

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.¹ 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.² 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](#).³ 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.⁴

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

¹ <https://www.curve.com/plans/>

² See <https://monzo.com/current-account/plans> and <https://www.revolut.com/our-pricing-plans/>

³ <https://www.curve.com/smart-rules/>

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<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).^{5 6} 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.⁷

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%

⁵ <https://thepaymentsassociation.org/article/a2a-payments-the-future-of-seamless-transactions/>

⁶ https://www.psr.org.uk/media/fw4eswy5/psr-annual-plan-2024-25_accessible_final.pdf

⁷ 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 ⓘ 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.