Paying for public transport with contactless – what do passengers think?

Foreword from Anthony Smith, chief executive

Background

- Since contactless bank cards were launched in 2007, this technology has been adopted by retailers inside and outside of London and a number of national retailers have started a UK-wide rollout. Other methods of contactless payment have also become available, in particular Apple Pay and other mobile offerings.
- Contactless payment also appears to be gaining particular traction in travel. At the time of fieldwork contactless transactions accounted for around one fifth of all pay as you go journeys on London transport. The payment limit increased to £30 per transaction in September 2015, providing further scope for longer, more expensive journeys to be considered.
- Transport operators and the card industry are working to introduce contactless payment across public transport and are developing ways that it could work for different types of journey or patterns of transport use. We tested some of these as part of this project.

Summary report

We have already seen across the country that smart ticketing can be used as a way of making public transport more convenient and better value for passengers.

Contactless payment has been around for several years and its use in retail is expanding. Its introduction across public transport in London has been very successful and passengers are even abandoning their beloved Oyster cards because of the additional benefits that using contactless offers.

Building on the work we did in 2014 around using contactless cards for rail travel, we wanted to find out how people are currently using contactless outside of London and how they react to the idea of being able to use it to pay for travel on public transport.

The results are positive: many passengers see there are multiple benefits and would welcome being able to pay for their local travel in this way. Others are more cautious and would need reassurance around how paying by contactless would work for them in public transport. Of course, some passengers are unwilling or unable to consider paying for public transport in this way – and it is important that these views are not forgotten.

We encourage operators and transport authorities to introduce contactless as soon as possible to improve the experience of using public transport and potentially increase usage.

What we wanted to find out

- To understand passenger awareness, perceptions and experience of contactless payment in general.
- To understand passenger awareness, perceptions and experience of contactless payment in the context of transport.
- To examine passenger reactions to some models of how contactless could work for public transport.

All our smarter travel research can be found at: http://www.transportfocus.org.uk/research/smarter-travel

This is the latest report from our joint programme with the Department for Transport exploring passenger needs from smart ticketing.

How we did it

15 face-to-face 'depth' interviews and 9 group discussions equally split across three respondent types as follows:

- users – have a contactless payment method and have used it before
- non-users –have a contactless payment method but haven't used it
- potential users – don't have a contactless payment method.

Pre-tasks:

- users did a 'timeline exercise' to outline key moments in using contactless
- non-users did 'accompanied shops' where researchers observed them using contactless for the first time

The sample was made up of 5010 residents of England (excluding London):

- all respondents had used public transport outside London within the last six months
- the sample size was sufficiently large to enable analysis across a number of key groups
- a 15 minute survey was carried out with respondents who were members of an online panel
- quota and weighting targets were set using ONS population data.

Key findings:
Who knows what about contactless and who is already using it?

Two years on from the initial research we did on contactless payment, there is greater awareness of it across respondent groups:

- there is more of a sense that contactless payment is **widespread** and more awareness of **where it can be used** across types
- non-users seem to have become more aware of the £30 limit and how the card is used
- more non-users knew they had contactless cards, and did not have to look and check… although there is a minority of potential users who do not know what it is at all
- some only recognised what it was after detailed explanation or descriptions
- there is **vague awareness of mobile contactless payment** and low awareness of any details across respondent groups
- most non-users and potential users are **unaware of security safeguards** with contactless bank cards, such as prompting to use PIN and some are still unaware of other features too (including the £30 limit)
- **potential users have lowest awareness** so a few even think contactless payment is paying with no face-to-face contact.

Sources of awareness appear the same as they did two years ago. However, with the wider roll-out we have seen, shops and retailers have particularly been important for educating customers.

> "It's for low cost items because the limit is £30."
>
> Non-user, female, 37, Bristol

> "I'd say it's to do with using phone apps and the internet to pay and not having any contact with anyone."
>
> Potential user, female, 36-50, Bristol

Sources of information on contactless payment

Staff at outlets with contactless payment

- Appear **key as external prompt** for usage and education on how contactless payment works.
- Can cause problems if staff lack knowledge or take the card to do contactless payment themselves.

Word of mouth and seeing others use it

- This is how some across respondent groups become **aware** of contactless payment initially.
- Positive views of others can provide **reassurance**.

Bank comms and customer support

- **Low impact** as most don't read bank communications but those few who do, find it reassuring to hear about security features from their bank.

Media

- Media generally cited in the context of **negative stories** about contactless payment, e.g.hacking.

> "I didn't have any cash so the person behind the counter asked if I have contactless and she showed me how to use it."

User, female, 51-60+, York

> "I've read a lot of horror stories on Facebook about people having money stolen and stuff."

Non-user, female, 18-30, Birmingham

Mobile contactless payment

- With mobile contactless specifically, most users and some non-users and potential users have vaguely heard about Apple Pay but know very little about it.
- Very few are using mobile contactless (Apple Pay). These are early adopters who are very keen on new technology and there is some use of apps for payment (such as Starbucks and Pingit).
- Most others generally are lacking any detailed knowledge about it, even if they have heard the term, although a few had heard about some features such as using a fingerprint for security.
- There is also a lack of clarity of who can use mobile contactless payment, which leads to questions such as "Does my bank do that?" and "Can you do it if you don't have an iPhone?"

> "When I got my new phone a few months ago it prompted me to set up ApplePay automatically. I was so excited because of the speed and ease. But I love everything to do with technology."

User, female, 51-60+, York

> "I only have a smartphone, I can't afford an iPhone, so could I even set up a thumbprint on my phone? I don't know."

Non-user, female, 50, York

In the online survey, 45 per cent of our sample have contactless and have used it, 22 per cent have it but have not used it and 29 per cent do not have contactless currently. Users are more likely to be aged under 40, live in urban areas and be generally comfortable with technology, while those who choose not to use contactless are older, less confident with technology and more concerned about fraud. It is those in the youngest age group (16-24) who are the least likely to have contactless facilities.

Almost half of passengers have used contactless at least once but a fifth have contactless and do not use it

QC1a Which of the following best describes your use and awareness of contactless?

45%
...have contactless and have used it

More likely to be:
- urban resident
- ABC1 SEG
- aged 25-39
- commuter or business
- agree that good with new technology.

22%
...have contactless but never used it

More likely to be:
- aged 55+
- not know contactless payment limit
- disagree that they are good with new technology
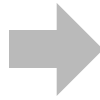- really worried about being a victim of fraud.

29%
...do not have contactless

More likely to be:
- aged 16-24.

4%
...don't know if have contactless

When asked to check cards/devices for contactless:

✔ **37%** ✗ **63%**

Base: All unsure (203)

Base: All (5010)

There are several misconceptions around contactless and how it works and can be used. For instance, 28 per cent think that contactless can be used anywhere that chip and PIN can be, including the same proportion of people who use contactless once a week or more. Less than half (44 per cent) are aware that the limit for contactless is £30, although correct knowledge is higher among weekly users (65 per cent).

Attitudes around using contactless

The main benefits of contactless are seen to be speed – where time is saved in queues – and also avoiding the need to have cash to make a small purchase.

As it is more established now, there is little evidence that being seen paying with a contactless card and thus appearing to be a 'cool early adopter' is a benefit of using. However using mobile contactless is still seen this way.

> "It's easier than having cash, the journey I usually make is £6.50 and it's difficult to get that in cash."
>
> Non-user, female, 37, Bristol

> "It's good for those smaller purchases like coffee, it means you don't need change, so much easier and quicker."
>
> Non-user, female, 18-30, Birmingham

As with previous research, non-users and some potential users raise concerns over security of contactless payment and give these as reasons against usage. The main security concerns they mention include:

- the perceived lack of protection against theft should they lose/drop the card because a PIN is not needed
- the perceived ease of fraudulent activity contactless allows, for example, criminals using readers to take money by 'scanning' contactless cards in their vicinity
- the perceived risk of wrong payment, such as inadvertently paying for someone else, or making a double payment
- the potential to attract attention from thieves by showing you have a contactless card.

> "What if it charged your card twice? There are a lot of flaws to this."
>
> Potential user, female, 51-60+, Oxford

For other non-users though, budgeting is a bigger concern than security. The kinds of issues they talk about include:

- worrying that they will be unable to see how much they paid – lack of control over how much they pay
- worrying they may pay less attention to individual amounts so they end up spending more
- concerns over delayed payment with contactless making it difficult to know how much money there is in their accounts.

> "I think you might forget what you would use it for and might end up spending a lot."
>
> Potential user, female, 18-30, Oxford

> "If money came out straight away I'd feel better, I need to know for budgeting, I'm quite good at keeping up with that."
>
> Non-user, female, 18-30, Birmingham

> "I wouldn't get contactless because of the security. When that guy said the banks aren't paying the money back to you and you might need an aluminium case that really put me off."
>
> Potential user, female, 31-50, Oxford

> "You lose control with a contactless card to a certain extent, it'd be very easy to make a number of purchases very quickly and not even think about it."
>
> Non-user, male, 50-60, Bristol

For some though, it is simply a lack of any clear benefits or reason to use it that prevents contactless payment being used.

Some non-users and potential users feel the difference in speed between using a card for contactless payment and using their card with a PIN is negligible, and so irrelevant to them. They would rather stick to their well-established and secure method of using chip and PIN.

Some older non-users and potential users in particular can feel attached to cash so actively do not want cash replacement:
• they feel cash helps with budgeting, seeing it as 'reality check'
• they are also less likely to use their cards at all for small purchases and find that idea strange.

In the online survey, 84 per cent of respondents reported that a benefit of using contactless was time-saving, 79 per cent that it was easy, 68 per cent not needing to enter the PIN and 67 per cent gave the removal of need for cash as a benefit – so clearly users are seeing multiple benefits. When asked which one is the most important, just under half give the time saving as the most important one.

Among users, when asked what their initial concerns were when they first used it, fear of fraud clearly came out on top – 60 per cent give this reason – with all others only mentioned by less than a fifth.

For non-users, the main barrier to use is that they wouldn't feel secure in using it – which 43 per cent mention as a barrier. However, a significant proportion said that they either do not think about it, do not see any benefit in using or do not trust it to work correctly.
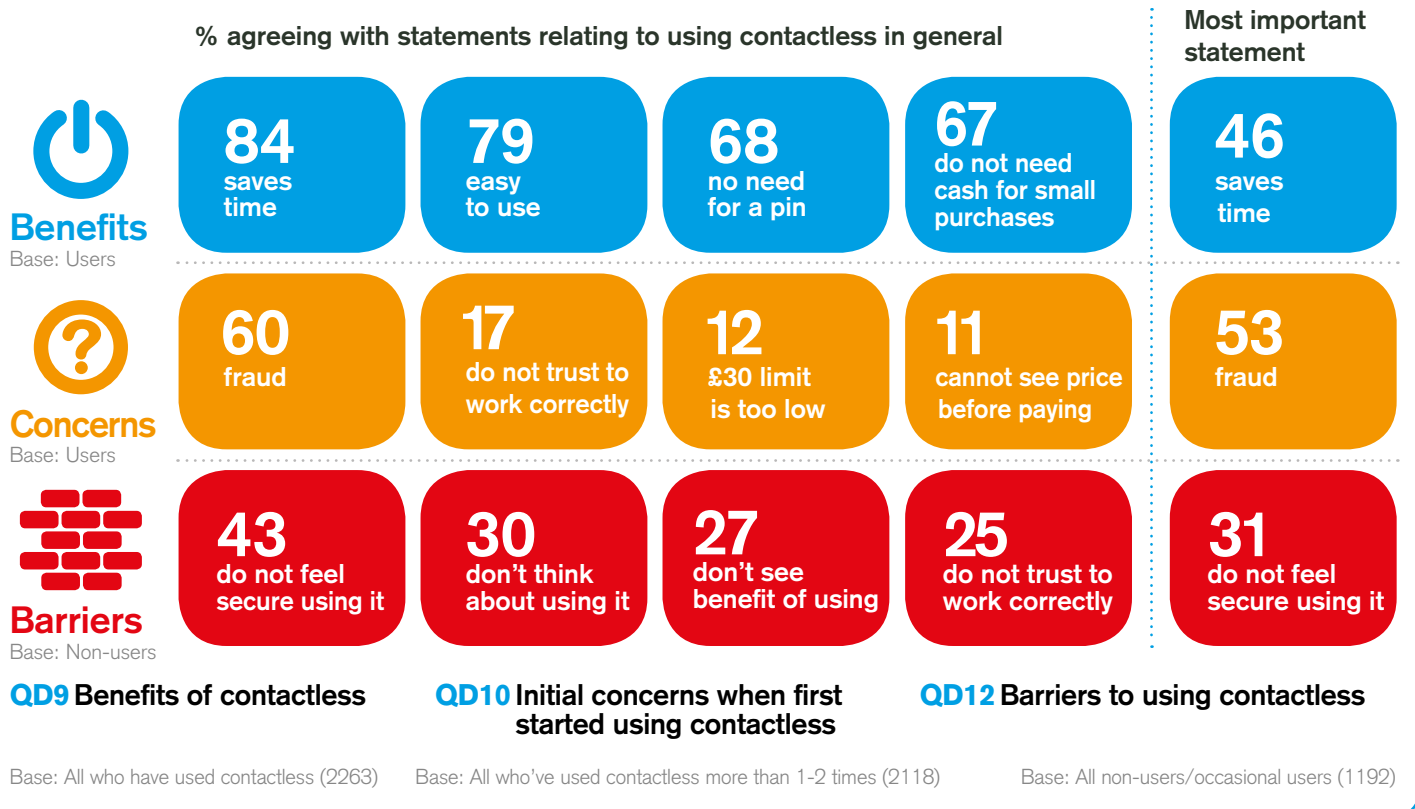
> "I bought a coffee and the lady asked if I wanted to pay contactless and I looked at her baffled, it's only €2, why would I want to pay by card?"
>
> Non-user, male, 50-60, Bristol

> "I've never thought it's particularly easier than putting a PIN in. That really doesn't take that long."
>
> Non-user, female, 18-30, Birmingham

The key benefits of contactless are it saves time and is easy to use but there are concerns about fraud

% agreeing with statements relating to using contactless in general

Most important statement

Benefits
Base: Users

| 84 saves time | 79 easy to use | 68 no need for a pin | 67 do not need cash for small purchases | 46 saves time |

Concerns
Base: Users

| 60 fraud | 17 do not trust to work correctly | 12 £30 limit is too low | 11 cannot see price before paying | 53 fraud |

Barriers
Base: Non-users

| 43 do not feel secure using it | 30 don't think about using it | 27 don't see benefit of using | 25 do not trust to work correctly | 31 do not feel secure using it |

QD9 Benefits of contactless

QD10 Initial concerns when first started using contactless

QD12 Barriers to using contactless

Base: All who have used contactless (2263)   Base: All who've used contactless more than 1-2 times (2118)   Base: All non-users/occasional users (1192)

How are people using contactless and how is this likely to change?

Contactless payment tends be used on occasions led by convenience and time, such as fast food outlets, coffee shops, supermarkets, corner shops (local ones which are trusted rather than unknown ones), and petrol stations. These are all situations where there is queuing, or where cash or change is needed and these factors prompt usage. **Transport is an area where there is both queueing, and a need for cash.**

Awareness of where contactless payment is available is less of an issue now, although there are still places where customers can be unsure. However, some users still have security concerns so trust and environment can be important factors for deciding whether to use it in any situation.

Security

Trust
Large organisations inspire trust as customers imagine they have technical and security systems in place, eg, supermarkets, chains. Conversely, small outlets that are unknown are often avoided for contactless payment usage.

Environment
Crowded or open spaces can make some uncomfortable about using contactless payment as they worry about card being stolen – some don't use the card in pubs or bars.

"I'd be worried about using it in pubs and clubs. Someone could see you do it and nick your card."

User, male, 51, Bristol

"I wouldn't use it at the corner shop. With the supermarkets, I've been going there for years and I feel confident using them."

User, female, 60+, Birmingham

Budgeting issues also play a role for some users as they seek to retain control over their payments; this is sometimes due to a lack of awareness of how contactless works.

Budgeting

Seeing the price
Some avoid places where staff take their card away for CP, eg, pubs and bars.

Proof of payment
Lack of certainty over receipts can lead some to avoid purchases where they may want to return them, eg, clothes – greater awareness is needed of being able to ask for receipt.

"I pay with cash or card for clothing and shoes but I use contactless for things I can't return like food."

User, female, 18-30, Birmingham

"In bars I am more sceptical, I do ask to see the amount rather than letting them take my card to tap it themselves."
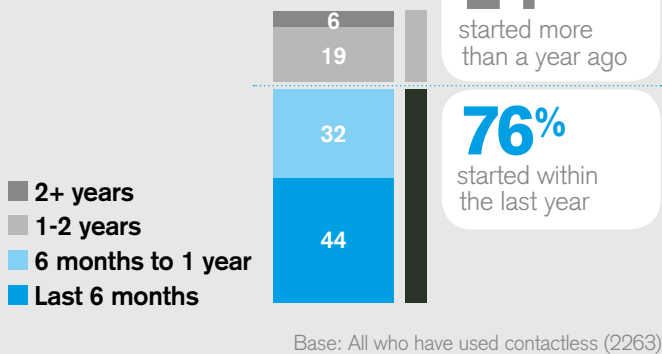
User, female, 31-40, Birmingham

- In the online survey, we asked when users had started using contactless. Nearly a quarter started more than a year ago, but for just over three quarters it was in the last year.
- On frequency of use, 22 per cent are using it at least four times a week, so most days, and 57 per cent once a week or more.
- As expected, the longer people have been using contactless, the more likely they are to be using it more frequently. The more frequent users tend to be younger (< 40), and living in urban areas, and as such to be using public transport most frequently.
- Most contactless payment ability is on cards. 88 per cent have a debit or credit card only and 12 per cent have contactless on other devices such as mobile apps, stickers, watches or wristbands. The single most commonly held form of contactless is a debit card – 89 per cent have one of these, followed by a credit card (36 per cent).
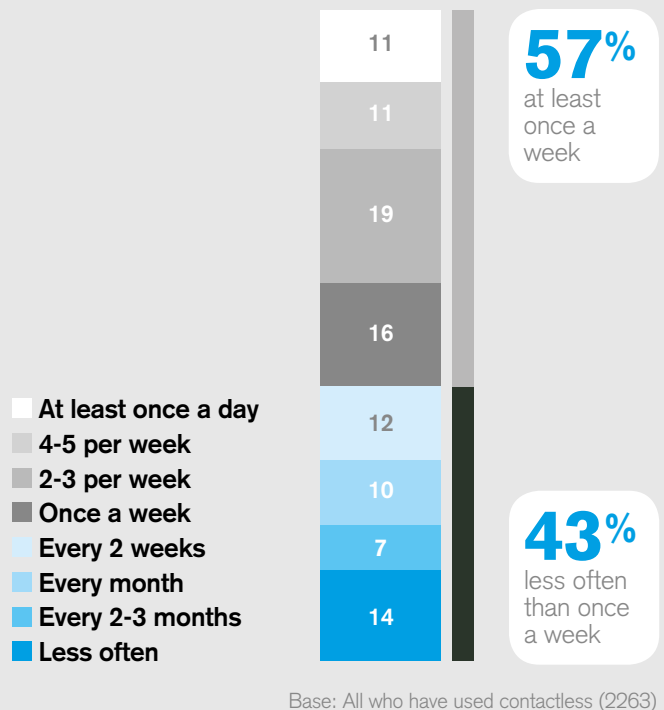
When started using contactless
(All contactless users)

QD3 How long ago did you begin using contactless?

6	
19	**24%** started more than a year ago
32	**76%** started within the last year
44	

- ■ 2+ years
- ■ 1-2 years
- ■ 6 months to 1 year
- ■ Last 6 months

Base: All who have used contactless (2263)

How frequently contactless is used
(All contactless users)

QD5 How often do you use contactless?

11	**57%** at least once a week
11	
19	
16	
12	
10	
7	**43%** less often than once a week
14	

- □ At least once a day
- ■ 4-5 per week
- ■ 2-3 per week
- ■ Once a week
- ■ Every 2 weeks
- ■ Every month
- ■ Every 2-3 months
- ■ Less often

Base: All who have used contactless (2263)

Of the 45 per cent who have used contactless, just over half (55 per cent) expect their usage to increase in the next 12 months.

And among the 55 per cent who have not used, overall 23 per cent say they are interested in using it in the future, with those who do not yet have a card being slightly more likely than those who have but choose not to use the contactless facility. Exactly half the non-users say they are not interested in using it in the future.

What is the interest in using contactless on public transport?

Benefits of contactless have greater relevance in the context of transport across different respondent groups but interest also depends on individual travel behaviour.

- In particular, speed of payment is seen as beneficial when buying tickets for travel, as well as the role of contactless as replacement for cash on buses.
- As in previous research, respondents questioned the use of contactless on trains for longer journeys as it seems to go against the way they tend to buy tickets for these types of journeys.
- Bus and train companies are generally trusted, either because they are local/known or because they are large, and would be felt to be trustworthy to take the correct payment.
- However, busy/crowded environments such as rail stations can increase security concerns for some.
- If contactless was to be used across operators, awareness must be increased around availability for different operators.
- There is a requirement to know what is being charged and many insist they would need a proof of purchase, so they can check (and prove if necessary) what they have paid.

When contactless is compared to other ways of paying for travel, it shares some advantages of a smartcard:

- both **contactless and smartcards** are seen as **faster** than buying at the **ticket office/ticket machine/from bus driver**, as no or less time will be spent on queuing
- they are also both seen as **more convenient** than paying by **cash** on buses as many struggle with having to have the right change
- both are seen as allowing for more **flexible travel** products than those enabled by ticket types such as single and return tickets and even than day tickets – it is expected that contactless and smartcards allow use on different modes of transport and different operators to a greater extent
- however, flexibility is not as relevant where multi-leg journeys are rare
- contactless is mostly seen to have additional benefits when compared to smartcards, with the exception of security for some non-users.

Overall contactless is seen as **more convenient** than the smartcard as there is:

- no need to top up
- no worry over balance
- no need to tie your money somewhere
- no need for additional card – just one card for all your shopping/travel (ideally).

Smartcards are however seen as **safer** so preferred by some non-users and potential users.

> "I can imagine it'd speed things up on the bus, because if there's a queue of people getting on all needing change then that takes a while."
>
> Potential user, female, 36-50, Bristol

> "If you could use one type of card for every mode of transport in one city that would be great, not having to bother booking all different types of transport."
>
> Non-user, male, 50-60, Bristol

There are some barriers and concerns around how contactless might work for transport.

Budgeting

Many are unsure how they would be able to see the price of the ticket before paying and this raises concerns of unforeseen cost. The longer and more expensive the journey is, the more of a barrier this becomes.

In particular, with longer train journeys, needs are more complex – it is not only seeing the price before paying but being able to choose the best fare in advance. The huge variations in rail ticket prices also contribute to people being very cautious.

Conversely, the shorter or cheaper a journey is, or if it is a flat fare, the less cautious customers are. **Overall they are more open to contactless in bus and local train travel.**

Contactless payment attitudes and usage

Levels of interest in contactless payment in transport vary depending on broader attitudes to contactless payment as well as the individual passenger needs stemming from their specific travel behaviour.

As could be expected, users of contactless are generally keen to extend usage to transport. The benefits of contactless payment on transport make some non-users and potential users consider it, but whether they do depends on the extent of their concerns and perceived need.

Travel behaviour

Benefits appear to outweigh concerns for those non- and potential users who:
- travel more frequently so they see more need
- make the same journey so they know the price – don't have to worry about over budgeting.

Conversely, those travelling less frequently can't see the need to 'put themselves at risk' for low benefit; also, if journeys vary or fares are unknown, many are more cautious over budgeting.

> "I would want to know before I paid, you can't budget for it otherwise."
>
> Non-user, female, 37, Bristol

> "You don't know how much you're parting with. You're like – "oh I didn't realise that ticket to Manchester was 90 quid."
>
> User, male, 20-30, Oxford

> "Marvellous; it's easy and you don't need cash and you can use it for both shop and the bus."
>
> User, female, 51-60+, York

> "For me budgeting would be a piece of cake because I'd be doing the same journey I always do."
>
> Non-user, male, 50-60, Bristol

In the online survey, train, bus and tram fares are seen as equally suitable for contactless payment as newspapers, tickets and takeaway food, so it is clearly perceived as a natural fit.

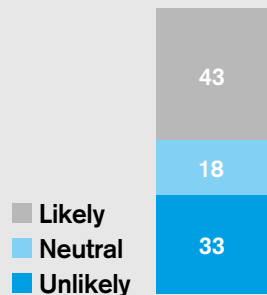**QD7** Thinking about the kinds of things you can buy, please rate how suitable they are to pay for using contactless

62% tickets eg, cinema

% of passengers who think contactless is suitable for paying for...

61% train, bus, tram fare

61% paper, magazine or drink (newsagents)

61% toiletries or other small items

60% takeaway food or drinks

57% food to eat in, eg, café or restaurant

55% groceries

50% drinks in a pub, bar or club

42% clothing or shoes

Base: All (5010)

45 per cent of the sample think that using contactless payment for transport is appealing, and 23 per cent unappealing. A similar proportion, 43 per cent, of the total claim that they would be likely to use contactless on public transport if it was introduced tomorrow.
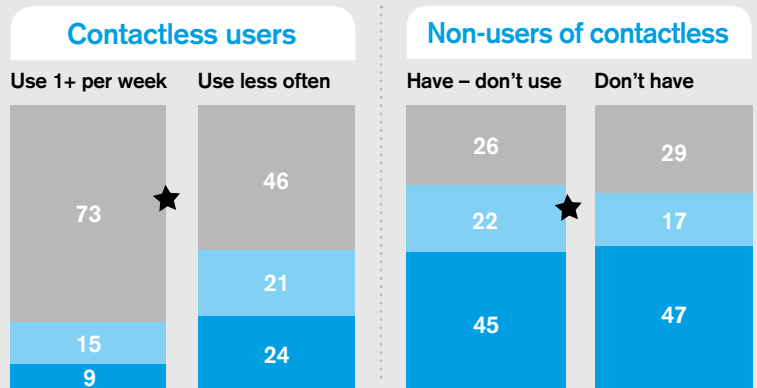
Those who use contactless already are much more likely to claim they would use it tomorrow for transport than less-frequent users, who are then more likely to use it than those who do not use contactless for whatever reason.

QE1 If contactless was introduced tomorrow for public transport across England, how likely would you be to use it?

Likelihood to use contactless on public transport (all passengers)

Likelihood to use contactless on public transport (by frequency of contactless use)

Contactless users

Use 1+ per week | Use less often

Non-users of contactless

Have – don't use | Don't have

	Likely	Neutral	Unlikely
All passengers	43	18	33
Use 1+ per week	73	15	9
Use less often	46	21	24
Have – don't use	26	22	45
Don't have	29	17	47

Likely
Neutral
Unlikely

Base: All (5010)

How appealing are the proposed models and how would contactless payment work in public transport?

Three models, which the UK Cards Association has developed in conjunction with the transport industry, were tested in the qualitative research.

Contactless payment Propositions/Models explored in the research

Model One
- Use your contactless card or mobile to make a single journey.
- Pay your fare at the start of your journey with your contactless card or mobile by touching in.
- As you are charged the fare at the start of your journey you don't need to touch out at the end of your journey.
- You can view the amount you were charged on your bank statement.

Model Two
- Use your contactless card or mobile to make multi-leg or several journeys.
- Touch in and out with your contactless card or mobile at the start and end of each journey or each leg of your journey.
- You can use different modes of transport (ie, bus, train, tram, etc).
- All your journeys that day (or other defined period) will be combined into one charge.
- Your fare is therefore typically processed at the end of the day.
- Daily or weekly caps can be applied.
- You can view the amount you were charged on your bank statement.

Model Three
- Purchase your travel ticket online and associate it with your contactless card or mobile (can be any ticket eg, a concession return train ticket or a season ticket).
- You can view the amount you were charged on your bank statement.
- Then you can use your contactless card or mobile as your ticket to travel.

Response to Model One

This model was liked for its simplicity and ease but suited to some travel behaviours more than others. It is felt to be:
- simple and easy – just one tap, one price
- good because passengers don't have to remember to tap out.

It raised some questions over how it would work since bus fares varied in our locations depending on the journey length: 'how would the system know where you're going?'

Once explained that the driver could charge a variable amount, this was understood and felt to be logical. However, many would still want to see/ know the amount they are being charged before actually paying.

> "With this one you can change your mind about where you're going. It's extremely flexible."
>
> User, female, 18-30, Birmingham

> "I don't understand how it would know what to charge you."
>
> Potential user, female, 36-50, Bristol

Who is it for?
- Those using just one bus on a regular basis so they also know their ticket price – many respondents in our sample fit this category.
- Reassures those who are uneasy about new technologies.

Response to Model Two

This model is clearer in terms of understanding how the system would know where you travel and how much to charge you but raises other questions around:

- whether there will there be a record of your journeys which can be checked or used as proof if a passenger needs to claim money back
- whether it allows flexibility for multi-leg journeys.

However, it is seen as less relevant to many customers in cities with fewer travel options who therefore rarely make multi-leg journeys.

Some asked about the practicality of tapping out on buses – Where would you tap out? Would it cause crowding? And again, some want or need to see the price before paying.

The term 'capping' isn't always understood and some want to know if and how this is different/better than day tickets.

The model, as operates currently in London, unsurprisingly seems better suited to travel in bigger cities with more multi-leg journeys and more potential variation in routes taken.

> "What if the bus is really busy and I can't get to the reader. Then what happens?"
>
> User, female, 51-60+, York

> "I'd describe it as London-centric. This is capital city travel for the non-car-dependent traveller. I'm not convinced it'd be appropriate for Bristol, it's not big enough."
>
> Non-user, male, 50-60, Bristol

> "I do like it for when I go into London and I don't know how many routes I'm going to be taking and I just keep tapping in and out."
>
> User, female, 20-30, Oxford

> "But with tapping out at least there would be a record for how far you had gone so you won't be overcharged."
>
> User, female, 51-60+, York

Who is it for?

- Very few respondents in our sample felt they made enough multi-leg journeys for this model to be very relevant to them (even in Birmingham where, as the largest urban area covered, this applied to most).
- Most could see it would be useful for their leisure travel where they thought they'd be more likely to make multi-leg journeys, in particular if they went to London.
- Flexibility as a benefit of this model held more appeal in Birmingham where potential for variation in travel was much greater than in other places.

Response to Model Three

This model was somewhat more difficult to understand and many could not see immediate benefits for them. In some instances it was because they do not make these types of journey. But for those who do:

- some can see the advantage of not having to pick up the tickets (as when buying them online) but this appears a small benefit
- some like the fact that they can see the prices before paying
- security concerns over contactless payment diminish so this is appealing to some
- some were interested in paying for their children's travel in this way, if children could have bank cards where parents could load tickets
- 'online account fatigue' is the main reason against it, particularly for people who do not already buy rail tickets online
- some felt that it seems to remove the flexibility and spontaneity that is associated with contactless.

Who is it for?

- Potentially, some season ticket holders where payments are less frequent so less onerous.
- Some current non-users who would consider using contactless payment for travel but have security and budgeting concerns which this model alleviates.

> "I don't see the point of having a contactless card if you don't have that flexibility."
>
> Non-user, male, 50-60, Oxford

Notes