

Which?

Unlocking the benefits of digital wallets

**Understanding digital wallet use and
the value of innovation**

About

Which? is the UK's consumer champion, here to make life simpler, fairer and safer for everyone. Our research gets to the heart of consumer issues, our advice is impartial, and our rigorous product tests lead to expert recommendations. We're the independent consumer voice that works with politicians and lawmakers, investigates, holds businesses to account and makes change happen. As an organisation we're not for profit and all for making consumers more powerful.

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Executive Summary

Digital wallets have become an essential financial service for many UK consumers. They serve as a means of seamless in-store contactless transactions and online purchases, and a repository for payment cards, travel passes, event tickets, and loyalty cards.

However, the provision of digital wallets is not competitive and a market barely exists. Digital wallet use is dominated by the two largest mobile providers, Apple and Google. Generally speaking, iPhone users use Apple Wallet and Android users use Google Wallet. Although the increasing use of digital wallets brings many benefits to consumers, both of these big tech firms have faced scrutiny from the Financial Conduct Authority (FCA), Payment Systems Regulator (PSR) and most recently the Competition and Markets Authority (CMA) for anti-competitive behaviour.

Through a combination of hardware restrictions and online choice architecture like pre-installation and defaulting, Apple and Google have been accused of creating barriers for rival digital wallet providers to compete on a level playing field, effectively exploiting their market share to shut out the competition. As a result, consumers are left without a meaningful choice between which digital wallet to use.

The lack of competition also reduces the incentive for Apple and Google to innovate their products and there have been only limited developments in the functionality of digital wallets for over a decade. This lack of an incentive to invest means consumers are missing out on the potential benefits that could be realised from more innovative digital wallet services.

A more competitive market for digital wallets is likely to address these harms, both by allowing competing digital wallet providers to offer alternative products and services, and by incentivising Apple and Google to continue to innovate their own digital wallet offer. However, such a market will not develop unless interventions are made by regulators to shape the market in a way that facilitates competition.

To better understand the benefits of such pro-competitive intervention, Which? has undertaken research to understand the potential value of more innovation in the provision of digital wallets. To do this, we ran a survey of 4,000 consumers to understand how consumers use digital wallets and their attitudes towards choosing a digital wallet. We also used a willingness-to-pay choice experiment to understand consumers' preferences for innovative digital wallet features and the potential for them to benefit from greater innovation in the supply of digital wallets.

Our survey results find that digital wallets, dominated by Apple and Google Wallet, are used by a majority of UK consumers, often frequently. Consumers predominantly choose their digital wallet based on what was pre-installed and default on their mobile, and most have never considered switching. These results provide evidence of the extent to which Apple and Google have locked consumers into using their own digital wallet services.

Key findings: use of and attitudes towards digital wallets

- Overall, **62%** of UK adults currently use a digital wallet.
- Apple Wallet (**50%**) and Google Wallet (**46%**) are the most used wallets.
- The leading reason consumers choose their preferred digital wallet is simply that 'it was already set up on my device or account' (**48%**), followed by ease of use (**46%**).
- Nearly a third (**32%**) of users make digital wallet payments daily, with **17%** paying multiple times per day.
- Around three-quarters (**74%**) of users have never even considered switching digital wallet providers.

The consumer choice experiment revealed a clear latent demand for potential innovation in digital wallets. Participants were presented with hypothetical digital wallets in a choice experiment in which some wallets offered the following innovative features: digital receipt storage, automatic loyalty points, ID storage, and flexible card functionality. Participants indicated a degree of willingness-to-pay a monthly subscription price for increased functionality. Storing digital receipts and the ability for a digital wallet to automate loyalty point collection were the two most highly valued innovative features.

When presented with a choice of hypothetical digital wallets in our discrete choice experiment, 38% of all respondents chose a paid wallet (either £0.50 or £2.50 per month) at least once across the six choice tasks they completed. Younger consumers showed a particularly high willingness-to-pay for digital wallet innovation, with 62% of 18-24-year-olds choosing a paid wallet at least once. Our mixed logit regression model predicts that at a monthly price of £0.50, around six in ten digital wallet users (58%) would choose to pay for a hypothetical digital wallet with all four innovative features, instead of continuing to use a free digital wallet with more limited functionality.

Key findings: willingness-to-pay for innovative digital wallets

- **38%** of all respondents chose a paid-for wallet at least once across the six choice tasks they completed.
- Estimated willingness-to-pay ranged from **£0.26 to £0.43 per month** for each feature tested, with receipt storage and automatic loyalty points more highly valued than ID storage and flexible card functionality.
- At a monthly subscription price of £0.50, the predicted probability of digital wallet users choosing an innovative wallet over a free basic wallet is **58%**.
- We estimate the indicative value of a single digital wallet innovation could be **£67-178 million per year**, and the value of all four features in our experiment could be **£119-558 million per year**.

Scaling up our model's willingness-to-pay results to a population level, the total annual willingness-to-pay is estimated to be in the hundreds of millions of pounds. This estimated willingness-to-pay for a set of hypothetical digital wallets in our choice experiment can be used as a proxy to indicate the value of consumer benefits from increased competition in digital wallets. In doing so, we are not seeking to provide a single estimate of the benefits of innovation in digital wallets as a whole. Instead, these results can be interpreted as an indicative estimate of the value of one version of digital wallet innovation.

Overall, we consider that our analysis provides a conservative indication of the benefits that could be realised from greater competition in digital wallets, and that effective, pro-competitive regulatory intervention should be prioritised by the Competition and Markets Authority.

1. Introduction

1.1 Background

Digital wallets are mobile apps or online services that give consumers access to a range of financial actions. They are mostly used by consumers to **store payment information** and **make payments** (both in-store and online/in-app) using mobile phones or other electronic devices. As well as payments, they act as a repository for travel passes, event tickets, and loyalty cards.

[The Financial Conduct Authority \(FCA\) distinguishes between two main types of digital wallet: 'staged' vs 'pass-through' wallets.](#)¹ Pass-through digital wallets do not hold funds but use the card/account information stored in the wallet to make payments directly to a recipient, and staged digital wallets, like PayPal, hold funds and allow payments to be made by transferring funds stored in the wallet to the recipient. This report focussed on pass-through digital wallets.

The two dominant digital wallets used in the UK are Apple Wallet and Google Wallet. In both cases, the digital wallet is bundled together with a digital payment service so that they effectively operate as one system. In practice, Apple and Google's wallets are the consumer-facing app interface that stores card information and provides functionality to make payments, whereas Apple Pay and Google Pay are actually used to facilitate and process payments.

There are considerable benefits from using a digital wallet

Consumers use digital wallets primarily for making contactless payments in-store and as a repository for travel tickets, event tickets and loyalty cards. There are also some examples of additional features, such as incorporating Buy Now, Pay Later (BNPL) functionality, smart keys for cars or your home, and some use of open banking integration. Consumers benefit from the ease-of-use and efficient experience offered by digital wallets, which makes for fast, seamless payment processes and safe, convenient storage of tickets and cards in place of physical alternatives. Security protocols and biometric authentication make digital wallet payments a safe way to pay and protect consumers from security risks, and in some instances provide greater protection than traditional online payment methods, given card details are hidden from merchants during a transaction.

As consumers increasingly have their mobiles with them at all times or within easy reach, being able to tap a phone at a payment terminal or simply bringing up an app to gain entry to a ticketed event can make these regular life transactions simpler and easier than traditional payments methods and physical tickets. In an [increasingly cashless world](#),² mobile-based digital wallets can almost entirely substitute for physical wallets. As well as benefiting

¹ FCA and PSR (Payments Systems Regulator) Big tech and digital wallets Feedback Statement. Available at: <https://www.fca.org.uk/publication/feedback/fs25-1.pdf>

² Cash payments accounted for just 8% of all UK payments in 2024. UK Finance UK Payment Markets 2026. Available at: https://www.ukfinance.org.uk/system/files/2026-08/PaymentMarketsReport_2026Summary.pdf

consumers, digital wallets can also be attractive to retailers who benefit from a faster transaction process with higher transaction completion rates. Tokenization, the technology that enables frictionless digital wallets/one-click payments, results in a [5% increase in authorization rates](#) (ie fewer failed payments) compared to traditional transactions.³

These benefits come with little direct cost to consumers as, while some small providers may charge for a premium digital wallet with additional functionality, the most popular providers make digital wallets available for free and there is no charge or fee when consumers make payments using their wallet. Often, they charge some kind of fee to card issuers/merchants. Sometimes, however, there is little actual revenue generated from digital wallet usage itself, but providers use digital wallets as part of an ecosystem to encourage consumers to use a single suite of products from a single provider, with digital wallets being a component of this.

1.2 Competition concerns in the market for digital wallets

However, while digital wallets bring benefits to consumers, both [Apple and Google have been accused of anti-competitive behaviour that is limiting competition and denying consumers a genuine choice between digital wallet providers](#).⁴ While their success may partly reflect consumers' brand preferences or a genuine desire to use apps from within the same operating system ecosystem, this is unlikely to explain the extent of the market concentration.

Many of these competition concerns relate to restrictions that Apple places on the hardware required by digital wallets. Until October 2024, Apple banned competitors from accessing the NFC (near-field communication) chip, the technology that facilitates mobile contactless payment) on UK mobiles. This meant that there was effectively only one choice of digital wallet for consumers using iPhones - the Apple Wallet. Apple has since made the NFC chip available for third party developers to use, but at a cost which it does not make public.

Apple's restrictions are not limited to third-party digital wallet providers, it also charges card issuers a fee to allow their customers to use Apple Pay. Since there are few other alternative digital wallets, card issuers are effectively forced to pay this fee or risk not being available for use on Apple's operating system, iOS. This may both indirectly increase costs for consumers where fees are passed on elsewhere, and have knock-on impacts on competition and innovation in other markets that card issuers are operating in.

These issues have resulted in a [collective action case being brought forward against Apple in March 2026 by James Daley](#).⁵ The claim, brought on behalf of an estimated 50 million UK consumers, concerns both the restrictions placed on access to iPhone NFC chips as well as the transaction fees charged to banks and card issuers that are said to be out of line with industry practice and not levied on comparable payment systems in the market. The case is seeking an aggregate award of damages of up to £1.5 billion.

³ As referenced in Which?'s [December 2025 Payments report](#), [Visa](#) cites evidence that tokenization (the technology that enables frictionless digital wallets/one-click payments) results in a 5% increase in authorization rates (ie fewer failed payments) compared to traditional transactions.

⁴ See footnote 1

⁵ Further information available at: <https://consumervoice.uk/action/apple-pay-claim/>

Google does not impose the same NFC hardware restrictions as Apple. However, concerns remain that the control that Google has over its mobile platform allows it to give [undue preference to the Google Wallet over competitors](#).⁶ Choice architecture design - like default settings, pre-installation, prominent placement on the home screen and switching prompts - means that even if viable alternatives did exist, consumers are less likely to actively engage with their choice of digital wallet provider. Apple adopts similar choice architecture that gives preference to its own digital wallet.

Crucially, the high barriers to entry imposed by Apple alone may be limiting competition across both of the major mobile platforms. Some stakeholders told the FCA that, given the market power shared between Apple and Google, it may not be financially viable to introduce a digital wallet just on Android. This, as well as choice architecture concerns, likely explains why NFC access on Android has not resulted in significant alternatives.

This anti-competitive behaviour is harming consumers. The FCA and PSR (Payments Systems Regulator) heard that hardware restrictions and choice architecture design have restricted entry to the market. Stakeholders claimed that if the barriers to entry were lower they would have introduced their own digital wallets. The presence of competing digital wallets would increase the choice of digital wallets available to consumers, and better allow consumers to choose a wallet that suits their preferences - be that around brand, security, wallet features or anything else. Additional features that go beyond what Apple and Google's wallets offer would also increase the quality of the product available to consumers.

In shutting out rival wallets, the incentives for Apple and Google to innovate their own products is reduced. Generally speaking, following the emergence of contactless mobile payments, there has been limited innovation in the functionality of these digital wallets. Apple Wallet launched in 2012 (first as Passbook which stored tickets and, in 2015, as Apple Wallet which integrated contactless payments) and Google Wallet in 2011 (which has also gone through branding iterations since). The ability to store payment cards for online and in-store payments has remained the core functionality of these wallets. BNPL services and smart keys have been added to both Apple and Google Wallets, as well as some limited integration of open banking with the ability to see transaction history and, in the case of the Apple Wallet, bank balances. However, beyond these features there has been little innovation which, given the pace of development elsewhere in digital finance, may reasonably have been expected.

Consumers may have missed out on the best available technology and mobile services as a result. As the [FCA and PSR's report](#) highlights, "innovation is particularly important in digital wallets as it is a zero-priced service, meaning that improving the consumer experience and enhancing use cases are key to fostering adoption and market growth".⁷

Regulators are starting to take action

⁶ See the CMA's Google's mobile platform roadmap of possible measures to improve competition in mobile ecosystems, paragraph's 3.24-3.38. Available at: https://assets.publishing.service.gov.uk/media/687f8ab528f29c99778a7455/Roadmap_Google_.pdf

⁷ See footnote 1

These concerns have prompted regulators to take action. In Europe, the Digital Markets Act (DMA) requires big tech ‘gatekeepers’ to provide third-party developers with interoperable access to the same hardware and software they use for their own services. Following the introduction of the DMA, Apple was found to be in breach of EU antitrust rules and agreed in March 2024 to make a legally binding commitment to open up its NFC technology free of charge to digital wallet providers. Early indications suggest that this intervention is increasing competition among digital wallet providers. In Germany, PayPal launched contactless payments in-store on both Android and iOS, with [early signs of success](#).⁸ BLIK and Swish, payment providers based in Poland and Sweden respectively, offer their contactless payment services on Android mobiles only, but have both signalled intentions to expand their services to iOS following the DMA’s interoperability requirements. Curve Pay, an emerging digital wallet based in the UK, also offers their digital wallet on both Android and iOS in Europe but limits its availability in the UK to Android only. Regulators in Japan and Brazil have imposed similar requirements on Apple.

The UK is moving more slowly than other jurisdictions, but the Competition and Markets Authority (CMA) is currently exploring how to improve the market for digital wallets as part of its Strategic Markets Status investigations into Apple’s and Google’s mobile ecosystems. It has identified digital wallets as a key use case where interoperability is limited and signalled an intention to impose conduct requirements that open up NFC access on Apple devices and prevent both providers from using self-preferencing choice architecture (as signalled in the CMAs investigation roadmaps for [Apple](#) and [Google](#) SMS investigations, and [call for evidence](#) relating to NFC access on iOS).

1.3 Objectives

Which? is concerned that consumers are not getting the best deal when it comes to the quality and choice of digital wallets. The CMA can use the pro-competitive digital markets regime to stimulate greater innovation in digital wallets and unlock the full range of benefits for consumers. The requirements it imposes on Apple and Google will depend on its assessment of what is proportional, but doing so is challenging when the benefits of improving competition are not well understood.

To address this, our research explores the potential benefits to consumers of interventions that encourage competition by exploring the value that consumers place on potential innovations in this market.

The report will set out the methodology used to meet this objective below, before discussing our findings. The appendices contain more detail about the survey, choice experiment and analysis used to conduct the research.

⁸<https://www.heise.de/en/news/PayPal-in-retail-7-6-million-registered-users-in-Germany-11178758.html>

2. Methodology

To meet our objective of demonstrating the potential benefits of increased digital wallet competition, we split our research into two parts. The first was a survey to explore consumer trends and attitudes towards digital wallets such as use of digital wallets, factors for choosing a given digital wallet, and switching habits.

The second was a discrete choice experiment to understand the extent to which consumers might be willing to pay for hypothetical digital wallets that offered a range of innovative features that go beyond what is available today.

The study was completed by Yonder, on behalf of Which?, with an online survey of 4,216 nationally representative mobile users aged 18+ between 20th and 24th May 2026.

The full questionnaire and choice experiment script can be read in [Appendix A](#).

2.1 Questionnaire

To contextualise the nature of the competition issues in digital wallets, we sought to understand the popularity of digital wallets in the UK and demonstrate that Apple and Google wallets dominate the market place due to a lack of alternative providers and the defaulting they use on their mobiles.

To give effect to this, we asked respondents questions about whether they use a digital wallet, which wallet(s) they use, and how frequently they use them. We also asked about the extent to which respondents use digital wallets exclusively - ie at the expense of physical wallets. We asked respondents why they use digital wallets generally, and specifically why they use their chosen wallet. For non-users, we asked a question about why they choose not to use a digital wallet.

Finally, we asked respondents whether they have ever switched digital wallet provider (or even considered doing so). Based on this, we asked their reasons for having ever switched/not-switched wallets.

2.2 Discrete Choice Experiment

Understanding the extent to which consumers might value digital wallet innovation requires an experimental approach. We used a discrete choice experiment to estimate consumers' potential willingness-to-pay for digital wallets that offer the kind of innovative features that may emerge in the future, and could be more likely to be available, and sooner, in a more competitive market. A discrete choice experiment is an appropriate methodology for assessing willingness-to-pay for different versions of future innovation, as has been done in

other market settings such as the development of [digital currency](#) or emerging [food technologies like lab-grown meats](#).⁹

Experiment design

The experiment presented each survey respondent with a series of six choice tasks, each of which containing the following four options:

- option 1: a free digital wallet with basic features widely available today (ie contactless payment in-store and loyalty/event ticket storage),
- options 2 and 3: a digital wallet with basic features, plus a selection of innovative features and, in some cases, a monthly subscription fee, and
- option 4: none of the above.

We used existing evidence and our own pilot study to identify innovative features that consumers could benefit from, have a reasonable likelihood of emergence, cover a sufficient range of feature types and were easy for respondents to understand in an experimental setting. As a result, we tested the following four hypothetical innovative features:

1. automatic loyalty points,
2. receipt storage,
3. ID storage, and
4. flexible cards.

Various combinations of the above features were offered in wallet options 2 and 3, alongside a monthly cost of £0, £0.50 or £2.50.

The choice sets were designed firstly to be realistic and credible, requiring respondents to make meaningful trade-offs between wallet features and subscription prices rather than facing obviously dominant alternatives. Secondly, the experimental design needed to satisfy statistical criteria, including high D-efficiency and a high degree of orthogonality, to ensure that preferences could be estimated precisely. A pilot study was conducted to optimise the choice set design for the main fieldwork.

There is no guarantee that the features we tested will become commonplace in future iterations of digital wallets. Digital wallet functionality could end up more limited than implied by our hypothetical wallets or go far beyond the features that we tested. This could result in an under or over estimation of the potential value of digital wallet innovation, but given our experiment represents one version of a limited set of innovative features, we consider it to be a conservative approach.

Further details on experimental design including the process to determine innovative features, choice screen set-up, and pilot testing can be found in [Appendix B](#).

⁹ See <https://www.bis.org/publications/working-paper-1302-consumer-preferences-digital-euro-insights-discr-ete-choice-experiment-austria> and https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5127028

Experiment analysis and data quality

The experiment was analysed using a mixed logit regression to assess the relative importance of different wallet features and price, account for differences in preferences between respondents, and estimate willingness-to-pay for premium features.

A very small number of participants (16) did not complete the discrete choice experiment section of the survey so are not included in the experiment analysis. A further 72 respondents were classified as extreme speeders, having spent less than two seconds on at least one task, and were therefore excluded from the analysis. This gave a total sample of 4,128 consumers for the discrete choice experiment.

Whilst we conduct descriptive analysis on the full sample, our main logit model looks at current users of digital wallets only, since those with experience of using a digital wallet are more likely to be able to meaningfully compare hypothetical wallet offerings. Therefore the sample for the main model is 2,582. The report also examines separately the 1,546 consumers who do not currently use digital wallets.

Further details on the econometric model specifications and sensitivity analysis conducted can be found in [Appendix C](#).

3. Use of and attitudes towards digital wallets

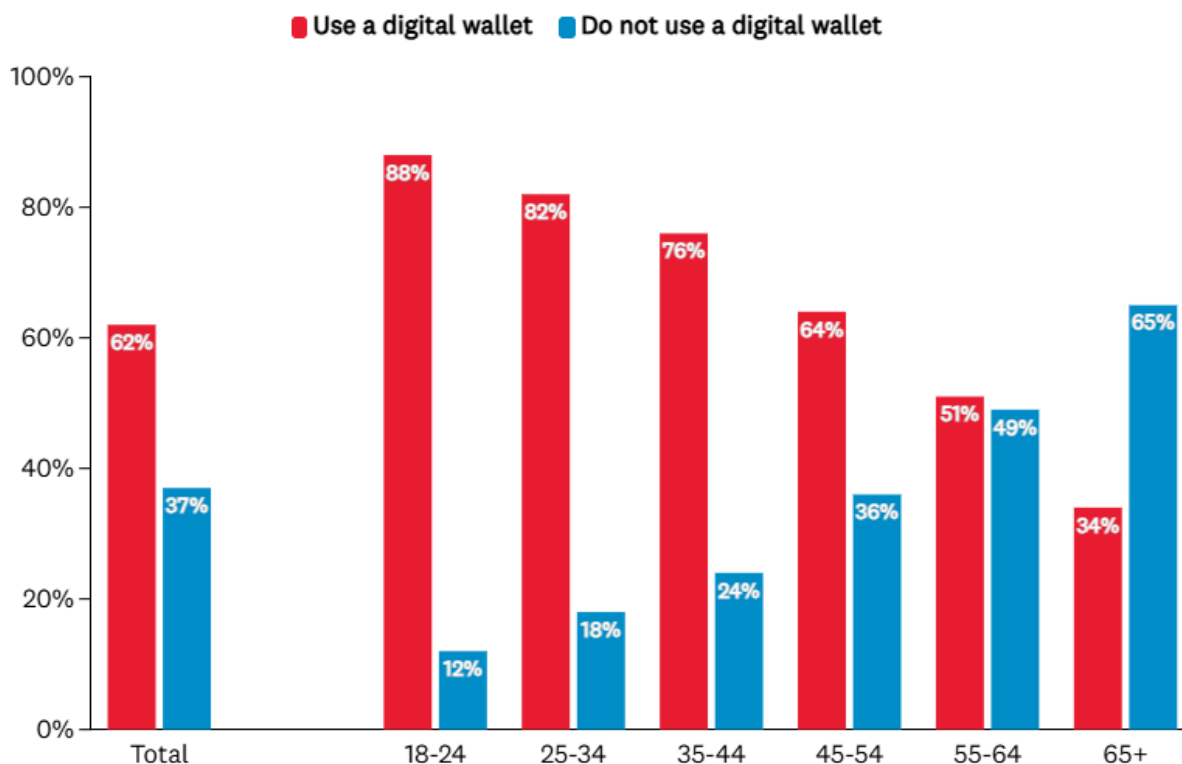
3.1 Digital wallet use

Digital wallets are widely used, particularly by younger consumers

Overall, 62% of consumers say they currently use a digital wallet. There is a notable age difference among users, with digital wallets considerably more popular among younger age groups. Nearly 9 in 10 (88%) 18-24 year olds use a digital wallet compared to around a third (34%) of 65-plus year olds. As shown in Figure 1, for all age groups up to 65-plus, more consumers use digital wallets than not.

Digital wallet use was higher among iPhone users (80%) than Android users (53%). However, rather than an indication of digital wallet use being driven by which mobile operating system you use, this likely reflects the fact that iPhones are used more by younger consumers relative to Android mobiles - 67% of 18-24 year olds in our survey use an iPhone, compared to just 26% of 65-plus year olds, whereas 30% of 18-24 year olds use an Android mobile compared to 67% of those aged 65-plus.

Figure 1: Digital wallet use



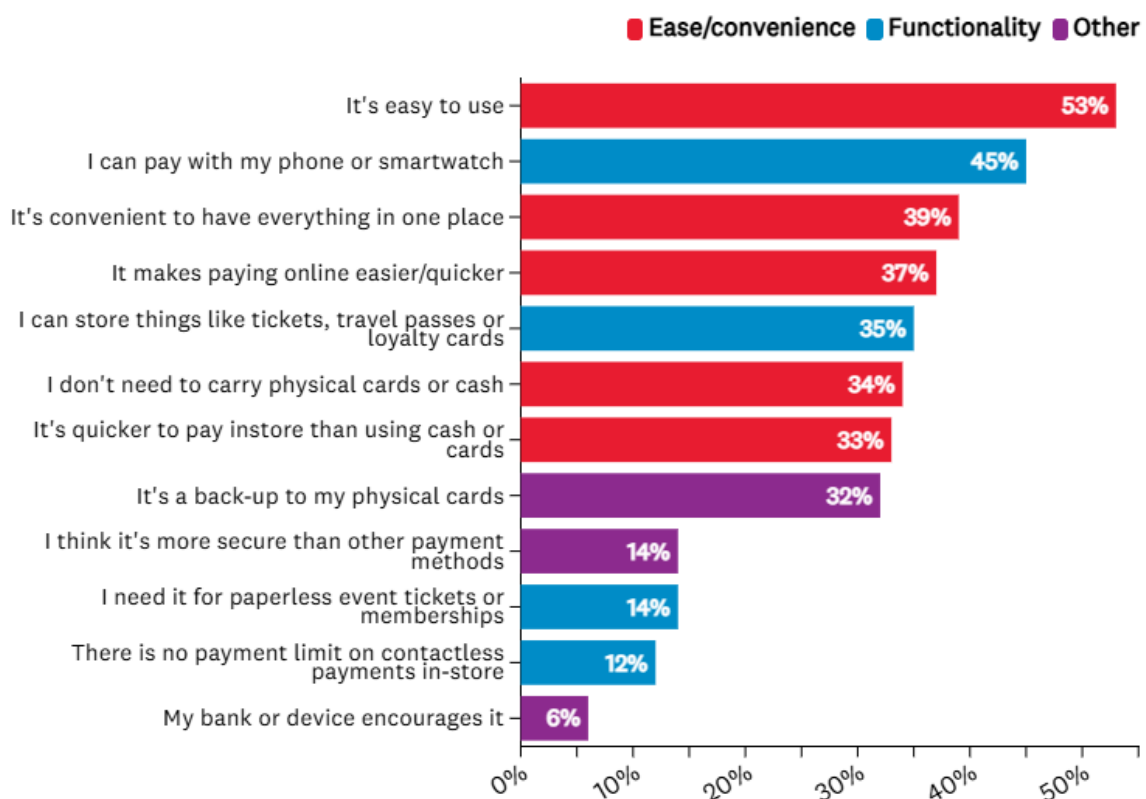
Q3. Which, if any, of the following digital wallets do you use? (Base: 4,216)

Most consumers use a digital wallet because it is easy and convenient

The most common reason for using a digital wallet, given by 53% of current users, is that it is easy to use. Similarly, the convenience of having everything in one place scored highly, with 39% identifying it as a reason for use. Other reasons that capture the ease and convenience of digital wallets, highlighted in red in Figure 2 below, include being able to make online and in-store payments quicker (reported by 37% and 33% of users respectively).

Many consumers also identified the functionality provided by digital wallets as a reason for using them (highlighted blue in Figure 2). Being able to pay with a phone or smartwatch was the most popular functional reason (45%), followed by storing tickets, travel passes or loyalty cards (35%). These functional reasons were relatively more popular among older consumers than younger consumers, with younger consumers more likely to favour the ease of use reasons above functionality. Other reasons for using a digital wallet (highlighted in purple), like a perception that it makes payments more secure, were less commonly chosen.

Figure 2: Reasons for using a digital wallet



Q7. Why do you use a digital wallet? (Base: 2,625)

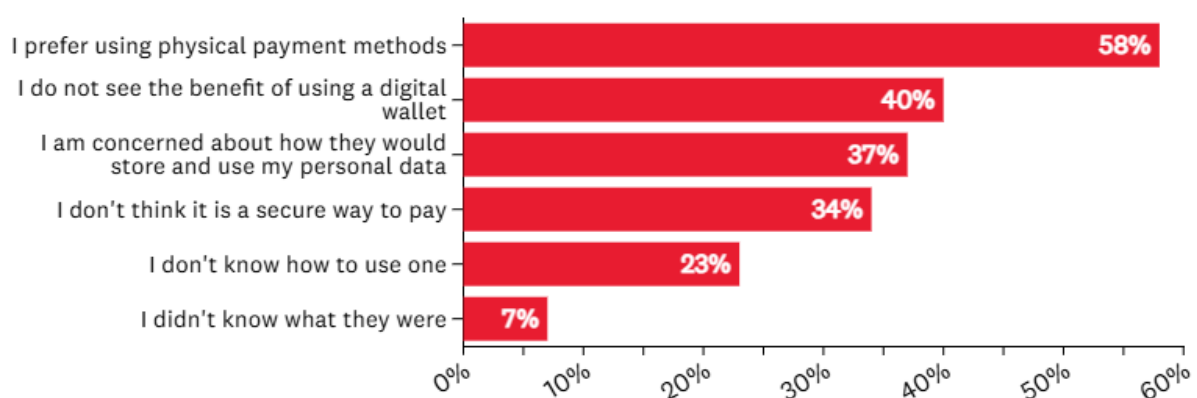
Most consumers who don't use digital wallets prefer to use physical payment methods

Among non-users of digital wallets, who are skewed toward older consumers, the biggest reason for not using a digital wallet is a preference for using physical payment methods like

cash or card. This was provided as a reason by 58% of non-users of digital wallets. Preference for using physical payment methods is stronger among older consumers (indicated by 61% of 65-plus year olds compared to 36% of 18-24 year olds), but is the most common reason for not using a digital wallet across all age groups.

The next most commonly identified reason was not being able to see any benefit to using a digital wallet (40%). There was some evidence of concern around storage of personal data and payment security, chosen by 37% and 34% of consumers respectively, but to a lesser extent than physical payment preferences and a general perceived lack of benefit from using a digital wallet.

Figure 3: Reasons for not using a digital wallet



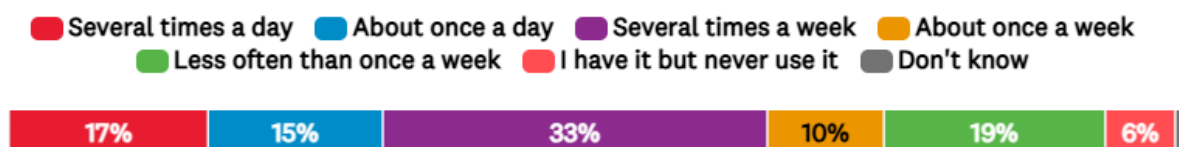
Q4. Which, if any, of the following are reasons why you do not use a digital wallet? (Base 1,569)

Many consumers use their digital wallet frequently and rely exclusively on it for payments when out and about

Three quarters of digital wallet users make payments with their wallet at least once a week while around a third of consumers (32%) use their digital wallet daily. Of the daily users, more than half do so several times a day.

Just 6% of digital wallet users have a digital wallet but never use it to make payments (implying they only use it for other reasons eg tickets or loyalty cards).

Figure 4: Frequency of digital wallet use

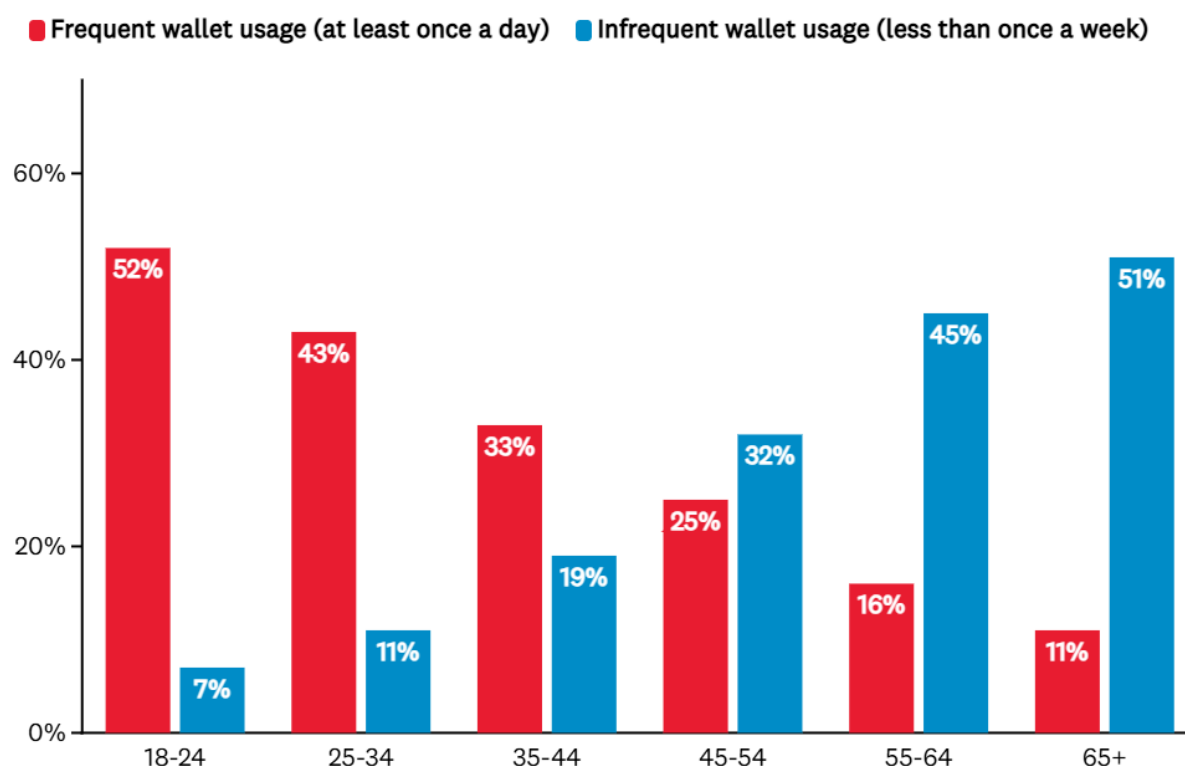


Q5. How often do you use a digital wallet for making purchases? (Base: 2,625)

Unsurprisingly, and as with overall usage, frequency of use is highly correlated with age. Figure 5 shows a strikingly symmetrical inverse trend between age groups for those who use their digital wallet frequently (at least daily) and those who use it infrequently (less than once a week). Just over half (52%) of the youngest cohort, 18-24 year olds, use their digital wallets daily compared to only 11% of 65-plus year olds. It is almost the inverse for those using their digital wallet less than once a week, with just over half (51%) of 65-plus year olds using their digital wallets less than once a week compared to 7% of 18-24 year olds. There is broadly a linear trend for the age groups between these two ends of the scale.

iPhone users are more likely to use their digital wallet frequently than Android mobile users (39% vs 24% overall), although like usage this is likely driven by the fact that they have a higher proportion of younger users.

Figure 5: Frequency of digital wallet use by age



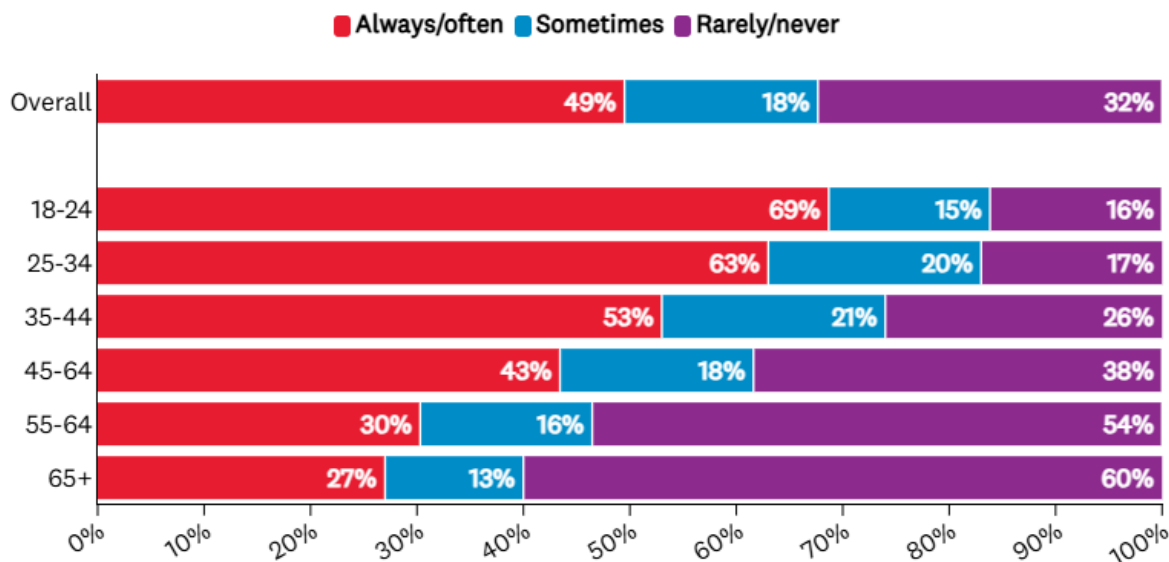
Q5. How often do you use a digital wallet for making purchases? (Base: 2,625)

We also asked consumers how often they relied exclusively on digital wallets for making card payments when out and about on a scale of 'Always - I never carry a physical card on me if I have access to my digital wallet' to 'Never - I always have a physical card on me regardless of whether I have access to my digital wallet'. Around half (49%) of all the digital wallet users said they often or always relied exclusively on it for making card payments when out and about.

Again this was correlated with age, but even among older age groups a sizeable proportion are content not to carry a physical card if they have access to their digital wallet - with over a quarter (27%) of 65-plus year olds saying they do this often or always. For younger

consumers, around two thirds often or always rely on their digital wallet for payments when out and about (69% of 18-24 year olds and 63% of 25-34 year olds).

Figure 6: Reliance exclusively on digital wallets for payments

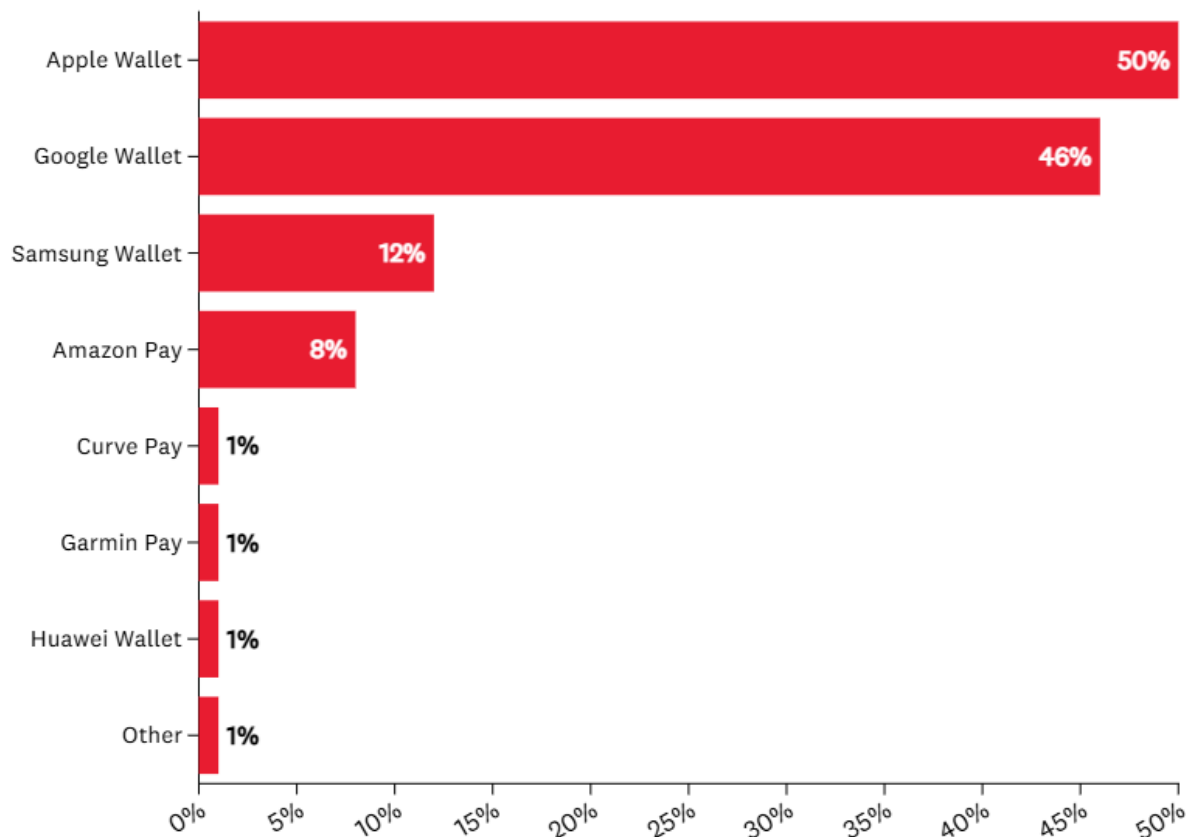


Q6. How often do you rely exclusively on digital wallets for making card payments when out and about? (Base: 2,625)

3.2 Choosing a digital wallet provider

Apple and Google are by far the most popular digital wallets

Apple and Google wallets are by far the most commonly used, with 50% and 46% of digital wallet users using these two providers respectively. The next most popular digital wallets are Samsung Wallet, used by 12% of digital wallet users, but with a large proportion of these people also using Google Wallet. Smaller wallet providers available in the UK like Curve Pay, Garmin Pay and Huawei Wallet have a very small market share (around 1% of all users).

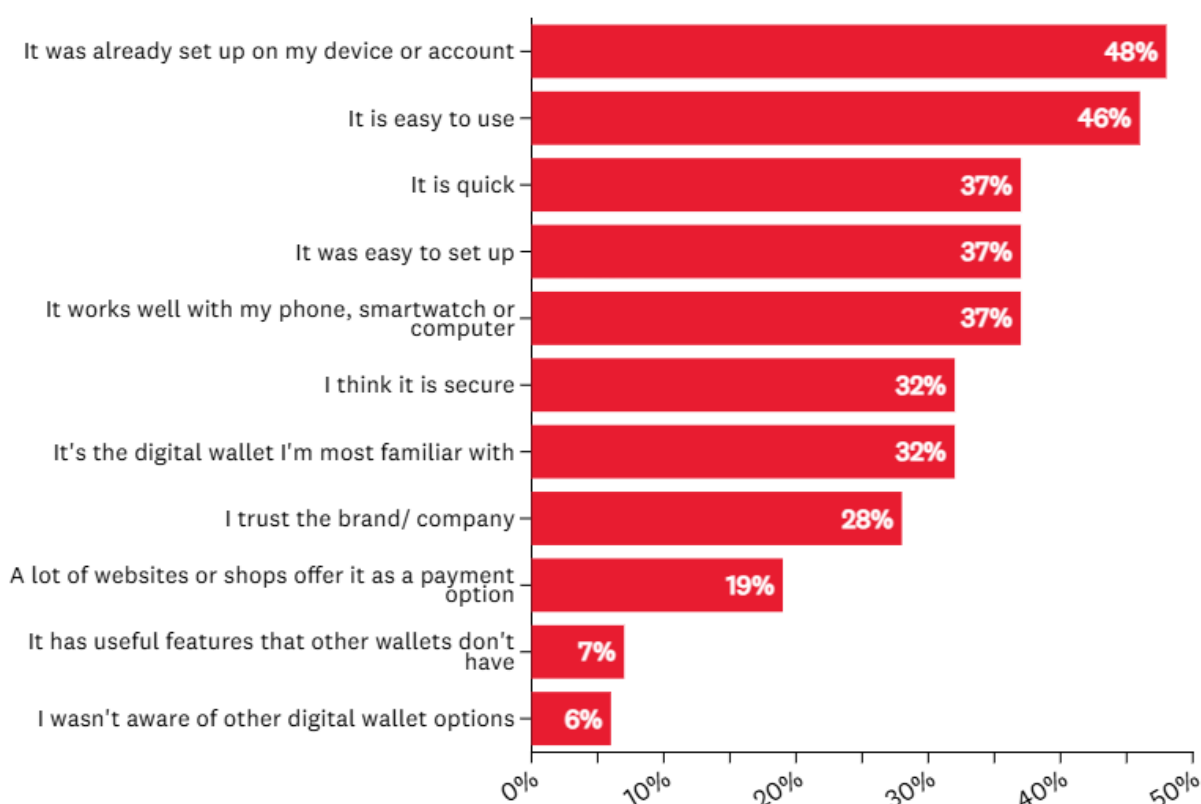
Figure 7: Most used digital wallets

Q3. Which, if any, of the following digital wallets do you use? (Base: 2,625)

Consumers typically use their chosen wallet because it is pre-installed on their phone

As shown in Figure 8, the most common reason for using their preferred digital wallet, given by 48% of users, is that 'it was already set up on my device or account', for example because it comes pre-installed on a mobile. The next most common reasons for using a given wallet, like the reasons for using digital wallets generally, are about ease of use and speed ('it is easy to use' - 46%, 'it is quick' - '37%', 'it was easy to set up' - 37%). These reasons for using a given digital wallet are broadly consistent across age groups.

Just 7% of digital wallet users said that they use their preferred wallet because 'it has useful features that other wallets don't have'.

Figure 8: Reasons for choosing preferred digital wallet

Q8. Why do you use this digital wallet in particular? (Base: 2,625)

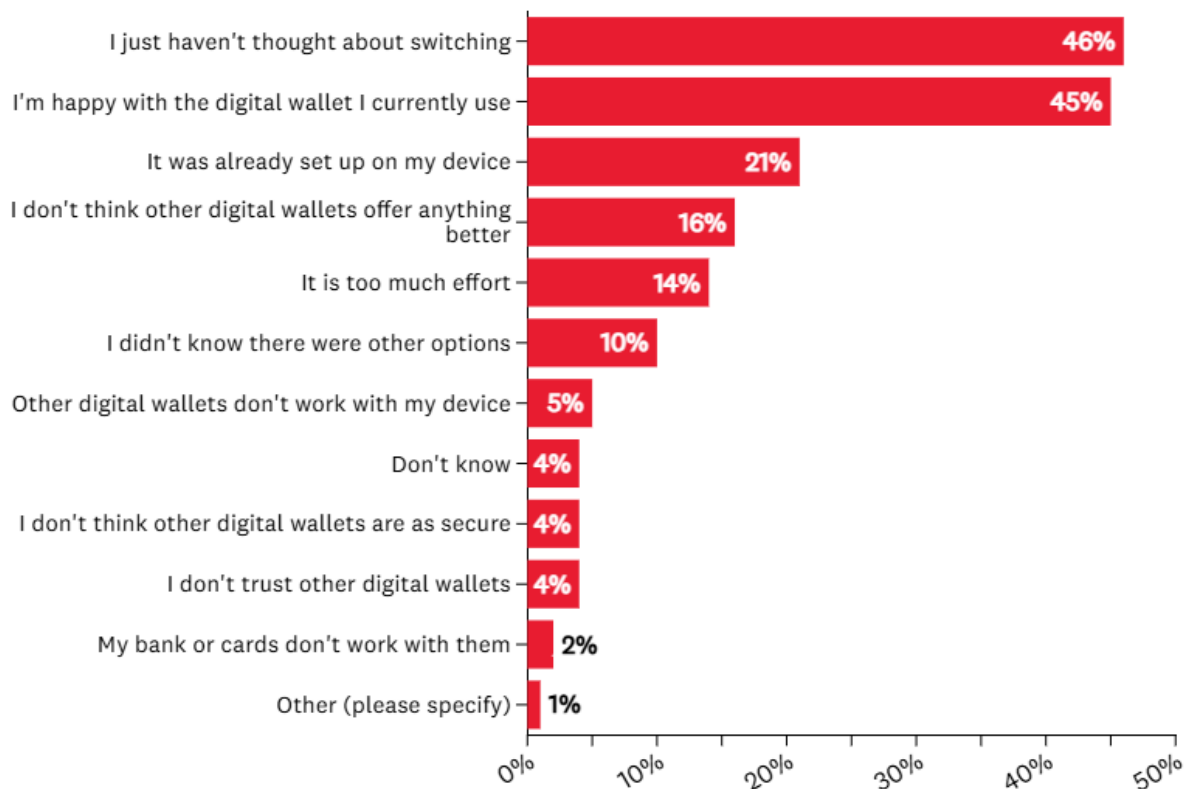
Most consumers have never considered switching the digital wallet they use

The majority of digital wallet users, around three quarters (74%), have never considered switching providers, while 16% have considered it but didn't end up switching.

Older consumers are more likely to have never thought about switching, with 93% of 65-plus year olds never considering switching compared to 66% of 18-24 year olds. It is also more common for iPhone users to have never thought about switching, with 78% of iPhone users never considering it compared to 70% of Android users.

Two reasons stand above the rest when it comes to why consumers don't switch their digital wallet provider, that they simply haven't thought about switching (46%) and that they are happy with their digital wallet provider (45%). That they haven't thought about switching is indicative of the fact that consumers do not actively engage with their choice of digital wallet. This is likely to be a reflection of the lack of viable alternatives which mean there is not currently a meaningful choice for most consumers to make.

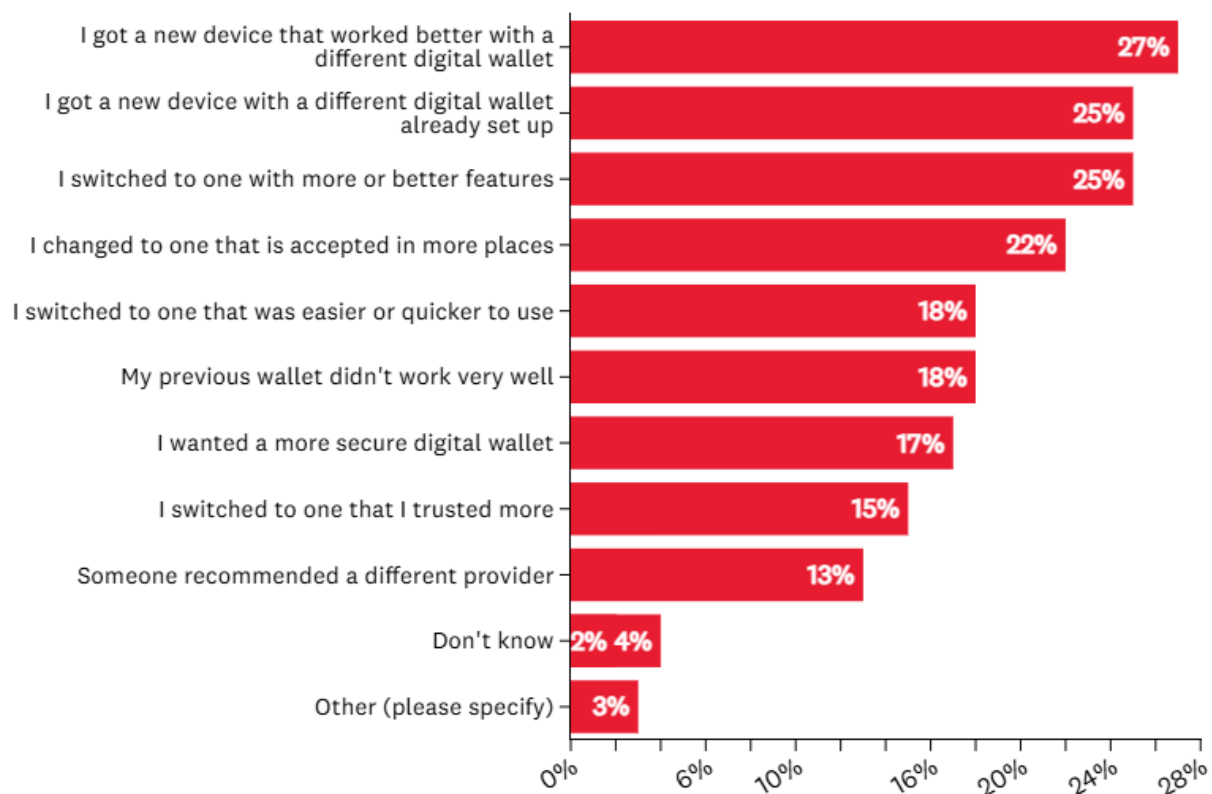
It is notable that just 5% of consumers haven't switched digital wallets because they don't think other wallets would work with their mobile device. This was given as a reason by 6% of iPhone users, despite the restrictions Apple places on NFC access to third party wallet providers, and 4% of Android users.

Figure 9: Reasons for not switching digital wallet provider

Q11. Why have you not changed your digital wallet provider? (Base: 2,371)

Only 7% of digital wallet users have switched which digital wallet provider they use, just over 200 people in our survey. The most common reasons for switching were that consumers got a new phone and either this worked better with a different digital wallet (27%), or that it came with a different digital wallet already set up (25%). There is also evidence that people have switched to a digital wallet that had more or better features (25%).

Digital wallet switching rates are comparable between iPhone and Android users, with 7% of iPhone users having ever changed their wallet compared to 8% of Android users. It is not possible to determine the extent to which this is attributable to consumers switching phones as much as switching digital wallet providers on the same phone. However, given the limited ability to use third-party digital wallets on Apple, a comparable switching rate between Apple and Android indicates that even with more flexibility to use different digital wallets on Android, there isn't a well functioning market with providers competing for different users.

Figure 10: Reasons for switching digital wallet provider

Q10. Why did you change your digital wallet provider? (Base: 203)

Our survey shows that digital wallets, predominantly Apple Wallet and Google Wallet, are widely used by UK consumers. They are used frequently, and in many instances are relied on for payments in place of traditional physical cards. Digital wallets are clearly more popular among younger consumers, but there remains a sizable number of active users across all age groups.

Consumers tend to use the wallet that comes with their phone and very few change which digital wallet they use unless they get a new phone.

To understand further whether this lack of engagement with digital wallets is a result of genuine satisfaction with digital wallets used today or if there is demand for greater innovation in digital wallets, we gave consumers a choice experiment and the findings from this study are explored below.

4. Demand for digital wallet innovation

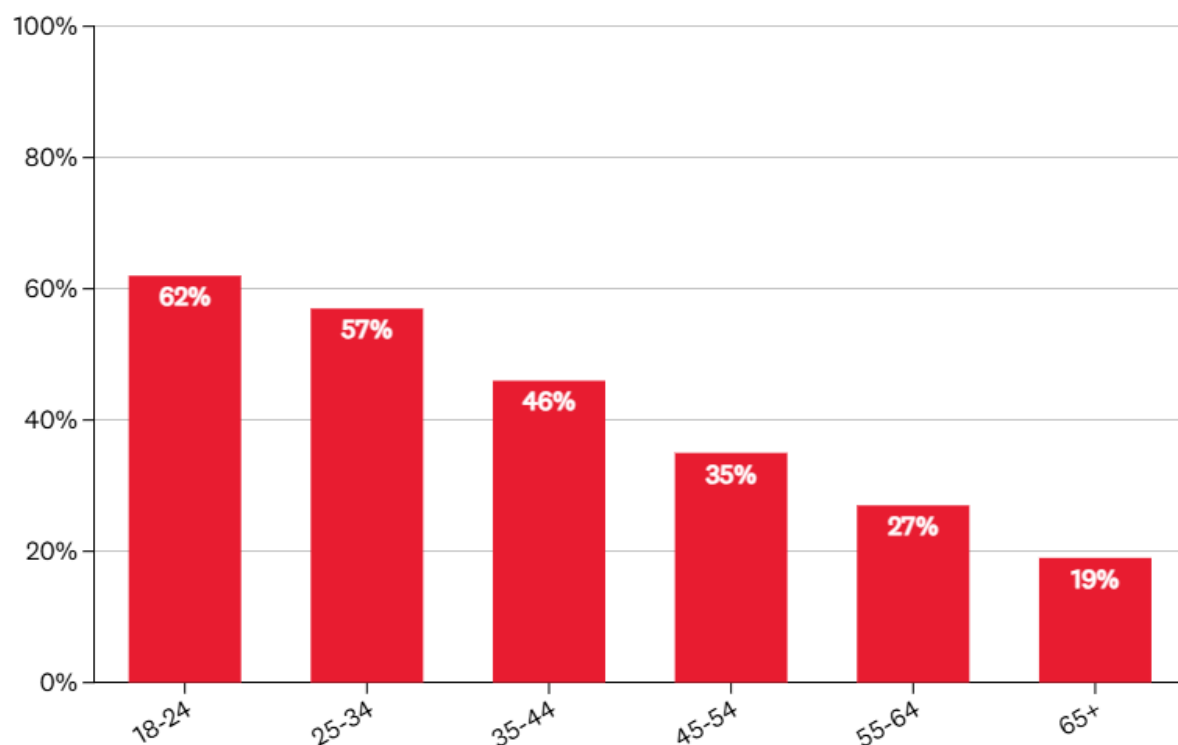
In this section we present the analysis of the online choice study to understand consumer preferences for potential innovation in digital wallets.

4.1 Willingness-to-pay for digital wallet features

When presented with a choice of hypothetical digital wallets in our discrete choice experiment, respondents indicated a degree of willingness-to-pay for increased functionality. At an individual level, 38% of all respondents (including both current users and non-users of digital wallets) chose a paid wallet at least once across the six choice tasks they completed. 16% chose a wallet at the higher monthly price of £2.50 at least once.

Consistent with the wider survey results of higher usage among younger people, we find younger consumers are considerably more likely to choose a paid-for digital wallet in the choice experiment. 62% of 18-24 year olds chose a paid wallet at least once, compared to a fifth (19%) of those aged 65+.

Figure 11: Proportion of respondents choosing a paid-for wallet at least once by age group



Choice experiment, respondents with six choices each (Base all consumers: 4,128)

We also looked at the propensity to choose a paid wallet at a choice level, rather than just an individual level. As shown in Figure 12, among all choices made, a paid wallet was chosen

around a fifth of the time (19%), with 14% of choices being at the lower £0.50 price level, and the remaining 5% at the £2.50 level.

Both the 'none of the above' or the free basic wallet options were included in every choice set, and were selected in just over half (52%) of all choices. The remaining 48% of choices were therefore for a digital wallet with innovative features over and above a free basic wallet, intended to reflect free-to-use wallets like those offered by Apple and Google today.

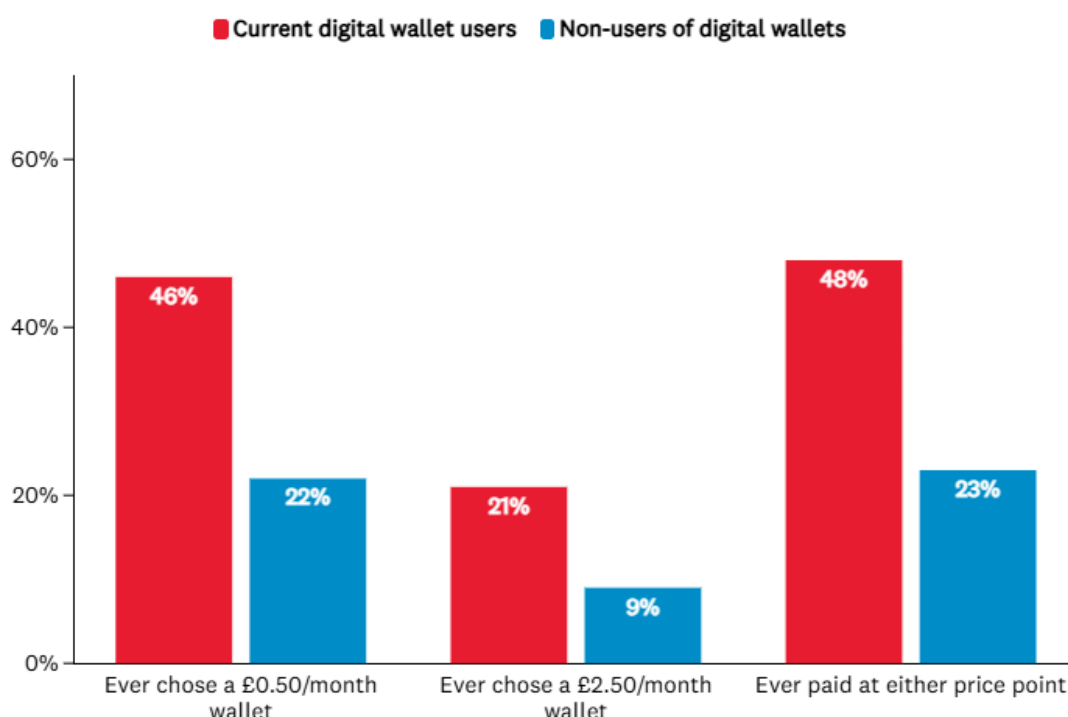
Figure 12: Break down of all choices made in the choice experiment



Base all consumers: total of 24,768 choices across 4,128 respondents

The number of choices for a digital wallet with increased functionality, either free of charge or at a cost, indicates that there is some appetite for innovative features beyond what is available on digital wallets today. With nearly two-fifths (38%) of consumers choosing a paid wallet at least once, there is also evidence of demand for innovation even when associated with a monthly cost.

Most of the appetite for paid innovative wallets comes from current digital wallet users. As might be expected, those who do not currently use a digital wallet were substantially less likely to choose paid innovative wallet options, or any wallet at all. More than half (53%) of those who do not currently use a digital wallet opted not to choose any of the wallets presented across any of their six tasks, whether paid or free. That being said, there were indications that some non-users could be persuaded to adopt a paid digital wallet with innovative features as 23% of non-users chose a paid wallet at least once over their six choices.

Figure 13: Proportion of digital wallet users and non-users who ever chose a paid wallet

Base of 2,582 current digital wallet users and 1,546 non-users

Each of the features tested increased the likelihood of selecting a hypothetical digital wallet among current users

Using a mixed logit model we can demonstrate the impact of different features on respondents' choice of digital wallet. We chose a mixed logit model over a conditional logit model as it allows for individual differences in preferences. Further details on analytical decisions are contained in [Appendix C](#). Positive coefficients indicate that an attribute increases the utility associated with an option and therefore increases the probability that it will be chosen. Negative coefficients indicate that an attribute reduces utility and decreases the probability of selection.

Although current non-users of a digital wallet are included in the research, the **main model only includes current users** as they are more likely to be able to meaningfully evaluate different offerings.

Unsurprisingly, the monthly subscription price coefficient was strongly negative ($\beta = -1.377$), indicating that a higher price makes it less likely that a given digital wallet will be chosen. Meanwhile, each of the innovative features tested generated an increase in utility, with receipt storage and automatic loyalty points generating a stronger positive effect than flexible cards and ID storage. The relative size of these effects suggests that consumers were sensitive to price, but that the additional functionality of receipt storage and automatic loyalty points could compensate for some of this.

Notably, the random coefficient standard deviation (SD) for each feature was very large compared to the mean coefficient itself and highly significant. This indicates individual preferences are highly heterogeneous.

Table 1: Preference estimates from the mixed logit regression model on digital wallet users

Variable	Mean coefficient	Standard error	Random coefficient SD
Monthly subscription price	-1.386***	0.023	-
Opt-out (ASC)	-11.409***	0.563	8.070***
Automatic loyalty points feature: ON	0.600***	0.032	1.052***
Receipt storage feature: ON	0.538***	0.030	1.253***
ID storage feature: ON	0.383***	0.030	1.135***
Flexible card feature: ON	0.362***	0.033	1.333***

Number of observations = 61,968; Number of choices = 15,492; Model fit: Log-likelihood = -13,542

Notes: Mixed logit model with normally distributed random coefficients for the four premium wallet features and opt-out Alternative Specific Constant (ASC). 1,000 Halton draws. Price treated as a fixed coefficient. * = $p < .05$, ** = $p < .01$, *** $p < .001$.

There is a higher willingness-to-pay for automatic loyalty points and receipt storage than ID storage and flexible cards

While the regression coefficients indicate the relative importance of each feature, willingness-to-pay estimates express these preferences in monetary terms. Looking at each of the innovative features in turn, we use the coefficients from the model to calculate respondents' willingness-to-pay for each feature.

Our estimates indicate the additional monthly price current digital wallet users would be willing to pay for a wallet offering a given feature. Willingness-to-pay ranged from £0.27 to £0.39 per month for the four features, with receipt storage and automatic loyalty points eliciting a slightly higher willingness-to-pay than ID storage and flexible cards. The relative ranking of these features in terms of willingness-to-pay broadly reflects the [stated preference ranking observed from the pilot study](#), where receipt storage and automatic loyalty points were the features consumers were most commonly interested in.

Table 2: Monthly willingness-to-pay for digital wallet features based on regression model coefficients

Feature	Monthly willingness-to-pay (95% confidence intervals)
Automatic loyalty points	£0.43 (£0.39-£0.48)
Receipt storage	£0.39 (£0.35-£0.43)
ID storage	£0.28 (£0.23-£0.32)
Flexible cards	£0.26 (£0.22-£0.31)
Total for all features	£1.36 (£1.29-£1.43)

Willingness-to-pay estimates were derived by dividing the coefficient for each wallet feature by the absolute value of the price coefficient, representing the additional monthly subscription fee respondents would be willing to pay for that feature.

The total implied **willingness-to-pay for the bundle of all four features is £1.36 per month**. It should be noted that this estimated willingness-to-pay for the full package assumes that the value of the individual features can be added together. In practice, there may be diminishing returns from adding further features.

While an overall willingness-to-pay is a helpful indication of how much features are valued on average, we know from our model that there is a great deal of individual variation in preferences. Including an interaction between age group and price in the model shows that the average willingness-to-pay is higher among younger compared to older consumers. The estimated willingness-to-pay for all four innovative features ranged from £2.12 in the 25-34 age group to £0.72 for over 65s. Further detail on the model with age/price interactions is contained in [Appendix C](#).

The model predicts fairly strong uptake among digital wallet users for hypothetical innovative wallets compared to a free basic one or none at all.

We can also use our model to predict the uptake of paid-for hypothetical digital wallets with innovative features over and above the free basic wallet. At a monthly price of £0.50, the predicted probability of digital wallet users choosing a paid wallet with just one innovative feature over a free basic digital wallet ranges from 40-44%, rising to 58% for a wallet with all four features compared to a free basic wallet.

At a price of £2.50 per month, the probability of choosing a hypothetical wallet over and above the free basic digital wallet was naturally lower, but still meaningfully high, ranging from 6-7% for a single-feature wallet, to 34% for a full-featured wallet.

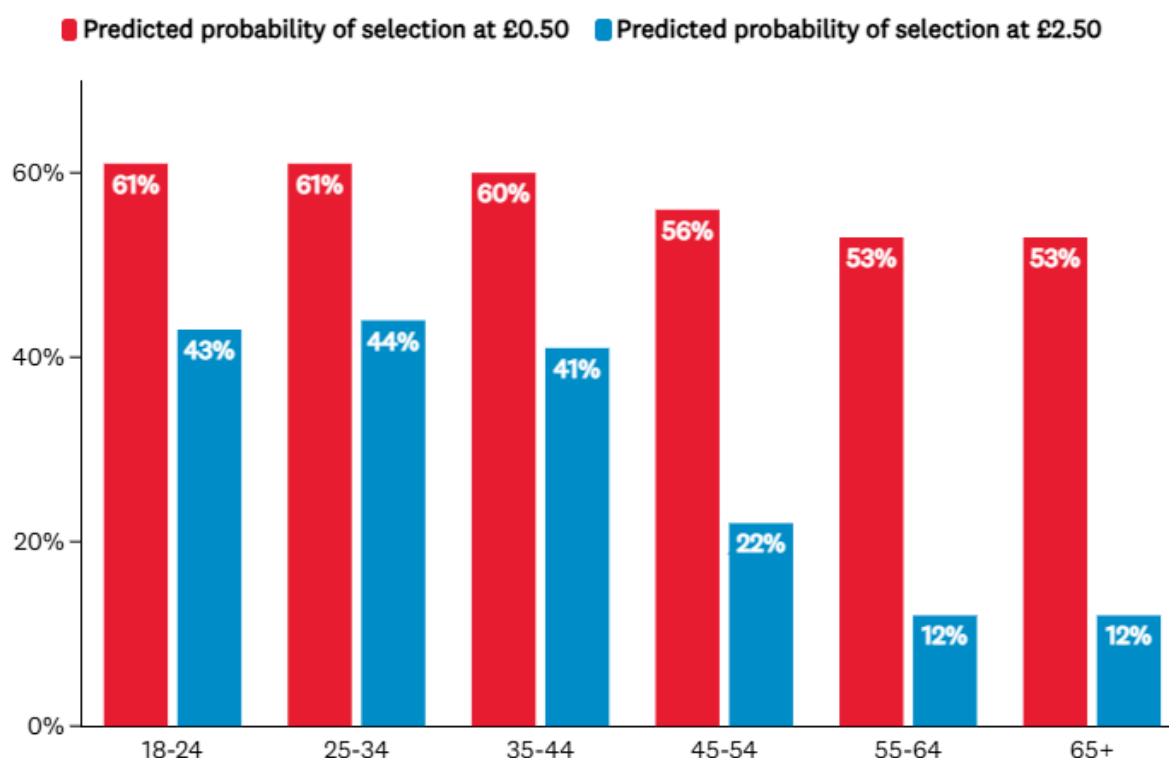
Table 3: Predicted probability of digital wallet selection compared to a free basic wallet or none at all

Features	Predicted probability of selection at £0.50	Predicted probability of selection at £2.50
Automatic loyalty points	44%	7%
Receipt storage	43%	6%
ID storage	40%	7%
Flexible cards	40%	7%
Receipt storage + Automatic loyalty points + ID storage + Flexible cards	58%	34%

Predicted from the mixed logit model estimated from current digital wallet users (n = 2,582). Probabilities represent the predicted likelihood of selecting a premium wallet when choosing between a premium wallet, a free basic wallet, and a "none of these" option. Predictions assume the basic wallet includes none of the premium features and is available free of charge.

Consistent with our other findings around age, the predicted probabilities of selection were higher among younger age groups. Predicted selection of a wallet with all four features compared to a free basic wallet among 18-24 year olds was 61% at a monthly subscription price of £0.50 and 43% at £2.50, and almost identical among 25-34 year olds. Predicted uptake was almost as high in the 32-44 year old age group, and then there is a dramatic drop-off for a £2.50 per month wallet in age groups 45-54 and older. Uptake probability at £2.50 was just 12% for those aged 55 or older. Uptake at the £0.50 price point dropped far less across age groups.

Figure 14: Predicted probability of choosing a digital wallet with all four features compared to a free basic wallet or none at all, by age



Predicted from mixed logit model estimated among current digital wallet users ($n = 2,582$), with a price/age group interaction term added. Full results for this interaction model are included in Appendix C, table A4, 'Main model with age:price interaction'. Probabilities represent the predicted likelihood of selecting a premium wallet when choosing between a premium wallet, a free basic wallet, and a "neither" option. Predictions assume the basic wallet includes none of the premium features and is available free of charge.

These results show that the marginal value of innovative features decrease as more are added to a hypothetical wallet package, but that overall there is a fairly strong appetite from respondents for innovative digital wallet features - particularly among younger respondents.

4.2 The value of digital wallet innovation

Our results indicate that there is latent demand for digital wallet innovation, in the form of the four features tested in our discrete choice experiment, and that this demand is material especially among younger consumers.

There are a number of ways to consider the potential value of this demand in monetary terms at a UK-wide level. Below we set out three illustrative estimates for what the discrete choice experiment results indicate about the value of innovative hypothetical digital wallets.

It should be noted that the estimates presented below are intended to be illustrative rather than predictive. They are based on respondents' choices of our hypothetical set of digital wallets. The analysis is necessarily limited to these features, and is not a reflection of the likelihood of these particular innovations materialising.

Scaled-up willingness-to-pay estimates

One method for estimating the value of innovation in digital wallets is to use the willingness-to-pay figures generated by the model coefficients. For example, the model-implied mean willingness-to-pay for a premium wallet containing all four features was £1.36 per month among current users of a digital wallet (62% of consumers). This equates to an estimated value of £558 million per year across all consumers. The estimated annual value for each of the features alone was between £107 million and £178 million across the population, as shown in Table 4.

These figures are calculated from our implied willingness-to-pay analysis based on the average estimated preference coefficients among digital wallet users. It assumes that current non-users of a digital wallet would not be willing to pay for additional features.

Table 4: Willingness-to-pay at a population level

Features	Willingness-to-pay per person per month	Willingness-to-pay per person per year	Population level annual willingness-to-pay
Automatic loyalty points only	£0.43 (£0.39-£0.48)	£5.20 (£4.66-£5.73)	£178m
Receipt storage only	£0.39 (£0.35-£0.43)	£4.66 (£4.16-£5.16)	£160m
ID storage only	£0.28 (£0.23-£0.32)	£3.32 (£2.81-£3.82)	£114m
Flexible cards only	£0.26 (£0.22-£0.31)	£3.13 (£2.59-£3.68)	£107m
All four features	£1.36 (£1.29-£1.43)	£16.30 (£15.50-£17.11)	£558m

Willingness-to-pay per person per year is the monthly willingness-to-pay figure multiplied by 12. Note that figures in the table are rounded to 2 decimal places whereas calculations are made using the unrounded figures.

Population level willingness-to-pay is then calculated by multiplying the average willingness-to-pay figures with the relevant population: current digital wallet users (62% of the UK adult population).

Estimates from modelled product scenarios

Alternatively, we can use the model predicted uptake of different digital wallets (Table 3) to estimate the potential value of digital wallet innovation across the UK adult population. Using the predicted uptake estimates, we calculate potential value by multiplying the probability of selecting a given hypothetical digital wallet with the cost of that wallet and the number of adults in the UK.

The results for different combinations of digital wallet features priced at £0.50 per month are shown below. When a single feature is offered at this price, the implied value across the UK ranges from £83 million for ID storage or flexible cards to £91 million for automatic loyalty points. This increases to £119 million for a digital wallet offering all four innovative features from our experiment.

Table 5: Total value of hypothetical digital wallets at £0.50/month

Features	Predicted probability of selection (current users)	Predicted probability of selection (whole population)	Value (per annum)
Automatic loyalty points	44%	28%	£91m
Receipt storage	43%	27%	£88m
ID storage	40%	25%	£83m
Flexible cards	40%	25%	£83m
Free basic wallet Receipt storage + Automatic loyalty points + ID storage + Flexible cards	58%	36%	£119m

Note: value is estimated using the model predicted uptake for a given scenario, scaled down to the user population only (see column 2 in the table). Value is calculated per annum, so a £0.50/month wallet would represent a value of £6 per user per year.

Considering the same calculation but at a cost of £2.50 per month, the estimated value is £67 million to £76 million for a single innovative feature and up to £348 million for a digital wallet offering all four innovative features, as set out in the table below.

Table 6: Total value of hypothetical digital wallets at £2.50/month

Features	Predicted probability of selection (current users)	Predicted probability of selection (whole population)	Value (per annum)
Automatic loyalty points	7%	5%	£76m
Receipt storage	6%	4%	£67m
ID storage	7%	4%	£69m
Flexible cards	7%	4%	£71m
Free basic wallet Receipt storage + Automatic loyalty points + ID storage + Flexible cards	34%	21%	£348m

Note: value is estimated using the model predicted uptake for a given scenario, scaled down to the user population only (see column 2 in the table). Value is calculated per annum, so a £2.50/month wallet would represent a value of £30 per user per year.

Note, this prediction of uptake is based only on this version of a digital wallet over and above the free basic wallet as the reference point in our choice experiment. In reality, consumers would make decisions based on a wider set of options with more than two wallets. We can

not determine whether this assumption would over or underestimate the total value of digital wallet innovation. These predictions also assume zero uptake among current non-users of a digital wallet, but this may be a conservative estimate if the introduction of additional features drives an increase in uptake or the number of users increases over time because younger consumers are more likely to use digital wallets.

5. Conclusions

Our study captures a range of consumer preferences about how and why they use digital wallets that are available today, as well as indications of their preferences in an imagined future world with more innovative digital wallets. These findings support a case for a more competitive digital wallet market that increases the choice and quality of services available to consumers.

As our survey shows, digital wallets are widely used in the UK, in particular for the ease with which they allow consumers to make payments. Apple and Google are by far the most popular digital wallets used and while they are clearly more popular among younger consumers, there remains a sizable number of active users across all age groups. They are often relied on exclusively for payments when out and about, and are used frequently by many. Given the clear preference for younger consumers to use digital wallets, and the general financial technology trend toward evolving ways of making payments, it's likely that their importance for mobile payments and other use cases will only increase with time.

Consumers mostly use the digital wallet that is pre-installed on their phone, and are generally not discerning about which wallet they use. Very few have ever switched which digital wallet they use, and if they have it is usually because they got a new phone.

This lack of engagement with the choice of a digital wallet could indicate that consumers are happy with the wallets currently on offer. However, our findings indicate that, if there were fewer structural barriers preventing consumers from exercising a choice, then there is potential for a market in digital wallets to exist. When presented with hypothetical digital wallets in a choice experiment offering innovative features there was substantial demand for digital wallets that offer increased functionality compared with those available to consumers today.

As described above, the scale of this latent demand is difficult to assess with any certainty. Our experiment estimates consumer behaviour in response to just one version of what digital wallet innovation may look like - based on the four innovative features presented to consumers. Some of the main benefits from greater digital wallet competition may in fact come in the form of innovation that we didn't test in this study. For example, innovation in digital wallets facilitated by greater competition may increase the use of account-to-account payments (A2A), which could increase the speed of transactions, put downward pressure on card fees and give greater flexibility over how consumers can manage their money from within a digital wallet. Innovation could also see AI being used more to improve financial management and payments through a digital wallet, for example by helping consumers choose which payment method to use, which [consumers have identified they would welcome](#).¹⁰ As such, we consider our estimate of the potential value of digital wallet innovation to be an indicative but conservative estimation of the potential benefits.

¹⁰ Which? (2025) Payments: The Consumer Desire For Control - A Public Dialogue on the Future of UK Payments. Available from: <https://www.which.co.uk/policy-and-insight/article/payments-the-consumer-desire-for-control-ay2Wl8jZ59he>

A lack of competition has likely stifled innovation in digital wallets, and consumers are losing out as a result. These findings indicate the potential value of innovation.

Greater levels of competition are needed to unlock the full potential of digital wallets, and allow consumers access to a choice of products that best meet their preferences.

Both Apple and Google have entrenched market power in the mobile operating systems. Regulatory intervention is necessary to realise the full extent of any consumer benefits resulting from using a digital wallet. Any intervention should consider interoperability restrictions, such as those Apple impose on NFC access, as well as choice architecture which gives preference to Apple and Google's own digital wallet.

The value of any intervention should be considered on its own merit, but the potential scale of consumer benefits this study implies could result from opening up competition in digital wallets, indicates that the benefits of requirements currently being considered to be imposed on Apple and Google (as signalled in the CMA's investigation roadmaps for [Apple](#) and [Google](#) SMS investigations) would outweigh any potential costs. Opening up NFC access and improving choice architecture to limit the ability of Apple and Google to give preference to their own digital wallets would not be costly, but the benefits could be substantial. Competition from other digital wallet providers would also incentivise Apple and Google to invest more in innovating their own wallets and the infrastructure that supports them, like NFC. It is therefore important that the CMA prioritises making regulatory interventions that open up this market.

Appendix A: Questionnaire

Part 1: Use of and attitudes towards digital wallets

ASK ALL

Q1 What brand of phone do you have?

If you have more than one phone, please think about the main phone you use for personal use.

SINGLE CODE

99. NA - I do not have a mobile phone (skip rest of survey)

1. Apple
2. Samsung
3. Google
4. Motorola
5. Xiaomi
6. Oppo
7. Huawei
8. Nokia
9. Honor
10. Other, please specify (OPEN END EXCLUSIVE)

97. Don't know

INFORMATION SCREEN - SHOW ALL MOBILE PHONE OWNERS

The following questions are about digital wallets. Digital wallets are apps that store your payment information on your phone so you can pay electronically - for example through contactless payments on your phone or smartwatch. Digital wallets also store digital versions of tickets and loyalty cards.

ASK ALL MOBILE PHONE OWNERS

Q2 Which of the following digital wallets have you heard of?

As a reminder, a digital wallet is an app that stores your payment information so you can pay electronically using your phone or smartwatch.

MULTICODE, RANDOMISE

1. Google Wallet
2. Apple Wallet
3. Samsung Wallet
4. Amazon Pay
5. Curve Pay
6. Garmin Pay
7. Huawei Wallet
8. Other, please specify (OPEN END, FIX)

96. None of the above (EXCLUSIVE, FIX)

ASK IF HEARD OF AT LEAST ONE DIGITAL WALLET AT Q1 (Q1=1-7)

Q3 Which, if any, of the following digital wallets do you use?

Please select all that apply

MULTICODE

1. [SHOW IF Q1 = 1] Google Wallet
2. [SHOW IF Q1 = 2] Apple Wallet
3. [SHOW IF Q1 = 3] Samsung Wallet
4. [SHOW IF Q1 = 4] Amazon Pay
5. [SHOW IF Q1 = 5] Curve Pay
6. [SHOW IF Q1 = 6] Garmin Pay
7. [SHOW IF Q1 = 7] Huawei Wallet
8. [SHOW IF Q1 = 8] Other

99. I do not use a digital wallet (EXCLUSIVE)

ASK IF DO NOT USE DIGITAL WALLET (Q2=96 OR Q3=99)

Q4 Which, if any, of the following are reasons why you do not use a digital wallet?

Please select all that apply

MULTICODE

1. I didn't know what they were
2. I don't think it is a secure way to pay
3. I am concerned about how they would store and use my personal data
4. I don't know how to use one
5. I prefer using physical payment methods
6. I do not see the benefit of using a digital wallet
7. Other, please specify (OPEN END, ANCHOR)
8. None of the above

97. Don't know

ASK IF DO USE DIGITAL WALLET AT Q3 (Q3=1-8)

Q5 How often do you use a digital wallet for making purchases?

SINGLE CODE

1. Several times a day
2. About once a day
3. Several times a week
4. About once a week
5. Less often than once a week
6. I have it but never use it

97. Don't know

ASK IF DO USE DIGITAL WALLET AT Q3 (Q3=1-8)

Q6 How often do you rely exclusively on digital wallets for making card payments when out and about?

SINGLE CODE

1. Always - I never carry a physical card on me if I have access to my digital wallet
2. Often
3. Sometimes
4. Rarely

5. Never - I always have physical card on me regardless of whether I have access to my digital wallet

97. Don't know

ASK IF DO USE DIGITAL WALLET AT Q3 (Q3=1-8)

Q7 Why do you use a digital wallet?

Please select all that apply.

MULTICODE, RANDOMISE

1. It's quicker to pay in-store than using cash or cards
2. It makes paying online easier/quicker
3. I don't need to carry physical cards or cash
4. It's easy to use
5. I can pay with my phone or smartwatch
6. I think it's more secure than other payment methods
7. I can store things like tickets, travel passes or loyalty cards
8. My bank or device encourages it
9. It's convenient to have everything in one place
10. It's a back-up to my physical cards
11. I need it for paperless event tickets or memberships
12. There is no payment limit on contactless payments in-store
13. Other, please specify (OPEN END, FIX)

97. Don't know (EXCLUSIVE, FIX)

LOOP THROUGH EACH Q3 OPTION SELECTED

Q8 You said you use [PIPE Q3 ANSWER]. Why do you use this digital wallet in particular?

Please select all that apply.

MULTICODE, RANDOMISE

1. It was already set up on my device or account (FIX)
2. It was easy to set up
3. It is quick
4. It is easy to use
5. I trust the brand/company
6. I think it is secure
7. It works well with my phone, smartwatch or computer
8. A lot of websites or shops offer it as a payment option
9. It has useful features that other wallets don't have
10. I wasn't aware of other digital wallet options
11. It's the digital wallet I'm most familiar with
12. Other (please specify) (OPEN END, FIX)

97. Don't know (EXCLUSIVE, FIX)

ASK IF DO USE DIGITAL WALLET AT Q3 (Q3=1-8)

Q9 Have you ever changed the digital wallet/s you use to a different provider?

1. Yes
2. No, but I have considered it
3. No, I have never considered switching

97. Don't know

ASK IF YES AT Q8 (Q8=1)

Q10 Why did you change your digital wallet provider?

MULTICODE, RANDOMISE

1. I switched to one with more or better features
2. I changed to one that is accepted in more places
3. I switched to one that was easier or quicker to use
4. My previous wallet didn't work very well
5. I got a new device that worked better with a different digital wallet
6. I got a new device with a different digital wallet already set up
7. I wanted a more secure digital wallet
8. I switched to one that I trusted more
9. Someone recommended a different provider
10. Other (please specify) (OPEN END, FIX)

97. Don't know (EXCLUSIVE, FIX)

ASK IF NO AT Q8 (Q9= 2 OR 3)

Q11 Why have you not changed your digital wallet provider?

MULTICODE, RANDOMISE

1. I just haven't thought about switching (FIX, EXCLUDE IF Q9=2)
2. I'm happy with the digital wallet I currently use
3. It was already set up on my device
4. I don't think other digital wallets offer anything better
5. I don't trust other digital wallets
6. I don't think other digital wallets are as secure
7. Other digital wallets don't work with my device
8. My bank or cards don't work with them
9. I didn't know there were other options
10. It is too much effort
11. Other (please specify) (OPEN END, FIX)

97. Don't know (EXCLUSIVE, FIX)

Part 2: Choice Experiment

ASK ALL

[INFORMATION SCREEN]

We would like to understand your preferences between different digital wallets.

For the following questions, you will be presented with examples of digital wallets that have a range of different features.

You will see examples of digital wallets that include additional features beyond those offered on most digital wallets freely available today (eg Apple Wallet and Google Wallet). The additional features you could see are:

- **Receipt storage:** this feature would allow your digital wallet to store digital receipts for things you buy, meaning you do not have to keep paper receipts for proof of purchase.
- **ID storage:** this would allow your digital wallet to securely store digital versions of ID documents that you can use for identity verification without the need for physical cards or documents - like when buying age restricted goods, signing up for an online bank, or proving right to work.
- **Automatic loyalty points:** if you have a loyalty card stored in your wallet, this feature would allow you to earn points automatically when you pay, without having to scan a barcode or physical loyalty card when making a payment.
- **Flexible cards:** this feature would allow you to personalise how your digital wallet uses your payment cards. It would allow you to set a default card for different types of payments, for example payments at a grocery store are automatically made on one card and payments made at a restaurant on another. The technology this feature uses would also allow you to retrospectively switch which card a payment is made on after making a purchase in case you make a payment on an incorrect card or just want to switch accounts to spread costs.

Once you have familiarised yourself with the features above, you can click through to the next page and start making your choices. You will be presented with 6 different screens in total, each with a choice of 3 digital wallets.

[CHOICE SCREEN]

Screen 1 out of 6

Please select your preferred digital wallet.

The following core features are available on all options:

- Store bank cards to make contactless payments on your phone
- Store travel and event tickets
- Store loyalty cards

Option 1 is like most digital wallets freely available today.

Options 2 and 3 may have additional features listed below and a monthly fee.

You can click the 'i' info buttons below to remind yourself what the features mean.

	Option 1 (basic digital wallet)	Option 2	Option 3
Core features ⁱ	✓	✓	✓
Receipt storage ⁱ	X	✓	✓
ID storage ⁱ	X	X	✓
Automatic loyalty points ⁱ	X	X	✓
Flexible cards ⁱ	X	X	✓
Price (per month)	£0.00	£0.00	£0.50
	☐ Choose	☐ Choose	☐ Choose

☐ None of the above (I wouldn't use a digital wallet)

Part 3: Understanding

ASK ALL

TQ1 We would now like to ask you a few questions about the question you have just answered. How strongly do you agree or disagree with the following statements about the question you have just answered?

GRID

ROW RANDOMISE

- I was able to understand the question
- I was able to understand the options shown
- I found the options believable
- I found it easy to choose between the options

COLUMN; SINGLE CODE

- Strongly agree
- Tend to agree
- Neither agree nor disagree
- Tend to disagree
- Strongly disagree

Appendix B: Experiment design

Attributes

Price points

The digital wallets in options 2 and 3 were either priced at £0.00, £0.50 or £2.50 per month. These price points were chosen to ensure that the options were realistic enough to simulate real world settings and that there was sufficient range in the options selected to facilitate robust analysis.

These price points try to balance the fact that most existing digital wallets are free to use (so consumers are not used to paying for digital wallets), but there is precedent for paid plans offered by digital wallets or digital banking companies that otherwise offer their services free of charge. [Curve Pay](#) offers a free version of its digital wallet as well as a £5.99, £9.99 and £17.99 per month version with increasing levels of functionality (in many instances, this is about removing limits on the free-to-use functionality like the number of past payment transfers rather than gaining additional functionality) and levels of cashback.¹¹ Digital banks [Monzo](#) and [Revolut](#) offer monthly paid plans that at the time of writing include £3-4, £8-9, £15-19 and (in the case of Revolut) £55 price points.¹² These premium banking plans are priced higher than our experimental price points but tend to have a wider range of potentially more valuable features on offer.

Innovative digital wallet features

It is not possible to predict with certainty how digital wallets may evolve in the future, in an increasingly more competitive market or otherwise, but it is possible to identify a range of potential features and functionalities that may emerge in the coming years. We used a variety of sources to understand the types of innovation that are likely to emerge in the future to determine which additional features to test in the experiment.

The FCA and PSR's call for feedback identified such future features as financial management hubs and ID verification, while there are examples of emerging digital wallet providers in the UK that already offer features that go beyond that offered by most digital wallets used today, for example the [flexible card functionality offered by Curve Pay](#).¹³ There are also developing services in related markets that we identified could become further integrated into consumer-facing digital wallets, such as the [increasing preference to use digital receipts for purchases](#) which are usually sent via email or in merchants' own apps.¹⁴

These sources allowed us to develop a longlist of potential digital wallet options which either don't exist on digital wallets available today, exist in some capacity but with more limited

¹¹ <https://www.curve.com/plans/>

¹² See <https://monzo.com/current-account/plans> and <https://www.revolut.com/our-pricing-plans/>

¹³ <https://www.curve.com/smart-rules/>

¹⁴ <https://medium.com/@adam.rogers376/the-silent-revolution-how-receipt-digitalization-is-transforming-business-in-2025-81ae4e4bfeac>

functionality, or already exist on smaller digital wallet providers. Some future features of digital wallets may have high potential to benefit consumers, but are difficult to include in an online survey setting as the benefits may be less direct. For example, increased use of account-to-account payments (A2A) [can facilitate faster payments and put downward pressure on card fees](#) and [the PSR has identified](#) A2A as a way of giving consumers greater flexibility and control over how they manage their money (eg by allowing for seamless transfer of funds from between bank accounts from within a digital wallet).^{15 16} Another example concerns use of AI - [our previous research](#) identified some consumers would welcome the inclusion of AI features to help them choose which payment methods to use and AI could be used more broadly in a digital wallet setting to help overall financial management.¹⁷

During our pilot testing (details below), we asked respondents to identify up to four features they would be most interested in. Table A1 presents the longlist of options we tested with respondents, their descriptions, and the resulting preference ranking.

Table A1: Innovative digital wallet features - consumer interest

Digital Wallet Feature	% of respondents interested
Automatic loyalty points If you have a loyalty card stored in your wallet, you would earn points automatically when you pay, without having to scan a barcode or physical loyalty card when making a payment. Your wallet would also be able to recommend the best card to make a payment with to optimise loyalty point benefits - for example by reminding you to pay with your supermarket credit card in a supermarket or your airline rewards card when making a flight booking.	50%
Receipt storage This feature would allow your digital wallet to store digital receipts for things you buy, meaning you do not have to keep paper receipts for proof of purchase.	47%
ID storage This would allow your digital wallet to store ID documents that you can use for identity verification.	28%
Subscription and contract management This would allow your digital wallet to manage your subscriptions and contracts. For example, it could recommend cancelling subscriptions that you are no longer using and suggest switching to better contracts (eg mobile or energy tariffs) based on your personal data.	25%
Flexible security	22%

¹⁵ <https://thepaymentsassociation.org/article/a2a-payments-the-future-of-seamless-transactions/>

¹⁶ https://www.psr.org.uk/media/fw4eswy5/psr-annual-plan-2024-25_accessible_final.pdf

¹⁷ Which? (2025) Payments: The Consumer Desire For Control - A Public Dialogue on the Future of UK Payments. Available from: <https://www.which.co.uk/policy-and-insight/article/payments-the-consumer-desire-for-control-ay2Wl8j759he>

This feature would allow you to personalise which security protections - like biometric or password verification - are in place for different types of payments.

Flexible cards 20%

This feature would allow you to personalise how your digital wallet uses your payment cards. It would allow you to set a default card for different types of payments, for example payments at a grocery store are automatically made on one card and payments made at a restaurant on another. It would also allow you to retrospectively switch which card a payment is made on after making a purchase in case you make a payment on an incorrect card, or just want to switch accounts to spread costs or maximise loyalty points.

Finance dashboard 19%

This would allow you to keep track of all your banking information, like transactions and account balances, in a secure dashboard within your digital wallet. The dashboard would also be able to securely integrate other financial information such as your investments, pension, and credit health so all your financial needs are in one place.

Pay in instalments 15%

This feature would allow you to make payments in instalments rather than paying for things up front, spreading costs over time (referred to as 'buy now pay later'). Unlike with some existing digital wallets, this feature would be available across all your payment cards.

Environmental impact tracker 11%

This feature would allow your wallet to estimate the carbon footprint of your purchases depending on where you shop and what you buy. It would suggest more environmentally friendly alternatives or allow you to 'offset' the carbon footprint by rounding up your purchase.

Group wallets and payment sharing 10%

This feature would allow you to set up group wallets among family and friends, ie a shared pot of money that people can tap to pay from. It would also allow for you to split bills easily between people, without using a separate app or requiring everyone in the group to use the same bank.

Cryptocurrency 1%

This feature would allow you to manage your cryptocurrency through your digital wallet. This would include all blockchain-based assets, such as non-fungible-tokens, as well as cryptocurrency.

Don't know 22%

Question: Please read the descriptions of these potential wallet features and select up to 4 you would be most interested in. (Base: 211)

There is a trade-off between increasing the number of digital wallet features to test and the statistical power of the resulting data. Testing a larger number of digital wallet features will give a wider set of results that could better indicate the full range of consumer preferences and value, however it would mean a larger sample size is required and it could potentially increase respondent fatigue if they need to consider too many features.

We chose four potential wallet features to take forward in the experiment, based on factors such as the preference ranking in the pilot testing and the perceived likelihood of emergence, while ensuring a sufficient range of feature types and ease of respondent understanding in an experimental setting. The features included in the experiment were:

1. Automatic loyalty points
2. Receipt storage
3. ID storage
4. Flexible cards

Choice screens

We presented each respondent with six choice screens, balancing the need for respondents to engage with the choices and allowing us to learn their preferences without suffering from respondent fatigue.

On each choice screen there were three digital wallet options and a 'none of the above' option for those who would prefer not to use one at all. Of the three digital wallet options, the first always represented a 'free basic digital wallet' offering core features designed to represent typical free digital wallets that are currently available, like Apple or Google wallets.

Therefore, wallet options 2 and 3 were the only ones that varied between choice screens. They varied by monthly subscription price (£0, £0.50 or £2.50) and by which of our four 'premium' features they offered alongside the core functions. See Figure A1 below for an example of how this was presented in practice.

Figure A1: Example choice screen

Screen 1 out of 6

Please select your preferred digital wallet.

The following core features are available on all options:

- Store bank cards to make contactless payments on your phone
- Store travel and event tickets
- Store loyalty cards

Option 1 is like most digital wallets freely available today.

Options 2 and 3 may have additional features listed below and a monthly fee.

You can click the 'i' info buttons below to remind yourself what the features mean.

	Option 1 (basic digital wallet)	Option 2	Option 3
Core features ⓘ	✓	✓	✓
Receipt storage ⓘ	✗	✓	✓
ID storage ⓘ	✗	✗	✓
Automatic loyalty points ⓘ	✗	✗	✓
Flexible cards ⓘ	✗	✗	✓
Price (per month)	£0.00	£0.00	£0.50
	☐ Choose	☐ Choose	☐ Choose

☐ None of the above (I wouldn't use a digital wallet)

Choice sets

In designing the choice sets, we needed to balance two objectives. First, the scenarios needed to be realistic and credible, requiring respondents to make meaningful trade-offs between wallet features and subscription prices rather than facing obviously dominant alternatives. Second, the experimental design needed to satisfy statistical criteria, including high D-efficiency and a high degree of orthogonality, to ensure that preferences could be estimated precisely.

To create the choice sets, we first generated a 'candidate set' comprising all possible combinations of attribute levels. As the experiment included four binary attributes in the form of premium wallet features (either "on" or "off") and one three-level price attribute (£0, £0.50 or £2.50 per month), the full candidate set contained 48 potential wallet profiles ($2 \times 2 \times 2 \times 2 \times 3$).

From this set, we removed three profiles that were considered either lacking in credibility or unlikely to provide useful information about respondents' preferences:

- A wallet could not have all premium features switched on while also being available at a monthly subscription price of £0, as this would likely always create a dominant choice.
- A wallet could not have all premium features switched off while being offered at the highest monthly subscription price (£2.50).
- A wallet could not have all premium features switched off and a monthly subscription price of £0, as this profile was identical to the free basic wallet that appeared in every choice set and therefore would not provide any additional information about respondents' choices.

The resulting set of 45 possible profiles was used to generate an efficient experimental design comprising 60 choice tasks. These were divided into 10 blocks of 6 choice tasks, with each respondent randomly assigned to one block. As no prior information on preferences was available at the design stage, the pilot choice sets were generated using a zero-prior efficient design, resulting in equal representation of feature and price levels across the experiment.

Responses from the pilot survey were analysed using a conditional logit model to estimate preference coefficients. These coefficients were then used as priors to generate a Bayesian D-efficient design for the main fieldwork. This allowed the final design to place greater emphasis on choice tasks expected to be most informative given respondents' observed preferences, rather than maintaining a strict balance across attribute levels.

Pilot testing

To ensure the survey and choice experiment were able to effectively capture consumers' preferences, we tested the study ahead of the main field work. Yonder ran a pilot survey of 211 respondents between 8th and 11th May and facilitated 10 qualitative interviews. The objective of the interviews was to understand how respondents understand, process and answer survey questions - helping to identify unclear language, misinterpretations, or usability issues before fully launching the study.

As discussed above, the pilot testing allowed us to ask respondents which potentially innovative digital wallet features they would be most interested in using from a longlist and the results from this question were used to inform which features we used in the choice experiment during the main fieldwork and data from the pilot choice experiment was used to refine the design of the choice sets.

The pilot study also confirmed that there were no issues with sample recruitment, the length of the survey or routing.

The qualitative interviews flagged a range of feedback about the design of the discrete choice experiment. This included:

- a lack of awareness of the info (i) button that brought up the feature descriptions;
- a misunderstanding about the features available on option 1;
- a lack of awareness about the fact that options 2 and 3 may have monthly prices;
- confusion over the naming of the additional features;

- formatting of the choice screen (eg the ticks and crosses indicating a feature being turned 'on' were too small);
- feedback on how to improve the descriptions of the innovative features to ensure they are easily understood.

We used this feedback to improve both the layout and information included on the choice screen ahead of the full study.

Appendix C: Econometric modelling

Choice model specification

Each participant completed six tasks, each of which presented four alternatives - a free basic wallet, two wallets with additional innovative features which may have an associated monthly cost, and an opt-out option if they did not want to choose any of the wallets.

The choices were analysed using regression models, with their choice of wallet as the dependent variable (a 0/1 variable indicating which of the four alternatives was chosen). Our main model includes current users of digital wallets only, of whom there were 2,532 in the sample. With six choices apiece, this generated 15,138 tasks/choices to analyse.

To analyse the discrete choice experiment data, a mixed logit model was estimated. While a standard conditional logit model provides a baseline, it assumes preferences to be homogenous across all respondents. The mixed logit model was selected because it relaxes this assumption and explicitly accounts for unobserved preference heterogeneity by allowing the coefficients of the choice attributes to vary randomly across individuals.

Within the mixed logit, the coefficients for the product features and the opt-out alternative were specified as random parameters to capture the varying tastes of the population. The price coefficient was kept fixed to facilitate estimation of willingness-to-pay.¹⁸

Sensitivity analyses

We conducted a number of sensitivity analyses on the main model to test its robustness, with results documented in this appendix.

Our primary model results rely on 1,000 Halton draws to maximise precision and stable standard errors. During initial testing, however, we verified that the model achieves good stability and consistent parameter behavior at lower draw counts (250 and 500) - the results of these are documented below in Table A2. Coefficients and standard errors were highly consistent between the models. We have therefore used models with 250 draws for subsequent sensitivity testing since this is more computationally efficient for testing multiple sensitivity models whilst maintaining an accurate model.

¹⁸ Train and Weeks (2005) - Discrete Choice Models in Preference Space and Willingness-to-Pay Space, accessed at: https://www.researchgate.net/publication/226411986_Discrete_Choice_Models_in_Preference_Space_and_Willingness-to-Pay_Space

Table A2: Model sensitivity tests using different numbers of draws in the mixed logit

	Variable	Main model (1000 draws)	Model 500 draws	Model 250 draws
Preference coefficients	Monthly subscription price	-1.386*** (0.022)	-1.384*** (0.023)	-1.377*** (0.022)
	Opt-out ASC	-11.409*** (0.563)	-10.943*** (0.530)	-10.959*** (0.526)
	Automatic loyalty points feature: ON	0.600*** (0.032)	0.611*** (0.032)	0.604*** (0.032)
	Receipt storage feature: ON	0.538*** (0.030)	0.544*** (0.030)	0.539*** (0.030)
	ID storage feature: ON	0.383*** (0.030)	0.390*** (0.030)	0.389*** (0.030)
	Flexible card feature: ON	0.362*** (0.033)	0.370*** (0.032)	0.372*** (0.032)
Model fit	Log-likelihood	-13542	-13549	-13555
Willingness-to-pay estimates for features	Receipt storage	£0.39 (£0.35-£0.43)	£0.39 (£0.35-£0.44)	£0.39 (£0.35-£0.43)
	ID storage	£0.28 (£0.23-£0.32)	£0.28 (£0.24-£0.32)	£0.28 (£0.24-£0.32)
	Automatic loyalty points	£0.43 (£0.39-£0.48)	£0.44 (£0.40-£0.49)	£0.44 (£0.39-£0.48)
	Flexible cards	£0.26 (£0.22-£0.31)	£0.27 (£0.22-£0.31)	£0.27 (£0.23-£0.32)

Sensitivity analysis with different numbers of model draws (Halton)

*Notes: Mixed logit model with normally distributed random coefficients for the four premium wallet features and opt-out ASC. Price treated as a fixed coefficient. * = $p < .05$, ** = $p < .01$, *** $p < .001$. Standard errors for the coefficient estimates are in brackets.*

Willingness-to-pay estimates are derived from the ratio of the feature and price coefficients. 95% confidence intervals for the willingness-to-pay estimates are in brackets.

Table A3 below tests the model with different exclusion criteria applied to the model. We tested the model excluding the fastest decile of respondents to ensure that the results are not distorted by respondents speeding through the tasks. We also tested the model excluding respondents with low self-reported understanding of the tasks, since they may have been less able to meaningfully compare choices.

Although these exclusions did affect the model coefficients slightly, the conclusions were substantively the same and the changes in the willingness-to-pay estimates were negligible, giving us confidence in the robustness of the main model.

Table A3: Model sensitivity tests using different respondent inclusion criteria

	Variable	Main model digital wallet users	Model excluding fastest 10% of respondents	Model excluding those with low self-reported understanding of task	Model excluding fastest 10% and those with low understandin g
Sample size		2,582	2,315	2,520	2,274
Preference coefficients	Monthly subscription price	-1.386*** (0.022)	-1.650*** (0.027)	-1.422*** (0.023)	-1.680*** (0.028)
	Opt-out ASC	-11.409*** (0.563)	-10.783*** (0.550)	-11.271*** (0.558)	-11.196*** (0.603)
	Automatic loyalty points feature: ON	0.600*** (0.032)	0.715*** (0.035)	0.638*** (0.033)	0.722*** (0.036)
	Receipt storage feature: ON	0.538*** (0.030)	0.635*** (0.033)	0.572*** (0.030)	0.647*** (0.033)
	ID storage feature: ON	0.383*** (0.030)	0.445*** (0.033)	0.414*** (0.031)	0.445*** (0.034)
	Flexible card feature: ON	0.362*** (0.033)	0.435*** (0.035)	0.387*** (0.033)	0.437*** (0.036)
Willingness to pay estimates for features	Receipt storage	£0.39 (£0.35-£0.43)	£0.39 (£0.35-£0.42)	£0.40 (£0.36-£0.44)	£0.39 (£0.35-£0.42)
	ID storage	£0.28 (£0.23-£0.32)	£0.27 (£0.23-£0.31)	£0.29 (£0.25-£0.33)	£0.27 (£0.23-£0.30)
	Automatic loyalty points	£0.43 (£0.39-£0.48)	£0.43 (£0.39-£0.47)	£0.45 (£0.40-£0.49)	£0.43 (£0.39-£0.47)
	Flexible cards	£0.26 (£0.22-£0.31)	£0.26 (£0.22-£0.31)	£0.27 (£0.23-£0.32)	£0.26 (£0.22-£0.30)

*Sensitivity analyses using alternative respondent inclusion criteria. Notes: Mixed logit model with normally distributed random coefficients for the four premium wallet features and opt-out ASC. Price treated as a fixed coefficient. * = $p < .05$, ** = $p < .01$, *** $p < .001$. Standard errors for the coefficient estimates are in brackets. Willingness-to-pay estimates are derived from the ratio of the feature and price coefficients. 95% confidence intervals for the willingness-to-pay estimates are in brackets.*

Segment analysis

The model findings found a high level of heterogeneity in preferences among consumers, and descriptive analysis of the data showed that age is a major factor in current usage levels of digital wallets and propensity to choose a paid wallet with innovative features. Income is also a likely factor in price sensitivity. Therefore, we tested models that included interactions between age and price, income and price, and both. Generally speaking, older groups of consumers exhibited greater price sensitivity. Using 18-24 year olds as the reference group:

the 25-34 year old group did not have significantly different price sensitivity, but older age groups, particularly over the age of 45, were significantly more price sensitive. In terms of income, those in lower incomes exhibited greater price sensitivity.

Table A4: Segment analysis of preference including interactions between price and age and income groups

	Variable	Main model with age:price interaction	Main model with income:price interaction	Main model with age*price and income:price interaction
Preference coefficients	Monthly subscription price	-1.018*** (0.042)	-1.091*** (0.030)	-0.834*** (0.049)
	Optout ASC	-10.895*** (0.528)	-9.932*** (0.480)	-10.183*** (0.494)
	Automatic loyalty points feature: ON	0.642*** (0.032)	0.628*** (0.033)	0.679*** (0.033)
	Receipt storage feature: ON	0.576*** (0.030)	0.572*** (0.030)	0.610*** (0.031)
	ID storage feature: ON	0.449*** (0.031)	0.429*** (0.031)	0.500*** (0.031)
	Flexible card feature: ON	0.420*** (0.033)	0.401*** (0.033)	0.458*** (0.033)
	Price:age 18-24	<i>omitted</i>	-	<i>omitted</i>
	Price:age 25-34	0.035 (0.051)		-0.028 (0.054)
	Price:age 35-44	-0.125* (0.055)		-0.168** (0.056)
	Price:age 45-54	-1.110*** (0.066)		-1.237*** (0.070)
	Price:age 55-64	-1.824*** (0.084)		-1.839*** (0.088)
	Price: age 65+	-1.864*** (0.084)		-1.769*** (0.087)
	Price:income >£48k	-	<i>omitted</i>	<i>omitted</i>
	Price:income >£28k to £48k		-0.383*** (0.043)	0.185*** (0.045)
	Price:income up to £28k		-0.565*** (0.046)	0.256*** (0.049)
Model fit	Log-likelihood	-13253	-12603	-12340

Models including demographic factors (age and income) interacted with price

*Notes: Mixed logit model with normally distributed random coefficients for the four premium wallet features and opt-out ASC. Price treated as a fixed coefficient. * = $p < .05$, ** = $p < .01$, *** $p < .001$. Standard errors for the coefficient estimates are in brackets. Willingness-to-pay estimates are derived from the ratio of the feature and price coefficients.*



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