



Yorcard

This folder is the fifth in a series of six folders and two reports funded by the Department of Transport, Technology and Standards Division that form the research outputs which complement the Yorcard Smart Ticketing Pilot.

There is only one report in this folder. The four data books are included in the respective phase folders.

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The complete list of folders are as follows :

**Phase 1 General Reference and Baselining**

**Phase 2 Open system, first observations : Touch On only**

**Phase 3 Open system, full operational system : Touch On Only**

**Phase 4 Closed system, Touch On Touch Off**

**Phase 5 Additional Management data**

**Phase 6 Citizen Card**

**Phase 7 Reports: Research Final Report and Best Practice Report**



# Background

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Phase Five of the Research project is referred to as Management Information. It consists of 4 data books and this report of operational data supplied to the Yorcard Board.

The Yorcard Board met monthly. It received, amongst other papers, certain statistical operational data which helped inform the Board on progress of the operational pilot and assisted decision making. The information received by the Board is appended on the attached graphs and spreadsheets and should be read in conjunction with the accompanying notes. To assist the reader the data submitted to the Board is presented as a single continuous output with no overlapping dates and has in the case of the reliability graphs been summarised at weekly level.

There are four main operational outputs in this report. These are as follows :

## **1. On Bus Validator performance (Touch On Only)**

This time series of four charts measures the instance of OBV reliability from September 2008 to the end of the operational pilot in October 2009. The reliability of OBV's was low until March 2009. New software releases from the prime supplier and improved performance maintenance raised the overall reliability to 90% plus for the remainder of the operational pilot.

## **2. On Bus Validator Performance (Touch On : Touch Off)**

From April 2009 buses were fitted with exit validators. The two chart time series of graphs show the reliability of the validators. Improvements were seen in the overall reliability figures from mid-July 2009 to the end of operations when the overall reliability was above 90%.

## **3. Card Issuance and TravelMaster Sales**

The three tables show the number of new and replacement smartcards issues by type and product for the duration of the scheme.

## **4. Transaction Totals**

The ten graphs show the number of recorded smart transactions from November 2008 to the end of operations by card type by week. The increase in the overall number of observed smart transactions is largely a reflection of the corresponding On Bus validator reliability. See 1. above. From 15 June 2009 the data shows Touch on and Touch off transactions.

# Additional Notes

## 2.1 Chart of On Bus Validator (OBV) Availability

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Notes to be Read in Conjunction with the graphs and tables that follow

### Description of Data

This chart shows the percentage of smart buses with working OBV's on any one week-day for the two main bus operators participating in the pilot. (Stagecoach and First Bus.) It also shows an overall figure for both operators weighted by sample size.

### Information Collected By

In the absence of a reporting tool from the suppliers, information was obtained by sample checking a number of Stagecoach and First smart enabled buses most week days. This was achieved by boarding each bus and presenting a valid smart product to the OBV and recording the result. Only OBV's which correctly read the valid card were recorded as a pass.

### Additional Explanatory Comments

The percentage availability was calculated by taking the number of buses that passed in the sample divided by the sample size measured for that same day.

The daily sample sizes varied but averaged at 64 buses per week day from 1 January 2009.

On the very rare occasions where a bus operator used a bus without an OBV on a smart enabled route this was not included in the statistics.

Where a bus was surveyed more than once in any given day only the first result was used.

## 2.2 Chart of TOTO (Touch On/Touch Off) Availability

### Description of Data

This chart shows the percentage of buses from 20th April 2009 with working OBV's and Exit Validators (EEV's) on any one week-day for the two main bus operators participating in this part of the pilot. (Stagecoach services 52 and 120 and First Bus service 52.)

### Information Collected By

Information obtained by sample checking a number of Stagecoach and First smart enabled buses most week days. This was achieved by travelling along the line of route and presenting a valid smart Pay as you Go card, first to the OBV on boarding and secondly to the EEV on alighting and recording the results. Those bus validators which correctly read the card were recorded as a pass.

### Additional Explanatory Comments

The percentage availability was calculated by taking the number of buses that passed in the sample divided by the sample size (buses) measured for that same day.

The daily sample sizes varied but averaged at 37 buses per week day from end of May 2009.

There were no instances where a bus was recorded not to have both an OBV and EEV.

Where a bus was surveyed more than once on any given day, only the first result was used.

Where an OBV, EEV or both were not working, this was recorded as one failure.

## 2.3 Card Issuance and TravelMaster (TM) Sales

### Description of Data

This worksheet shows the number of ENCTS cards with Yorcard shells issued from April 2008 and other personalised cards from August 2008. (Table 1) Replacement of lost and stolen cards are detailed in Table 2. Sales of Day, Week and Month TravelMaster cards are set out in table 3.

### Information Collected By

Source data : TravelMaster : reports run using Yorcard back office and audited against SYPTE finance management system.

Card Issuance : records kept of card creation from Card Bureau services purchased on behalf of Yorcard.

Replacement cards logged by Yorcard team.

### Additional Explanatory Comments

MegaTravel cards are issued to resident children in South Yorkshire up to the age of 16 to show they are entitled to concessionary travel.

Zero Fare cards are issued to children eligible for free travel to and from school

Student 16-18 cards are for those students in full-time education aged between 16 and 18.

ENCTS, Concessionary Cards for Children and SYPTE Staff TravelMasters (Extended Period TravelMasters) were created by a card management bureau service purchased on behalf of Yorcard.

Replacement cards were issued by staff at Yorcard offices located at SYPTE headquarters.

TravelMaster is a travel card that allows the user to travel on any bus, tram and train in Sheffield or South Yorkshire area depending on the variant the customer purchases. These were available in smart form from three Travel Information Centres located in central Sheffield from August 2008.

For commercially sensitive reasons, operator own smart commercial products are not included.

## 2.4 Transaction Totals

### Description of Data

There are two different sets of graphs. The first shows the number of transactions for the operator Stagecoach and First bus combined by week, for smart TravelMasters, Children and students up to the age of 18 entitled to a concession, 'Not On Us' (ENCTS cards issued for residents outside SYPTE geographical area) and PAYGo : a touch on/touch off card for calculating adult single fares and best value day tickets.

The second graph displays the number of smart transactions for SYPTE ENCTS card holders for Stagecoach and First bus services only.

For both graphs touch on and touch off data is displayed separately.

### Information Collected By

Extracted from Yorcard back office and analysed by Yorcard personnel.

### Additional Explanatory Comments

SYPTE ENCTS data includes cards with Yorcard and ISL shells.

Operator only smart products are not included.

In the case of PayGo cards two transactions may be created when the card holder presents their card to the EEV. The first transaction is the process of refunding the daily capped product and the second transaction is deducting the adult single fare.

ENCTS cards include both seniors and mobility cards.

# Operational Graphs

## 3.1 Charts of On Bus Validator (OBV) Availability

All charts are percentages of On Bus Validators (OBV's) observed to be operational by Yorcard road side audits

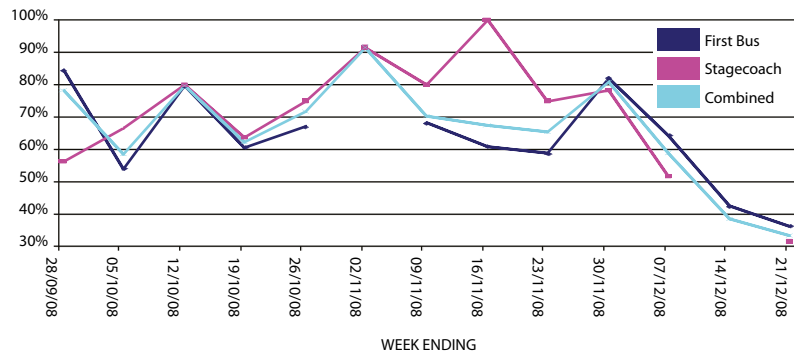


Figure 1 : OBV's operational 22 September to 21 December 2008

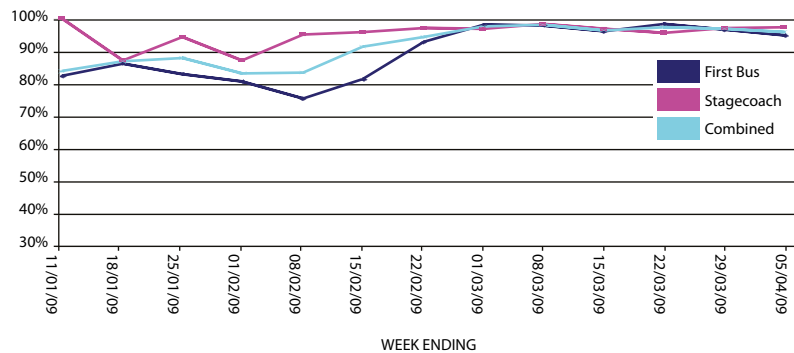


Figure 2 : OBV's operational 04 January to 05 April 2009

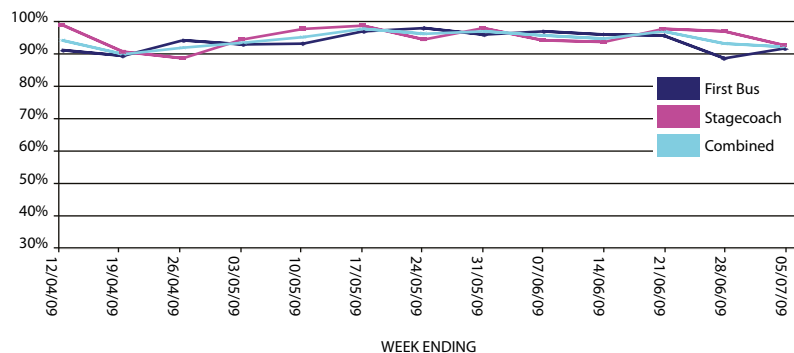


Figure 3 : OBV's operational 06 April to 05 July 2009



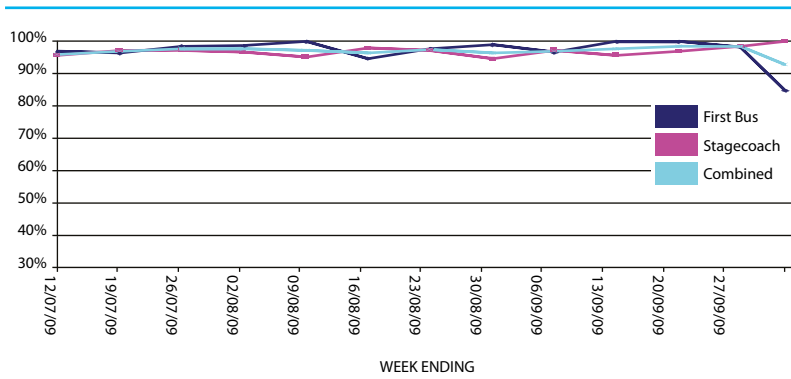


Figure 4 : OBV's operational 06 July to 02 October 2009

### 3.2 Charts of TOTO (Touch On/Touch Off) Availability

All charts are percentages of TOTO On Bus Availability observed to be operational by Yorcard audits

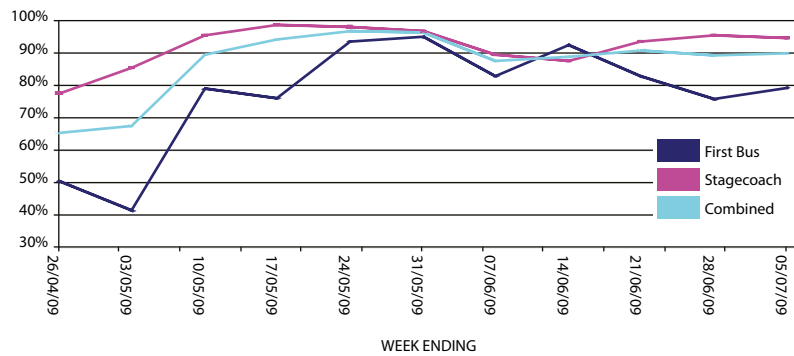


Figure 5 : TOTO availability 20 April to 05 July 2009

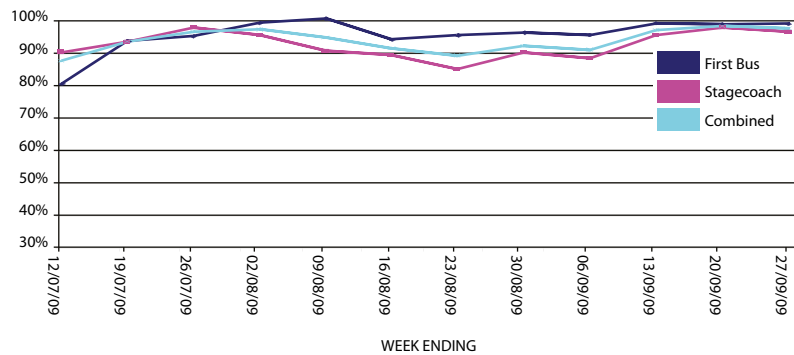


Figure 6 : TOTO availability 06 July to 27 September 2009

### 3.3 Card Issuance and TravelMaster (TM) Sales

Cumulative total of Yorcard Product Sales and SmartCard Production

	ENCTS Card	ZeroFare/ MegatTravel Card	MegatTravel Card	Student 16-18 Card	Extended Period TravelMaster	Total Number of Personalised Cards Issued
SYPTe Travel Information Centres/PTE			1		73	74
Small/local retailer						
Internet/Telesales						
Produced by Card Bureau Service	3641	1236	928	1437	502	7744
Rail TVM ( see re-scoping document)						
<b>Total</b>	<b>3641</b>	<b>1236</b>	<b>929</b>	<b>1437</b>	<b>575</b>	<b>7818</b>
Notes:	<p>All cardholders are seniors resident in S10 Sheffield. While original cards have a Yorcard shell, replaced stolen and lost ENCTS cards do not.</p> <p>academic year 2008/9 for selected Sheffield schools</p> <p>academic year 2008/9 for selected Sheffield schools</p> <p>For operational reasons, replacement ZeroFare/ MegatTravel and MegatTravel cards may be paper versions in some cases. The figures below only include smart enabled cards</p> <p>SYPTe staff, spouses, local councillors etc.</p> <p>academic year 2008/9 for selected Sheffield colleges and schools</p>					

Table 1 : Number of personalised Smartcard cards issued

	ENCTS Card	ZeroFare/ MegaTravel Card	MegaTravel Card	Student 16-18 Card	Extended Period Travel- Master	Total Reissued
Replacement cards issued by Yorcard (for lost and stolen cards). These cards are in addition to those listed in the table 1 above.	N/A : see note above	152	6	168	113	<b>439</b>

Table 2 : Number of replaced, stolen or lost personalised Smartcard

	TravelMaster products						Total
	TM Day	TM Week Sheffield	TM Week South Yorkshire	TM Month Sheffield	TM Month South Yorkshire	UniMaster	
SYPTe Travel Information Centres	22	65	135	30	39		291
Small/local retailer						6	6
Internet/Telesales							
<b>Total</b>	<b>22</b>	<b>65</b>	<b>135</b>	<b>30</b>	<b>39</b>	<b>6</b>	<b>297</b>

Table 3 : Number of Smart TravelMaster products issued to members of the public

### 3.4 Transaction Totals

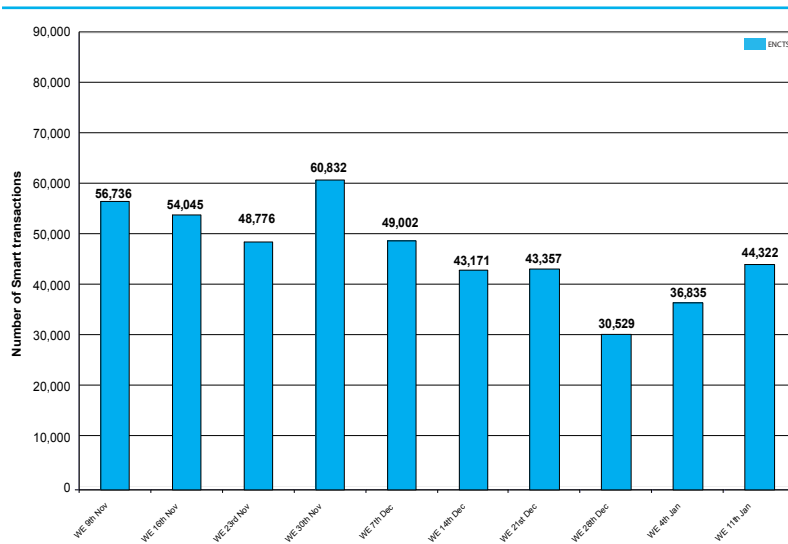


Figure 7 : ENCTS transactions 09 November 2008 to 11 January 2009 – Touch On

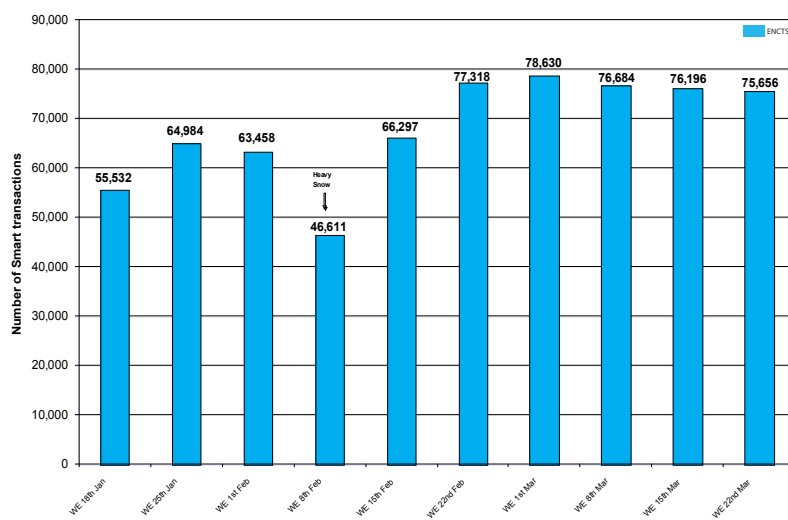


Figure 8 : ENCTS transactions 12 January to 22 March 2009 – Touch On

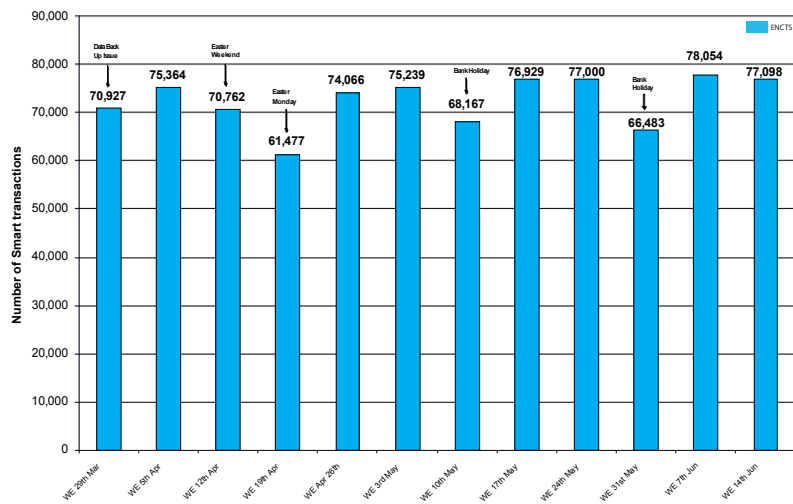


Figure 9 : ENCTS transactions 23 March to 14 June 2009 – Touch On

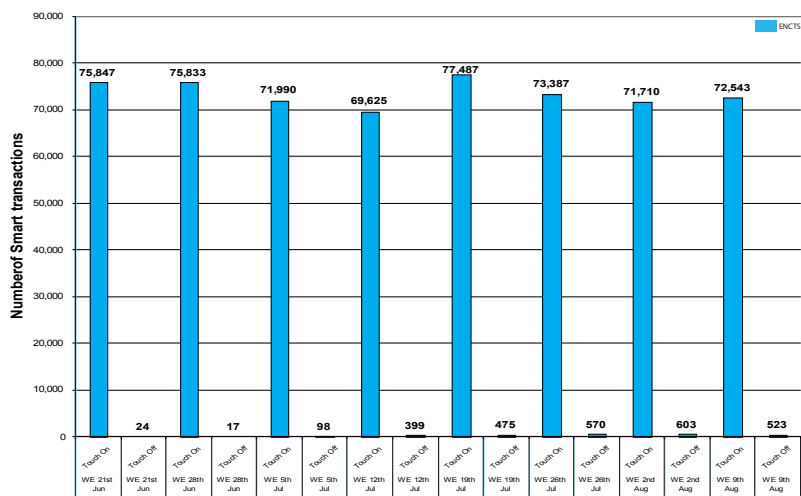


Figure 10 : ENCTS transactions 15 June to 09 August 2009 – TOTO

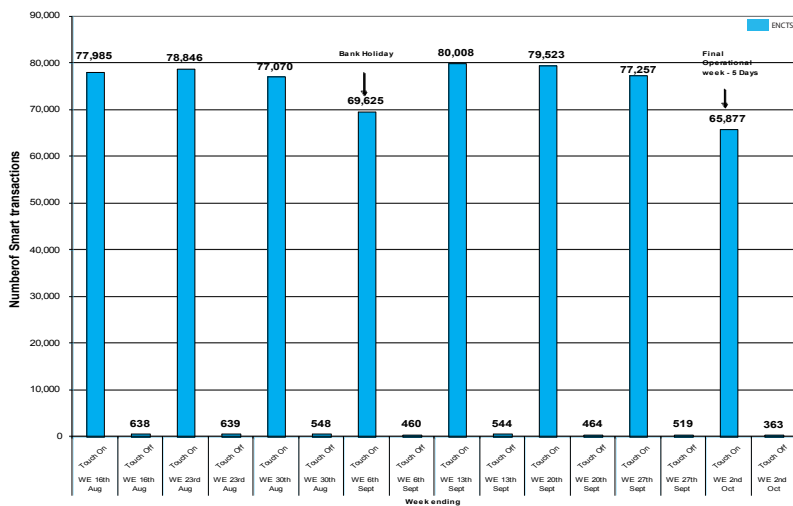


Figure 11 : ENCTS transactions 10 August to 02 October 2009 – TOTO

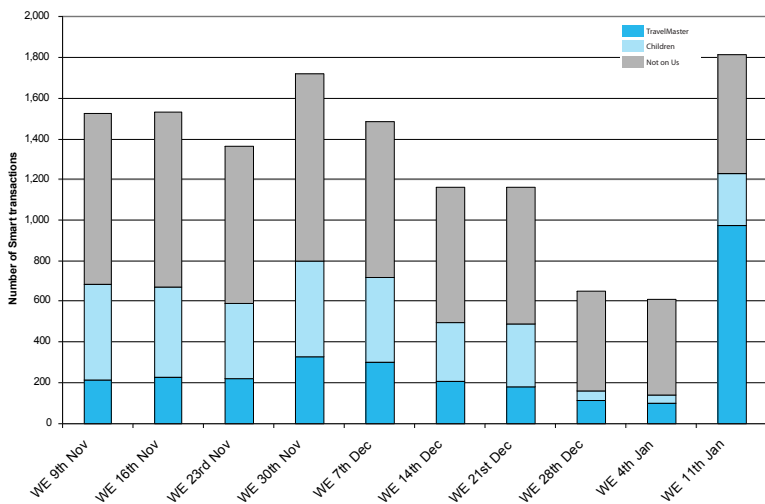
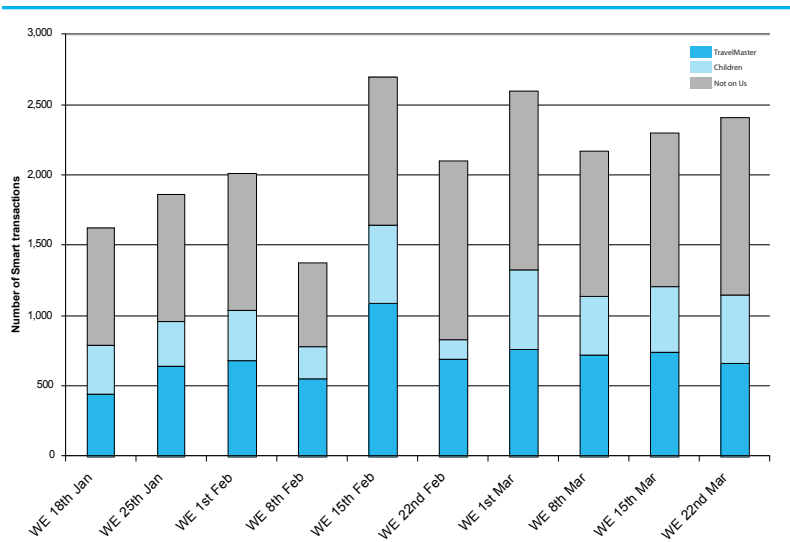


Figure 12 : TM/Children's/Not On Us transactions 09 November 2008 to 11



January 2009 – Touch On  
 Figure 13 : TM/Children's/Not On Us transactions 12 January to 22 March 2009 – Touch On

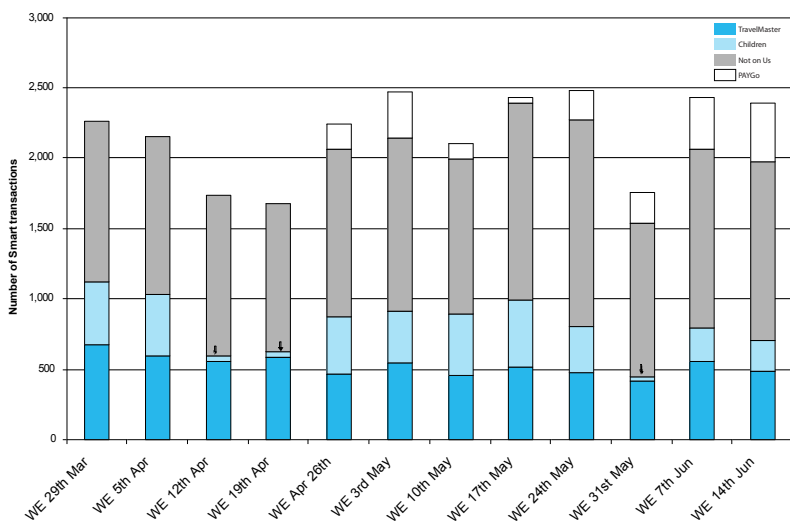


Figure 14 : TM/Children's/Not On Us transactions 23 March to 14 June 2009 – Touch On



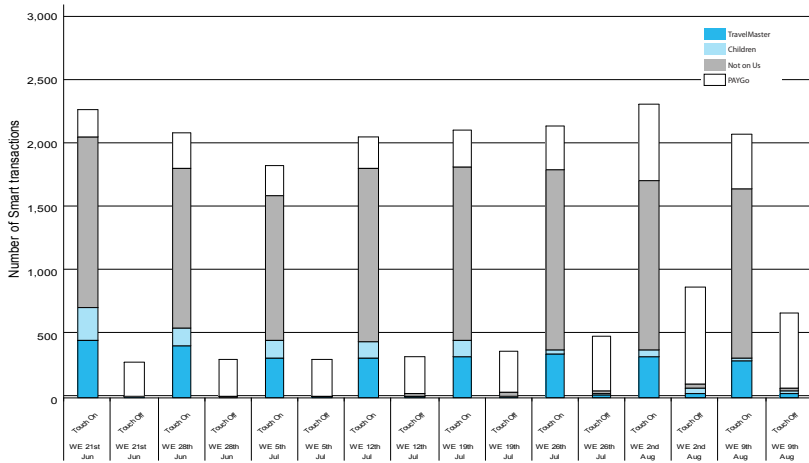


Figure 15 : TM/Children's/Not On Us transactions 15 June to 09 August 2009 – TOTO

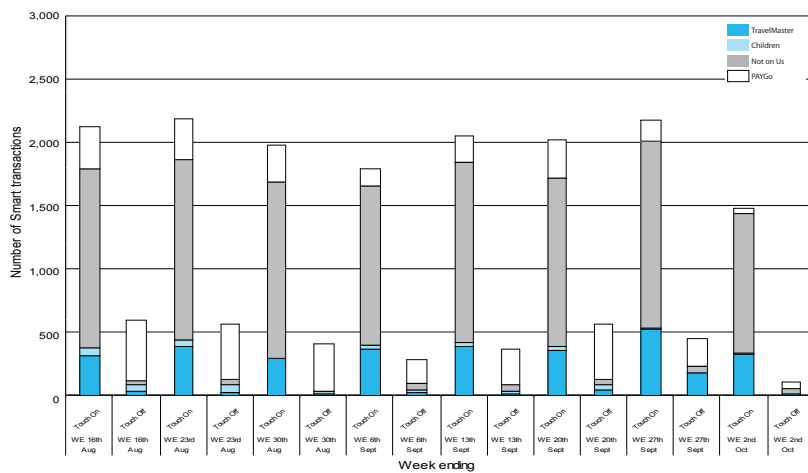


Figure 16 : TM/Children's/Not On Us transactions 10 August to 02 October 2009 – TOTO





