UK E-GOVERNMENT PROVIDER SATISFACTION EVALUATION: FINDINGS FROM THE I-MEET STUDY

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Abstract

This paper discusses the results of a survey that was conducted in the UK as part of the I-MEET project to gather feedback from government agencies responsible for facilitating online services in several core administrative functions. The focus of the paper is to assess the level of satisfaction as perceived by those public sector officials and contractors who were responsible for or are involved in the management and/or implementation of online systems for these administrative functions. These same functions were surveyed to record citizens' perception of online service satisfaction and are reported separately. An online questionnaire was derived from the I-MEET evaluation framework, localised, and circulated, and over 100 responses were received. This paper presents the results for the service providers' perceptions of service adequacy, technology support, policy and management support, e-service social and economic responsibility alignment, and also how well the service meets the provider's needs. Overall, respondents express a positive view, but also highlight a number of key issues in the development and management of such services. The specific findings may be of value to future online service projects, and more generally the study illustrates the potential of the I-MEET evaluation framework.

Keywords: e-Government, Satisfaction, Evaluation, Provider, Employee.

1   INTRODUCTION

International surveys continue to show that citizen take-up of the online transactional components of e-Government offerings continues to be low and needs to increase to reap the benefits of digitalisation (European Commission 2012, United Nations 2014). One possible cause is a mismatch of perceptions between the providers and users of such online transactions. The I-MEET[1] project (funded by the Qatar National Research Foundation and carried out by Brunel University Business School, Qatar University Business School, and the American University of Beirut, Lebanon; see Osman et al. 2014) set out to develop a systematic performance assessment tool for evaluating electronic government that integrates a range of measures of value (economic, management, social, technological) from all stakeholders' perspectives, especially those of providers and users.

I-MEET adopted a survey-based methodology to gather views from providers and users of a number of online transactions in Qatar, Lebanon and the UK. This paper discusses the results of the UK provider survey. The results of the user surveys of the same transactions are reported separately in Weerakkody et al. (2014) and Irani et al. (2014). The project will go on

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[1] See http://i-meet-egov.net/

to apply Data Envelopment Analysis to explore the possibility of correlations (or cause and effect relationships) between provider and user value measures. For example, it can explore whether improvements in administrative efficiency correlate positively or negatively with aspects of user satisfaction (Osman et al. 2014).

This paper reports on a survey that was carried out during the period April to September 2014 in the UK. The survey was distributed to employees of the following five organisations or their contractors: Transport for London, Local Government (councils), National Health Service, Driver and Vehicle Licensing Agency, and TV Licensing.

The remainder of the paper is structured as follows. The next section outlines the impact of 'satisfaction' in e-government adoption; and this is followed by an overview of the methodology adopted for the study. As the structure of e-Government transaction provision in the UK is highly complex (Waller et al., 2014), this is then described to give the background to the survey. The survey results are presented, then a brief discussion and reflection of the findings is offered followed by concluding comments.

2   E-GOVERNMENT SATISFACTION: A LITERATURE OVERVIEW

Although e-government is now the default method for disseminating government information and administering transactions between government and citizens in the UK, digital diffusion of information is often achieved at high cost to government agencies and the tax payer. Conversely, citizens' take-up of e-government services has been less than satisfactory in the UK (Carter and Weerakkody, 2008; Weerakkody et al., 2012). Although several studies have discussed models and factors for understanding e-government adoption and research by independent organisations (such as the OECD, the United Nations, or SOCITM, the UK association for local government IT managers) have produced a host of statistics and league tables of good and bad practices, e-government satisfaction still remains a major research theme. This can partly be attributed to the fact that few studies have attempted to understand holistically the link between provisioning of digital information and transactions and its take-up or usage. Often, the perception and expectations of the user differs from the provider in relation to the key dimensions of cost, opportunities, benefits and risks (Osman et al., 2014). The evaluation methods and standards currently used for measuring the users' (citizen) perception regarding the above dimensions often differ from those used to measure the providers' (government agency) perception of what constitutes best practice. The authors argue that this background has contributed to an ever widening gap between e-government implementation, diffusion and use resulting in lack of understanding of how e-government satisfaction influences adoption and diffusion. Current research has failed to neither take a holistic view of the acceptance standards nor offer any guidelines on how to evaluate user (citizen) expectations against the providers' (government agency) expectations of what constitutes good practice in terms of e-government systems.

Many researchers have outlined that the main objectives of public sector agencies should be to deliver efficient services, gain satisfaction, trust and confidence from citizens (Carter and Ballenger 2005, Irani *et al.* 2007, 2008, Beynon-Daives and Martin 2004). The challenge that most governments face is the question of how to maintain and continuously improve satisfaction and expectations among citizens of the services provided online. Over the years many studies have been published that have focused on identifying and evaluating the factors influencing user or citizens satisfaction in e-government (Carter and Ballenger 2005, Carter and Weerakkody, 2008, Chen et al., 2010; Fu et al., 2004; Kunstelj et al., 2009; Lee et al., 2011; Morgeson et al., 2011; Verdegem and Verleye, 2009). However, to our knowledge, no studies have measured satisfaction of e-government from the perspective of the providers offering the service. As argued before, we posit that assessing the providers' views on

satisfaction is relevant to better understand their perception towards the services they offer, particularly in comparison to the users who use the service.

3   METHODOLOGY ADOPTED FOR THE STUDY

The study reported in this paper adopted a survey-based research approach (Saunders et al., 2002; Cresswell, 2003) to record the views of public officials (providers) who are or have been involved in the development, implementation and/or management of e-government systems in the UK. The survey instrument was influenced by literature from the domains of e-government and information systems satisfaction (e.g. DeLone and McLean, 2004).

3.1   Research design

The I-MEET evaluation framework (Osman et al., 2014b) was used to design this study. The study conducted involved three stages to gather empirical data that included research design, data collection and finally data analysis and synthesis.

3.2   Design and questionnaire development

A survey was designed following the I-MEET evaluation framework and used initially in Qatar and Lebanon. The survey required minor modifications to make the terminology consistent with the UK usage. Moreover another question was added to be able to differentiate whether the institution employing the respondent was a contractor or not. The questionnaire contained a mix of multiple choice questions and open-ended questions. Sixty-one multiple choice questions were used to collect data across various features of the provided service. The participants were asked to select on whether they agree or not with the affirmation presented on a seven-point Likert scale ranging from Strongly Disagree to Strongly Agree. Two open-ended questions were used to better understand the provider's view on the online services offered by central governments or municipalities. In addition to these questions information about the respondent's role and the organisation was collected, without collecting any information that may identify the respondent.

3.3   Distribution of the Questionnaire

Service providers involved in the design, implementation, delivery or management of one of the above selected services were contacted and asked to complete the survey. Participants' independent views rather than organisation view were collected. The survey was completed online and participation was voluntary.

3.4   Data Handling and Statistical Analysis

The data gathered were transferred into a spreadsheet tool (Microsoft Office Excel) for quantitative analysis, storage and retrieval purposes. Descriptive statistics were used to present the quantitative results. The two open-ended questions were analysed through the use of NVivo software (QRS International Pty Ltd., Victoria, Australia).

3.5   Participants

A total of 120 people took part in the study. A mix of participants from council and central government bodies were selected. Service providers for the following online services were covered: payment for the annual TV licence fee, purchase or renewal of the prescription prepayment certificate, payment of the London congestion charge, payment of the local

authority council tax and payment of a local authority parking fine. Service providers from the following locations provided answers to the survey: London, Leeds, Edinburgh, Conwy, Uxbridge, Slough, Milton Keynes, Oxford and Yiewsley.

4 BACKGROUND TO THE UK E-GOVERNMENT TRANSACTIONS

Governments in the UK both centrally and locally began their electronic provision of government information and transactions to the public in the mid-1990s. In 2004, the direct.gov portal brought together content from different central government departments, and this was succeeded in 2012 by gov.uk. Non-central government public bodies (including local governments) maintained their own web sites and e-Government provision, as they were constitutionally distinct. Over the same period it became common for central and local governments to contract out administrative functions and public services (for example IT services, waste collection, TV licensing, parking control, adult care, and the London congestion charge) to private companies, including functions within which electronic transactions took place. Consequently, the provision of e-Government in the UK is not solely done within the public sector, nor delivered under a single strategy. This introduces additional factors to be taken into account in researching the field (Waller et al. 2014).

In the UK, the electronic transactions chosen for the I-MEET study spanned national functions where one single agency provides them, a unique city function for London, and local functions that are replicated by each local authority in the UK.

4.1 National functions

Payment of the annual TV Licence fee: Every household with a television must pay this fee. It can be paid online, by phone, or in local PayPoints (facilities in shops, petrol stations, etc), using almost any appropriate means of payment including by direct debit or electronic banking transfer. Paper licences are generally not issued: a household's licence can be viewed online. The administration of it is contracted out by the public broadcasting authority, the BBC. See http://www.tvlicensing.co.uk/ .

Purchase or renewal of the Prescription Prepayment Certificate (PPC): People who require frequent prescriptions for medication can save on prescription charges by pre-buying a PPC for three or 12 months (a "season ticket"). PPCs can be bought or renewed online, by post, by telephone or in some pharmacies. Payment can be by card or direct debit. With direct debit payment, PPCs can be automatically renewed. The scheme is run by the NHS Business Services Authority, an arms-length body of the Department of Health. See http://www.nhsbsa.nhs.uk

4.2 City function

Payment of the London Congestion Charge (CC): a per-day fee for driving into central London. Charges can be paid by SMS, phone, automated phone, post, or by automatic charge to a preset credit-card backed account (attracting a £1 discount). No "tickets" are issued. Automated number-plate recognition links payments to cars entering the charging zone. The administration of it is contracted out by the public transport authority, Transport for London. See http://www.tfl.gov.uk/modes/driving/congestion-charge/paying-the-congestion-charge

4.3   Local government functions

Payment of local authority Council Tax (CT): Council Tax is a property tax collected by local authorities and applies to all domestic properties, owned or rented. The amount paid depends on the size and type of property. It is payable monthly.

Payment of a local authority parking fine (Penalty Charge Notice, PCN): Parking "tickets" (PCNs) for parking violations are issued by local authorities and payment collected by them, often via contracted-out parking control companies.

5   SURVEY FINDINGS

Although the study looked at various aspects of the service provision, due to space limitations this study presents the results for the service adequacy, technology support, policy and management support, e-service social and economic responsibility alignment, and also how well the service meets the provider's needs.

5.1   Service adequacy

Figure 1 presents the service providers' view on how adequately delivered the e-service is. A total of 36% of the providers either *Agree* or *Strongly Agree* that the e-service is adequately delivered. Among the remaining 37% *Slighly Agree* that it is adequately delivered. A total of 22% neither agree nor disagree. A total of 5% either *Slightly Disagree* or *Disagree* that the services meet the needs and none of the providers *Strongly Disagree*.
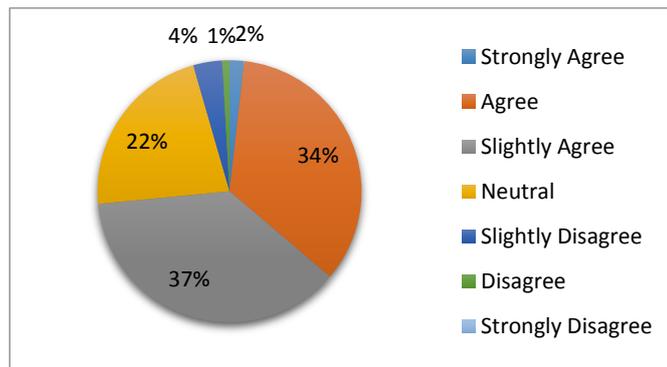

Figure 1.   Service providers' answers on how adequately the service is delivered

5.2   Technology support

Figure 2 presents the service providers responses on whether the technology available fully supports the delivery of the provided e-service. Most of the participants *Agree*, *Strongly Agree* or *Slighly Agree* that the technology fully supports the delivery of the provided services (69%). Almost one third (26%) neither agree nor disagree and 5% either *Slighly Disagree* or *Disagree* that the technology fully supports the service. As in the previous case, none of the service providers *Strongly Disagree*.
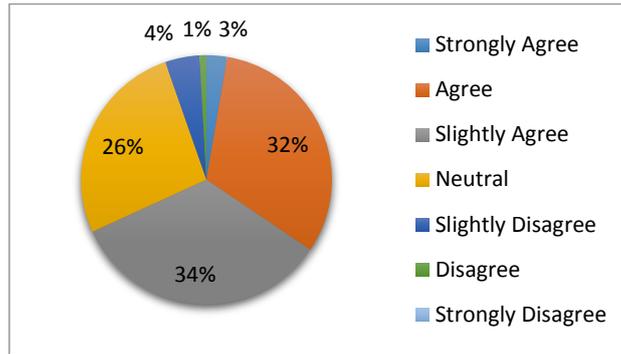
5

Figure 2.   Service providers' answers on whether the technology available fully supports the delivery of provided e-service

5.3   Policy and management

Figure 3 presents the service providers' responses on whether the current policy and management approaches are aligned with their e-service. A total of 34% of the providers either *Agree* or *Strongly Agree* that the approaches align with the provided services. One third of the participants *Slighly Agree* with the affirmation and 28% neither agree nor disagree. A total of 8% either *Slightly Disagree* (4%) or *Disagree (4%)* that the approaches are aligned. As with the previous affirmations none of the service providers *Strongly Disagree*.

Figure 3.   Service providers' answers on whether the current policy and management approaches
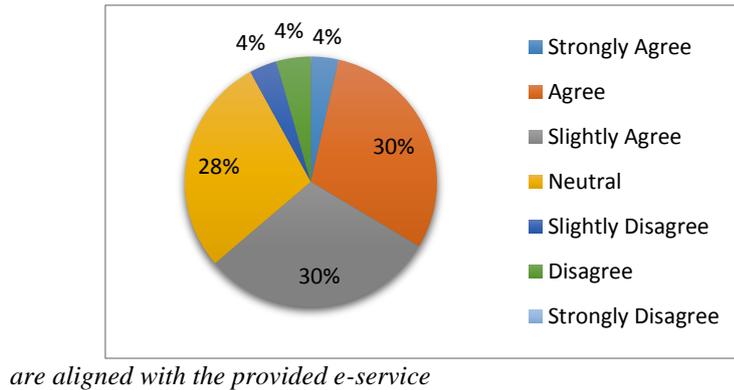
are aligned with the provided e-service

5.4   Social and economic policy

Figure 4 presents the service providers' responses on whether the social and economic responsibilities are aligned with the provided e-service. A total of 69% of the providers either *Agree*, *Strongly Agree* or *Slighly Agree* that the social and economic responsibilities are aligned with the provided e-service. The remaining providers either feel *Neutral* about it (29%) or *Slightly Disagree* (2%). None of the service providers *Disagree* or *Strongly Disagree* with the above affirmation.
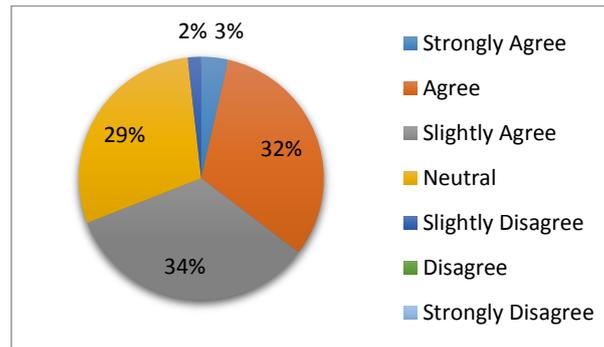
Figure 4. *Service providers' answers on whether the social and economic responsibilities are aligned with the provided e-service*

5.5 Needs

Figure 5 presents the providers' responses on how well the e-service meets the providers needs. A total of 43% of the providers either *Agree* or *Strongly Agree* that the service meets their needs as a provider. A total of 31% *Slighly Agree* it meets their needs and 20% feel *Neutral* about whether their needs are met. A total of 6% either *Slighly Disagree* or *Disagree* that the services meet the needs. As for the previous cases none of the providers *Strongly Disagree* that the e-service meets their needs.
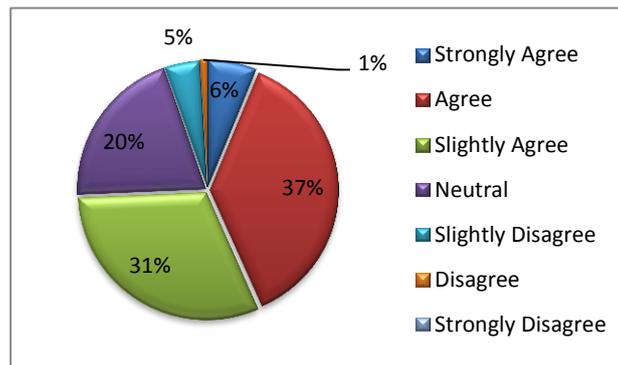

Figure 5. *Service providers' answers on how well the service meets the provider's needs.*

5.6 Qualitative feedback

The participants had to answer two open questions: one in which they had to explain why (or why not) this e-service does (or not) meet their essential needs as a provider relative to other e-services they provide; and another one in which they were asked for any further comments. Regarding how the service meets their needs, the participants mentioned: (a) the ability to provide the same services in less time (e.g. "Processing of parking fines are faster", "E-Procurement system has brought about faster [...] system of procurement"; "increasing the volume of customers served"); (b) improved communication, information flow and stakeholder engagement (e.g. "Our department has benefitted immensely from e-services through effective flow of communication"; "E-services encourages stakeholder engagement"); (c) reliable and easy to use service (e.g. "Helps in automating services and providing reliable services"); (d) availability of self-service; (e) improved service accessibility; (f) online version of the services was considered more environmentally friendly ("Contributes towards environmental friendly system"); (g) improved the quality of the service ("IT integration has improved the quality of service delivery"); (h) improved transparency ("E-Procurement system has brought about […] transparent system of procurement.", "E-Service allows simple and transparent open tendering system"); (i)

improved data security, confidentiality and trust; (j) improved service quality and reduce number of complains (e.g. "E-services has reduced the number of complaints") and (k) improved business relationships (e.g. "Developing business relationships and ways of working across the delivery life cycle"). The importance of organisational support was mentioned as an important factor in the delivery of a certain service. For example one of the service providers for the council tax payment service mentioned: "The service would not have worked without the buy-in and support of service directors AND a top-down culture shift within the organisation".

The participants also mentioned several issues either with the service or with the way the service was implemented and introduced within organisations. They mentioned among others: (a) the lack of organisational/management support and the staff not being prepared for the introduction of the service (e.g. "Document control and control management not taken seriously enough by management."; "Staff and management would need to buy into e-service provision."; "This is a new phase of technological advancement in the organisation as staff are used to traditional paperwork services"; It was considered that "Staff attitude should be given utmost consideration"); (b) communication issues during the initial phases of the project and the bureaucracy (e.g. "Projects sometimes do not work according to the planned schedule due to lack of co-operation and communication issues"; "Implementation process sometimes take longer due to bureaucracy in public sector"; "Bureaucracy of public services has adverse impact on e-service implementation"); (c) cost of the implementation (e.g. "cost of implementation is an issue") and problems that occurred because not all the costs have been foreseen such as exceeding the budget allocated for the project (e.g. "Other hidden costs need to be considered, as most projects implemented have exceeded their budgeted costs"); (d) lack of user training (e.g. "No training was provided"; "Need to train service providers effectively and include the employees in the delivery process"). Participants believed that "Staff training and development are crucial to any new service and therefore it should be given adequate consideration"; (e) the need to introduce new services (e.g. "There are more services we could provide, particularly for our business customers"); (f) lack of the ability to customise the service (e.g. "Lack of configuration management control, and lack of structure"; "There could be an option to change the language") and (g) infrastructure issues (e.g. "The system cannot cope with CAD demands. Computers are not capable").

6   DISCUSSION AND REFLECTION

This research presented the results of assessing government and municipal service providers' opinion of the online services delivered to citizens. Providers from five services (annual TV licence fee payment, purchase or renewal of the prescription prepayment certificate, payment of the London congestion charge, payment of the local authority council tax and payment of the local authority parking fine) were asked to complete a survey based on the I-MEET evaluation framework. The survey covered aspects of the provided online service in general, system aspects, cost, implementation, prerequisites, various dimensions of effects, and the respondent's overall opinion of the system. The results from the questions regarding the overall opinion of the system were presented in this article. The overall opinion was measured across five dimension: (1) how adequately the service is delivered, (2) existing technology support, (3) alignment of policy and management approaches with the service, (4) service alignment with social and economic policies and (5) how well the service meets the provider's needs. Moreover, two open-ended questions were used to better understand providers' perspective. Most of the respondents have an overall positive opinion about the service their institutions provide. They mentioned the positive outcomes from using the services such as an improved quality in the service provided, increase in transparency and availability for self-service. They also mentioned several issues that impede project development both during the initial planning and after the project was rolled out such as the

lack of support from management, underestimating costs, communication issues during the initial phases of the project, bureaucracy, lack of user training, the need to cover more services, having the ability to customise the existing ones and improvements in existing technology.

This study has several theoretical and practical implications. The current study contributes to the existing literature by evaluating the provider satisfaction with the central government and municipal services in UK. In doing so, it uses the I-MEET evaluation framework that has not been used before in the UK.

From a practical perspective this study provides existing providers with insights on the positive outcome of introducing online alternatives to existing central government and municipal face-to-face services, but also challenges encountered during the implementation and adoption. These would help policy makers and ICT managers to improve existing services and better prepare them for the existing challenges that other projects faced when preparing to introduce such new services.

7   CONCLUSION

This paper has captured the perception of staff involved in the development, delivery and/or management of e-Government systems across several key government functions in the UK. By evaluating the 'provider' perspective of satisfaction in relation to e-Government, this paper has attempted to analyse employees' views on the benefits, risks, cost savings and opportunities that e-Government offers to their organisations. The findings of our study largely point towards a state of satisfaction across all the government functions surveyed in this study. This suggests that the general objectives of e-Government have been met from the provider perspective in the UK. This study is the first independent attempt to assess employee perception of e-Government across multiple government agencies in the UK. Interpretations of this study will be more meaningful when compared against data collected from citizens for the same e-Government systems. This task will be performed as the next research step in this study as part of the I-MEET project funded by the Qatar National Research Fund. It is hoped that a comparative analysis of satisfaction from both the 'provider' and 'user' will enable us to identify and classify exemplar e-Government systems, learn lessons from these and help address other systems that need improvement.

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