Digital Payments
for a Trusted World

WORLDLINE

The Payments Digital Divide Survey

Drivers and barriers for an inclusive cashless society

Foreword

Leo Van Hove
Professor of Economics
Vrije Universiteit Brussel

> **"Whatever your background, I am confident that you will find plenty food for thought in the report"**

Let me start with a confession: having read this report, I intend to borrow the term "payments digital divide" in the title of a paper that I am currently working on. The paper will exploit selected results of the most recent edition of the Digital Payment Barometer (DPB) – an annual, nationally representative survey that collects key data points on Belgians' payment behaviour. I had been toying around with titles containing phrases such as "Who's afraid of the cashless society?" or "Who would be left behind?", but I now think that the divide metaphor will work best.

All this to say that, while this report from the Worldline Discovery Hub may not be as rigorous as academic research, it does identify what I see as a key policy issue in today's payments landscape. As the authors acknowledge (on page 5), the exact percentages they obtained should not be generalised, because the "survey population is likely to be more digitally capable and have a greater understanding of payments than the general population". Yet it is striking that even in such a sample, there is – as the DPB finds for the case of Belgium – a subgroup of consumers who continue to prefer cash over electronic payment instruments and who are not ready to embrace a cashless society (see Figure 2).

What I also appreciate about the report is that it does not stop at identifying the problem, but also asks pertinent questions and makes suggestions as to what the payment industry could do to reduce the divide.

Where the former is concerned, it is indeed, in my view, an open question "whether it is possible to tackle the payments digital divide without first addressing other inequalities in society" (page 23). It is for this reason that I am not sure that making digital payments more convenient, as is suggested throughout the report, will in itself suffice. I would argue that initiatives aimed at closing the gap in digital and financial literacy are also needed.

To continue with possible solutions, I do share the authors' optimism that adding biometric options that would allow payments to be completed through face recognition or with a wave of the hand hold promise, as this would make payments more "natural" again. But the authors are correct in stressing that the provision of support, if needed in-person, in setting up such features is an important precondition. So is overcoming privacy concerns – another area where improved digital literacy might help.

In short, whatever your background, I am confident that you will find plenty food for thought in the report – just like I did. //

Executive summary

Towards a world without cash

For decades people have talked about the advent of a cashless society. Yet, today, many people still use cash for day-to-day transactions, and a not insignificant number would also prefer to use it when shopping in-store, online or paying their family and friends.

Eliminating cash has many potential benefits: removing the cost of cash management (for governments, businesses and consumers)[1], discouraging criminal transactions, and potentially reducing environmental impact[2]. So why does a world without cash still seem like a distant dream?

The reality is that switching to digital-only payments can only be contemplated once everyone in society has both *access* to digital payment means and is *willing* to use them. However, currently there are still many parts of society where reality falls far short of this. Until this *payments digital divide* can be successively bridged and digital payments made fully inclusive for all, the vision of a cashless world will remain unrealised.

Digital payments for a more inclusive society?

Worldline is a global leader in payment services and trusted transactions. To help the payments industry to better understand the drivers behind the payments digital divide, the Worldline Discovery Hub has conducted a survey of over 700 people. Our aim was to understand how people prefer to pay and, crucially, what is driving these preferences.

The results of this study show that there is a danger that the payments digital divide could deepen further, rather than shrink, and that action is needed to ensure that digital payments become more inclusive, thus helping to make society as a whole more inclusive as well.

Why payment preferences matter to merchants, banks and governments

These insights into how people prefer to pay will help merchants understand which payment means they need to accept if they are to retain their customers and attract new ones (especially from younger generations). These insights can also help financial institutions and governments understand the key drivers that can lead to the successful adoption of new payment means and avoid investing in new options that are unlikely to succeed.

Digital payments are a gateway to more innovative customer experiences

Innovation in payments is a crucial component for the innovation of the overall customer experience. Our survey produced some clear insights, like that people are more willing to totally abandon cash than they are to embrace invisible payments (like checkout-less stores). What's more, onboarding people into the world of mobile digital payments or providing them with ways to pay without any card or device at all will be crucial stepping stones for wider innovation in retail and banking.

Bridging the payments digital divide

It seems unlikely that the payments digital divide can be solved by the payment industry alone. It is significantly influenced by wider inequalities that exist in society. However, we believe that the payment industry can take action to shape the payments landscape to become more trusted, inclusive, accessible and convenient for everyone. Some of these actions are straightforward in principle but not so easy to deliver, such as providing low-cost, universal acceptance of digital payments by every merchant across the planet. Some will require greater innovation, such as being able to "pay by face". Some of these actions require the application of best practices and standards to make user interfaces accessible to as many people as possible. And some of these actions require that careful thought is given as to how new payment products and services can be designed not just for rich digital natives, but for all members of society, regardless of their income or technical literacy.

Putting all of these actions together will not only help to bridge the payments digital divide, but will also be one important step towards bringing the benefits of a fully cashless society. //

"We believe that the payment industry can take action to shape the payments landscape to become more trusted, inclusive, accessible and convenient for everyone."

1 Although there is not universal agreement on the cost of cash, a 2018 report from IHL Group estimated it at more than 9% of the transaction value.

2 Cash was estimated as having a 36% greater environmental impact than debit card transactions in this study by DNB: dnb.nl/media/3bndnaql/610-life-cycle-assessment-of-cash-payments.pdf

Introduction

What is the digital divide?

The digital divide describes the gap between those in society who benefit from digital technology and those who do not. For example, there are many who find greater convenience and ease of use from online healthcare services or electronic travel tickets. But there are others for whom these digital options are not accessible, easy to understand or appealing. And, as more services become increasingly digitised, there is a danger that this group is left behind, with fewer non-digital options available to them.

What is the payments digital divide?

The payments world is no exception. The value of global digital payment transactions has continued to grow, more than doubling from 2017 to 2021[3], suggesting that many clearly see their benefits over using cash or cheques. But, as more and more people adopt digital payment means, some providers may stop accepting cash or cheques, and this can create an increased risk of a payments digital divide.

For example, parking meters that once would have accepted coins now often only accept payment via a mobile app (or by calling a phone number). And this has been accelerated by the Covid-19 pandemic, where contactless digital payments have gained even more momentum: in 2020, internationally, contactless payments saw the highest rate of growth since 2015, accounting for as much as 70% of all card transactions in some countries[4]. Furthermore, a study by the European Central Bank (ECB) in 2020 found that 40% of respondents reported paying less with cash since the start of the pandemic and paying more with contactless cards[5].

"Many clearly see the benefits of digital payments over cash or cheque. But this also creates an increased risk of a payments digital divide"

An activity as simple as swimming at a leisure centre has become more digital, with a need to book slots online and pay for them electronically. But such moves to reduce the use of cash can disadvantage some groups. For example, in Spain, a petition with over 300,000 signatures was presented to parliament to highlight the increasing lack of physical bank branch services for cash withdrawals or bill payments. This led to the Spanish Economy Minister meeting urgently with the Bank of Spain and three banking associations and asking them to present new measures to address this issue[6]. Other countries, such as Sweden, have introduced laws to protect the future of cash[7].

What is the payments digital divide survey?

To better understand the payments digital divide, Worldline's Discovery Hub conducted the payments digital divide survey at the end of 2021. Whilst there have been many other studies into people's payment habits (based on their actual or predicted usage), our survey was different because it focused on how people would *prefer* to pay and *why* they have these preferences. In addition, we asked them about how they would feel about completely abandoning cash and cheques (and also, conversely, about completely abandoning digital payments). Finally, we asked them about different levels of payment automation: automatic payments for fuel, checkoutless shopping (such as Amazon Go), and a fridge automatically ordering food. Full details of the survey questions can be found in Appendix A.

The survey (available in 9 languages) was conducted online and shared with both Worldline employees and people outside Worldline. We also encouraged people to ask their friends and family to take part and to assist people who may not be

3 statista.com/outlook/dmo/fintech/digital-payments/worldwide#transaction-value (accessed on 7/3/2022)
4 bis.org/statistics/payment_stats/commentary2112.pdf (accessed on 27/4/2022)
5 ecb.europa.eu/pub/pdf/other/ecb.spacereport202012~bb2038bbb6.en.pdf (accessed on 27/4/2022)
6 elconfidencial.com/empresas/2022-01-20/calvino-insta-a-la-banca-medidas-personas-mayores_3361775 (accessed on 27/4/2022)
7 cashessentials.org/after-sweden-the-uk-will-protect-the-future-of-cash-by-legislation (accessed on 27/4/2022)

Generation	Born in	Age in 2021	Number of responses
Generation Z (Digital Natives)	1995-2012	9-26	76
Generation Y (Millennials)	1980-1994	27-41	227
Generation X	1965-1979	42-56	313
Baby Boomers	1946-1964	57-75	87
Silent Generation	1925-1945	76-96	11

Table 1: Age of each generation in 2021

able to complete it for themselves. We received over 700 responses, predominantly from people in European countries, spanning Gen Z through to the Silent Generation (see Table 1). Further information about the demographics of the survey population is included in Appendix B.

Whilst we do believe that significant conclusions can be drawn from this dataset, we must keep in mind that the survey population is likely to be more digitally capable and have a greater understanding of payments than the general population (because it was conducted online and shared via Worldline employees). In this report, we reach conclusions about general trends which we believe are legitimate, even if the exact percentages cannot be generalised to the whole population. In particular, one thing we have done is compare the results from the different generations who responded, where we believe that the Silent Generation (even though the number of responses was low) also acts as a proxy for others in society who may have difficulties accessing and using digital technology.

We worked together with Newcastle University Business School on this report to benefit from their insights gained from the work they have conducted into financial inclusion[8] and trust[9].

Another challenge with our survey approach, is that we cannot be certain how people interpret each payment method. For example, if someone makes an account-to-account transfer using a banking app on their phone, would they consider this as a mobile payment or an online bank transfer? Again, we have been mindful of this in the conclusions we have drawn.

In several places we have compared our results to the findings of the ECB "Study on the payment attitudes of consumers in the euro area (SPACE)", which was published in December 2020[10] and was based on surveying people in 17 euro area countries. In the remainder of this report we will refer to this simply as the "ECB Study".

One should note, however, that the ECB Study was different from ours in two important respects:

- It aimed to achieve representativeness of the general population for gender, age, education and region.
- It focussed on people's *actual use* of different payment means, rather than people's *preferences* and the *drivers* behind them.

"We received over 700 responses spanning Gen Z through to the Silent Generation"

Because of this, direct comparisons between our results and the ECB Study should be treated with some caution.

In the rest of this report we examine:

- The generational cliff-edge for cash and why some people still prefer to pay with it
- Which digital payment methods people currently prefer
- How perceived benefits lead people to choose particular payment methods
- Whether mobile payments can bridge the digital divide, or whether they will be leapfrogged by new, alternative payment methods
- The link between adoption of digital payments and wider innovations in retail and banking
- People's attitudes towards digital currencies and what will be needed for them to succeed. //

8 Finclusion – Funded by The Turing Institute and The Bill & Melinda Gates Foundation (£100k)
9 FinTrust funded by EPSRC/UKRI (£1.2m) – see fintrustresearch.com
10 ecb.europa.eu/pub/pdf/other/ecb.spacereport202012~bb2038bbb6.en.pdf (accessed on 27/4/2022)

Is cash dying?

A generational cliff-edge for cash

Later in this report, we will draw conclusions about what drives payment preferences, how digital payments can act as a gateway to wider innovation in retail and banking, and the barriers that digital currencies will need to overcome to achieve mainstream adoption.

But first, let's see how our survey results largely confirmed some common assumptions about the use of cash and digital payments, and what this means for the payments digital divide.

We see that there is a generational "cliff-edge" when it comes to the preferred use of cash for in-store, online (i.e. cash on delivery[11]) and to pay friends and family. As shown in Figure 1, those aged 76+ chose cash more often when asked the following questions:

- How do you prefer to pay when buying goods in a shop?
- How do you prefer to pay when shopping online?
- How do you prefer to pay when paying your friends or family (e.g. gifts or sharing the cost of a meal)?

"There is a generational 'cliff- edge' when it comes to the preferred use of cash"

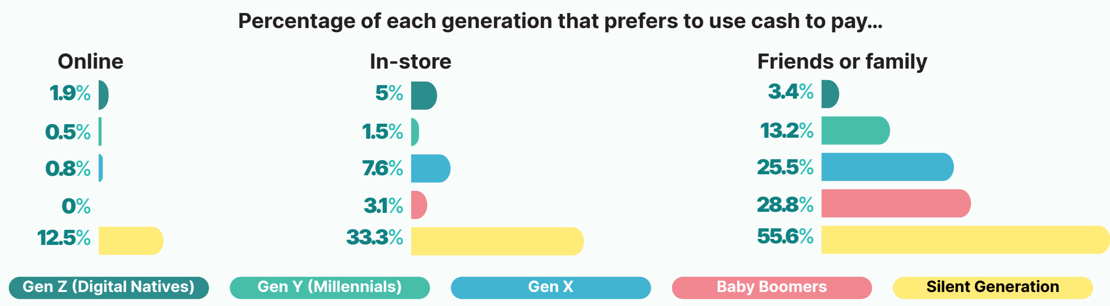

Figure 1: Preference for cash by generation

11 Paying in cash for ecommerce purchases (often referred to as "cash on delivery") is well known for ordering take away food, but in some regions is also commonly used for other online purchases – for example, in India, it was used for 17% of online purchases in 2019 (jpmorgan.com/merchant-services/insights/reports/india – accessed on 27/4/2022)

"Gen Z seems to set itself apart by having an extremely low preference for cash for every type of use"

Interestingly, when it comes to paying friends and family, the difference is less stark, with one exception: Gen Z. This generation seems to set itself apart by having an extremely low preference for cash for *every* type of use.

This result is further confirmed when we look at the extent to which people agreed with the statement "I would be happy to complete all my payments digitally (e.g. never use cash at all)". As shown in Figure 2, Gen Z, Gen Y and Gen X are predominantly positive, Baby Boomers slightly less so, and the Silent Generation responded much more negatively.

Why some people prefer cash

In our survey we asked people which benefits they associate with each payment means. They could choose one or more of several options, including "None of the above" and "Don't know" (for more details, see Appendix A).

To understand which benefits drive people to prefer cash, we have compared how those who prefer to pay with cash perceive the benefits versus those who do not prefer to pay with cash (see Figure 3).

Although many respondents perceived privacy as a benefit of cash, this perception was not significantly different[12] between those who prefer using cash to pay and those who don't. Where there was a significant difference was in the perception of convenience, with those respondents who preferred to pay with cash being more likely to perceive it as being convenient (48% vs 31%)[13].

12 The significance threshold was set at .05 ($p < .05$)

13 The significance threshold was set at .05 ($p < .05$)

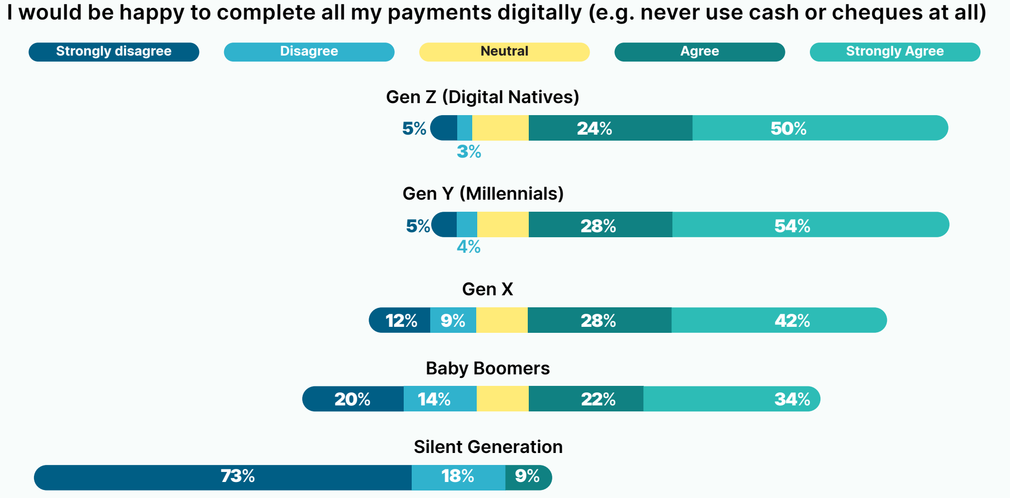

Figure 2: Willingness to only use digital payments by generation

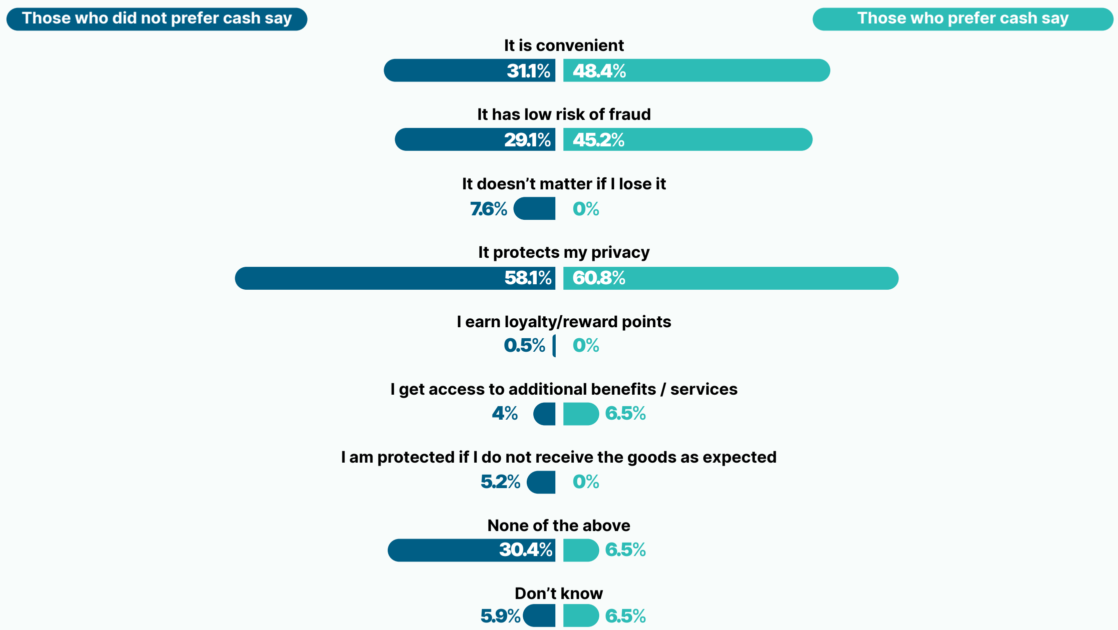

Figure 3: Perceived benefits of cash

"Those who prefer to pay with cash are more likely to perceive it as being convenient"

However, in general, those who preferred to pay with cash did not perceive digital payments as being less convenient. For example, we saw no significant difference in the perception of the benefits of debit cards between those who preferred to pay with cash and those who preferred to pay with a debit card[14]. This suggests that people who want to stick with cash are driven more by their perception of the *attractiveness* of cash (specifically convenience) rather than the *unattractiveness* of digital payment means. In other words, they find cash convenient, so why would they choose digital payment methods?

Unsurprisingly, we also found that those who prefer to pay with cash are far less comfortable with totally abandoning cash/cheques (with 74% of them saying they disagree or strongly disagree vs 15% of everyone else).

The ECB Study seems to indicate that social attitudes and norms also have an influence on the preference to pay with cash. For example, it found that in Germany almost the entire population has access to digital payment means, yet 74% said that they felt that the option to pay with cash was either important or very important (the second highest of all countries studied). Regulations can also influence this. In Belgium, for example, all businesses will, from July 2022, be required to accept some form of electronic payment (without charging the consumer more or imposing a minimum spend)[15]. Even small incentives or disincentives can have a big impact. For example, after the UK introduced a five pence charge for single-use plastic bags, their use dropped by more than 95% over 5 years[16]. For many, the five pence charge will not be a huge financial hurdle, yet the psychological impact of it has clearly led to significant behavioural change. We can imagine that small regulatory changes or adjustments to fees could have a similar impact on the use of cash versus digital payments. //

14 The significance threshold was set at .05 ($p < .05$)
15 tijd.be/politiek-economie/belgie/algemeen/elektronisch-betalen-moet-kunnen-bij-alle-handelaars-vanaf-1-juli/10343885.html (accessed on 27/4/2022)
16 theguardian.com/environment/2020/jul/30/use-of-plastic-bags-in-england-drops-by-59-in-a-year (accessed on 27/4/2022)

Is cash dying?

Impact on the Payments Digital Divide

Although in our results we see a generational cliff-edge for cash, there are still low percentages of people in every generation who maintain a preference for paying with cash. These people, when compared to those who prefer using digital payment means, perceive cash as a more convenient way to pay. Because of this, they see no reason to prefer using digital payment methods. Clearly there is a danger that, as the vast majority of people opt for digital payments, those who stick with cash (from any generation) could become increasingly marginalised.

What the payment industry can do

Provide more of the *convenience* of cash in digital payment methods. For example:

- Work towards universal acceptance of digital payments by merchants, even for low-value purchases, by reducing the cost of accepting them.
- Create ways to pay that don't require any physical card/device or the remembering of information (such as a PIN). For example, payment through face recognition or other biometrics.
- Provide features to help people manage their spending when using digital payments (e.g. showing their balance at the point of sale).

Who would be willing to abandon digital payments?

Digital payments are here to stay

As we saw previously, there is a clear generational divide about abandoning cash. However, when it comes to digital payments, the vast majority across all generations do not wish to go back to a world with only cash and cheques (see Figure 4). Overall, the vast majority of the respondents to our survey disagreed or strongly disagreed with the statement "I would be happy to make all my payments using cash or cheques".

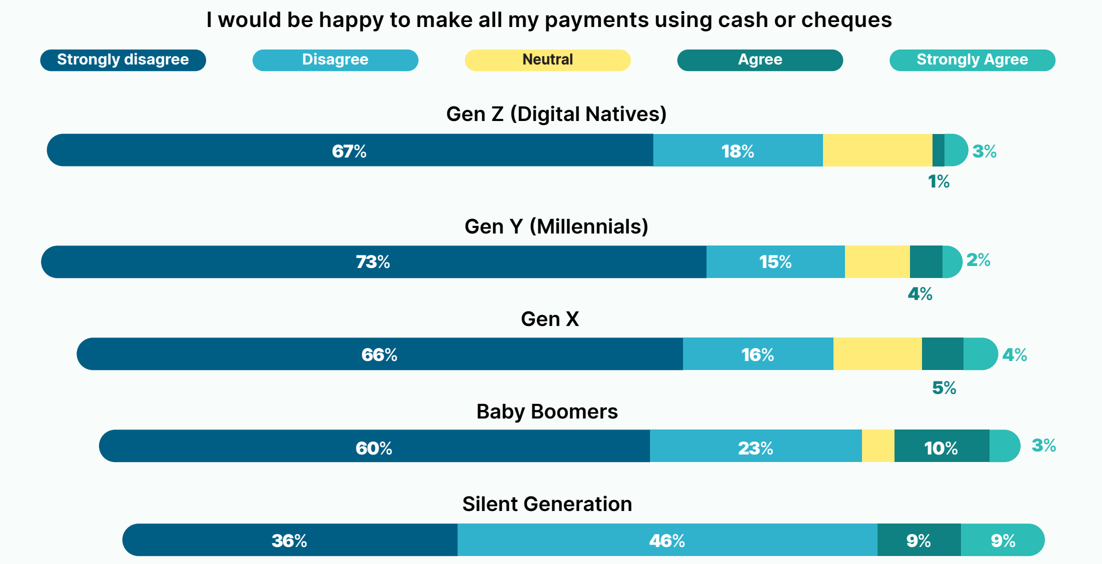

Figure 4: Willingness to only use cash or cheques by generation

Cards are preferred for in-store and online

In terms of which digital payment means were most preferred, credit and debit cards were the favourites for in-store and online amongst the people we surveyed. This should not come as a surprise, as these are the most commonly accepted digital payment means in the countries where most of our respondents reside.

"Credit and debit cards were the favourites for in-store and online"

For recurring payments, most preferred direct debit. This preference is similar to the findings of the ECB Study about actual payment usage, which found 41% of bill payments being made by direct debit.

This raises the question of why people prefer direct debits rather than recurring debit or credit card payments. Some possible reasons might be:

- Consumers may be using debit or credit cards for recurring payments (such as Netflix) but they may not perceive these as being "recurring payments (such as subscriptions or regular donations to charity" which is the language used in our survey.
- Consumers may perceive that they are more protected by direct debits, which provide a guarantee enabling them to cancel payments at any time and claim refunds directly from their bank (even though similar protection mechanisms are built into most card payment schemes as well).
- Merchants might prefer direct debit for bill payments and "steer" their customers towards this method (due to lower fees and reduced risk of unsuccessful payments). //

Who would be willing to abandon digital payments?

Impact on the Payments Digital Divide

Digital payments are here to stay. It is also clear that "traditional" digital payments (cards, direct debits and bank transfers) are currently the most preferred. There could be a danger that if we see expansion of "new" digital payment means (mobile wallets, apps, QR codes, digital currencies), we will see a new digital divide forming between those who want to stick with the "traditional" digital payment methods and those who are embracing the "new" ones. Of course, this would only become problematic if we were to see such a decline in the use of traditional digital payments that they then start to no longer be commonly accepted.

What the payment industry can do

Ensure continued *wide acceptance* of "traditional" digital payment methods alongside "new" digital payment means. For example:

- Providing payment acceptance solutions with cost-effective, broad support for many different digital payment options
- Providing solutions for new payment means (such as digital currencies) with the option to have a similar and familiar user experience to traditional digital payments
- Applying payment experience innovations not only to new digital payment means, but retrofitting them to existing payment mechanisms as well

What drives payment preferences?

In our survey, we asked people to identify the benefits that they associated with each payment means, choosing from one or more of the following options:

- It is convenient
- It has low risk of fraud
- It doesn't matter if I lose it
- It protects my privacy
- I earn loyalty/reward points
- I get access to additional benefits/services
- I am protected if I do not receive the goods as expected
- None of the above
- Don't know
- Other

For each payment means, we divided our survey population into two groups: those who, overall, preferred that payment method (such as cash, card, etc.) and those who didn't[17]. Then we compared what percentage of people in each group associated each benefit with that payment means. The results of this analysis are shown in Figure 5[18]. The cases where the difference between the two groups was significant[19] is highlighted in bold.

Convenience is a pre-requisite for digital payment adoption

From this analysis we can see that:

- The preference of people to pay with cash seems to be driven more by their perception of the convenience of cash rather than the inconvenience of digital payments.
- Debit card payments and online bank transfers show no significant difference in the perception of their benefits between those who prefer to use them and those who don't. This may reflect the fact that these are often provided to people when they open a bank account. In other words, they are perhaps preferred by "default" rather than actively chosen.
- Well established and commonly used digital payment methods (cards, mobile, and online bank transfer) are perceived by the vast majority of people as convenient (always 68% or more). It could be that there is a basic level of convenience that is required for adoption – a kind of hygiene factor. Once this is exceeded (i.e. something is "convenient enough"), then slight additional levels of convenience will not be enough to tempt people to adopt an alternative option.
- Other perceived benefits also influence people's choices. For example, those preferring credit cards or QR codes are more likely to perceive that they offer loyalty/reward points and access to additional benefits and services. Note that every benefit that we asked about in our survey was a significant factor for at least one payment method. This shows that all of them can be used to influence people's choices.

Overall, our results suggest that a base level of convenience is a must-have for any payment means to be widely adopted. However, convenience alone is unlikely to be enough incentive to encourage people to switch from what they use currently (whether that is cash or an existing digital payment method).

This is illustrated well by the success of Unified Payments Interface (UPI) in India. It offers a high level of convenience: payments can be easily made and accepted by anyone using their virtual payment address, account number or by scanning a QR code. But, in addition, making and accepting payments via UPI is free, they are instant, and many apps integrating UPI are providing cashback incentives to consumers. This combination of benefits has seen growth of UPI since its launch in 2016 to processing 5.95 billion transactions in May 2022[20].

Convenience is not the same for everyone

What our results also reveal is that different people have a different view of what is convenient. From this we can speculate that convenience means different things to different people, for example:

- Those with good digital knowledge and skills will find digital payments more convenient than those who struggle with technology.
- Those who rely on carers or other people to support them, may find digital solutions less viable. For example, giving someone 10 euros to go and buy something for you may seem far simpler and safer than providing them with your bank card and PIN or handing over your smartphone.
- Mobile payments may be convenient for those who own a mobile phone and always have it with them. They are clearly not convenient for someone who does not own such a device (and it seems very unlikely that anyone would buy a mobile device solely for the purpose of making payments). Also, more expensive phones are more likely to have features such as fingerprint or facial recognition which enable a more convenient payment experience. Some forms of mobile payment (such as QR codes) require an online data connection which not everyone can afford. //

17 Based on their response to the question "Overall, currently, what is your preferred payment method today?" – see Appendix A for more details about the survey questions
18 Note that the results for two payments means are not shown, as the number of people preferring those payment means was very low: "Pre-paid card, gift card, or voucher" (1), and "Digital currency (e.g. Bitcoin)" (2)
19 The significance threshold was set at .05 ($p < .05$)
20 business-standard.com/article/finance/upi-processed-nearly-6-billion-transactions-worth-rs-10-trillion-in-may-122060100538_1.html (accessed on 29/6/2022)

	Of the **31** people who **prefer cash,** how many say	Of the **230** people who **prefer debit card,** how many say	Of the **110** people who **prefer credit card,** how many say	Of the **172** people who **prefer mobile phone app,** how many say	Of the **17** people who **prefer online bank transfer,** how many say	Of the **12** people who **prefer QR code,** how many say	Of the **8** people who **prefer direct debit,** how many say
It is convenient?	48%	90%	77%	90%	88%	83%	88%
It has low risk of fraud?	45%	32%	27%	40%	59%	58%	38%
It doesn't matter if I lose it?	0%	10%	14%	15%	0%	8%	0%
It protects my privacy?	58%	3%	5%	12%	0%	8%	13%
I earn loyalty/reward points?	0%	11%	53%	16%	6%	25%	0%
I get access to additional benefits / services?	6%	13%	46%	22%	12%	33%	0%
I am protected if I do not receive the goods as expected?	0%	20%	48%	22%	6%	8%	0%
None of the above?	6%	3%	1%	1%	0%	0%	0%
They don't know?	3%	1%	0%	1%	0%	0%	13%

	Of the **536** people who **do not prefer cash,** how many say	Of the **357** people who **do not prefer debit card,** how many say	Of the **477** people who **do not prefer credit card,** how many say	Of the **415** people who **do not prefer mobile phone app,** how many say	Of the **570** people who **do not prefer online bank transfer,** how many say	Of the **575** people who **do not prefer QR code,** how many say	Of the **579** people who **do not prefer direct debit,** how many say
It is convenient?	31%	94%	72%	85%	68%	50%	80%
It has low risk of fraud?	29%	34%	27%	20%	47%	13%	30%
It doesn't matter if I lose it?	8%	8%	7%	6%	9%	6%	7%
It protects my privacy?	61%	3%	3%	4%	7%	5%	2%
I earn loyalty/reward points?	1%	11%	30%	13%	1%	4%	2%
I get access to additional benefits / services?	4%	16%	33%	20%	4%	4%	4%
I am protected if I do not receive the goods as expected?	5%	24%	48%	7%	9%	2%	6%
None of the above?	30%	13%	11%	17%	16%	19%	12%
The don't know?	6%	12%	10%	20%	8%	46%	21%

Figure 5: Relationship between payment preferences and perceived benefits

What drives payment preferences?

Impact on the Payments Digital Divide

For broad adoption, payment methods must provide a base level of convenience. However, what makes something convenient will vary from person to person. Other perceived benefits (lower risk of fraud, protection from theft, privacy, loyalty and reward points, access to additional services and protection if goods are not provide as expected) can all influence adoption.

What the payment industry can do

Make digital payments *convenient for everyone*, particularly for those who may face barriers to using them today. For example:

- Providing features that make it easy to temporarily share money with someone else (such as a carer or friend) so that they can spend it on your behalf
- For mobile-based solutions, finding ways to make these as convenient as possible on cheaper, low spec devices as well as not reliant on a mobile data connection
- Providing solutions that don't require a mobile phone (or any device at all)

Provide easy-to-understand and *clear benefits* for using digital payments. For example:

- Reward points or cashback, perhaps enabled through monetization of data in an ethical and privacy-preserving way
- An overall customer experience that is better for those using digital payments (for example shorter queues or checkout-less stores)

What will be key to bridging the payments digital divide?

Younger generations are leading in mobile payments

Whilst we found a generational "cliff-edge" when it comes to cash, for other payment methods we saw remarkably little variation between generations in terms of their overall payment preferences. An exception to this was mobile payments, where our study found a generational shift towards preferring mobile payments (see Figure 6). This aligns with the ECB Study which found that, in 2019, 28% of respondents had access to one or more mobile payment apps, but for those in the 18-24 age group this was a higher figure of 43%.

What are the barriers for mobile payment adoption?

We conducted a small internal study where we asked 49 Worldline employees in France and Spain about their own use of mobile payments. From this we found that the following key factors can discourage people from paying with their mobile:

- **Security and trust:** not everyone considers that a mobile phone is a secure and trusted way to complete financial transactions and they may have concerns that their card details could be stolen or payments made without their authorisation.
- **Technical education:** not everyone has the skills to comfortably use a mobile device.
- **Understanding:** not everyone understands how to use a mobile device to make a payment. For example, which apps to install, how to use a mobile wallet, etc.
- **Mental separation between phone and wallet:** some people make a mental separation between a phone (used for calls, messaging and, perhaps, other apps) and a wallet in which they store their payment means, as well as things such as their ID and receipts. They might, therefore, not wish to combine both uses in one device.
- **Supportive ecosystem:** not all people have easy access to internet connectivity in public spaces where mobile payments are accepted.

This trend towards mobile payments leads us to believe that understanding how more people could adopt them will be key to minimising the payments digital divide in the future. However, this may be especially challenging for certain groups in society. For example, Figure 7 shows the UK Financial Conduct Authority's drivers of vulnerability and the types of characteristics of vulnerability

Percentage of each generation who, overall, prefer to pay with mobile

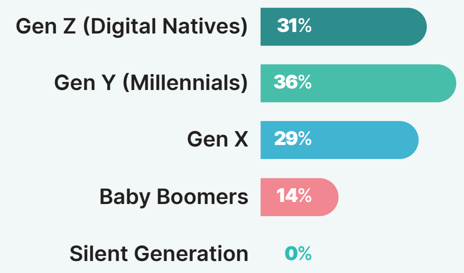

Figure 6: Overall preference to pay with mobile by generation

Health	Life events	Resilience	Capability
Physical disability	Caring responsibilities	**Low or erratic income**	Low knowledge or confidence in managing finances
Severe or long-term illness	Bereavement	**Over indebtedness**	**Poor literacy or numeracy skills**
Hearing or visual impairment	**Income shock**	**Low savings**	**Low English language skills**
Poor mental health	Relationship breakdown	Low emotional resilience	**Poor or non-existent digital skills**
Addiction	Domestic abuse		**Learning impairments**
Low mental capacity or cognitive impairment	Other circumstances that affect people's experience of financial services eg, leaving care, migration or seeking asylum, human trafficking or modern slavery, convictions		**No or low access to help or support**
	Retirement		

Figure 7: UK Financial Conduct Authority's drivers of vulnerability and the types of vulnerability they may cause

they may cause[21]. We have highlighted in blue the characteristics that could make it difficult to understand and use mobile solutions and in pink those that could make it difficult to afford a suitable device.

This also highlights an area that would be worthy of further research: to what extent can the payments digital divide be bridged without first tackling other inequalities that exist in society? For example, someone who is trapped in relative poverty probably will not risk trying a new payment means if they are worried about erroneous or high charges (and, in any case, exploring more convenient ways to pay is probably not one of their priorities).

It also raises the following questions:

- How can every citizen have access to a suitable mobile device?
- How can they be equipped with the skills and knowledge to use them?
- What other incentives can be provided to encourage people to use mobile payments and how can they be made aware of these benefits?

If these issues can be tackled, then mobile payments have the potential to provide greater financial inclusion. Traditional digital payments (cards, bank transfer, direct debit) all require the user to have a bank account, making them unavailable to people without one. Mobile payment solutions such as M-PESA[22] enable people to use cash to top-up their mobile wallet, opening up digital payments to people who do not have a bank account. Indeed, thee have even been reports of beggars accepting donations via M-PESA[23].

Whilst this may be useful for getting people familiar with paying digitally (as a stepping stone towards adopting other digital payment means), in the longer term this would neither eliminate cash nor provide the security benefits associated with electronic money in bank accounts.

In countries where ID cards are not mandatory for all citizens, a lack of suitable ID is a common reason for people not having a bank account (and therefore not having access to digital payments). Even in countries where all citizens are required to have ID cards, residents with ID issued by another country can still find it much harder to open a local bank account. In the EU, the proposed amendments to the eIDAS regulations will address this for EU citizens, which may improve financial inclusion.

Leapfrogging mobile payments

As we have seen, there are barriers which make it difficult for some to adopt mobile payments. We have also seen that, whilst solutions like M-PESA may enable unbanked people to make digital payments, they do not provide a long term answer to moving away from cash (as they rely on unbanked people using cash to top them up).

We believe that for some people it would make sense to leapfrog mobile payments, and move straight to solutions such as pay-by-face, where biometric identification alone is used to authorise a payment. Enrolment for such services could be completed online or via a mobile phone for those who are comfortable doing so, but could be done in-store or at a bank branch with in-person help for those who need it. Once enrolled, no device is required and no new skills have to be learned to use it.

However, such an approach would mean that the entire population would need to have a bank account. Taking a lesson from M-PESA, perhaps "light" bank accounts with certain limitations but also lower requirements for KYC checks could make this more feasible. //

"Our study shows a generational shift towards preferring mobile payments"

21 fca.org.uk/publication/finalised-guidance/fg21-1.pdf (accessed on 27/4/2022)
22 vodafone.com/about-vodafone/what-we-do/consumer-products-and-services/m-pesa (accessed on 27/4/2022)
23 digitalcollections.sit.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2204&context=isp_collection (accessed on 29/6/2022)

What will be key to bridging the payments digital divide?

Impact on the Payments Digital Divide

Currently "new" digital payment methods rely on having access to a suitable mobile device and having the skills and knowledge to use it. One way to address this will be finding ways to ensure that everyone is able to access mobile payments in a way that is secure and convenient for them. However, it may be that new ways to pay could leapfrog mobile payments for some, enabling them to make digital payments without any device at all.

What the payment industry can do

Enable *greater access* to mobile payments solutions. For example:

- Providing digital payment solutions that work as seamlessly as possible on lower cost mobile devices with limited hardware
- Enabling mobile payments to be made without a data connection
- Ensuring that mobile solutions follow best practices for making them accessible and easy to use
- Adopting standards, such as the W3C web payment standards, to provide a uniform experience, regardless of the payments provider

Provide digital payment solutions that do not require a mobile device with *onboarding options that are as inclusive as possible*. For example:

- Light "payment" bank accounts which are easier to open with less documentation
- Onboarding available in physical locations (such as in-store or at a bank branch) with in-person support available (in addition to online/mobile options)

Will wider innovations in retail and banking bridge or expand the payments digital divide?

Scepticism about autonomous payments

Autonomous payments are payment transactions that are triggered automatically on behalf of the consumer. A more in-depth study of autonomous payments can be found in our report "Navigating Digital Payments: Reshaping customer experience by simplifying complexity"[24]

> **"People were more comfortable with completely abandoning cash than they were with any of these types of autonomous payment"**

and our whitepaper "The IoT Payment Revolution: The future of autonomous and invisible transactions"[25].

Three of the questions in our survey were designed to understand better how comfortable people would be with different levels of autonomous payment. We asked to what extent people agreed or disagreed with the following statements:

- I would be happy for my car to pay for fuel/charging automatically for me.
- When shopping in a store I would be happy for payment to be made automatically for me as I leave (without using a checkout).
- I would be happy for my fridge to automatically order and pay for food for me.

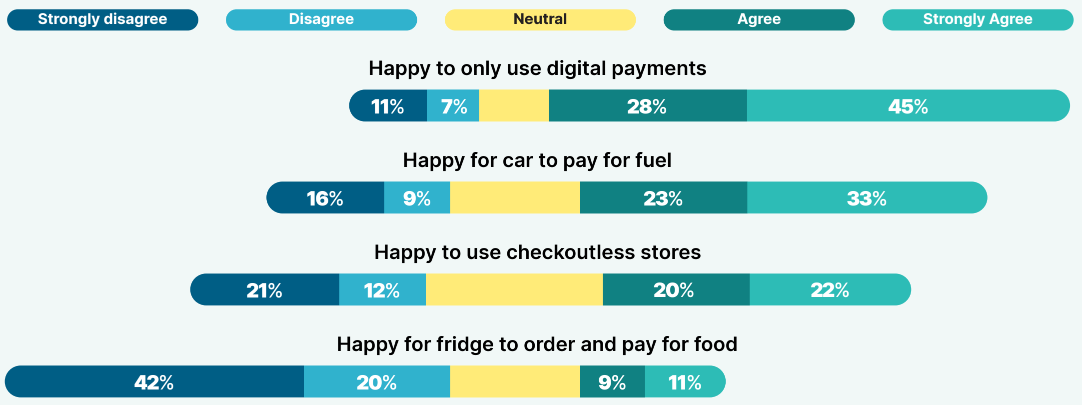

Figure 8: People are more comfortable with abandoning cash than they are with autonomous payments

Figure 8 shows that people were more comfortable with completely abandoning cash than they were with any of these types of autonomous payment. And, although a substantial number of respondents were positive about autonomous payment use cases, this seemed to drop as the scenarios became more futuristic and less familiar.

Trust is key

We wonder if this may be due to disbelief about autonomous payments working (or working reliably). For example, one respondent with dementia indicated verbally that having her fridge re-stocked automatically would be wonderful, yet she still went on to disagree with the idea of a fridge ordering and paying for food. Another respondent who was over 90 asked whether this question was a joke.

We think the same could be true for checkout-less stores. People may like the idea in theory, but they have concerns about whether it will work in practice. Could they be accused of stealing for leaving without paying? What if they are charged too much? What if they don't have enough money in their account?

Social acceptability may play a role here too. When people go on an all-inclusive holiday, no one is paying for food and drink and hence this feels like a socially acceptable norm. However, just walking out of a store without paying might feel socially unacceptable. Remember: walking out of a shop with goods you haven't paid for has literally been a crime up to this point in our history.

Perhaps visible cues to let people know that they have paid could help with this. These could be as simple as a "Thank You" sign that illuminates as

24 worldline.com/content/dam/worldline-new/assets/documents/brochures/WL-Navigating-Digital-Payments.pdf (accessed on 27/4/2022)
25 worldline.com/content/dam/worldline-new/assets/documents/whitepapers/autonomous-payment.pdf (accessed on 27/4/2022)

you leave (but only if you have paid) or receiving a digital receipt. Or perhaps making the checkout-less experience slightly less seamless to increase confidence could be a useful approach (e.g. scanning a code and getting a "green light" before leaving the store). We think that further research into this area of social acceptability and trust would be worthwhile.

We also wonder if the social acceptability of such innovations gains traction faster amongst younger generations who use digital technology more readily in other aspects of their daily lives. They are often sharing new ways of doing things more quickly and widely within their networks, perhaps building social acceptance more readily.

Our survey results suggest that those who are more comfortable with digital payments are also more comfortable with further innovation in the customer journey. Taking checkout-less stores as an example, those who agreed or strongly agreed with abandoning cash are more likely to agree or strongly agree with checkout-less stores[26] (see Figure 9). We wonder if, once people are fully comfortable with digital payments, then it does not seem like such a big step towards an autonomous store. Conversely, if your mindset is still focussed on cash-based transactions, then clearly it is a huge leap of imagination to think that you can simply walk into a store, grab what you want, and leave.

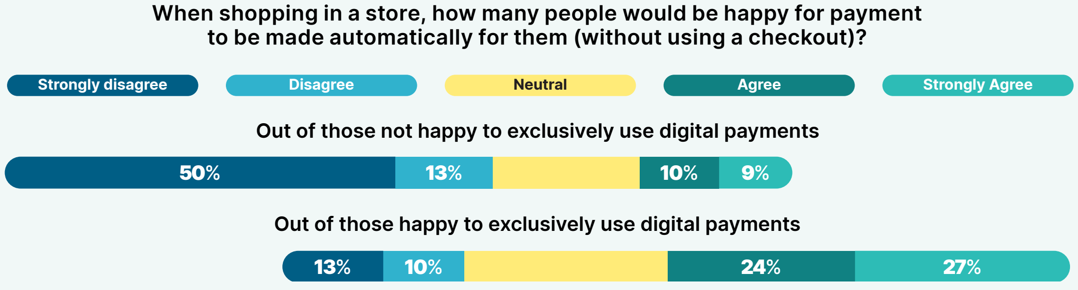

Figure 9: Willingness to use checkoutless stores against willingness to exclusively use digital payments

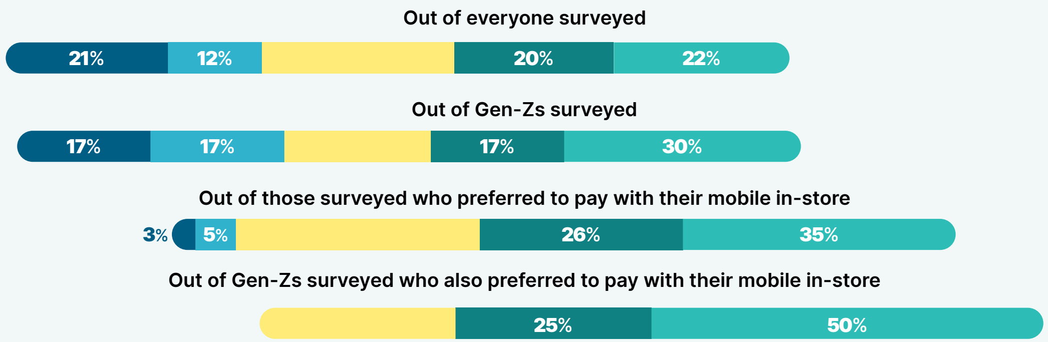

Figure 10: Gen Zs who prefer to pay with mobile are more positive about checkoutless stores

Gen Zs who pay by mobile are embracing checkout-less stores

In our results, the willingness to use checkout-less stores was relatively low amongst all generations. However, one striking result we found was that those who preferred mobile payments for in-store shopping were less likely to disagree or strongly disagree with using checkout-less stores[27] (see Figure 10). Finally, if we look only at those who are Gen Z and also prefer to pay with mobile, all of them were positive or neutral about using checkout-less stores.

We believe that those who prefer mobile payments are likely to:

- Own and have the skills to use a modern mobile device.
- Have had positive experiences about the convenience and security of mobile payments.
- Actively look for ways to use technology to make their life easier.

Given this, it is perhaps not surprising that they are more open-minded about how other innovations could offer them an improved, more convenient experience.

From this, it follows that a key to bridging the payments digital divide is to get people to take the first step: to board the digital train. Once that first step is taken, then a positive feedback loop can enable them to seek out and benefit from other digital solutions. As mentioned previously, one approach to this could be to make mobile payments more accessible. However, another approach could be to provide "leapfrog" solutions that make digital payments more accessible, convenient and trusted by those who prefer using cash today. //

26 The significance threshold was set at .01 (p < .01)
27 The significance threshold was set at .01 (p < .01)

Will wider innovations in retail and banking bridge or expand the payments digital divide?

Impact on the Payments Digital Divide

People's willingness to exclusively use digital payments exceeds their willingness to use autonomous payments. A key to unlocking these new payment experiences will be to get people to board the digital train. This could be by becoming more comfortable with mobile payments. Or it could be by providing new solutions that leapfrog mobile payments. By creating positive experiences with digital payments, the door can be opened to wider innovation in retail and banking.

What the payment industry can do

Create solutions that help people to gradually *build trust* in autonomous payment solutions. For example:

- Visual indications that payment has been made
- Easy ways to check your account balance before and after autonomous payments are made (which don't necessarily rely on having a mobile device)

Can digital currencies succeed?

Adoption of digital currencies for payments is low

Our survey found remarkably few people stating a preference for using digital currencies. This could mean that, today, digital currencies (and notably cryptocurrencies) are primarily seen as stores of value and speculative investments rather than as a preferred means of payment.

"Over a quarter of our survey population did not perceive that digital currencies had any benefits"

However, it could also reflect the fact that many do not perceive benefits of paying with digital currencies. As shown in Figure 11, over a quarter of our survey population did not perceive any benefits and more than half said they did not know of any benefits.

The highest scoring benefit of digital currencies was privacy, which still only achieved 16% in our survey.

It is worth noting that these perceptions are probably based on today's well-known cryptocurrencies such as Bitcoin and Ethereum and may change significantly when stabilised private or Central Bank Digital Currencies (such as the Digital Euro) are launched. An additional factor may be that acceptance of digital currencies in-store and online is not currently widespread. Nonetheless, our results suggest that digital currencies have a mountain to climb if they are to become a popular means of payment. Based on what we have already explained, the following will be key to their adoption:

- **Convenience:** Including how to obtain and spend digital currencies as well as how to convert them back to non-digital currency.
- **Integration:** Having close integration with mobile payments and future "no device" payment means so that digital currencies can be used to pay by QR code, with a mobile wallet, or using biometrics.
- **Other incentives:** A key to the wider adoption of digital currencies may be incentives such as discounts or access to other benefits/ services, the promise of lower levels of fraud, or guarantees if goods or services are not provided as expected.

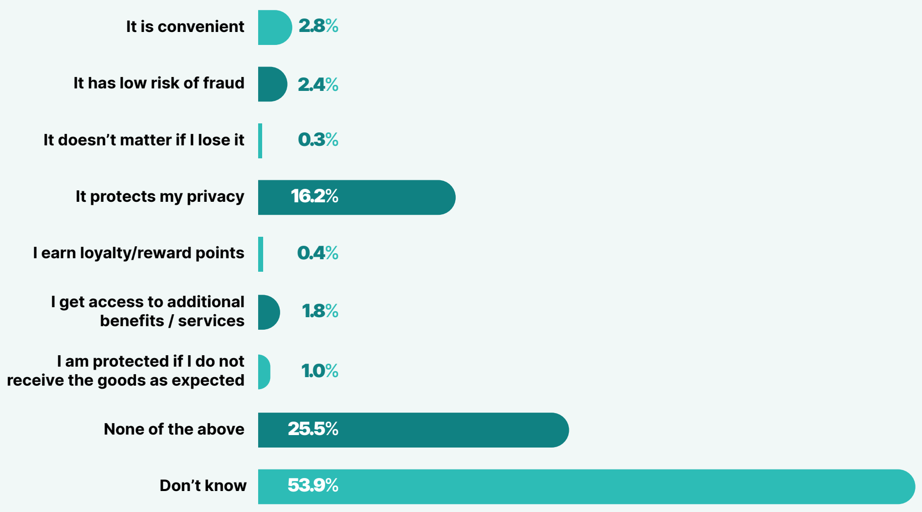

Figure 11: Perceived benefits of digital currencies

Why are people not using digital currencies as a payment means?

Nowadays, cryptocurrencies are not heavily regulated. Combined with the high volatility in their value, this makes it is hard for consumers to understand the level of risk they are taking and to what extent they are protected. We believe that digital currencies will become more regulated and that new digital currencies (in particular Central Bank Digital Currencies) will provide consumers with a more stable alternative with better protection. However, for the foreseeable future, it seems clear that for many individuals it will not be easy to understand whether they should use digital currencies and what the benefits could be. //

Can digital currencies succeed?

Impact on the Payments Digital Divide

Based on current preferences, widespread adoption of digital currencies will take significant time (5-10 years). In the short-term, the complex digital currency landscape will make it difficult for people to make informed choices about adopting and using them. In the longer term, it is likely that digital currencies will need to provide a convenient solution with additional incentives if they are to gain traction.

What the payment industry can do

Provide digital currency solutions that can be *conveniently used for making payments.* For example:

- Having a relatively stable value (and certain future)
- Providing similar protections to consumers as those afforded by today's popular digital payment methods
- Ensuring widespread acceptance, perhaps with an interim solution in which a digital currency payment from the consumer can appear as a card payment to the merchant

Design digital currency solutions to *bring benefits for all parties*. For example:

- Faster and more frictionless payment acceptance could benefit merchants and consumers
- Lower fees could benefit merchants, but thought should be given as to how some of this benefit could also be passed on to the consumer

Conclusion

New preferences will impact the payments digital divide

With the greater preference of younger generations to pay digitally, we believe there is a danger that the consequential shift will lead to increased marginalisation of those who want to stick with cash (mostly because they see it as more convenient).

Digital payments are here to stay. However, the landscape is becoming more complex. This could lead to a new payments digital divide opening up between "traditional" digital payments (e.g. cards, bank transfers and direct debits) and "new" digital payments (mobile apps, digital wallets and digital currencies).

All of these "new" digital payment means typically depend on the user having access to a suitable mobile device and having the skills and understanding of how to use them. A key question, therefore, is can mobile payments can be made accessible to all? If not, could new payment means that don't rely on any physical card or device provide an alternative?

Perceived benefits are key to adoption

Our assessment is that perceived convenience is an important pre-requisite for people to adopt a new payment means. However, by itself it is not enough to make people switch. This is where other perceived benefits can also play a role, such as lower risk of fraud, protection from theft, privacy, loyalty and reward points, access to additional services, and protection if goods or services are not provide as expected. Our results suggest that few people perceive any benefits from digital currencies, and this will have to be addressed if digital currencies are to see widespread adoption.

How can digital payments evolve to address this divide?

Addressing the payments digital divide is not something that the payment industry can do alone. Indeed, an open question is whether it is possible to tackle the payments digital divide without first addressing other inequalities in society. However, as we have set out throughout this paper, the payment industry can take action to shape the payment landscape to make it more inclusive:

- Work towards **low-cost universal acceptance** of a broad range of digital payment means.
- Create **new ways to pay** that don't require a card/device or remembering a password or PIN. Enrolment should be possible in a physical store or bank branch with in-person assistance (as well as via mobile or online).
- Help people to **manage their spending** when shopping in-store or online by, for example, enabling them to check their balance at the point of sale.
- Find ethical and privacy preserving ways to provide **rewards for consumers** when they use digital payments (e.g. cashback funded by data monetisation)
- Create **end-to-end experiences** for customers that are significantly improved by using digital payments (such as checkout-less stores).
- Make **mobile solutions** work effectively on low-cost devices, design them to be accessible, and enable payments without requiring a data connection.
- Allow people to temporarily **share money digitally** with a friend or carer to make a purchase on their behalf.
- Provide limited **accounts which are easier to open** for the sole purpose of making and receiving digital payments.
- For autonomous payment solutions, create "stepping stones" that enable people to **gain trust** in them (such as a final confirmation of payment). //

Acknowledgements

Authors

This paper was prepared by the Worldline Discovery Hub and authored by the following people from across the organisation and Newcastle University Business School:

Alexandre Janin – Worldline Labs Research and Development Coordinator, France

Amira Chalbi Neffati, France

Aurora Font – Mobile Competence Centre Head of UX/UI and member of the Expert Community, Spain

David Daly *(Lead Author)* – Worldline Discovery Hub Editor-in-Chief, UK

Gert-Jan Andries – Worldline Customer Sales & Marketing Innovation and Transformation Manager, Belgium

Jehana Copilah-Ali – Research Associate in System Design for Financial Services at Newcastle University Business School, UK

Johan Maes – Worldline Labs Trust & Intelligence, Belgium

Jonathan Sauer – Worldline Financial Services Innovation Manager, Belgium

Karen Elliott – Senior Lecturer and Associate Professor (FinTech) at Newcastle University Business School, UK

Thanks to

The following people who kindly assisted with the survey translation: Anne-Claude Tichauer, Christian Baumann, Ivan Karev, Kristina Puzarina, Laurent Rousee, Livia Dias, Minh Le, Pauline Schrooyen, Santi Ristol, Sebastian Ramatowski and Thomas Hoberg.

The following people who provided feedback on early drafts of the report: Coralie Penin, Gilles Grapinet, Leo Van Hove, Marc-Henri Desportes and Virginie Bonnet.

All the members of the Worldline Discovery Hub who provided detailed review and feedback about this report.

The following people at the PLUS Agency for proofreading and design expertise: Marianne Geater and Catherine Spinks.

Appendix A – Survey Questions

How people prefer to pay

We asked people the following questions:

- How do you prefer to pay when buying goods in a shop?
- How do you prefer to pay when shopping online?
- How do you prefer to pay when paying your friends or family (e.g. gifts or sharing the cost of a meal)?
- How do you prefer to make recurring payments (such as subscriptions or regular donations to charity)?
- Overall, currently, what is your preferred payment method today?

People could choose one of the following options:

- Cash
- Cheque
- Debit card
- Credit card
- Mobile phone app
- Online bank transfer
- QR code
- Pre-paid card, gift card, or voucher
- Digital currency (e.g. Bitcoin)
- Direct Debit
- Other
- Don't know

If people selected "Other" they were able to add free text to describe it.

Note that, as the survey was intended for general members of the public, we used terminology that we felt they were most likely to understand. This creates an issue because what people associate with a payment (usually the physical means of initiating it) does not necessarily correspond to the underlying payment means. For example, payment with a mobile phone could include using a digital wallet to make a card payment or a banking app to initiate an online bank transfer.

What benefits people associate with different payment means

We asked about the benefits that people associated with different payments means using the following questions:

- What benefit(s) do you associate with paying by cash?
- What benefit(s) do you associate with paying by cheque?
- What benefit(s) do you associate with paying by debit card?
- What benefit(s) do you associate with paying by credit card?
- What benefit(s) do you associate with paying with a mobile phone app?
- What benefit(s) do you associate with paying via an online bank transfer?
- What benefit(s) do you associate with paying using a QR code?
- What benefit(s) do you associate with paying with a pre-paid card, gift card, or voucher?
- What benefit(s) do you associate with paying using digital currency (e.g. Bitcoin)?
- What benefit(s) do you associate with paying via direct debit?

People could choose one or more of the following options:

- It is convenient
- It has low risk of fraud
- It doesn't matter if I lose it
- It protects my privacy
- I earn loyalty/reward points
- I get access to additional benefits/services
- I am protected if I do not receive the goods as expected
- None of the above
- Don't know
- Other

If people selected "Other" they were able to add free text to describe it.

How people would be prepared to pay in the future

We asked people how much they agreed with each of the following statements:

- I would be happy to make all my payments using cash or cheques
- I would be happy to complete all my payments digitally (e.g. never use cash or cheques at all)
- When shopping in a store I would be happy for payment to be made automatically for me as I leave (without using a check-out)
- I would be happy for my car to pay for fuel/charging automatically for me
- I would be happy for my fridge to automatically order and pay for food for me

In each case, people could rate how much they agree on a scale of 1 – 5, with the following labels for each end and the midpoint:

1 – Strongly Disagree

3 – Undecided

5 – Strongly Agree

Appendix B – Survey Population Demographics

In this appendix we provide the demographic information collected about the survey population. Note that the survey was anonymous and we do not know how many of the respondents were Worldline employees.

Gender

Figure 12 shows the responses to the optional question "What gender do you identify as?" where the options were:

- Female
- Male
- Other

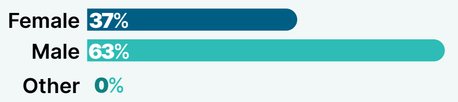

Figure 12: Gender identification of survey population

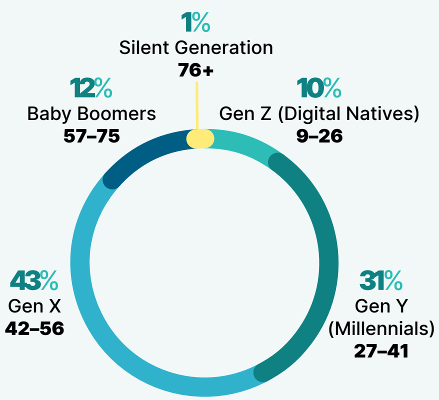

Figure 13: Age of survey population

Age

Figure 13 shows the responses to the required question "What is your age?" where the options were:

- 9 – 26
- 27 – 41
- 42 – 56
- 57 – 75
- 76+

Note that due to the way this question was asked, we do not know the exact age of any respondent. This also means that we don't know exactly what the distribution was in each age category.

As can be seen, the number of responses from people aged 76 or over was low. Figure 14 shows the breakdown of countries for these respondents, showing that they were all located in the west and predominantly in the UK, which will tend to skew their responses towards the preferences of those regions.

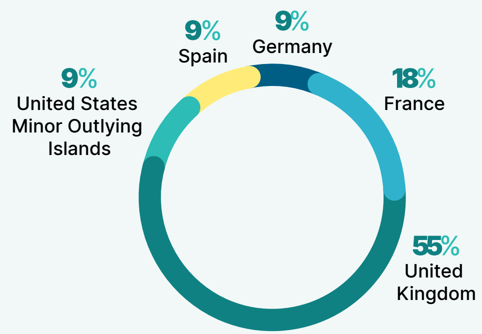

Figure 14: Country of residence for respondents aged 76+

Country / region

The survey required people to answer the question "Which country are you resident in?" with a list of 249 countries provided for them to choose from.

Due to the small number of responses from certain countries, they were grouped into regions as follows:

- **Asia Pacific:** Australia, Hong Kong, Malaysia, New Zealand, Singapore
- **Other Central Europe:** Austria, Czech Republic, Switzerland
- **South America:** Argentina, Brazil, French Guiana, Mexico, Paraguay, Uruguay
- **Other:** Albania, Anguilla, Canada, Denmark, Estonia, Finland, Greece, India, Ireland, Italy, Latvia, Luxembourg, Macedonia, Mozambique, Romania, Russia, San Marino, Sweden, Turkey, United States, United States Minor Outlying Islands

The responses are shown in Figure 15.

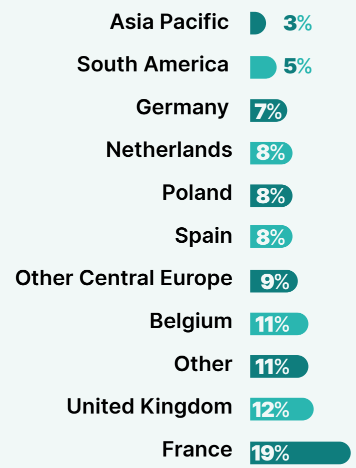

Figure 15: Country or region of residence of survey population

Highest level of education

Figure 16 shows the responses to the optional question “What is the highest level of education you have completed?” where the options were:

- School
- Trade/technical/vocational training
- Bachelor’s degree or equivalent
- Master’s degree
- Ph.D. or higher
- Prefer not to say

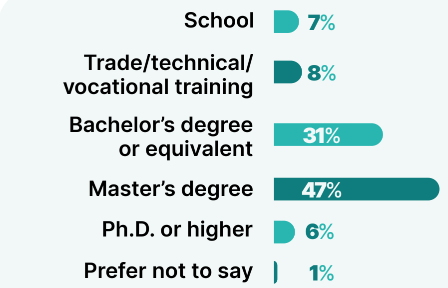

Figure 16: Highest level of education of survey population

Occupation

Figure 17 shows the responses to the optional question “Which of the following most closely describes your occupation?” where the options were:

- Junior / Entry Level
- Mid-level position
- Manager
- Senior manager
- Business owner
- Unemployed
- Student
- Retired
- Prefer not to say
- Other

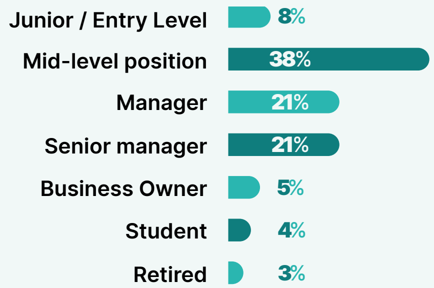

Figure 17: Occupation of survey population

About Worldline

Worldline [Euronext: WLN] is a global leader in the payments industry and the technology partner of choice for merchants, banks and acquirers. Powered by 20,000 employees in more than 50 countries, Worldline provides its clients with sustainable, trusted and innovative solutions fostering their growth. Services offered by Worldline include instore and online commercial acquiring, highly secure payment transaction processing and numerous digital services. In 2021 Worldline generated a proforma revenue close to 4 billion euros. worldline.com

Worldline's corporate purpose ("raison d'être") is to design and operate leading digital payment and transactional solutions that enable sustainable economic growth and reinforce trust and security in our societies. Worldline makes them environmentally friendly, widely accessible, and supports social transformation.

For further information
infoWL@worldline.com