

Smarter travel: The future of ticketing

Talking Points

April 2017



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Foreword

Smart ticketing for public transport services continues to grow year on year – in multiple ways. The scope and definition of what we mean by smart ticketing is expanding, the range of ticketing products customers can buy or use has increased, and the number of public transport services across the country where smart ticketing is available has also grown. All these inevitably lead to growth in market penetration – in customers using smart ticketing in favour of more conventional, paper tickets.

There is certainly a future where customers benefit from the convenience and potentially better value for money that smart ticketing offers. And in equal measure in this future scenario, transport service operators gain greater insights on what their customers want, as well as having reduced operating costs.

The challenge is in getting from the current situation, where smart ticketing is ‘in the mix’ with conventional forms but has not yet got to critical mass, to this future state. This year’s PwC Smart Ticketing Survey shows continued growth in use of various forms of smart ticketing, but it also highlights that this future is not inevitable without some further interventions. This is the fifth annual smart ticketing survey, and since we began in 2012 we have seen customers’ use of tickets change dramatically. In that first survey, a large majority (81%) used ‘ordinary paper tickets’ to buy bus and train tickets. Today, we see a much greater selection of ticket options being purchased, with under half (46%) saying they usually use a paper ticket. This demonstrates how far smart ticketing has come in this period, with various smart option filling this gap.

However, we are seeing customer appetite for smart at best the same as last year, with 43% of respondents expressing a future preference for smart this year compared with 46% last year.

What is causing this? A year ago, it seemed we were on the verge of reaching that critical tipping point, where smart became the de facto means of ticketing; we are not there yet. We didn’t directly ask the ‘why’ question in our survey. But 2016 certainly felt different for many reasons, some global, some national, and some more directly to do with the transport sector. We have also had a number of transport service disruptions during the year, not least on Southern Rail. Perhaps this has made customers less disposed to trial new forms of ticketing. Paper tickets also offer tangible evidence of a journey paid for, which could give passengers a greater feeling of security around repayments and recourse should they be delayed.

Our reflection on this year’s survey is that smart ticketing remains firmly as something both customers and operators will benefit from. But for it to realise this potential, there are five steps operators need to take:

- 1 Keep it simple.** Develop customer offers using smart ticketing options that are easy to understand and to use.
- 2 Define scope.** It is important to be clear to customers on what smart services are available where.
- 3 Provide tangible benefits.** Many customers will not change their ticket purchasing habits without a tangible benefit, such as improved convenience or capped daily fares.
- 4 Communicate benefits to customers.** Outside of London, many customers are not aware of smart ticketing services, nor of their benefits so there is a need for increased marketing particularly for new smart offers.
- 5 Provide for multiple smart media.** Different customer segments will have preferences for different smart media so future schemes will need to embrace this mix.

The future of smart ticketing is indeed bright. But it will only realise that potential with concerted effort from operators to develop smart offers and demonstrate their benefits to customers.

Introduction

This is the fifth edition of PwC's Annual Smart Ticketing Survey. Each year we ask Opinium Research to poll over 2,000 members of the public across the UK to understand how perceptions of current and future public transport ticketing options are changing, and to explore what is behind these changes.

The core questions have remained constant, allowing us to look back and understand how views are changing. But we've also added to the questions over the years to reflect changes in the market and to delve further into key issues. This allows us to provide extra perspectives into emerging trends.

What do we mean by smart ticketing?
Smart ticketing is an alternative to the traditional paper or cardboard ticket for public transport. The focus is on its use for bus, rail, metro and tram services.



Use of contactless debit and credit cards to access services



Smart cards dedicated to travel applications (such as Oyster or the various ITSO transport smart cards)



The use of mobile devices enabled to purchase and display a ticket and to gain access to public transport service (e.g. using a bar code shown on the screen of a smart phone)



The use of mobile devices to emulate a contactless bank card (e.g. Apple Pay or Google Wallet)



Why we travel the way we travel

Before understanding people’s ticket choices it is important to understand how and why they travel. We asked our survey respondents what modes of transport they use and why.

As Figure 1 shows the car continues to be the most commonly used form of transport with 73% of those surveyed using it in a given week, marginally decreasing from 2015 (76%). In comparison, 33% travel by bus, which has stayed stable from last year (although had seen a downward trend over the preceding years) and 17% use trains, a slight increase from last year’s 15%. Underground and metro services have also remained relatively stable at 11% compared to last year’s 10%.

Figure 1: In a usual week which of the following modes of transport do you use for any reason?

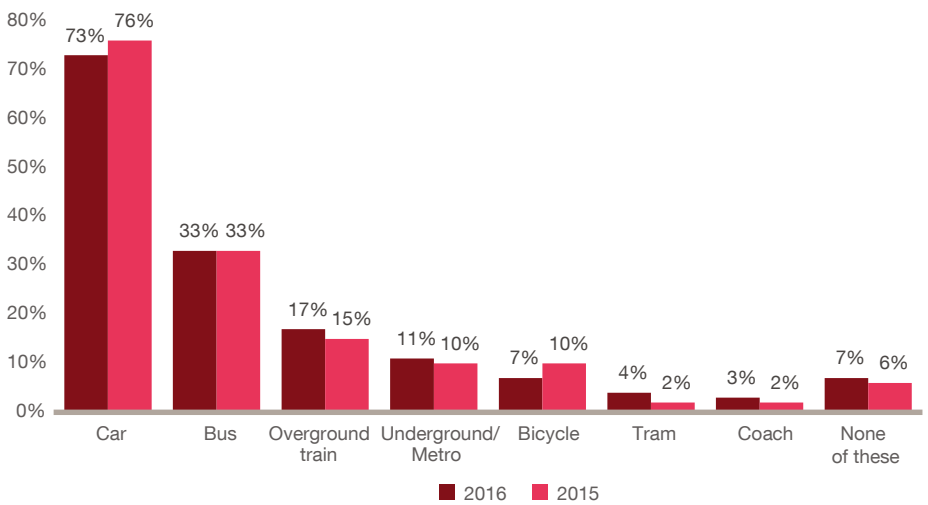
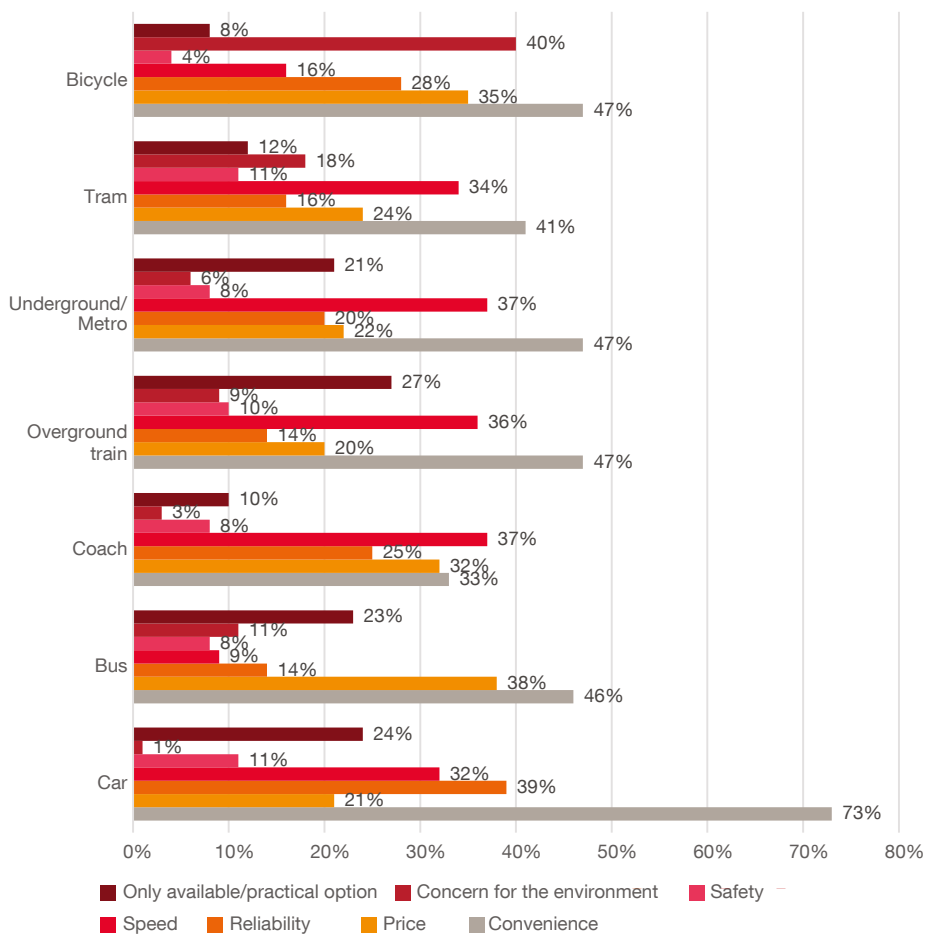


Figure 2: When you choose this method of transport, what are the main reasons that you use this method of transport over others?



When looking at the reasons people choose a particular mode (see Figure 2), the most striking finding is that convenience dominates the rationale for the choice for everything except coach. For coach travel, speed has a slight edge as the reason.

Looking at the second most important reason, there are notable differences between the modes. The second biggest reason for choosing the car is reliability. Whereas for bus, it is price. For most other cases, speed comes out as the second highest reason for choosing a mode. The exception is for cycling, where environmental factors are next strongest.

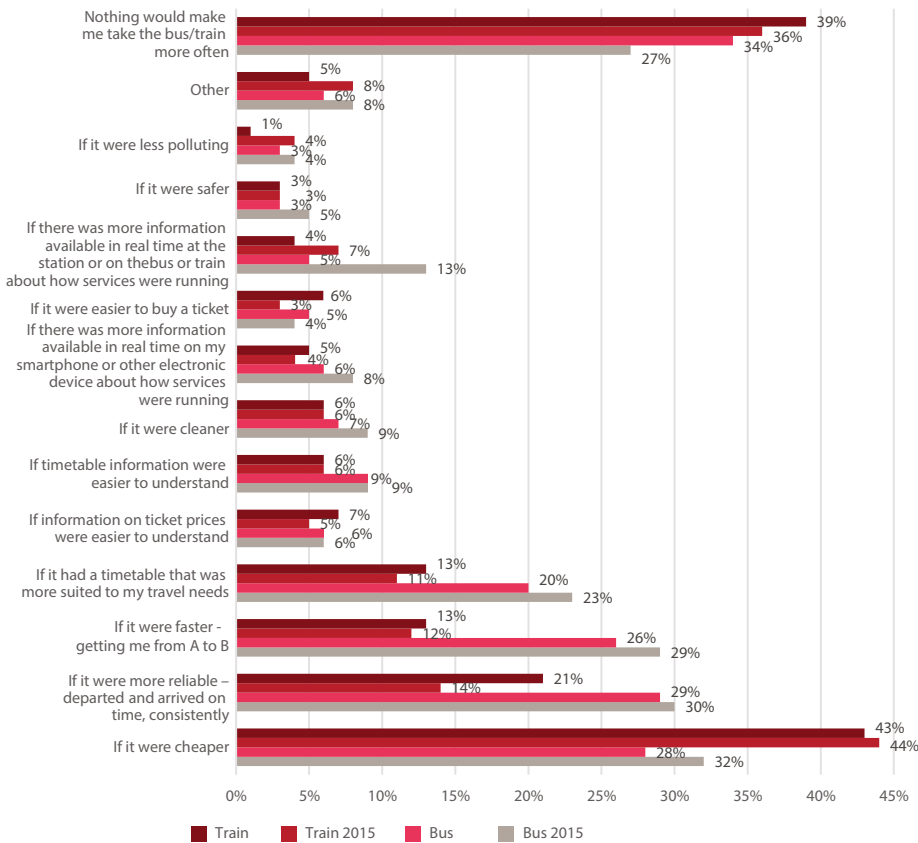
These are important factors when considering interventions that may encourage a modal shift. Our survey suggests that improving and promoting the reliability of bus or rail over car journeys, for example, would resonate with many car users and help induce a shift. And from a public transport operator’s perspective, it means a potential uplift in patronage by tapping into the larger car travelling market.

These findings on why people choose a mode are broadly the same as previous years although price has become slightly less significant than it was.

Increasing ridership on public transport

The UK transport network faces challenges including congested roads and increased pollution levels, especially in major cities. One of the best ways to address these is through increased modal shift from car to public transport. In asking what would encourage people to switch modes, price remains the main factor (see Figure 3), as has been the case in previous years. Some 28% of those surveyed said they would consider switching to bus and 43% to rail if it were cheaper. The other leading factors that might encourage a change are speed (or journey time), reliability and better timetabling.

Figure 3: Which, if any, of the following reasons would encourage you to travel by bus or train more often?



This year's survey results show a noticeable increase in the number of people who will not be persuaded to start using public transport by any of the suggested incentives. While we did not ask why, it is quite possible that some people's responses to these questions have been influenced by some of the challenges public transport has faced this year, particularly the strikes affecting various rail services.

This year fewer people said that better information – be that on timetables, ticketing or real time service running – would encourage them to travel by bus or rail. This may reflect ongoing improvements in the availability of real time information, meaning it has become less of a concern. We will explore this further in future survey work which will look specifically at the north of England.

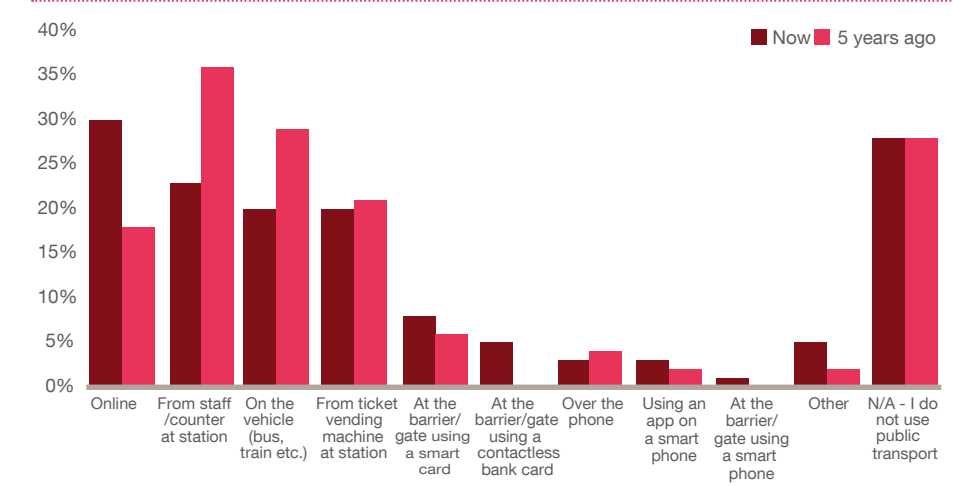




Back to the future retail channels

With five years of data, we have taken the opportunity this year to ask respondents to look back to five years ago as part of this year's survey. We asked them which of the various ticketing methods they used to buy their public transport tickets then, compared with now, allowing them to select multiple answers if necessary. The results give some encouraging indications for smart ticketing, and also some pointers for how to increase smart take-up in the next few years.

Figure 4: Thinking back to 5 years ago, how did you buy your public transport tickets? How do you usually buy them now?



The biggest change in how customers recall how they used to buy tickets five year ago to now is in the use of online channels. This has increased from 18% to 30% (see Figure 4). The main sales channels that have reduced over the same period are buying from staff or counters at stations (down by 13% to 23%), and buying on the vehicle (down by 9% to 23%).

Encouragingly, the other growth area is buying a ticket at the gate, which means tapping a smart card, contactless bank card, or a smartphone emulating a bank card: 14% of our respondents currently buy tickets in this way. It is worth clarifying here that this is ‘pay as you go’, where there is not a ticket purchase in the conventional sense, but rather a customer taps a card (or smart device) on a gate or reader, which then either debits funds from the card or subsequently takes funds from an account once the price for the journey is determined.

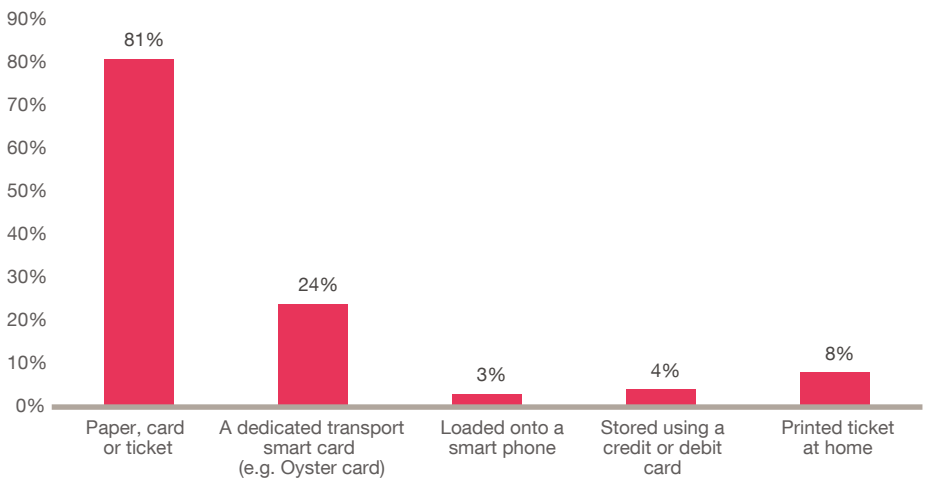
Behavioural trends in ticketing

In reviewing the data from this year's survey, and comparing the results to the first survey in 2012, we can also see how things have changed in the use of ticketing (smart or otherwise). As expected there have been significant shifts away from paper tickets in this time. In 2012 81% of respondents who used buses and trains regularly in the previous year had received their tickets as 'ordinary paper tickets' (Figure 5a). In 2016 only 46% of bus and train users bought paper tickets in this way. In the intervening years, there has been a huge growth in the kinds of tickets available to buy as well as how they are bought and our survey has reflected this¹.

As Figure 5b shows, a surprising finding from this year's survey is the continued high preferences for paper tickets in the future, and corresponding limited increase in appetite for smart cards. Currently 23% of our survey respondents use smart cards, and 26% saw this as their future preference for ticketing.

Appetite for other smart media is also either flat or showing very limited increase from current ticketing habits. This limited appetite for a move to smart highlights the need for operators to better communicate the benefits of the various forms of smart to their customers.

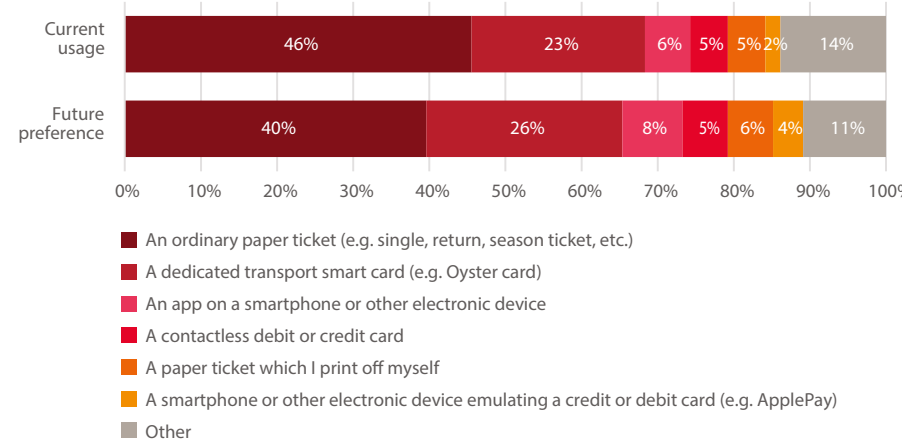
Figure 5a: In the past year, what formats do you most regularly receive for your bus and/or train tickets? Date from our 2012 survey (respondents able to give multiple answers)



Base: 1,562

¹ Over the years that this survey has been running, new types of smart ticketing options have come to market, and we have edited our survey to reflect this. So whilst the data is not directly comparable, it does point to a dramatic reduction in the use of paper tickets in the last five years and also demonstrated the growth and uptake in smart.

Figure 5b: What kind of ticket do you use most often for your bus and/or train journeys? What kind of ticket would you prefer to use (respondents give single answer only?)



Base: 848

Figure 5b also shows the number of respondents who said 'other' as their current or future use of ticketing was over 10%. This was particularly high in London and in the over 55 category. When asked to specify, those who answered 'other' were generally concessionary travellers using discounted or free forms of travel.

Many of these tickets do indeed use smart technology, and so could logically be considered smart ticketing. As a material subset of all travel, this will require more investigation but does indicate that smart ticketing is indeed on the up and that concessionary travel continues to be a real benefit to people nationally. What becomes most apparent from this year's results is that there is a need to increase communication and explanation to customers about the benefits of smart ticketing and to ensure that the various forms of smart provide the functionality that customers truly want. Travellers in London already benefit from daily and weekly fare capping, taking away the need to decide in advance of travel if you are going to make a single, return or multiple journeys. In addition, the train operators such as C2C provide their customers who sign up for a smart card with the benefit of automatic delay repay. This provides automatic repayment for delayed journeys, reducing the effort that customers have to go to claim a refund.

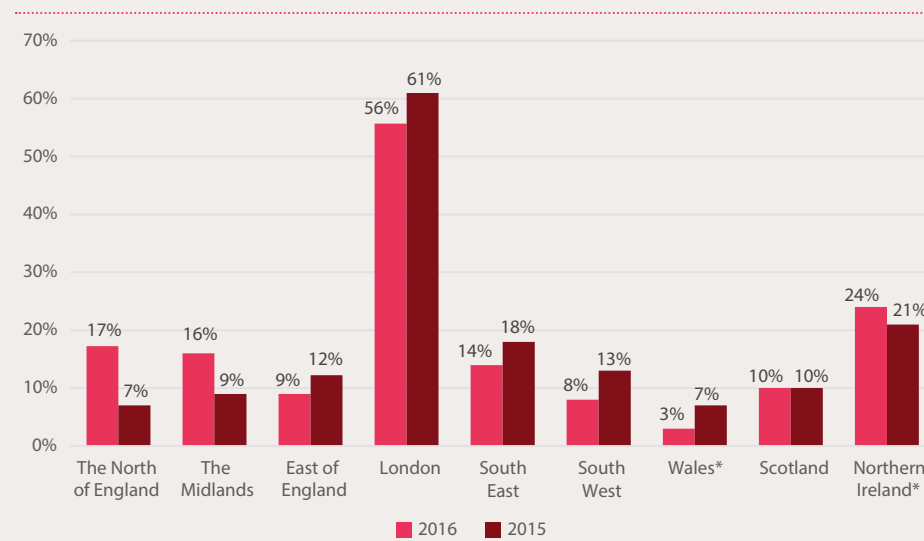
Use of smart ticketing across the country

Smart ticketing usage in London still stands out as significantly higher than anywhere else in the country. First introduced in 2003, its use has grown year on year. Over this time Transport for London (TfL) has continued to enhance its smart offerings, extending the geography covered by smart ticketing, the range of fare offers, and the media passengers can use, most recently enabling use of contactless bank cards.

There are signs of growth in some other areas of the country (see Figure 6). The Midlands and the North have seen the most noticeable rises in use of smart cards, with use more than doubling. Smart card use in the Midlands has gone from 9% to 16%.

This coincides with an extension of the functionality offered on the various smart cards in Nottingham, including a form of capping. Its Citycard is a smart card which pulls together a number of functions on one card including leisure, library membership and some travel.

Figure 6: Percentage of those currently using a dedicated transport smart card on buses and trains



Base size: 848 *Due to the response numbers, figures for Wales and Northern Ireland should be seen as indicative only



Encouraging a switch to smart

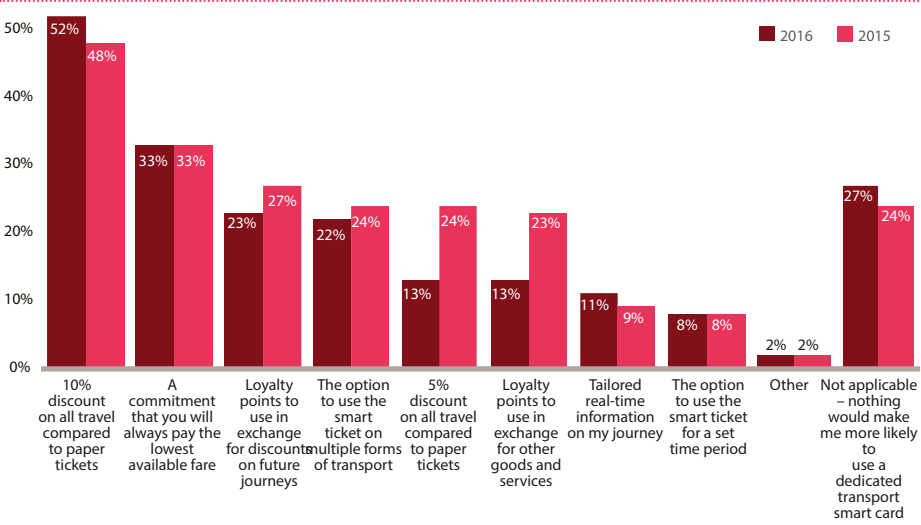
There are signs that the cost of travel is becoming a more important issue for our survey respondents when considering ticketing options.

Last year 48% of those surveyed said they would consider switching from paper tickets to one of the forms of smart ticketing if they received a 10% discount on the fare. This year, that percentage has gone up to 52%, by far the dominant incentive that would encourage a change (see Figure 7). Encouragingly, a third of people would consider changing from paper to smart if there were a commitment that they would get the best fare – along the lines of TfL’s capped fare offer. Guaranteeing the best fare represents less of a reduction in revenue for operators than offering fare discounts, but the benefit to customers is arguably greater as it not only reduces cost and effort, but also removes uncertainty around determining the best ticket type to buy at the start of a journey.

Loyalty points and the ability to use smart media on multiple transport modes also score well, although down from last year. This is balanced by a slight increase in the proportion of people who could not be persuaded to move to smart ticketing by any incentives. This has increased from 24% to 27% over the last year.

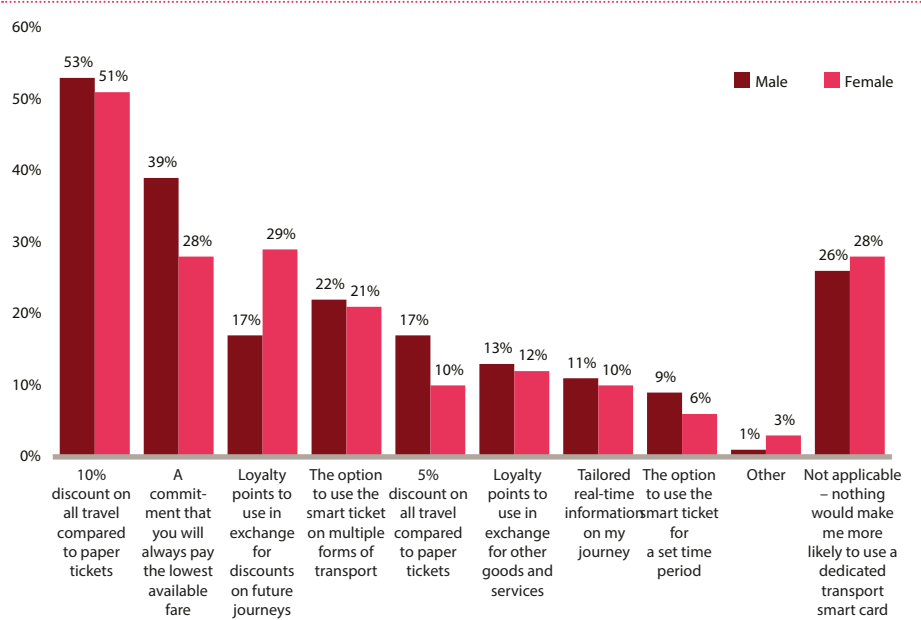
There is clearly work for operators to do here to make the case, including on fares and on how to use smart ticketing, but also to reassure on issues such as data privacy. So far public transport has avoided high profile data breaches, but the rise of cyber-crime means this is a growing threat that needs to be addressed effectively in order to maintain customer trust.

Figure 7: Which, if any, of the following do you think would make you more likely to use a non-paper ‘smart’ ticket (e.g. Oyster Card, smartphone or contactless debit card) than you are now?



Looking further into the survey findings here, there are notable disparities in gender around the motivations to move to smart ticketing. Both men and women are strongly in favour of a 10% discount on fares as the main way of incentivising a change (see Figure 8). The differences come in reactions to a lowest fare commitment and to a loyalty scheme. Men are keener on the fare commitment than women (39% compared with 28%). Conversely, women are keener on loyalty points that can be used to discount future tickets (29% compared with 17%). This presents some insights into how operators shape and market their smart offers.

Figure 8: Which, if any, of the following do you think would make you more likely to use a non-paper ‘smart’ ticket than you are now? Breakdown by gender



What makes public transport worth it?

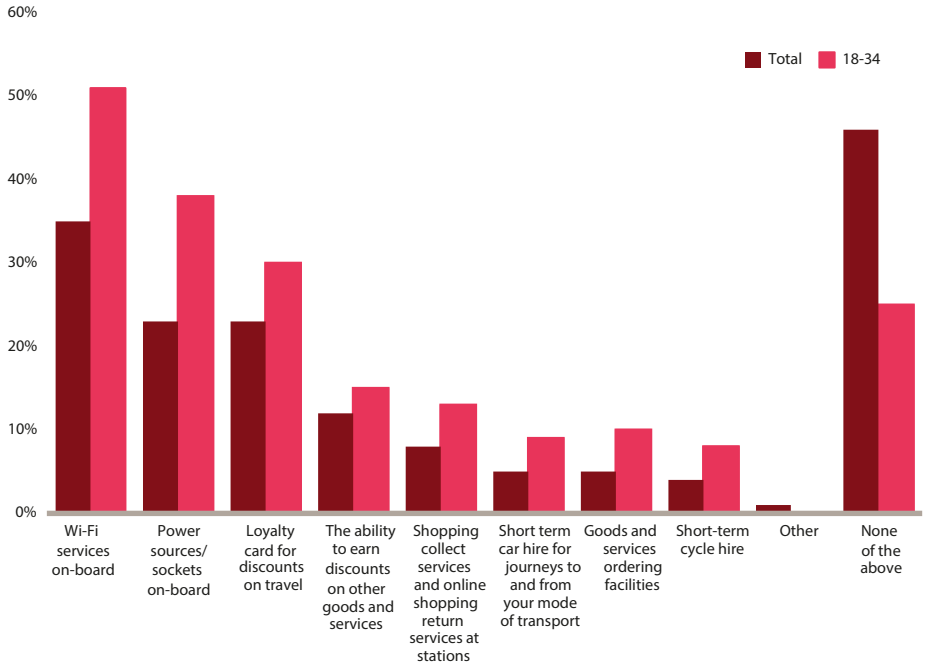


Encouraging greater take-up of public transport is not all about the type of ticketing. That’s why we also asked what other features people look for on their public transport mode. Wi-Fi consistently wins out as the most popular additional service asked for, in keeping with the increased use of smart phones and other devices that rely on an internet connection (see Figure 9).

Some 35% of respondents to our survey highlighted this feature as important. Joint second on the list were provision of power supplies, inevitably linked to growth in use of smart phone or similar devices, and a loyalty scheme linked to travel discounts.

There is a marked difference in the responses from different age groups to this question. The younger age bracket – those between 18 and 34 years old – are more keen on all the possible additional products or features. Over half of this age group are keen to have access to Wi-Fi, and nearly 40% want to have access to power supplies. This is consistent with expectations for a generation that has grown up in a digital, online environment.

Figure 9: Are there any other products and/or services that you would like to see offered with the transport methods you commonly use?



Conclusion

This year’s survey continues to show growth in use of smart ticketing. While London stands apart in adoption of various forms of smart and ongoing increased market penetration, there are encouraging signs this year of growth outside of the capital. And there are two indications on the potential to nudge behaviour – both from other modes of transport to public transport, and then from conventional ticketing to smart ticketing. In both cases, our survey highlights that some relatively straightforward changes could encourage a significant number of people to make the change. However, there are notes of caution in the survey’s findings. While over the years of this survey there has been growth year on year in people’s future preferences for moving to smart, this trend seems to have stalled this year.

The case for smart ticketing – both for operators and for customers – remains compelling. Therefore, we have considered the findings from the survey in the context of what operators and scheme promoters can do to encourage customers to switch to smart. We have summarised this as the following five points:

1 Keep it simple.

Develop customer offers using smart that are easy to understand and easy to use. That means the pricing is clear and straightforward so customers know what they will be charged for a journey or combination of journeys. It means the customer has little or nothing to do in advance of travel (particularly for urban journeys), so no need to register or get a special smart card, for example. And it means a simple action to start a journey – tapping a card on a reader on a bus, for example. Simplicity will be at the heart of increased take up of new services given that it gets over that initial inertia of people changing from their current ticketing habits.

2 Define scope

There are multiple smart schemes across the country, and more emerging. Many of these already overlap in some of the services customers can use. Customers can buy a train ticket to Leeds, for example, with the ticket as a barcode displayed on a smartphone. But in and around Leeds, customers have the choice of M card, the local smart card for local rail services and use of bus travel. For commuter routes into London, customers have the options of a smart card for the commuter rail service and optionally for travel in and around London, or can flip to using Oyster or contactless bank cards once inside the area served by TfL. It is therefore important to provide clarity to customers on what smart services are available where, recognising how to provide clearly defined services for the major passenger flows, as well as catering for other routes and services that are being targeted for growth.

3 Provide tangible benefits

Many customers will be reluctant to change their ticket purchasing habits without them recognising there is a tangible benefit. That may be in improved convenience, for example in making it easier to purchase ticketing in the first instance, or even removing the need to make an initial purchase altogether as is the case for a ‘turn up and go’ pay as you go service. But the greatest modal shift will be achieved if customers are financially incentivised in some way. Offering automated delay repay for disrupted rail services is one option. Providing capping for travel in major cities (as is already the case in London) is another, which takes away some of the uncertainty for the customer, while potentially not materially reducing revenues for operators.

4 Communicate benefits to customers

Outside of London, it is clear that many customers are not aware of the smart ticketing services on offer, nor of the benefits they provide. This is evident from seeing queues at ticket machines or ticket windows at some South East commuter railway stations on a Monday morning, when those passengers could have bought their weekly or monthly tickets in advance that would then be loaded onto their smart card simply by tapping on the gate. There is more that can be done to highlight the convenience of smart in saving time in this way. But there are also many scenarios where the price is lower if the customer uses some form of smart compared with buying paper tickets. It is quite possible many passengers – even some who use public transport regularly – are not aware of the level of fare reduction they could secure by moving to smart. So there is a need to step up communications as more smart offers come on stream.

5 Provide for multiple smart media

Our survey highlights that there will not be a single technology for smart – it will inevitably be a mix of smart cards, contactless bank cards and different scenarios of using smart devices at least for the coming decade. Different customer segments will have preferences for different smart media, and these may vary also depending on the journey type. Given this need, and the interconnected nature of the UK’s public transport services, future schemes will therefore need to be able to accommodate this mix and embrace the possibilities for enhancing customer service that these devices provide.

Use of smart ticketing continues to grow, which is encouraging. But it will not reach the levels of penetration quickly without more effort to address these five areas. If operators act on these, we should see smart ticketing move way beyond the tipping point where it becomes the default means for customers to pay for and use public transport. Then we will see the real benefits both for operators and customers alike.

Methodology

This research was conducted in Autumn 2016 under the strict guidelines of the Market Research Society Code of Conduct by Opinium Research, a research and insight generation agency offering a range of qualitative, quantitative, and collaborative methods (www.opinium.co.uk). 2000 people participated in an online interview. The 'South West' region includes a top up sample to reach 300 respondents. Where the question has not been answered by all participants, the base number is footnoted.

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