulties faced paying online

[10] See Box 4: Assistance needed for making online payments (with a card or a mobile phone) in SPACE 2024

5.6 Accessibility of payment authentication services

The associations were asked which services they believe have made payment confirmation easier for their members. This question intended to capture both the usage and the helpfulness of these services, but the results are not always straightforward to interpret, in part due to the methodological bias of responses given on behalf of individuals (see section 2.4 on limitations).

In general, no single authentication method clearly stands out as the most effective in simplifying the payment process for vulnerable groups. Fingerprint recognition, followed by a one-time-password via SMS and facial recognition were the methods mentioned most often. However, a significant 21% share reported that such methods are not used, presumably as digital payment methods are not used by a significant share of their members.

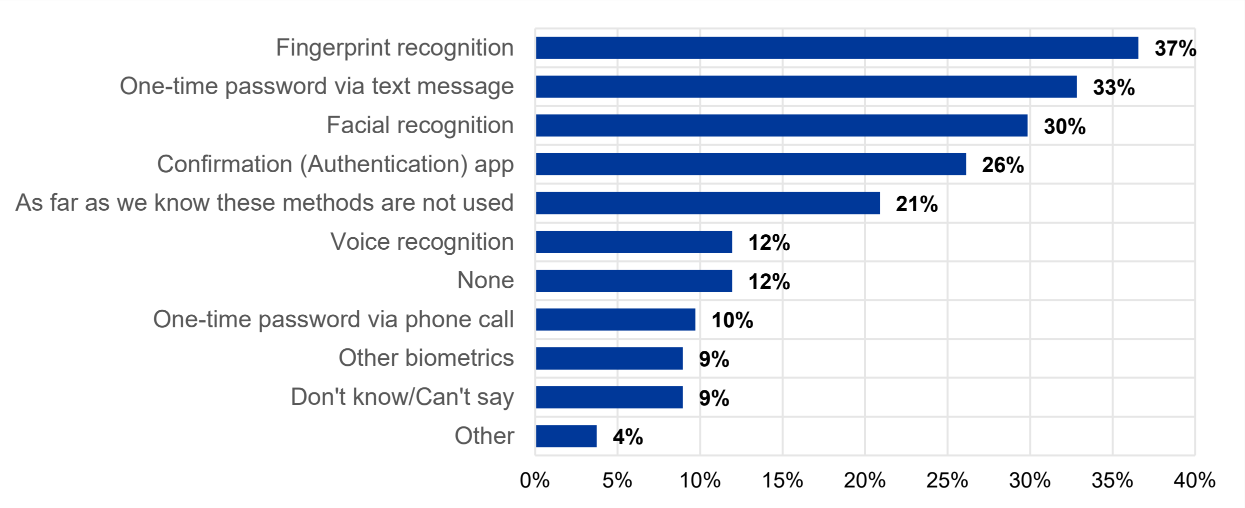

Figure 11: Services making payment authentication easier

5.6.1 Breakdown by vulnerable group

Looking deeper into the vulnerable group breakdown of responses, a selection of which is shown in Figure 13, shows some interesting results. Most noteworthy is the much larger share of respondents who perceived facial recognition as making payment authentication easier for their members in the case of organisations representing individuals with mobility impairments (86% compared to 37% for all responses). Similarly, one-time passwords via text and fingerprint recognition services seem to be preferred by people with hearing and visual impairments respectively. These options are likely most helpful as they address particular physical difficulties with payment authentication that may be faced by individuals with particular physical impairments.

On the other hand, organisations representing people with intellectual disabilities found fewer services made things easier for their members, evident from both the reduced amount of services chosen and the lower share of responses. However, most commonly selected options in this case are all biometric services, which may be particularly helpful and easy to use for individuals with reduced cognitive abilities.

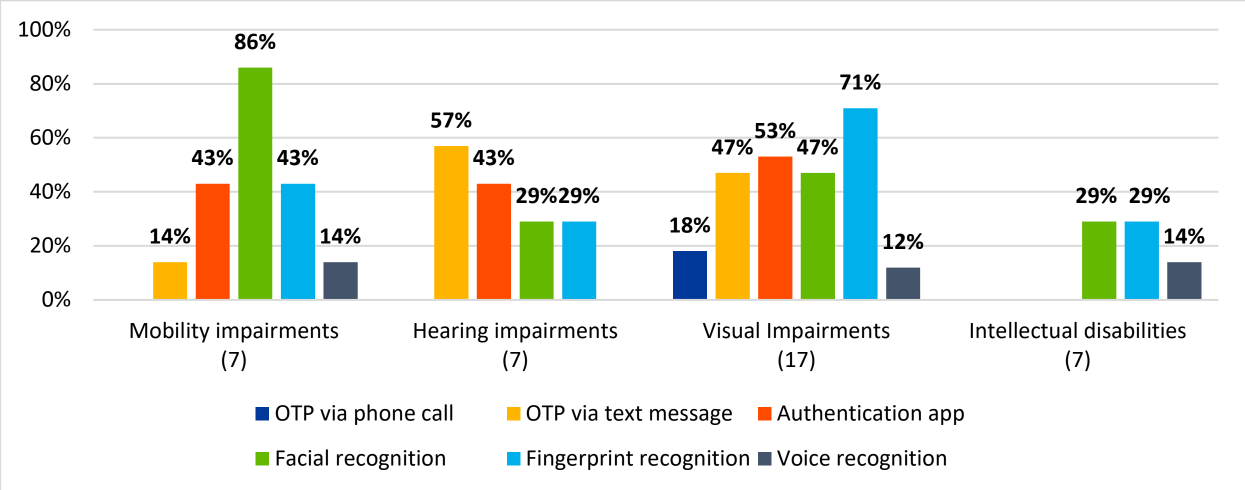

Figure 12: Most selected services making payment authentication easier, by vulnerable group[1]
[1]Only a selection of vulnerable groups is included here, with the number of responding associations in brackets.

As the overall results showed 21% of respondents believed that their members did not use such authentication services, it is also interesting to investigate this further per vulnerable group. The results (Figure 14) suggest that digital authentication services are not helpful for a notable portion of vulnerable people. Individuals with cognitive impairments and those with socioeconomic vulnerabilities seem especially excluded in this case.

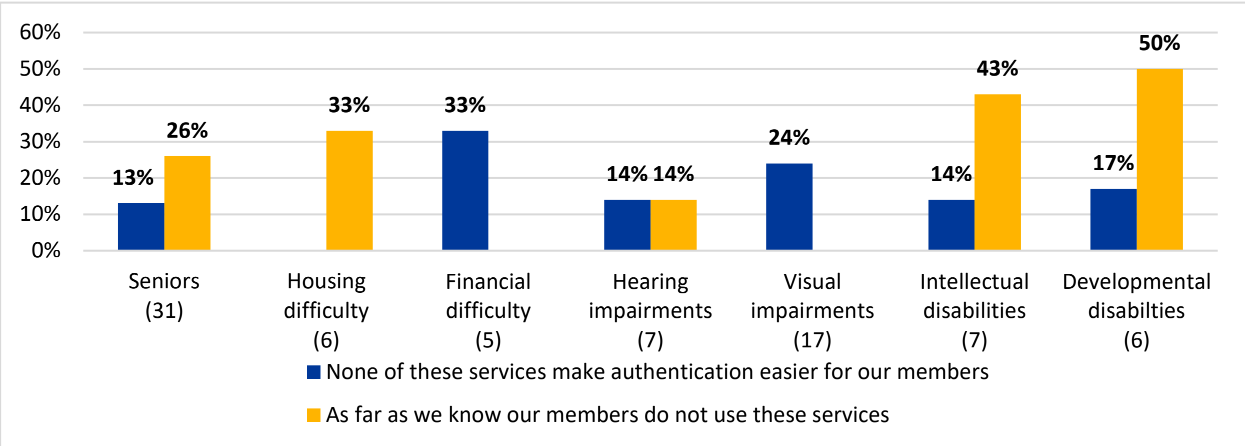

Figure 13: Share of associations perceiving payment authentication services are not used by or do not making things easier for their members, by vulnerable group represented[1]
[1]Cateogries with at least 5 responses, with the number of responses in brackets.

6. Importance of cash and digital payment options

Associations were asked to assess the importance of having the option to make payments in cash for their members. The same question is also asked in the SPACE which collects replies from 40,000 consumers, aiming at being representative of the overall population, in terms of gender, education level and age. However it does not consider quotas for people in vulnerable situations.

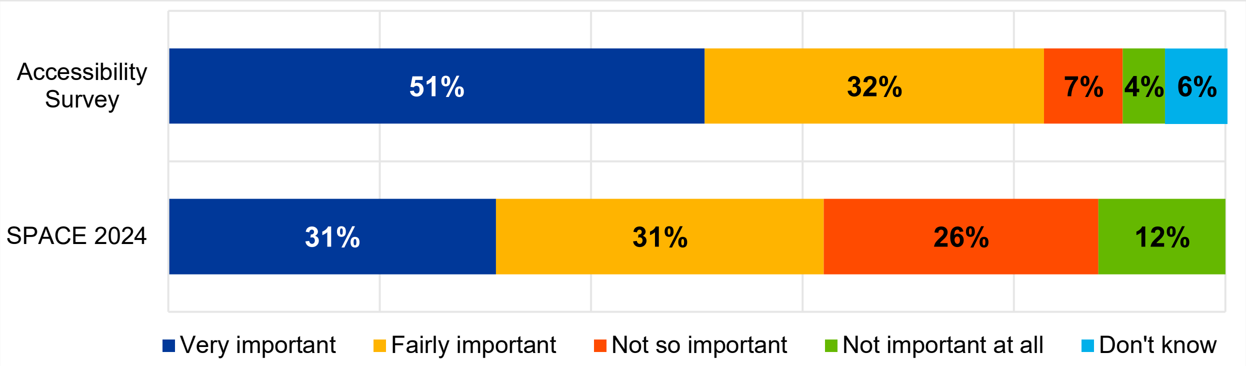

Figure 14: Importance of having the option to pay with cash – comparison with SPACE 2024

The results of the accessibility survey show that a significantly higher proportion of associations (83%) believe having the option to pay in cash is very or fairly important, compared to only 62% of consumers in SPACE. Cash is therefore important for a majority of the population but seems to be even more important for vulnerable citizens, at least according to the perception of associations representing them.

This does not mean that digital means of payments are not perceived as valuable. As shown in Figure 16, a majority of associations (61%) also think that their members find it important to have the option to pay with digital means of payments – albeit to a lesser degree than a cash option overall.

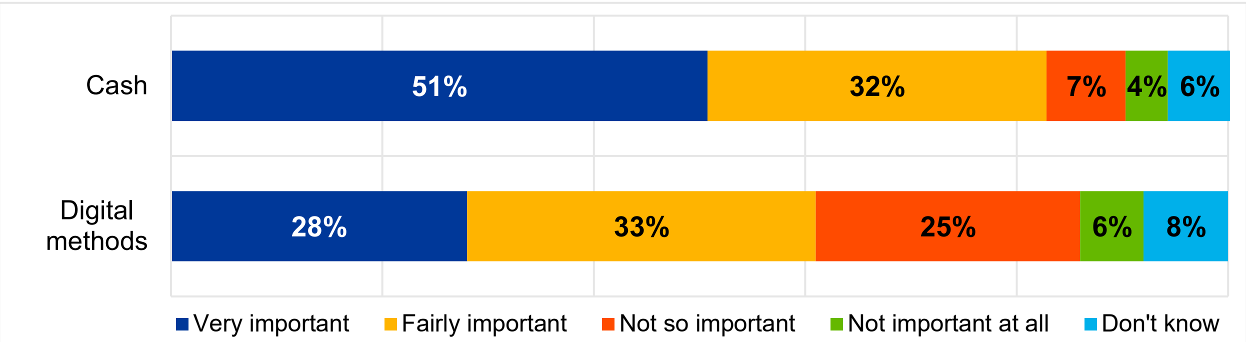

Figure 15: importance of having the option to pay with cash and digital methods

6.1 Breakdown by vulnerable group

Some differences can be observed when looking at these results per vulnerable group. Associations representing individuals facing housing difficulties report that 83% of them consider it very important to have the option to pay with cash (see Figure 17). Some respondents noted that many individuals facing housing difficulties may not have access to traditional banking services. Without a bank account, digital payments become challenging, making cash the most viable (and sometimes only) option for transactions. Representatives of people with financial difficulties also indicated a strong attachment to the option to pay with cash. This could be partially explained by the costs associated with devices required to access electronic payments. Associations representing individuals with intellectual disabilities, where a similar share found the option to pay with cash very important (57%) also noted that their members are also often restricted in their ability to participate in the digital payment system due to a limited income and potential reliance on voucher and cash-based income sources. Moreover, such individuals reportedly often encounter access barriers due to their cognitive limitations, including being deemed to lack capacity for their own bank account or even being entirely denied access to electronic payment methods. Interestingly, on the other end of the spectrum, over half of associations representing people with mobility impairments (57%) believe that cash option is not so important.

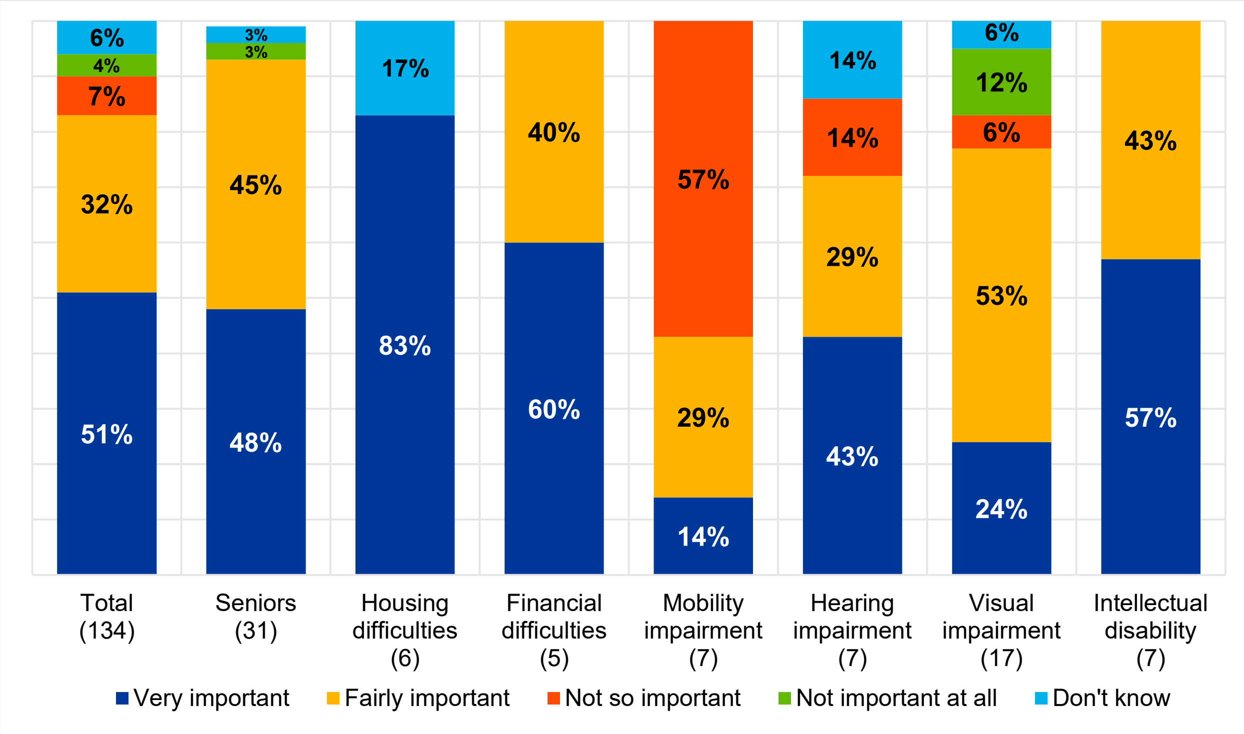

Figure 16: Importance of having the option to pay with cash, by vulnerable group

Focusing on the option to pay digitally, we can observe that representatives of people with physical disabilities perceive digital payment options to be very important for their members, e.g. individuals with mobility impairment (43%), hearing impairments (57%), visual impairment (65%). This can be partially explained by the fact that some digital payment platforms are compatible with assistive technologies, such as screen readers and voice commands, making it easier for individuals with impairments to use them independently. The importance of a digital option is particularly pronounced for mobility impaired individuals where no associations considered digital payment options unimportant.

The categories of seniors and people with housing difficulties show a more balanced distribution of importance related to the option of paying digitally. This can reflect varying levels of comfort and familiarity with digital technologies among seniors, as well as differing levels of access to digital infrastructure among people with housing difficulties.

These results underscore the importance of choice when making payments. Both the option to pay with cash and the option to pay digitally are clearly perceived as important. It is only the extent of this perceived importance that varies based on individuals' vulnerabilities and their accessibility needs.

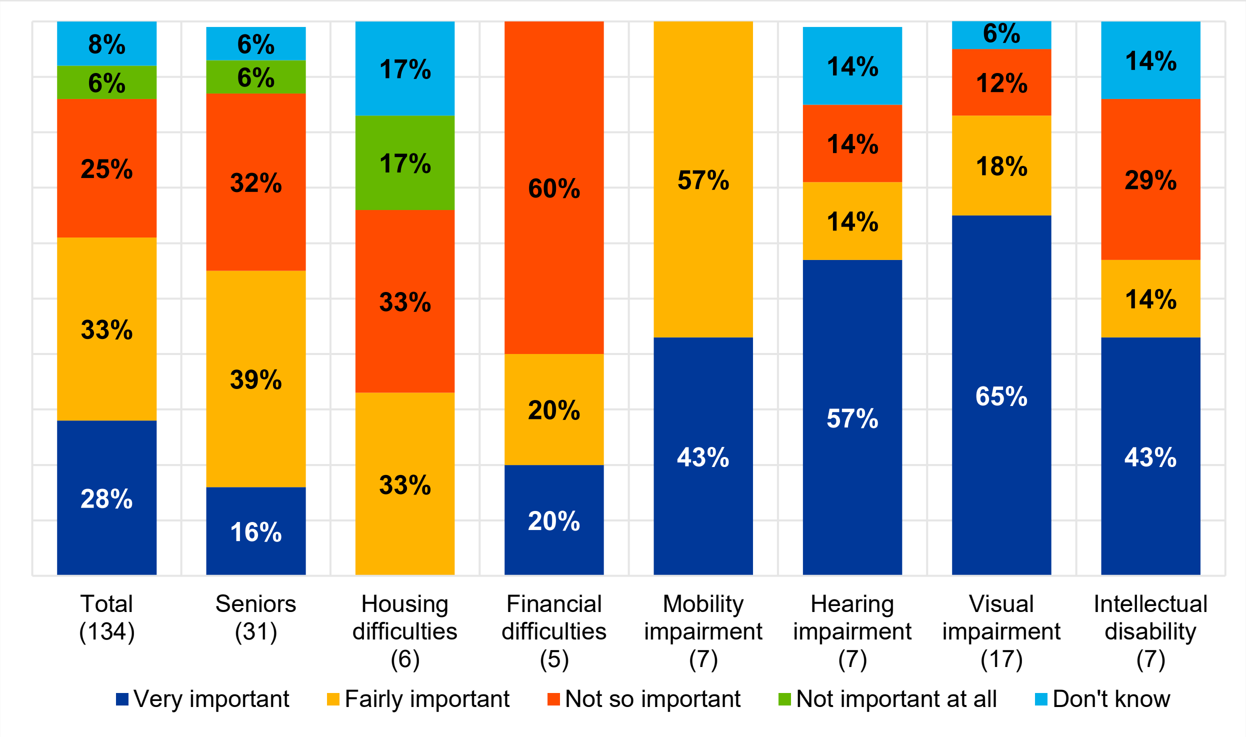

Figure 17: Importance of having the option to pay digitally, by vulnerable group

7. Conclusions

Overall, associations representing vulnerable groups see a worsening situation for payments in physical stores and online due to digitalisation. An increasing requirement to pay digitally, combined with a lack of digital skills and accessibility features are key drivers of this deterioration, as well as a growing fear of fraud. Associations representing vulnerable groups argue that their members generally appreciate and prefer shopping and making payments in a physical shop rather than online. This is closely related to a need for human assistances as well as the perceived value of social interaction. Cash is considered important by most associations, to a significantly larger extent than expressed by consumers in the SPACE. Digital payment options are nevertheless also seen as important by most respondents, emphasising the importance of both tailored accessible solutions and a consistent ability to choose a preferred or better suited payment method. While surveying associations is a straightforward way to gather insights, the results should be interpreted with caution. Responses reflect the perspectives of association staff rather than vulnerable individuals themselves, and categorisation of vulnerable groups was done on a best-effort basis.

Annex 1: Text of online questionnaire circulated to associations

Guidance for associations answering on behalf of members:
To answer on behalf of your members, please consider the following:

- When selecting an answer, consider whether the statement applies to **most of your members**. Use your knowledge of members' abilities and access needs to determine the general trend.
- If a response significantly impacts even **a smaller subset** of members, please indicate this under **"Additional Comments"** to help us capture the range of needs.
- If you lack sufficient information about a particular ability or need, select **"Don't Know."**

<u>Organisation Identification</u>

1. Country of operation of the association

[Open question]

2. Which group of people in a vulnerable position does your association represent? Multiple answers are possible.

a. Various types of vulnerable (please send a separate reply for each group you represent, if possible)

b. Seniors

c. Homeless people

d. People with low income

e. People with walking-impairments

f. Wheelchair-bound/wheelchair users

g. People with visual impairment

h. Functionally /medically blind people

i. People with hearing impairment

j. Deaf people

k. People with literacy issues, including financial or digital literacy

l. People with learning difficulties (e.g. dyslexia, dyscalculia)

m. People with another mild physical impairment, namely…

n. People with another serious physical impairment, namely…

o. (Undocumented) Migrants

p. Others, namely...

<u>Control questions - baseline abilities/access</u>

3. How easy is it for most of your members to create a text e.g., writing to a friend?

a. Easy
b. Requires some support (e.g., accessible technology or another person)
c. Not possible without support
d. Don't know

4. How easy is it for most of your members to understand text (e.g., a cooking recipe)?

a. Easy
b. Requires some support (e.g., accessible technology or another person)
c. Not possible without support
d. Don't know

5. Do your members have access to the technological devices e.g., laptop, desktop computer, smartphone, tablet?

a. The majority YES
b. The majority NO
c. Don't know

6. Please indicate if access to or use of the internet is difficult for any of the following reasons (multiple answers are possible)

a. Access from home is too costly for some.
b. Coverage/connection is poor in some areas.
c. Some only have access in a place of work or study.
d. Websites and apps do not cater for the needs of our members.
e. Devices used to access the internet do not cater for the needs of our members.
f. No major difficulties are faced.
g. Don't know
h. Other, namely…

<u>Payment preferences</u>

7. When it comes to online vs physical shops, what is preferred by most of your members~~:~~

a. Physical shopping
b. Online shopping
c. No preference
d. Don't know

Optional: ***Why is one option preferred over another?***

[Open question]

8. When it comes to paying for online shopping versus paying in a store, what would you say about your members?

a. Paying in the store is easier
b. Paying online is easier
c. No preference
d. Don't know

<u>Perceived accessibility in store and online</u>

9. Have you noticed that the increasing digitalisation of payments has changed the situation for your members for *payments in store* (e.g., in a shop, supermarket, restaurant, fuel station)?

a. No change
b. The situation has improved
c. The situation has become worse
d. Don't know

If the answer to question 9 was b. (improved):

9.1 What are the main reasons for this? Multiple answers are allowed.

a. More and better accessibility features (e.g., voice recognition, braille, audio services etc)
b. Several diverse payment options offered
c. Education and customer support (e.g., clear instructions at checkout)
d. Other, please elaborate…
e. Don't know.

If the answer to question 9 was c. (worse):

9.2 What do you think are the main reasons for this? Multiple answers are allowed.

a. More often requested to pay electronically (e.g., by card or mobile phone)
b. Our members' specific needs are not catered for
c. There is more payment fraud
d. Other, please elaborate...
e. Don't know.

10. Which difficulties do your members face when paying in a physical store (e.g., in a shop, supermarket, restaurant, fuel station) with a card or a mobile device? Multiple answers are allowed.

a. They don't know how to pay with a card or a smartphone
b. They have physical difficulty in paying with the card
c. They have physical difficulty in paying with a smartphone
d. They have difficulty interacting with the touchscreen and PIN pad of PoS terminals.
e. They cannot pay without physical assistance
f. They often don't understand the language
h. No major difficulties are faced.
i. Don't know.
g. Other, namely… (please specify)

11. Have you noticed that the increasing digitalisation of payments has changed the situation for your members for *online payments*?

a. No change
b. The situation has improved
c. The situation has become worse
d. Don't know.

If the answer to question 11 was b. (improved):

11.1 What are the main reasons for this? Multiple answers are allowed.

a. More and better accessibility features (e.g., voice recognition, braille, audio services etc)
b. Several diverse payment options offered
c. Education and customer support (e.g., clear instructions at checkout)
d. Other, please elaborate….
e. Don't know.

If the answer to question 11 was c. (worse):

11.2 What do you think are the main reasons for this? Multiple answers are allowed.

a. More often requested to pay electronically (e.g., by card, mobile phone, or computer)
b. Our members' specific needs are not catered for
c. There is more payment fraud
d. Other, please elaborate...
e. Don't know.

12. Which difficulties do your members face when paying online? Multiple answers are allowed.

a. Hard to understand how online payments work
b. Physical difficulties in interacting with the equipment
c. Difficulties confirming the payment
d. Finding help with problems at the online checkout
e. Hard to identify fraudulent websites
f. They don't trust others with their private data
g. Other, namely… (please specify)
h. No major difficulties are faced.
i. Don't know.

Enhancement of accessibility

13. Which of the following services have made payment confirmation easier for your members? Multiple answers are allowed.

a. Fingerprint recognition
b. Facial recognition
c. Voice recognition
d. Other biometrics
e. One-time password via text message (SMS)
f. One-time password via phone call
g. Confirmation (Authentication) app
h. Other, namely… (please specify)
i. As far as we know our members do not use any of these methods
j. none.

14. How important is it for your members to have the option to pay with cash?

a. Very Important
b. Fairly important
c. Not so Important
d. Not important at all
e. Don't know.

If the answer to question 14 was a. (very important) or b. (fairly important):

14.1. What do you think are the main reasons for this?

[Open question]

15. How important is it for your members to have the option to pay digitally (e.g. by cards or mobile phone)?

a. Very Important
b. Fairly important
c. Not so Important
d. Not important at all
e. Don't know.

If the answer to question 15 was a. (very important) or b. (fairly important):

15.1. What do you think are the main reasons for this?

[Open question]

<u>Additional questions</u>

16. Do your members face any other difficulties related to payment services which we have not considered in this survey?

a. No
b. Yes, namely… (please specify)

17. Have you received any feedback from your members on new digital payment solutions that they have found helpful and easy to use?

[Open question]

18. Have you received any feedback from your members on new digital payment solutions that they have found hard to use?

[Open question]

19. If there is anything else you would like to share about your members' experience with payments services, please tell us in your own words.

[Open question]

Annex 2: Vulnerable group recategorisation

Original MCQ & Answer Options

Q: Which group of people in a vulnerable position does your association represent? Multiple answers are possible.	
Various types of vulnerable	Seniors
People with low income	People with walking-impairments
Wheelchair-bound/wheelchair users	People with visual impairment
Functionally/medically blind people	Deaf people
People with literacy issues, including financial and digital literacy	People with learning difficulties (e.g. dyslexia, dyscalculia)
People with another mild physical impairment, namely…	People with another serious physical impairment, namely…
(Undocumented) Migrants	Others, namely…

Manually constructed categories
No specific group of vulnerable people (e.g. consumers in general)
Several categories of vulnerable people
Seniors
Migrants
People in housing difficulty (e.g. homeless, at-risk of homelessness)
People in financial difficulty (e.g. low income, debt issues)
People with various/assorted disabilities (physical &/ cognitive impairments)
People with mobility impairments (incl. wheelchair users)
People with hearing impairments (incl. Deaf and Deafblind individuals)
People with visual impairments (incl. functionally blind and Deafblind individuals)
People with another serious physical impairment
People with intellectual disabilities
People with developmental disabilities (e.g. autism spectrum disorder, developmental learning disorder, dyslexia)
People with specific learning difficulties (incl. dyslexia and dyscalculia)
People with general literacy issues (incl. low financial and digital literacy)
Other (e.g. LGBTQ+ youth, people with mental illnesses)

Figure 18: Original multiple choice answer options and manually constructed vulnerable group categories

Annex 3: Additional charts

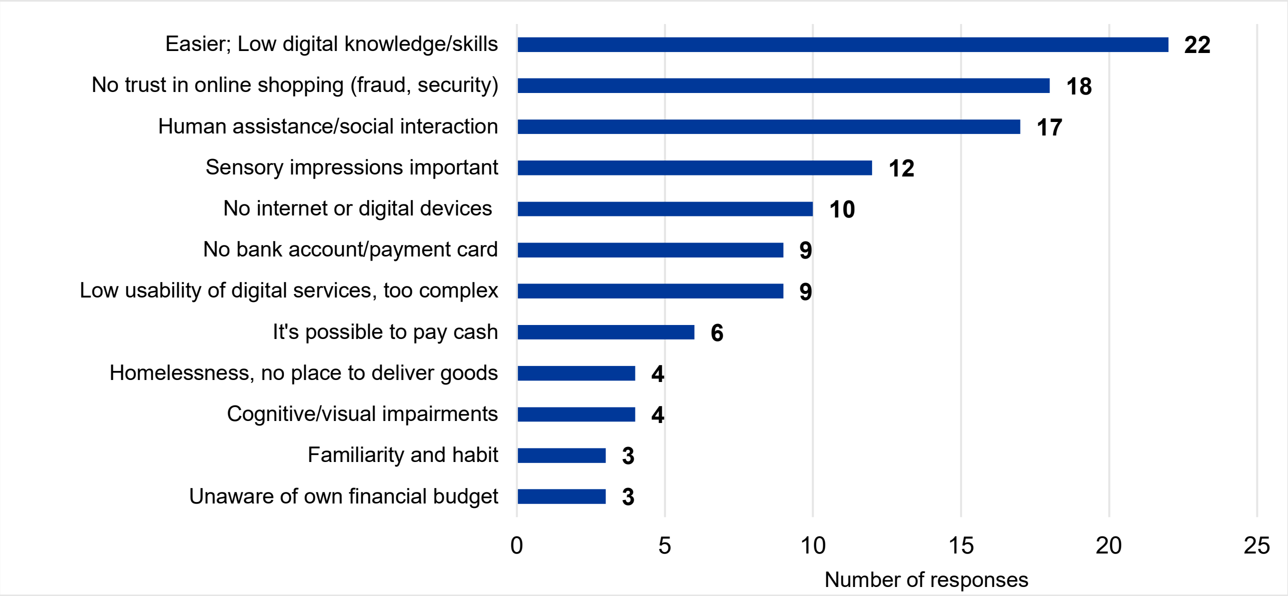

Figure 19 Reasons why shopping in store is preferred over shopping online

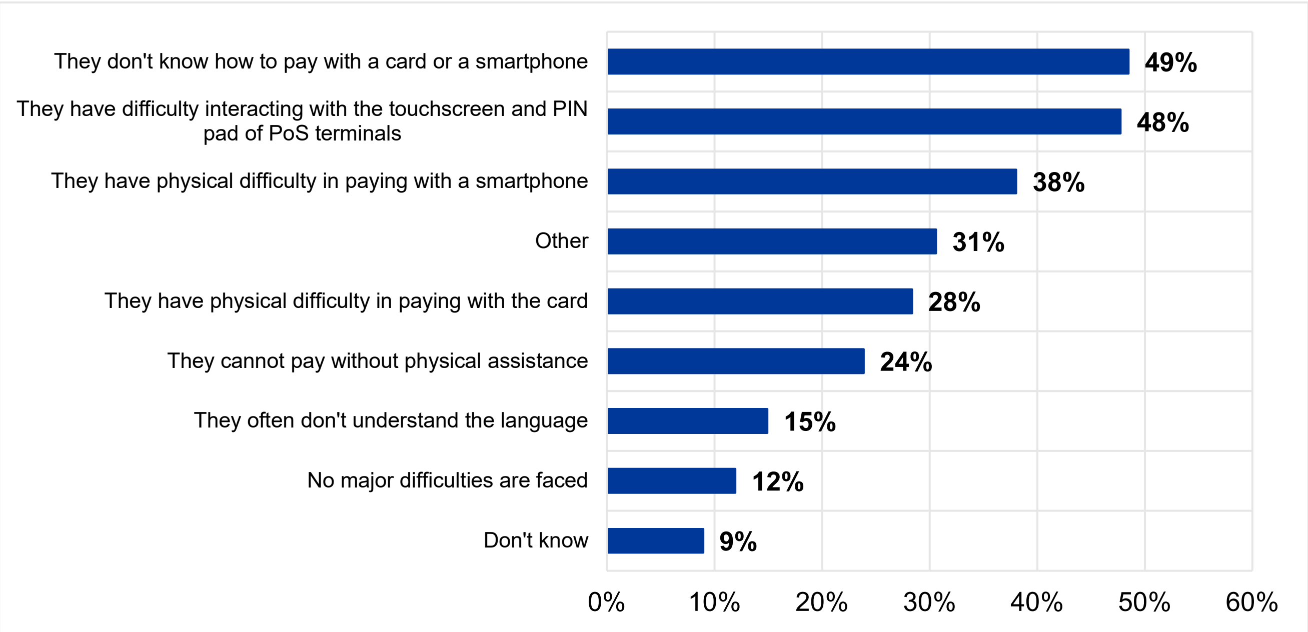

Figure 20: Difficulties faced when paying with a card or mobile device in a physical store

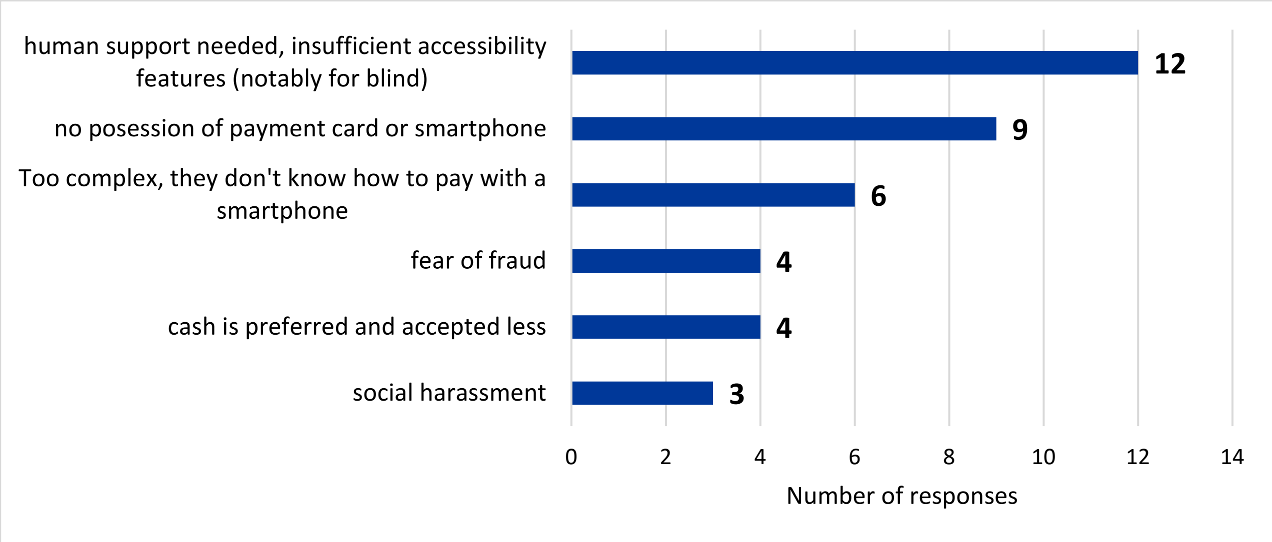

Figure 21: 'Other' difficulties when paying in physical stores, by number of responses

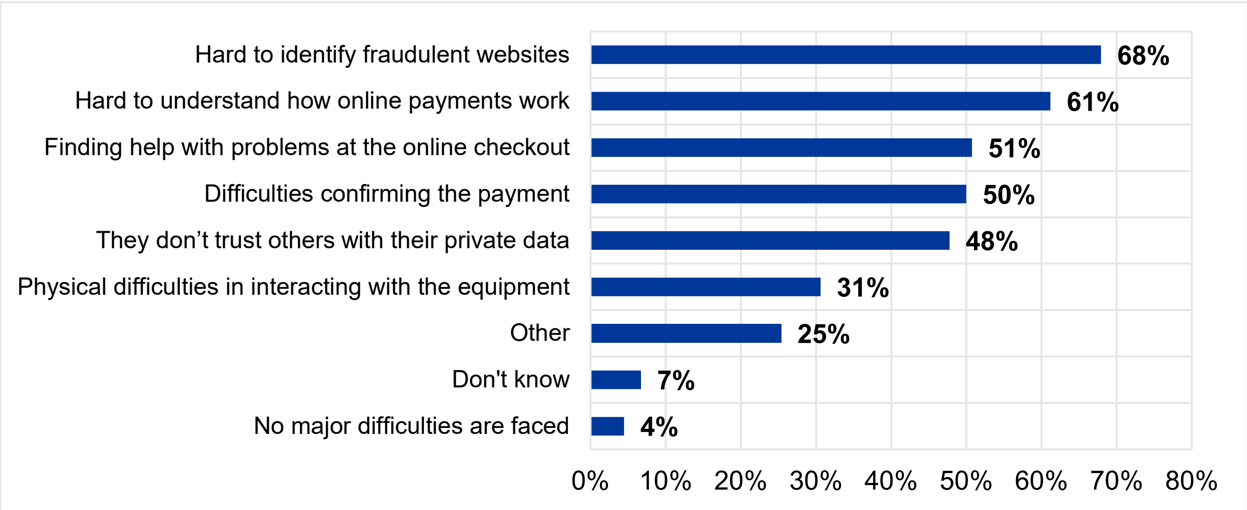

Figure 22: Difficulties faced when paying online

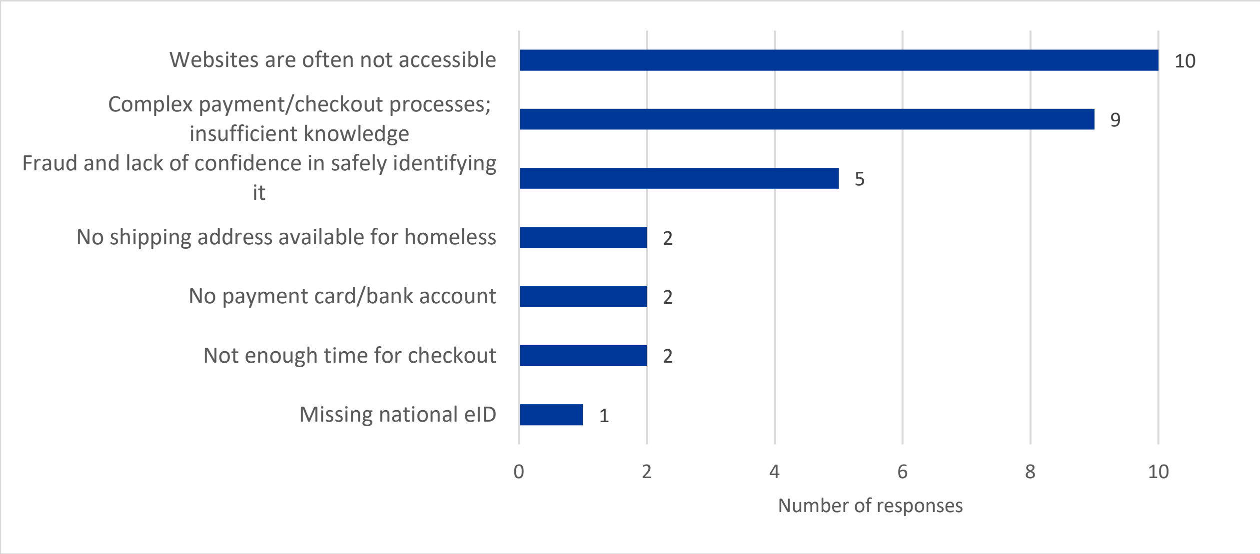

Figure 23: 'Other' difficulties when paying online, by number of responses