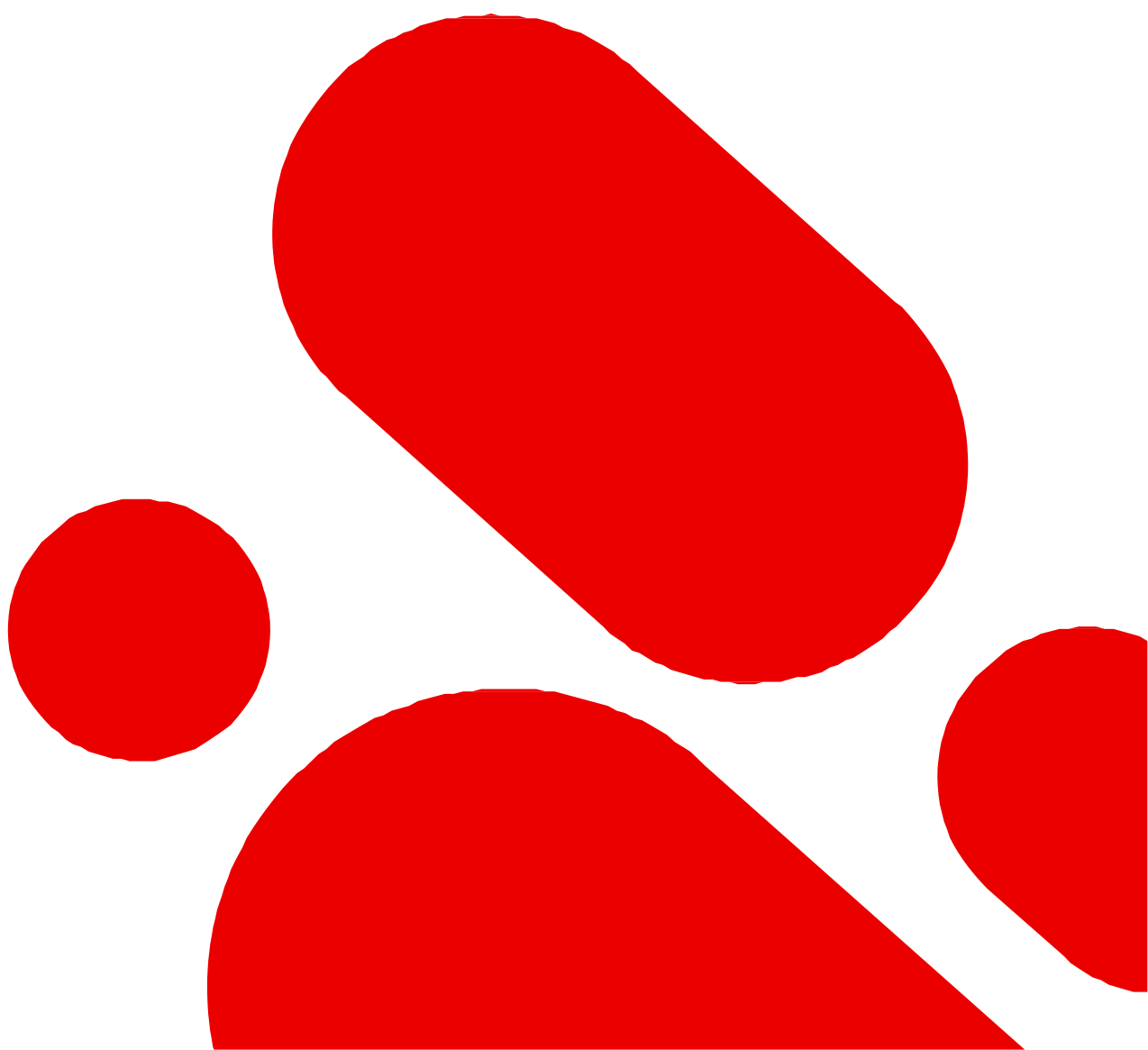


Office of Rail and Road (ORR)

**Research into Passengers' Experiences with Ticket Vending
Machines (TVMs)**

Final Report



Contents

1. Introduction	Page 1-2
1.1 Background	Page 1
1.2 Research Objectives	Page 1-2
2. Executive Summary	Page 2-3
3. Methodology	Page 3-6
3.1 Survey Method	Page 3-4
3.2 Sample	Page 4-6
4. Findings by Issue Area	Page 6-16
4.1 Clarity & Comprehensiveness of Ticket Information	Page 6-12
4.2 Penalty/Consequence Messaging	Page 12-15
4.3 Other Station-Level Support	Page 15-16
5. Consumer Detriment	Page 16-17
6. Overall Customer Experience	Page 17-18
6.1 Confidence in Ticket Purchase	Page 17
6.2 Abandonment Risk & Help-Seeking	Page 18
6.3 Satisfaction with Ticket Vending Machines Process	Page 18
7. Conclusions & Recommendations	Page 18-19
Appendix A – Detailed Sample Tables	Page 20
Appendix B – Full Results – Data Tables	Page 20-28
Appendix C – Ticket Type & Railcard Mapping	Page 28
Appendix D – Questionnaire	Page 29-33

1. Introduction

1.1 Background

Ticket Vending Machines (TVMs) serve as a vital self-service option for passengers who need to purchase rail tickets without interacting directly with station staff. Their widespread presence across the network suggests they should simplify journeys and reduce queue times, yet a variety of stakeholders (passengers, advocacy groups, and the Office of Rail and Road (ORR) itself) have expressed concerns about the adequacy of the information displayed on many of these machines.

In particular, gaps in clarity around operator-specific or time-bound restrictions, railcard eligibility, and the potential repercussions of travelling with an invalid ticket frequently surface in discussions about TVM reliability. When machines fail to highlight key differences between peak and off-peak fares, or when passengers remain unsure whether their railcard discounts apply, the consequences can extend beyond simple inconvenience; some passengers unknowingly pay more than necessary, while others underpay or choose an invalid fare, risking penalty fares or, in extreme cases, prosecution.

Recognising the importance of comprehensive, unambiguous guidance at the point of sale, and as part of its broader review of Train Operating Companies' (TOC) revenue protection practices, ORR commissioned this study to examine the overall clarity and completeness of TVM information across the UK.

The goal is to ensure that all rail users, regardless of knowledge or experience, can quickly and easily select and purchase the correct ticket for their journey.

1.2 Research Objectives

The overarching aim of this study is to investigate how effectively TVMs communicate all necessary details to enable passengers to make valid and fully informed fare selections.

Firstly, the research explores whether the machines clearly present ticket validity data (including operator restrictions, train-specific conditions, and time-of-travel limitations) both at the initial selection stage and again before checkout.

Secondly, it examines the prevalence of penalty and consequence messaging, determining whether passengers receive warnings about the importance of choosing the correct fare and the tangible risks, such as fines or prosecution, which arise from failing to do so.

Thirdly, the study seeks to identify where passengers might face detrimental treatment due to incomplete guidance, whether that involves misunderstanding of railcard eligibility, not realising certain advanced fares are unavailable, or simply overlooking disclaimers that the TVM does not provide every possible ticket type.

Finally, it considers how confident passengers feel when using these machines, including whether they are signposted to sources of help or further information when they encounter scenarios outside the machine's standard flow. By focusing on these objectives in combination, ORR aims to establish a clear picture of the current TVM environment and highlight opportunities for improvement in transparency and user support.

2. Executive Summary

This report is based on 500 mystery shopping assessments carried out across 19 different TOCs by 64 different auditors. It encompasses a wide range of ticket types, including peak and off-peak singles, day returns, open returns, child fares, and railcard-discounted tickets.

The vast majority of Ticket Vending Machines (TVMs) handle the basics well: 89% of shoppers said the price of every option was clearly displayed. However, the consistency drops when it comes to other key details. For example, only 77% of users saw a clear statement of time or operator restrictions at the selection stage, and just 48% were shown the exact cut-off times that define off-peak travel. These mixed results indicate that, while price transparency is strong, critical validity information is not always delivered with the same clarity.

Although 77% of participants stated that basic time or operator restrictions were evident when they first selected a ticket, fewer than half said they received explicit guidance regarding the exact window for off-peak travel. Many machines failed to clarify when an off-peak ticket would actually become valid, creating uncertainty for passengers making borderline off-peak journeys. The distinct options for first- or standard-class travel also remained elusive for most users: only 37% of respondents confirmed that this distinction was clearly displayed on the machine.

Of the 96 assessments in which the scenario involved use of a railcard to purchase a ticket for travel before 10am, the proportion of transactions where validity was confirmed was only 33%. The majority of passengers therefore still received no on-screen reassurance, leaving them at risk of over-paying or of travelling on an invalid discounted fare.

Information on potential penalties or fare evasion consequences also appeared in short supply. Fewer than a quarter of machines displayed on-screen warnings about the importance of buying a correct ticket, and under half of the stations offered visible signage near the TVM or elsewhere. Consequently, travellers who lacked familiarity with penalty fare rules could easily remain unaware of the fines or enforcement actions they might face if their ticket choice were invalid.

Although several information gaps remain, 398 shoppers (44% "totally confident" + 36% "fairly confident" = 80%) still felt reassured that the specific ticket shown on-

screen was the right one for their journey. In other words, the reassurance relates to their belief that they had picked a valid fare.

That still leaves 102 shoppers (just under 20%) who were unsure or doubtful that their selection was correct. Set against the evidence of limited railcard confirmation, inconsistent penalty notices, and unclear off-peak cut-off times, this residual uncertainty suggests that confidence falls whenever the purchase involves anything more complex than a straightforward, undiscounted fare.

On balance, the overall TVM “Score” was calculated at just over half (52%). This suggests that while fundamentals like pricing and broad validity are generally communicated, more nuanced or penalty-focused details are overlooked in many cases.

As a result, although the machines handle straightforward ticket requirements well, they fall short when railcard rules, time-specific travel, or enforcement guidelines need to be clearly communicated.

3. Methodology

3.1 Survey Method

The project employed a large-scale mystery shopping approach in which 500 TVM assessments were carried out across nineteen TOCs by 64 different auditors.

For each assessment, a mystery shopper was assigned a specific scenario designed to test different aspects of the ticket buying process. For example, an off-peak single departing after 10am, a day return required before 9 am or an anytime single purchased in conjunction with a railcard. Crucially, each assessment ended just before the actual transaction stage, so no payment was made; instead, shoppers recorded their observations on whether the TVM displayed essential details, such as ticket validity, pricing, and penalties, and supported these observations with screenshots or notes.

Data collection was anchored by a 26 item questionnaire (see Appendix D for full details), numbered Q1 through Q26, which systematically captured evidence by awarding a score of one for “Yes” responses and zero for “No”. Certain questions involved a reversed logic. For instance, those covering acronyms or jargon (Q12) allocated a positive score only when shoppers answered “No”, reflecting that the absence of jargon is the preferred outcome. Confidence measures (Q22) were similarly structured to group the top two outcomes (“Totally confident” or “Fairly confident”) as a single, positive score, thereby offering insight into how secure respondents felt about their final ticket selection.

To explore the breadth of possibilities a passenger might face, the assessment included eight distinct ticket categories (see appendix C on [page 30](#)). Ensuring that

both simpler and more complex discounted journey options were tested, where applicable.

Quality control checks were performed on every submission to verify answer consistency and the inclusion of photographic evidence. Once validated, all scores were collated, producing an overall “Score” which summed to 52%. This figure reflects the overall level of alignment with the question criteria across all 500 mystery shops. Further analyses were then performed to illustrate how results varied by TOC, ticket type, and railcard status, revealing which providers and journey profiles demonstrated stronger adherence to expected standards and where shortfalls persisted.

3.2 Sample

Of the 500 mystery shopping visits conducted, each corresponded to a specific combination of ticket type, railcard usage, and TOC. The sample design aimed to capture diverse passenger scenarios (e.g., off-peak vs. peak travel, child fares, railcard discounts) and adequately represent most major TOCs in the UK.

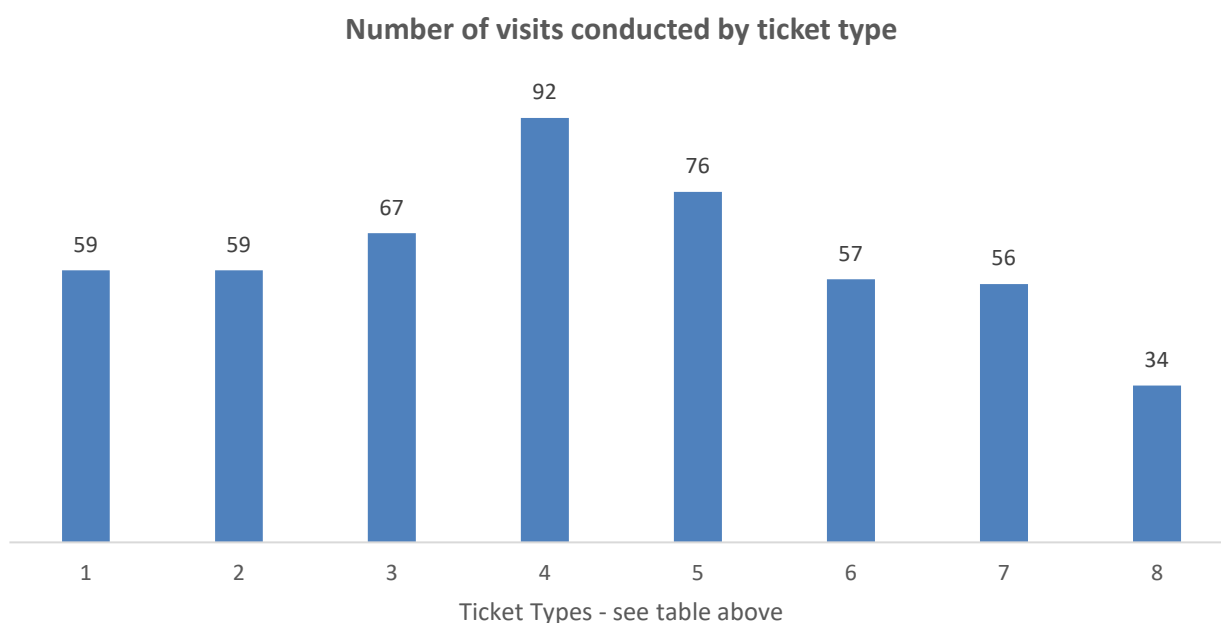
Ticket Types

Eight distinct ticket categories were tested, covering both off-peak and anytime options, plus variations with or without returns:

Ticket Type & Railcard Mapping

Ticket Type ID	Ticket Type Under Review	Railcard(s)	Departure Time	Return Time	Other Requirements
1	Off-peak single	None	Weekday, after 10am	N/A	
2	Off-peak day return	None	Weekday, after 10am	N/A	
3	Anytime single	16-25, 26-30, Veterans, Network	Weekday, before/after 10am	N/A	Journey under £12
4	Anytime single	Two Together	Weekday, before/after 09:30am	N/A	
5	Anytime single	None	Anytime	N/A	Child fare
6	Anytime day return	None	Weekday, before 9am	Same day, after 5pm	
7	Anytime Open return	None	Weekday, before 9am	Return after 1 week	

8	Anytime single	Senior, Family & Friends	Weekday, before/after 10am	N/A	Journey within Network Railcard area
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Ticket Types 4 and 5, included a larger number of visits so that the study could thoroughly explore scenarios involving child fares or Two Together railcards. For further details on the sample sizes, please see Appendix A.

Railcards

Those who do use railcards often face particular restrictions (e.g., off-peak departure times or specific discount eligibility). Accordingly, the sample included four railcard groupings:

- 16-25, 26-30, Veterans, Network: 67 visits
- None: 307 visits
- Senior, Family & Friends: 34 visits
- Two Together: 92 visits

This distribution allowed the study to investigate whether machines offered adequate guidance about railcard discounts, especially critical for those departing before 10:00. By including 307 visits with no railcard, the data also represents the experience of standard adult passengers travelling without any discount.

TOC Distribution

Nineteen TOCs were included in the study, each receiving at least 12 station visits, with some receiving more based on coverage considerations.

By covering TOCs of varied sizes (ranging from large intercity operators to smaller or commuter-focused networks), the study captured a broad range of machine types and

station environments. This approach ensured that any significant differences in the clarity and completeness of TVM information between operators could be identified.

Overall, the sample design reflects a balanced approach aimed at capturing real-world diversity in ticket selection. The total of 500 visits allowed for meaningful comparisons across ticket types, railcard status, and operators, highlighting both common successes (such as frequent clarity on pricing) and consistent shortfalls (such as limited penalty notices).

4. Findings by Issue Area

The following section outlines the key findings from the study and references the results illustrated in Appendix B. The overall findings brought out several key themes around:

- Clarity & Comprehensiveness of Ticket Information
- Penalties & Consequence messaging
- Station level support

Each section that follows will outline the detail behind the findings alongside some illustrative examples captured by the shoppers.

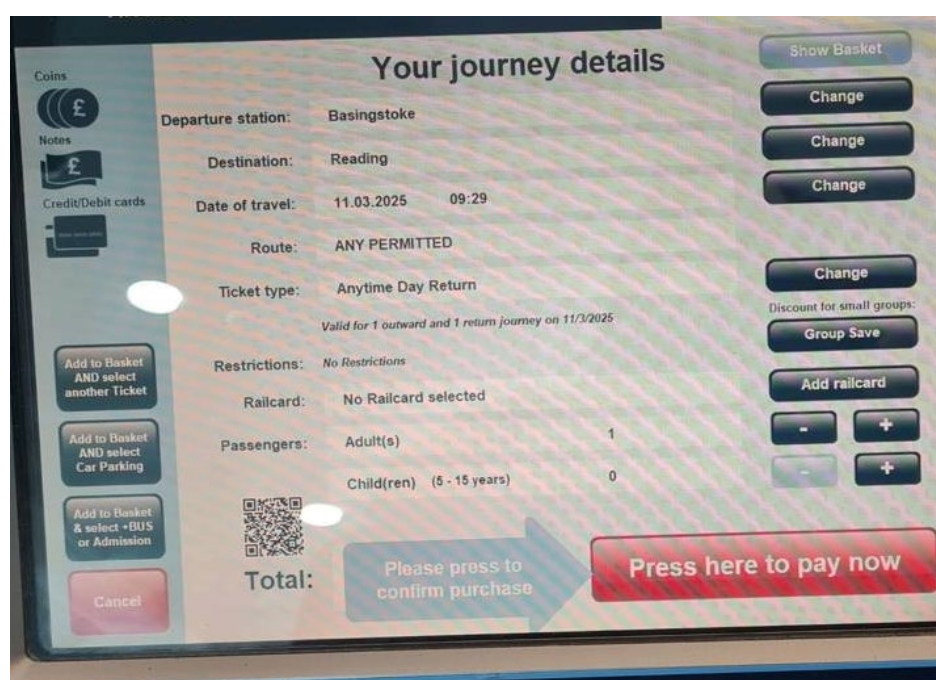
4.1 Clarity & Comprehensiveness of Ticket Information

Ticket Validity at Selection & Checkout (Q3 & Q6)

The assessment began by evaluating whether the shoppers noticed clear time and TOC restrictions at two critical points in the TVM booking flow: the initial ticket selection stage and again just before checkout.

In total, 77% of shoppers indicated that they did see relevant information when they first chose their ticket, confirming that most machines displayed some details about whether a journey was valid for certain time windows or restricted to particular TOCs. However, this also means that 23% of shoppers found no such guidance at that early decision-making stage, suggesting a noticeable gap that could lead some users to select fares outside their intended travel conditions unknowingly.

Example of TVM with Time and Operator Restriction at checkout



Further downstream, 84% of shoppers observed a second mention of validity just prior to final purchase, which is significant because presenting these details again can help users spot any potential inconsistencies in their chosen ticket before they commit financially.

By explicitly restating restrictions at checkout, machines give users a last opportunity to address any misunderstandings (such as buying an off-peak fare for a peak journey during rush hour) instead of discovering the error only after they have already paid or boarded the train.

Nonetheless, the data indicates that 78 out of 500 shoppers did not receive this closing reminder, placing them at increased risk of travelling on an invalid fare if they missed or misunderstood the earlier reference.

Price Display (Q8)

A key measure of ticket vending usability is whether users can easily see how much they are expected to pay. In that regard, 89% of shoppers reported that the TVM clearly presented the prices for each ticket option.

This outcome places pricing transparency among the study's best-performing categories, suggesting that most machines handle at least the basic fare information competently. Even if certain advanced details (such as penalty notices or peak/off-peak clarifications) are sometimes overlooked, many shoppers found that the machines did provide a breakdown of ticket costs, making it easier for them to compare fares and understand the overall cost of the ticket.

Example of TVM that correctly displays the price for each ticket



Off-Peak Time Guidance (Q9)

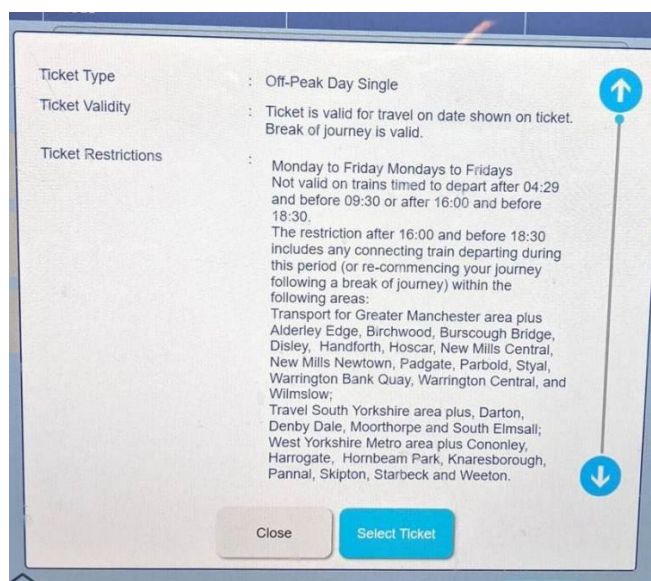
The data show that 48% of shoppers were provided with a clear indication of when they could travel on an off-peak ticket, whereas 52% received no specific timeline.

This imbalance matters because many railcards and off-peak products have a fixed morning cut-off—typically 10am on weekdays, although a few operators use 09:30am. Imagine a traveller standing at the machine at 09:50am. If the TVM shows only the label “Off-Peak Single” with no explicit “Valid after 10am” message, the passenger may assume the cheaper fare is already valid and purchase it. By the time they board a 09:55 train, however, that ticket will still be outside its allowable window. The traveller then faces two possible outcomes:

- **Penalty scenario:** an onboard inspection could issue a penalty fare (currently £100 plus the correct single) or even begin prosecution proceedings, depending on the TOC’s policy.
- **Additional-fare scenario:** the passenger might be required simply to buy a new Anytime ticket on board—often the most expensive walk-up fare for that route—turning what looked like a saving into a costly journey.

In both cases the core cause is the TVM’s failure to state the precise 10:00 cut-off, underscoring why explicit time-of-day guidance is essential.

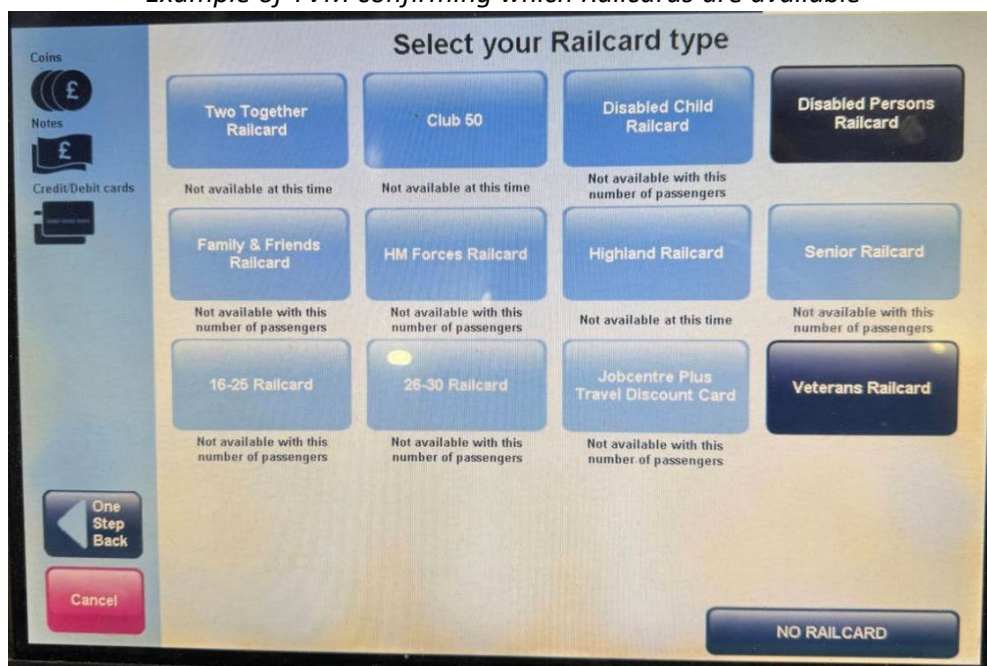
Example of information outlining when the customer can travel as per their ticket type



Railcard Discount Clarity (Q10)

Of the 96 assessments which involved use of a railcard to purchase a ticket for travel before 10am, the confirmation rate is higher but is still only 33%. While that result does show some level of recognition for railcard rules, it also highlights a significant shortfall: 67% of pre-10am railcard shoppers were left unsure whether their chosen discounted ticket was allowable at that time. Ticket types 3 and 4, which apply specifically to railcard usage in peak and off-peak settings, illustrate the issue most clearly, as they reveal only moderate (yet inadequate) levels of guidance around such time-sensitive discounts.

Example of TVM confirming which Railcards are available

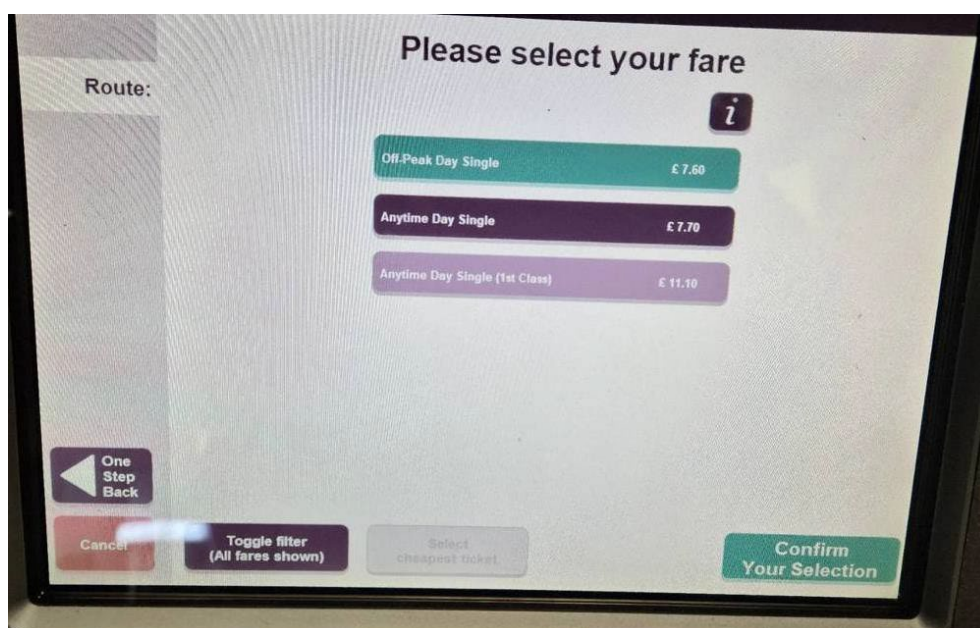


Class of Ticket Visibility (Q7)

In exploring whether machines highlighted the difference between first-class and standard tickets, the analysis showed that only 37% of shoppers could easily identify or select their preferred class of travel. This relatively low figure indicates that many machines do not present class distinctions in a readily accessible way, with some devices requiring additional screens or “info” pop-ups to reach first-class options. Such an approach risks limiting awareness among travellers who might otherwise consider an upgrade.

The potential impacts of poor visibility become particularly relevant in “Anytime Single” or “Anytime Day Return” circumstances, where travellers (especially those on flexible schedules) may decide to opt for first class at short notice, perhaps to secure a more comfortable journey. When the TVM does not make this option apparent or requires progressing through multiple pages to locate it, users may unintentionally default to standard class or grow uncertain about whether first class is even permitted for their intended route or time. By contrast, machines that place class options side by side or offer a direct prompt can more effectively guide users toward a fully informed choice.

Example of TVM that specifies the class of ticket



Clarity of Language & Terminology (Q11, Q12, Q13)

Most shoppers (94%) felt that the wording on-screen was “written clearly and simply,” indicating the interface is generally straightforward. Even so, 34% reported seeing unexplained acronyms or shorthand. Common examples captured in verbatim feedback included:

- “Any Permitted” (unclear route validity)
- “CH”/“RTW” on restriction pages
- “HS1 surcharge applies” without defining HS1
- “Carnet” or “Super Off-Peak” shown without explanation
- destination labels such as “London Terminals” that first-time users did not recognise.

Of those confronted with such jargon, 11% of shoppers went on to say the wording actually confused them, leaving them unsure whether their chosen ticket was valid for their route or time of travel. While this is a minority, it still represents about one passenger in ten who may make the wrong fare choice, or pay more than necessary, because critical terms were not spelt out.

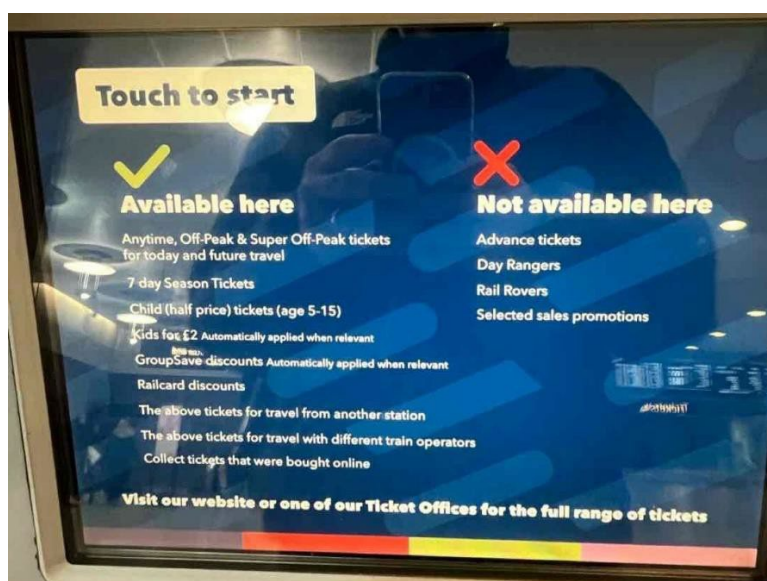
Highlighting Missing Info (Q15 & Q17)

The survey also investigated whether machines signalled when key details were unavailable or when certain ticket types were simply not sold by that TVM.

Only 31% of shoppers observed any kind of warning that certain information was missing, and a similarly modest 31% recalled seeing disclaimers about the machine not selling the complete range of fares.

In practical terms, passengers who need advanced or group tickets may remain unaware of alternative purchasing options, such as visiting a ticket office or completing the transaction online. Without explicit notices, travellers could assume that what appears on the screen encompasses every possible fare, raising the risk of paying more or missing a more flexible or cheaper option.

Example of TVM highlighting which ticket types are available



4.2 Penalty / Consequence Messaging

On-Screen Warnings (Q18)

When we asked whether the TVM provided any reminder about picking the correct ticket or the penalties for getting it wrong, only 22% of shoppers said the machine displayed such a warning.

This notably low figure suggests that most machines do not offer passengers a direct statement of consequences, leaving it up to individuals to infer the risk of being fined or otherwise penalised. In an environment where many travellers may be less familiar with rail rules (especially those involving operator-specific or time-restricted fares) and where rules and practice vary across the network, the absence of such warnings can result in unintentional fare evasion. By failing to highlight the possibility of penalties, machines place a greater responsibility on passengers to research and correctly interpret ticket conditions on their own.

Example of a TVM reminder about the importance of choosing the correct ticket



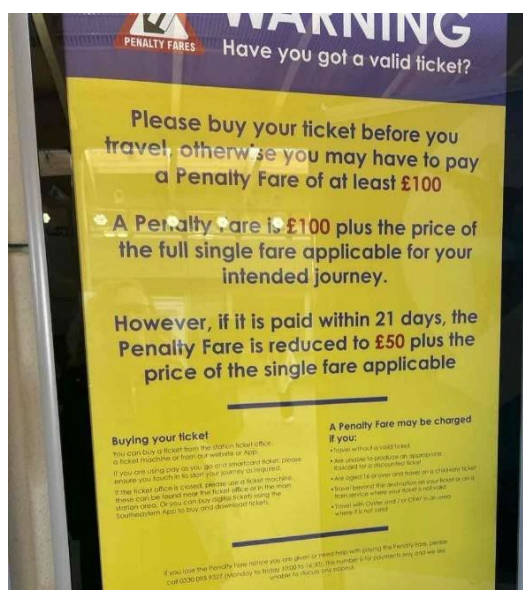
Station Signage (Q19 & Q20)

Although on-screen warnings are limited, just under half of stations do display some form of notice near the TVM itself (47%) and just over half within the station at large (51%). This suggests that a fair proportion of travellers might still come across visual reminders advising them to purchase the appropriate ticket or face possible enforcement.

Conversely, the results also show that 53% of the surveyed stations offered no penalty signage at the machine itself, and 49% lacked such notices elsewhere on the premises. In other words, roughly half of the locations we visited provided no visible warnings at all, so a substantial share of passengers may remain unaware of potential fare-enforcement measures until approached by rail staff or revenue inspectors.

This uneven distribution of signage underscores the broader inconsistency in penalty communication, as some locations clearly recognise the need for visible warnings, whereas others appear to leave passengers without structured guidance regarding correct ticket purchasing or associated risks.

Example of station signage about the importance of purchasing the correct ticket



Announcements (Q21)

The study also looked at whether shoppers received audio prompts regarding ticket validity or penalties through station public address (PA) systems.

The results show that only 6% of shoppers heard announcements during their visit, reminding them to purchase correct tickets or warning of potential fines. While this limited usage of the station PA system may stem from operational or scheduling constraints, it places a substantial burden on written notices or station staff to convey essential penalty information.

Travellers who arrive in a rush or who do not closely read posted signs may remain unaware of their obligations until challenged by enforcement personnel, underscoring how minimal reliance on audio announcements can leave important guidance overlooked. Travellers with vision impairments are also put at a disadvantage.

Additional Enforcement Details (Q23–Q26)

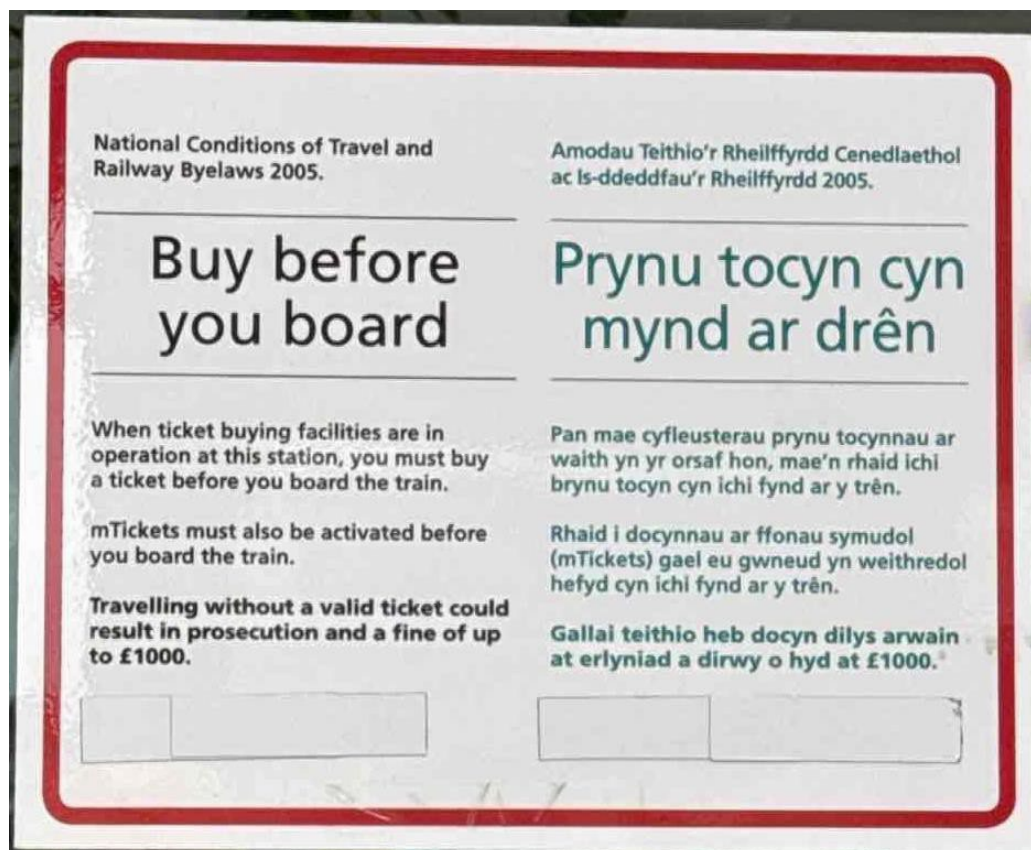
In terms of more specific enforcement-related information, about 51% of shoppers found signage indicating which party or organisation is responsible for penalising travellers with incorrect tickets (Q23). Only 19% saw details describing where or when tickets might be checked, such as onboard a train or at station barriers (Q24).

Similarly, 51% encountered references to the possibility of criminal prosecution (Q25), and 48% noted a statement confirming that the station was a penalty fare zone (Q26).

While each individual figure hovers around or below half, they collectively reflect an inconsistent and fragmentary approach to informing passengers about potential fines,

inspections, or legal consequences. Stations that did display this content offered clear warnings, but others did not, leaving travellers uncertain about the precise repercussions they might face if they inadvertently purchased or used an invalid fare.

Example of signage explaining the possibility of prosecution



4.3 Other Station-Level Support Guidance If Unsure (Q14 & Q16)

In situations where shoppers were uncertain about the correct fare or needed extra advice, 330 of the 500 assessments (66%) reported that the TVM offered some form of guidance (Q14). This help typically appeared as prompts such as “Speak to station staff,” instructions to phone a helpline, or short on-screen FAQs. The same 330 assessments (66%) also encountered a link or reference to more detailed information (Q16)—for example, a web address or a QR code leading to full ticket-restriction or penalty-fare rules.

That still leaves 170 assessments (34%) in which the machine provided no signposting to further assistance. Travellers in these cases—especially those unfamiliar with railcard time limits or peak/off-peak cut-offs—were left to rely solely on their own judgement, increasing the likelihood of purchasing an invalid or unnecessarily expensive ticket.

Example of signage providing guidance on where to get additional information



Number of Clicks/Taps (Q4 & Q5)

Another dimension of usability concerns is how quickly shoppers could access validity information during the ticket selection process. 40% required one click or fewer to uncover relevant details, reflecting a relatively straightforward design in some machines. However, 33% of shoppers needed to tap five or more times, pointing to certain interfaces that bury crucial details under multiple layers.

When ticket validity is buried behind multiple menus, rushed or inexperienced travellers are more likely to miss it altogether. In practice, 329 of the 500 shoppers (66%) said that pressing the machine's "information" icon provided additional ticket details (Q5); 171 shoppers (34%) received no extra clarity despite seeking it through the info screen.

Collectively, these findings underline the importance of balancing robust detail with practical accessibility, ensuring that even less seasoned passengers can promptly discover key fare restrictions and conditions.

5. Consumer Detriment

While mystery shoppers in this study did not formally complete their transactions, the data nevertheless illuminate several points at which travellers risk either monetary loss or potential issues with meeting fare conditions. Off-peak timing, for example, remains ambiguous for 52% of shoppers, which can push passengers to select off-peak fares too early or default to an Anytime fare, effectively causing them to pay more than necessary. This ambiguity becomes especially risky for individuals departing near a transitional time window and could easily lead to inadvertently travelling with a ticket that is not valid for their journey.

Railcard usage emerges as another concern, with only 6% of shoppers reporting that

the machine explicitly confirmed whether their discounted fare was valid before 10:00am. This shortfall allows for two potential missteps: travellers might pay full price when they are entitled to a discount, or else assume that their concession applies when it does not. The issue is most prominent in Ticket Types 3 and 4, which centre on railcard eligibility; their combined performance of roughly 52% underlines a broader pattern of partial but insufficient clarity around discounted fares and time restrictions.

Another area of potential loss stems from the limited notification that certain machines cannot sell every ticket. With just 31% shoppers noting disclaimers that advanced or group tickets are not available, many travellers may never realise that more cost-effective or flexible options exist only through a ticket office or online purchase. This gap opens the door to overpayment or inadvertently settling for a fare that fails to match an individual's travel plans.

Finally, limited warnings about penalties exacerbate the risk of underpayment. At 22%, Q18 indicates that only about one in five machines remind travellers of potential fines or prosecution for invalid travel, leaving the majority of users to guess or rely on prior knowledge. Those who buy a ticket unaware of its time or operator restriction stand not only to lose money but also to encounter potential legal consequences that they never anticipated.

6. Overall Customer Experience

6.1 Confidence in Ticket Purchase (Q22)

Our mystery shoppers were asked to gauge how assured they felt in having selected the correct fare if they had been genuine customers. A combined total of 80%, represented by 44% "Totally confident" and 36% "Fairly confident," indicates that most individuals came away with a sense that they were likely buying the right ticket for their needs.

Despite this generally high level of confidence, 102 of the 500 shoppers (20%) still felt unsure about their choice. Follow-up comments show that this uncertainty was concentrated among the more complex scenarios, those involving railcards, open returns, or peak/off-peak thresholds, where rules and restrictions are harder to interpret.

Purchasers grappling with railcard discounts or open return arrangements tended to report higher confusion, suggesting that additional clarity or prompts might be essential for travellers who are not on straightforward itineraries.

6.2 Abandonment Risk & Help-Seeking

Although the study did not explicitly ask shoppers if they would give up on using the TVM, data from Q14 show that 34% did not receive any form of guidance when they were unsure about which fare to choose.

This absence of direction implies that, in real-world conditions, at least some of these travellers would abandon the TVM mid-process—turning either to a staffed ticket office if available or deciding to leave without buying a ticket. Observational notes gathered during fieldwork suggest that many people rely on the immediate presence of station staff to resolve confusion, especially at larger hubs. However, smaller stations or those with limited staffing present a heightened risk of incorrect purchases, as confused passengers may have no one to turn to when the machine’s interface fails to clarify their query.

6.3 Satisfaction with the TVM Process

Despite these identifiable gaps, it is worth noting that 94% shoppers found that the interface itself was “written clearly and simply” (Q11). This positive figure signals a generally user-friendly design, insofar as standard options and basic guidance are concerned. Yet a friendly interface does not inherently guarantee accurate ticket selection, particularly when it omits penalty messages, complex railcard instructions, or disclaimers about advanced ticket availability.

Speed and pricing transparency are frequently praised elements, according to user feedback, but the same travellers often point out that rules or restrictions not immediately relevant to a basic single journey remain elusive, creating confusion for those whose needs exceed the simplest fare categories.

7. Conclusions & Recommendations

Pricing and Basic Restrictions: clear foundations

This study indicates that TVMs excel in several core areas, most notably price display. With an 89% clarity score, the vast majority of users can see exactly what each ticket will cost, reducing a fundamental source of anxiety about rail travel. Visibility of key ticket restrictions is also reasonably strong: 77% of shoppers noticed operator- or time-based limits at the selection stage, and 84% saw those limits repeated at checkout. Combined with a 94% score for plain, comprehensible wording, these figures suggest that travellers buying simple, undiscounted fares can usually navigate the interface without difficulty.

Where the machines fall short

Despite those strengths, several gaps remain. Only 37% of shoppers could clearly distinguish between first- and standard-class options, leaving many unaware of upgrade possibilities. Railcard guidance is even weaker: in journeys that required a pre-10:00 railcard ticket, only around one-third of shoppers received an explicit confirmation that

their discount would still be valid. Off-peak cut-off times are another pain-point: fewer than half of shoppers (48%) were told precisely when off-peak fares start, increasing the risk of overpayment or accidental invalid travel. Meanwhile, warnings about penalties are sparse—only 22% of machines show an on-screen notice, about half of stations display any nearby signage, and a mere 6% broadcast audio reminders.

Actionable improvements

To address these weaknesses, TVMs should surface class options and railcard rules much earlier in the journey. Clear side-by-side prompts—showing “Standard” and “First Class” together and flagging any time limits on discounts—would help users make informed choices without multiple extra taps. Likewise, off-peak definitions should be explicit (“Valid after 09:30 weekdays”) rather than buried in secondary screens.

Penalty information needs the same treatment: concise, jargon-free statements at both the selection and confirmation stages would alert users to possible fines or prosecution. If a machine cannot sell advanced, group, or other specialist tickets, a direct disclaimer should point users towards a ticket office or online alternative.

Finally, links to staff assistance, helplines, or QR-code resources should be more prominent so that the one-third of travellers who currently receive no guidance know exactly where to turn.

Next steps for continuous improvement

A follow-up wave of mystery shopping could track whether TOCs implement these changes, particularly around railcard clarity, penalty notices, and off-peak definitions, and whether scores improve as a result. TOCs that adopt straightforward prompts or who add a second railcard confirmation screen should see a rise in users' understanding and a reduction in inadvertent mis-purchases. Introducing additional warnings at final checkout, especially for penalty fares and ticket-type limitations, would ensure all users are fully aware of the rules governing the fare they choose.

Appendix A – Detailed Sample Tables

Ticket Type	Scenario Description	Visits
1	Off-Peak Single	59
2	Off-Peak Day Return	59
3	Anytime Single – 16-25, 26-30, Veterans or Network Railcard (journey under £12)	67
4	Anytime Single – Two Together Railcard	92
5	Anytime Single – No Railcard / Child Fare	76
6	Anytime Day Return – No Railcard (outbound before 09:00, return after 17:00)	57
7	Anytime Open Return – No Railcard (outbound before 09:00, return within one week)	56
8	Anytime Single – Senior or Family & Friends Railcard (within Network Railcard area)	34
Total		500

Railcard	Number of Visits
16-25, 26-30, Veterans, Network Railcard	67
None	307
Senior, Family and Friends	34
Two Together	92
Grand Total	500

Appendix B – Full Results – Data Tables

Overall question-by-question results

Questions	Percentage of Positive Scores
Overall Score	51.7%
3. Is information on ticket validity (restrictions such as time, operator, train) provided when tickets are being selected?	77.2%
5. When selecting the information icon, does the TVM provide further information about your ticket?	65.8%
6. Is information on ticket validity (restrictions such as time, operator, train) provided ahead of checkout?	84.4%
7. Is information on class of ticket displayed clearly in the booking flow?	37.2%

Questions	Percentage of Positive Scores
8. Was the price clearly displayed for each ticket option?	89.0%
9. Did the TVM tell you at what time you could travel/use on/off peak tickets?	48.4%
10. If selecting a ticket with a Railcard before 10:00, did the TVM tell you if a discounted fare was valid or allow you to select a discounted fare?	33.3%
11. Is the information written clearly and simply throughout the TVM?	94.0%
12. Does the information include acronyms or jargon?	65.6%
13. Were there any aspects of the wording (terminology) used, either in the ticket wording or the TVM instructions, that you did not fully understand or you found confusing?	11.4%
14. Did the TVM give any guidance as to what to do if you needed help with the ticket selection or were unsure which ticket to buy?	65.8%
15. Does the TVM highlight if information is not provided?	31.2%
16. Does it provide links to other sources for missing or further information?	65.8%
17. Does the TVM highlight if it does not sell the full range of tickets available?	30.6%
18. Does the TVM provide any information on the importance of choosing the correct ticket, or penalties/consequences of not purchasing the correct ticket?	22.2%
19. Is there any signage on or around the TVM that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	47.4%
20. Is there any other signage throughout the station that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	50.8%
21. While at the station, did you hear any announcements regarding the importance of purchasing tickets or penalties for having an invalid ticket?	6.2%
22. If you had been a genuine customer buying this rail ticket, how confident would you be that you had selected the correct ticket?	80.2%

Questions	Percentage of Positive Scores
23. Is there any information or signage that sets out who (party/supplier) would penalise you for not having the correct ticket or travelling with the incorrect ticket?	51.0%
24. Is there any information or signage that sets out when or where tickets may be checked? (e.g. on the train)	18.8%
25. Is there any information or signage that provides information on the possibility to pursue a (criminal) prosecution for not having the correct ticket or travelling without a ticket?	51.0%
26. Is there any information or signage setting out that the station is within a penalty fare zone?	47.6%

Results by Railcard – Overall scores (percentage of positive scores) and question-by-question breakdown

Railcard	16-25, 26-30, Veterans, Network Railcard	None	Senior, Family and Friends	Two Together
Overall Score	52.0%	51.9%	51.4%	51.2%
3. Is information on ticket validity (restrictions such as time, operator, train) provided when tickets are being selected?	79.1%	77.5%	76.5%	75.0%
5. When selecting the information icon, does the TVM provide further information about your ticket?	62.7%	64.8%	73.5%	68.5%
6. Is information on ticket validity (restrictions such as time, operator, train) provided ahead of checkout?	88.1%	83.1%	88.2%	84.8%
7. Is information on class of ticket displayed clearly in the booking flow?	32.8%	36.5%	47.1%	39.1%
8. Was the price clearly displayed for each ticket option?	91.0%	87.6%	94.1%	90.2%

Railcard	16-25, 26-30, Veterans, Network Railcard	None	Senior, Family and Friends	Two Together
9. Did the TVM tell you at what time you could travel/use on/off peak tickets?	50.7%	49.8%	38.2%	45.7%
10. If selecting a ticket with a Railcard before 10:00, did the TVM tell you if a discounted fare was valid or allow you to select a discounted fare?	37.5%	45.0%	22.2%	29.4%
11. Is the information written clearly and simply throughout the TVM?	92.5%	94.5%	91.2%	94.6%
12. Does the information include acronyms or jargon?	59.7%	67.1%	70.6%	63.0%
13. Were there any aspects of the wording (terminology) used, either in the ticket wording or the TVM instructions, that you did not fully understand or you found confusing?	11.9%	13.0%	2.9%	8.7%
14. Did the TVM give any guidance as to what to do if you needed help with the ticket selection or were unsure which ticket to buy?	68.7%	63.8%	76.5%	66.3%
15. Does the TVM highlight if information is not provided?	26.9%	31.6%	38.2%	30.4%
16. Does it provide links to other sources for missing or further information?	59.7%	66.8%	70.6%	65.2%
17. Does the TVM highlight if it does not sell the full range of tickets available?	35.8%	30.0%	32.4%	28.3%
18. Does the TVM provide any information on the importance of choosing the correct ticket, or penalties/consequences of not purchasing the correct ticket?	22.4%	22.5%	11.8%	25.0%

Railcard	16-25, 26-30, Veterans, Network Railcard	None	Senior, Family and Friends	Two Together
19. Is there any signage on or around the TVM that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	52.2%	47.2%	41.2%	46.7%
20. Is there any other signage throughout the station that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	49.3%	51.5%	50.0%	50.0%
21. While at the station, did you hear any announcements regarding the importance of purchasing tickets or penalties for having an invalid ticket?	6.0%	6.8%	0.0%	6.5%
22. If you had been a genuine customer buying this rail ticket, how confident would you be that you had selected the correct ticket?	85.1%	78.2%	85.3%	81.5%
23. Is there any information or signage that sets out who (party/supplier) would penalise you for not having the correct ticket or travelling with the incorrect ticket?	53.7%	51.5%	47.1%	48.9%
24. Is there any information or signage that sets out when or where tickets may be checked? (e.g. on the train)	19.4%	19.5%	17.6%	16.3%
25. Is there any information or signage that provides information on the possibility to pursue a (criminal) prosecution for not having the correct ticket or travelling without a ticket?	55.2%	50.8%	47.1%	50.0%

26. Is there any information or signage setting out that the station is within a penalty fare zone?	46.3%	47.6%	47.1%	48.9%
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Results by Ticket Type (*see appendix C for ticket type codes detail)

Overall scores and question-by-question breakdown by ticket type

	1 Off-Peak Single	2 Off-Peak Day Return	3 Anytime Single (16-25/26-30/Vet/Network RC)	4 Anytime Single (Two Together RC)	5 Anytime Single (No RC / Child)	6 Anytime Day Return (No RC)	7 Anytime Open Return (No RC)	8 Anytime Single (Senior / F&F RC)
Overall Score	51.4%	50.6%	52.0%	51.2%	53.8%	53.9%	49.1%	51.4%
Section Score	51.4%	50.6%	52.0%	51.2%	53.8%	53.9%	49.1%	51.4%
3. Is information on ticket validity (restrictions such as time, operator, train) provided when tickets are being selected?	83.1%	79.7%	79.1%	75.0%	80.3%	77.2%	66.1%	76.5%
5. When selecting the information icon, does the TVM provide further information about your ticket?	64.4%	59.3%	62.7%	68.5%	67.1%	71.9%	60.7%	73.5%
6. Is information on ticket validity (restrictions such as time, operator, train) provided ahead of checkout?	89.8%	78.0%	88.1%	84.8%	86.8%	87.7%	71.4%	88.2%
7. Is information on class of ticket displayed clearly in the booking flow?	28.8%	25.4%	32.8%	39.1%	40.8%	42.1%	44.6%	47.1%
8. Was the price clearly displayed for each ticket option?	88.1%	93.2%	91.0%	90.2%	94.7%	91.2%	67.9%	94.1%
9. Did the TVM tell you at what time you could travel/use on/off peak tickets?	62.7%	61.0%	50.7%	45.7%	51.3%	43.9%	28.6%	38.2%

	1 Off-Peak Single	2 Off-Peak Day Return	3 Anytime Single (16-25/26-30/Vet/Network RC)	4 Anytime Single (Two Together RC)	5 Anytime Single (No RC / Child)	6 Anytime Day Return (No RC)	7 Anytime Open Return (No RC)	8 Anytime Single (Senior / F&F RC)
10. If selecting a ticket with a Railcard before 10:00, did the TVM tell you if a discounted fare was valid or allow you to select a discounted fare?	75.0%	33.3%	37.5%	29.4%	33.3%	33.3%	50.0%	22.2%
11. Is the information written clearly and simply throughout the TVM?	93.2%	96.6%	92.5%	94.6%	96.1%	94.7%	91.1%	91.2%
12. Does the information include acronyms or jargon?	66.1%	69.5%	59.7%	63.0%	64.5%	64.9%	71.4%	70.6%
13. Were there any aspects of the wording (terminology) used, either in the ticket wording or the TVM instructions, that you did not fully understand or you found confusing?	13.6%	11.9%	11.9%	8.7%	11.8%	8.8%	19.6%	2.9%
14. Did the TVM give any guidance as to what to do if you needed help with the ticket selection or were unsure which ticket to buy?	59.3%	59.3%	68.7%	66.3%	67.1%	70.2%	62.5%	76.5%
15. Does the TVM highlight if information is not provided?	25.4%	27.1%	26.9%	30.4%	32.9%	36.8%	35.7%	38.2%
16. Does it provide links to other sources for missing or further information?	61.0%	62.7%	59.7%	65.2%	68.4%	77.2%	64.3%	70.6%
17. Does the TVM highlight if it does not sell the full range of tickets available?	32.2%	28.8%	35.8%	28.3%	27.6%	28.1%	33.9%	32.4%
18. Does the TVM provide any information on the importance of choosing the correct ticket, or penalties/consequences of not purchasing the correct ticket?	23.7%	18.6%	22.4%	25.0%	21.1%	24.6%	25.0%	11.8%

	1 Off-Peak Single	2 Off-Peak Day Return	3 Anytime Single (16-25/26-30/Vet/Network RC)	4 Anytime Single (Two Together RC)	5 Anytime Single (No RC / Child)	6 Anytime Day Return (No RC)	7 Anytime Open Return (No RC)	8 Anytime Single (Senior / F&F RC)
19. Is there any signage on or around the TVM that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	47.5%	47.5%	52.2%	46.7%	50.0%	43.9%	46.4%	41.2%
20. Is there any other signage throughout the station that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?	40.7%	49.2%	49.3%	50.0%	57.9%	54.4%	53.6%	50.0%
21. While at the station, did you hear any announcements regarding the importance of purchasing tickets or penalties for having an invalid ticket?	10.2%	8.5%	6.0%	6.5%	5.3%	5.3%	5.4%	0.0%
22. If you had been a genuine customer buying this rail ticket, how confident would you be that you had selected the correct ticket?	79.7%	81.4%	85.1%	81.5%	85.5%	93.0%	48.2%	85.3%
23. Is there any information or signage that sets out who (party/supplier) would penalise you for not having the correct ticket or travelling with the incorrect ticket?	50.8%	50.8%	53.7%	48.9%	55.3%	49.1%	50.0%	47.1%
24. Is there any information or signage that sets out when or where tickets may be checked? (e.g. on the train)	15.3%	18.6%	19.4%	16.3%	18.4%	21.1%	25.0%	17.6%

	1 Off-Peak Single	2 Off-Peak Day Return	3 Anytime Single (16-25/26-30/Vet/Network RC)	4 Anytime Single (Two Together RC)	5 Anytime Single (No RC / Child)	6 Anytime Day Return (No RC)	7 Anytime Open Return (No RC)	8 Anytime Single (Senior / F&F RC)
25. Is there any information or signage that provides information on the possibility to pursue a (criminal) prosecution for not having the correct ticket or travelling without a ticket?	50.8%	45.8%	55.2%	50.0%	51.3%	49.1%	57.1%	47.1%
26. Is there any information or signage setting out that the station is within a penalty fare zone?	42.4%	40.7%	46.3%	48.9%	50.0%	52.6%	51.8%	47.1%

Appendix C – Ticket Type & Railcard Mapping

Ticket Type ID	Ticket Type Under Review	Railcard(s)	Departure Time	Return Time	Other Requirements
1	Off-peak single	None	Weekday, after 10am	N/A	
2	Off-peak day return	None	Weekday, after 10am	N/A	
3	Anytime single	16-25, 26-30, Veterans, Network	Weekday, before/after 10am	N/A	Journey under £12
4	Anytime single	Two Together	Weekday, before/after 09:30	N/A	
5	Anytime single	None	Anytime	N/A	Child fare
6	Anytime day return	None	Weekday, before 9am	Same day, after 17:00	
7	Anytime Open return	None	Weekday, before 9am	Return after 1 week	
8	Anytime single	Senior, Family & Friends	Weekday, before/after 10am	N/A	Journey within Network Railcard area

Appendix D - Questionnaire

ORR TVM Audit	
Location: Date: Time:	
Date	
Time In	
Time Out	
1.	
1. Please take a photo of the entrance of the station.	() Images uploaded
2. Which ticket type did you use for this survey?	
<i>Please ensure you assess the ticket type that is detailed in the survey summary notes.</i>	
3. Is information on ticket validity (restrictions such as time, operator, train) provided when tickets are being selected?	() Yes (1)() No (0)
<i>What good looks like: Information on restrictions/ validity provided on ticket selection page. Information on restrictions/ validity is easy to find on the screen or in pop-ups when ticket types are hovered over/ clicked on. Please attach a picture as evidence</i>	
4. How many clicks or taps did it take to find information on ticket restrictions or validity when tickets are being selected, for example by pressing the information icon?	() 0-1 () 2-4 () 5-7 () 8+
5. When selecting the information icon, does the TVM provide further information about your ticket?	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	
6. Is information on ticket validity (restrictions such as time, operator, train) provided ahead of checkout?	() Yes (1)() No (0)

<i>What good looks like: Validity restrictions highlighted on final checkout screen. Please attach a picture as evidence</i>	
7. Is information on class of ticket displayed clearly in the booking flow?	() Yes (1)() No (0)
<i>What good looks like: Class of travel displayed clearly on ticket choice (For example, first class, second class, etc...)Please attach a picture as evidence</i>	
8. Was the price clearly displayed for each ticket option?	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	
9. Did the TVM tell you at what time you could travel/use on/off peak tickets?	() Yes (1)() No (0)
<i>If Yes, what information was provided and how was it presented to you? Please attach a picture as evidence. If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i>	
10. If selecting a ticket with a Railcard before 10:00, did the TVM tell you if a discounted fare was valid or allow you to select a discounted fare?	() Yes (1)() No (0)() N/A
<i>If Yes, what information was provided and how was it presented to you? Please attach a picture as evidence. If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i>	
11. Is the information written clearly and simply throughout the TVM?	() Yes (1)() No (0)
<i>What good looks like: Information should be specific, informative and to the point</i>	
12. Does the information include acronyms or jargon?	() Yes (0)() No (1)

<p><i>What good looks like: Uses acronyms and jargon sparingly. Descriptions such as 'off-peak' are defined.</i></p>	
<p>13. Were there any aspects of the wording (terminology) used, either in the ticket wording or the TVM instructions, that you did not fully understand or you found confusing?</p>	<p>() Yes (1)() No (0)</p>
<p><i>If yes, what was the terminology used that you did not understand?</i></p>	
<p>14. Did the TVM give any guidance as to what to do if you needed help with the ticket selection or were unsure which ticket to buy?</p>	<p>() Yes (1)() No (0)</p>
<p><i>If guidance was given, who/ where were you referred to? Please attach a picture as evidence. If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i></p>	
<p>15. Does the TVM highlight if information is not provided?</p>	<p>() Yes (1)() No (0)</p>
<p><i>What good looks like: Omissions clearly noted on screen or on a sticker or poster around the TVM. Please attach a picture as evidence. If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i></p>	
<p>16. Does it provide links to other sources for missing or further information?</p>	<p>() Yes (1)() No (0)</p>
<p><i>What good looks like: Stickers or posters displaying further information or displaying web addresses which contain further information. Please attach a picture as evidence. If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i></p>	
<p>17. Does the TVM highlight if it does not sell the full range of tickets available?</p>	<p>() Yes (1)() No (0)</p>

<p><i>Please attach a picture as evidence.</i> <i>If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i></p>	
<p>18. Does the TVM provide any information on the importance of choosing the correct ticket, or penalties/consequences of not purchasing the correct ticket?</p>	<p>() Yes (1)() No (0)</p>
<p><i>Please attach a picture as evidence.</i> <i>If the TVM does not show certain information then we would need a picture of where this information is usually displayed as evidence to show it did not have this.</i></p>	
<p>19. Is there any signage on or around the TVM that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?</p>	<p>() Yes (1)() No (0)</p>
<p><i>Please take a picture of the signage</i></p>	
<p>20. Is there any other signage throughout the station that provides information regarding the importance of choosing the correct ticket or the consequences of travelling with the incorrect ticket?</p>	<p>() Yes (1)() No (0)</p>
<p><i>Please take a picture of the signage</i></p>	
<p>21. While at the station, did you hear any announcements regarding the importance of purchasing tickets or penalties for having an invalid ticket?</p>	<p>() Yes (1)() No (0)</p>
<p><i>Please comment what was said in the announcement.</i></p>	
<p>22. If you had been a genuine customer buying this rail ticket, how confident would you be that you had selected the correct ticket?</p>	<p>() Totally confident (1)() Fairly confident (1)() Neither (0)() Fairly Unsure (0)() Very Unsure (0)</p>
<p><i>Please provide a comment to explain your answer.</i></p>	

23. Is there any information or signage that sets out who (party/supplier) would penalise you for not having the correct ticket or travelling with the incorrect ticket?	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	
24. Is there any information or signage that sets out when or where tickets may be checked? (e.g. on the train)	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	
25. Is there any information or signage that provides information on the possibility to pursue a (criminal) prosecution for not having the correct ticket or travelling without a ticket?	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	
26. Is there any information or signage setting out that the station is within a penalty fare zone?	() Yes (1)() No (0)
<i>Please attach a picture as evidence</i>	