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A Critical evaluation of ITSO Smart Ticketing, policy, practice and outcomes: Initial Thoughts ('Think Piece')

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Abstract

The Oyster card is recognised all over the world as a successful smart ticketing solution. Outside London, the rest of the UK has a limited range of interoperable smart ticketing schemes operating in a deregulated public transport environment. This research project is exploring the role and scope of ITSO smart ticketing in the public transport industry in the UK. In particular, it is focusing on the governance framework in which it is delivered, in a local context and that of the wider implications of national roll out.

This project aims to investigate the extent of the achievement of a stated government aim to make "the best use of smartcards and multi-operator ticketing …… while seamlessly moving from one operator, or mode of transport, to another" (Department for Transport, 2012, p.5).

In order to gather the appropriate evidence to complete such an investigation, a research strategy that combines both qualitative and quantitative methods, a mixed methods approach, has been adopted. The principal qualitative element is focusing on the insights, views and perceptions of key industry and government personnel, whilst the quantitative element will examine the key outcomes of a multi operator, multi modal, smart ticketing project – South West Smart Applications Ltd (SWSAL).

Together with comparable evidence collected through a Case Study in Perth, Western Australia, conclusions will be drawn as to the degree the stated aims of government policy to achieve seamless travel across the UK, have been achieved thus far, and determine implications for the future.

Introduction

The Oyster card is recognised all over the world as a successful smart ticketing solution (Turner & Wilson, 2010). Outside London, the rest of the UK has a limited range of commercial interoperable smart ticketing schemes operating in a deregulated public transport environment. This is despite the desire of successive Labour and Coalition governments to encourage Local Authorities and Bus Operators to work together in partnership to achieve multi-operator smart ticketing (Department for Transport, 2012):

> "making the best use of smartcards and multi operator ticketing … seamlessly moving from one operator, or mode of transport, to another" (Department for Transport, 2012, p.5)

In 1998, in response to the White Paper (Department of the Environment Transport and the Regions, 1998) and its recognition of the role of smart cards in 'integrated ticketing' (Blythe, 2004) a group of key transport personnel and organisations in the UK, notably Transport for London, the Passenger

Transport Executives, some large Local Authorities, ATOC and the Department for Transport recognised the need for a standard specification for interoperable Smart Ticketing in the transport industry (Stoddart, 2006). ITSO, known formerly as the Independent Transport SmartCard Organisation, was formed, a not-for-profit Member organisation, now Guardian of the Crown copyright for the ITSO specification (Blythe, 2004; ITSO, 2013). The ITSO Specification "was developed with the aim of ensuring that public transport operators throughout Great Britain can develop compatible Smart Ticketing systems" (ITSO, 2013).

Interoperable ITSO schemes have, so far, largely been confined to the National Concessionary Fares schemes implemented across England, Scotland and Wales. Commercial ITSO schemes have proved less successful and whilst there are a number of multi operator schemes in the process of being delivered, currently, there are few in operation, a notable exception being in Oxford. There are successful single Operator schemes, such as Go Ahead's Key card and Stagecoach's StagecoachSmart card, but whilst these are ITSO schemes, they are not generally available in a multi operator environment.

Aims of the Research

This research project, funded by the Department for Transport and South West Smart Applications Ltd (SWSAL), is exploring the role and scope of ITSO smart ticketing in the public transport industry in England:

- To critically analyse the process and policy delivery of ITSO Smart Ticketing through qualitative research focusing on the insights, views and perceptions of key industry and government personnel.
- To assess the impact of technology on key outcomes of a multi operator, multi modal, smart ticketing project – South West Smart Applications Ltd (SWSAL). The empirical study will specifically monitor boarding times, emissions and passenger use.

At the time of writing, fieldwork is ongoing in respect of the first aim, the qualitative element, with the quantitative element being deferred until later in the project timeline.

Literature Review

The Literature review involved an examination of the political background to current transport policy, from the deregulation and privatisation of the bus industry through to a more sustainable transport agenda which continues to be the core of the Coalition's present day transport policy.

As well as a review of the Governance structures in place in the field, a consideration of the history of ITSO Smart Ticketing and an investigation into Smart Ticketing schemes in both the UK and other parts of the world helped to establish the context in which ITSO Smart Ticketing was being implemented. There is an extensive range of literature available on Oyster and its success, and whilst consideration has been given to its impact, and the research available reviewed, this research project is largely confined to ITSO in the bus sector in England outside of London.

Methodology

Overall a pragmatic approach has been adopted for the research process – applying research principles in the real world. This piece of evaluation research (Clarke, 2012) aims to evaluate current Smart Ticketing policy and ultimately provide recommendations regarding the implementation or workings of that policy.

A research strategy that combines both qualitative and quantitative methods, a mixed methods approach, has been adopted. The qualitative research method involves face to face interviews with "elite" participants – prominent well informed, knowledgeable persons within organisations, sometimes at the top, sometimes in key specific roles relating to smart ticketing, who are advisors to key decision makers (Mikecz, 2012; Schoenberger, 1991; Welch et al., 2002).

An interview list of some 50 prominent individuals was drawn up with the sample being distributed across the range of participant groups, including the Department for Transport, Transport for London, Bus Operators, Passenger Transport Executives, Local Authorities, Suppliers, Consultants and Academics. It was envisaged that the interviews would take place over an eight month period from October 2013 to May 2014, with time allowed during that period for on-going transcriptions.

A pilot interview ensured that the interview format was tested, however, the entire Perth Case Study functioned as a pilot study and lessons learned along the way informed the planning and execution of the England fieldwork.

The qualitative data will be analysed utilising the NVivo Qualitative Data Analysis software as an aide, as this is considered to add rigour to the analysis process (Bazeley & Jackson, 2013).

Perth Case Study

Perth in Western Australia, was chosen as a contrasting smart ticketing scheme to the UK. Whilst it has a similar regulatory framework to that of London, it is much smaller (1100 buses as opposed to London's 7500). Transperth is part of the State Government's Public Transport Authority (PTA), and is the brand name through which the Western Australian Government provides public transport services in the Perth metropolitan region, by means of buses, trains and ferries (West Australia Public Transport Authority, 2011-2015).

The case study was planned to elicit insights and perceptions about the Smartrider smartcard scheme, both from seven senior managers involved in the design, delivery and operation of the scheme as well as a focus group to elicit views from users.

Perth Initial Findings

Whilst no formal analysis has been undertaken as yet, I have gained a first impression of themes which emerged during the transcriptions. Five key issues emerged from all the interviews about the inherent characteristics that Perth had which contributed to the ultimate success of their Smart Ticketing scheme:

- Single regulatory body
- Integrated services
- Sound Business Rules
- Simple fares structure
- Staged Rollout

The Focus Group unanimously agreed that SmartRider was a popular successful scheme, but like any successful scheme, they take it as read that they have it and now want it to be even better.

Principal Fieldwork in England

The interview list was drawn from personal contacts and referrals from contacts and has evolved through the life of the project. Positionality has been a feature of this research and my involvement in, and knowledge of the industry over thirty years has enabled access to senior and influential personnel. I understand the terminology, and increasingly, my understanding of the subject is evident to the participants and seems to encourage more response. I am aware of the potential bias that could creep in here, and am making every effort to maintain as objective a view as possible.

England Initial Findings

As with the Perth study, no formal analyses has yet been undertaken, and at the time of writing 40 out of 50 interviews have been completed, with 20 of those having been transcribed. However, I have collated responses to a question which I asked everyone towards the end of the interview: "Can you give me three top tips that would be of interest to those looking to implement a smart ticketing scheme?" Several themes have emerged from an initial analysis of these "top tips", namely around Governance, Objectives, Partnership Working, Implementation, Product Simplification and Technical aspects. It should be noted that this first level of analysis is on an incomplete data set – only 20 out of the planned total of 50 interviews.

The following summarises four of the key themes:

Governance

A theme of a lack of strong governance emerged. This is a crucial area of concern as there is a distinct undercurrent of dissatisfaction at the way in which ITSO has been organised and its limitations, particularly in relation to enforcement.

Partnership Working

The deregulated industry is inevitably fragmented and disintegrated, so in order for interoperable schemes to work, the relevant operators, local authorities, suppliers and consultants have to work together in a partnership, and this is recognised as being a very difficult process, particularly in a competitive environment.

Staged implementation

Staged implementation was a clear message in the Perth study, and has been echoed thus far in the interviews conducted in England.

Product Simplification

In many cases the move to smart has seen the transfer of existing paper based systems, rather than taking the opportunity to simplify and streamline. Complexity, for the most part, leads to increased transaction speeds and unnecessary technical complications which in turn leads to delay in implementation.

Conclusions …. so far

The ITSO specification was designed to be the means by which interoperable ticketing could work in a multi operator environment, where the nature of a deregulated industry means that different infrastructure is adopted by different companies with different business rules. But in practice – is it working? My findings thus far would suggest that it is not without its problems, and only works when it is "fudged" or "a way around the problem" is found (direct quotations from participants). Shaw (2014) sums it up when he says:

> "The deregulated bus industry is now so complex that the straightforward, low-tech solutions in place elsewhere for many years simply won't work in the face of our plethora of disintegrated operators and equipment suppliers. Other than in Transport for London's (TfL) regulated system, bus operators will generally not work together to offer a reasonably priced integrated ticket option." (p.3)

The problem is undoubtedly multi-faceted and whilst it is too early at this stage of the research to draw any definitive conclusions, I am gradually pulling together the pieces of this complex jigsaw (Turner & Wilson, 2010) to see the whole picture.

1651 words

References

Bazeley, P. & Jackson, K. (2013) *Qualitative data analysis with NVivo.* ed. Jackson, K., 2nd ed. / Pat Bazeley & Kristi Jackson. edn. Los Angeles ; London : SAGE.

Blythe, P. T. (2004) *Improving public transport ticketing through smart cards.* Proceedings of the ICE - Municipal Engineer. vol. 157.

Clarke, A. (2012) *Evaluation Research - An introduction to principles, methods and practice.* London: Sage.

Department for Transport (2012) *Green Light for Better Buses.* Department for Transport, London: HMSO.

Department of the Environment Transport and the Regions (1998) *A New Deal for Transport, Better for Everyone.* Cmnd 3950, Department of the Environment, Transport and the Regions, London: HMSO.

ITSO (2013) *ITSO - Getting on board with smart ticketing*. http://www.itso.org.uk/ (Accessed: 01/13).

Mikecz, R. (2012) 'Interviewing Elites: Addressing Methodological Issues'. *Qualitative Inquiry*, 18 (6). pp 482-493.

Schoenberger, E. (1991) 'The Corporate Interview as a Research Method in Economic Geography∗'. *The Professional Geographer*, 43 (2). pp 180-189.

Shaw, J. (2014) *The transport debate.* ed. Docherty, I.,

Stoddart, P. (2006) 'ITSO inevitable!'. *Card Technology Today*, 18 (3). pp 11-13.

Turner, M. & Wilson, R. (2010) 'Smart and integrated ticketing in the UK: Piecing together the jigsaw'. *Computer Law & Security Review*, 26 (2). pp 170-177.

Welch, C., Marschan-Piekkari, R., Penttinen, H. & Tahvanainen, M. (2002) 'Corporate elites as informants in qualitative international business research'. *International Business Review*, 11 (5). pp 611-628.

West Australia Public Transport Authority (2011-2015) 'Strategic Plan'.