Rising to the data management challenge

An Experian Public Sector Whitepaper

Experian™

Data Quality

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1. Reduced budgets, more public data

The public sector faces an unenviable task; sustaining and improving public services in a climate of Westminster-led financial austerity.

With resources stretched, councils and other bodies are being asked to do more with less - heightening the importance of making astute decisions grounded in hard evidence. But as budgets contract, the volume and complexity of data faced by public bodies is continuing to increase. This is placing additional pressure on legacy data management systems and processes, with authorities already struggling to collect, store, interpret and share information effectively.

Public sector data management inefficiencies are by no means a recent problem - the need for an overhaul pre-dates the economic downturn. Technological innovation and academic advances have highlighted many of the duplications, inaccuracies and inefficiencies which undermine the discipline. Poor quality data management contributes to flawed decision-making, reduced productivity and a breakdown in public trust.

Local government needs to counter these dangers by placing renewed focus on data quality and effective data management - ensuring the UK's vast resource of public information adds value. However, the affordability of solutions is crucial. In the current climate, councils cannot spend money they do not have.

"The average proportion of departmental budget wasted as a result of inaccurate data is 15%"[1]

2. Rising to the data management challenge

There are clear opportunities for improvement in public sector data management, through the deployment of technology and the revision of people processes.

And in many instances, local government departments are willingly embracing change. Recognising the opportunity to replace information silos with more integrated, accurate data sets, public authorities are forging ahead with modernisation plans. This is helping councils to improve service delivery, achieve compliance and meet ever-increasing citizen expectations.

A renewed focus on data quality and openness - aligned with a more informed approach to analysis and interpretation - is delivering the intelligence needed to support local decision making. Authorities are

collecting more accurate data, and discovering ways of using it more effectively. This is leading to insightful, reasoned judgements, which translate into improved service delivery and better value for the taxpayer.

"Between 10% and 25% of organisations' data contains' serious errors"[2]

[1]Dynamic Markets and Experian Data Quality Global Data Quality Research (2012)

[2]SiriusDecisions (2009) 'The Impact of Bad Data on Demand Creation'

2.1 AddressBase Premium®

Public sector organisations need to have a single, definitive source of accurate spatial address data. The creation of AddressBase Premium® - a new address and location file driven by the Ordnance Survey and GeoPlace LLP - is helping to deliver this, facilitating the sharing of information The Unique Property Reference Number (UPRN) included in the data file provides a unique identifier to aid the creation of a single citizen view (SCV). The data file, which is free at the point of use to members of the Public Sector Mapping Agreement, offers a definitive supply of spatial address data - with greater emphasis on non-postal locations, properties not yet built and property changes.

The information offered by AddressBase Premium® is crucial to bodies delivering public services across a diverse set of locations. They need to have a migration strategy in place for their data, and also the necessary tools at their disposal to maximise the value of the resource. Putting the required systems and processes in place can lead to real efficiency savings and cost benefits across local.

3. Achieving a single citizen view (SCV)

Within the framework of the Transformational Government initiative, improved workflows and automation are ensuring access to timely and relevant data.

Moves towards centralised records are alleviating the burden placed on public bodies to manage their own individual data sets. In addition to clear economies of scale, this helps achieve a single citizen view - vital if the UK is to develop an effective shared services culture.

Creating a 'golden record' for each person allows public bodies to streamline their data systems, reducing management costs and complexity. Examples of this include plans for Universal Credit - which will pool all information relating to individual benefit claims - and HMRC's real-time information project. This also helps local authorities comply with initiatives such as Government Gateway and Tell Us Once.

Public bodies are getting much better at identifying the data required to support vital functions. Management systems and processes - that can be applied in-house or through a private sector partner - enable data to be validated more effectively and made more readily available.

3.1 Council boosts data sharing and interpretation

In partnership with Experian Data Quality and the Improvement Service, North Lanarkshire Council ran a successful customer data cleansing and matching exercise. The exercise analysed thousands of customer records held across a number of the multiple systems and databases operated across the Council. The data was formatted to a common standard, corrected and improved e.g. adding missing elements, correcting spelling errors, re-coding postcodes, as well as adding valuable demographic and geographic information to records. Duplicate records were then merged and assigned unique IDs to help facilitate a SCV.

To read the full case study visit:
www.qas.co.uk/casestudies

4. The economic case for an upgrade

Economic pressures have catalysed positive developments in public sector data management, as councils improve efficiency.

Better data governance and increased insight are other key drivers, but the financial case for investment is all-important. Budget holders are principally concerned with spend on existing processes, as well as savings potential. Intangibles - such as improved quality of service and higher levels of citizen engagement - tend to be less persuasive than measurable bottom line gains when it comes to pressing councils into action.

A report published by the Policy Exchange offers some insight into the economic benefits of improved data management. Estimating that better quality data and improved management techniques could save the public sector £16-£33 billion per year, equivalent to between £250 and £500 per head of the population[3]. The July 2012 report demonstrates how authorities could reduce costs while also increasing public revenues, and without further impeding the delivery of front-line services.

The Policy Exchange argued that enhanced operational efficiency (£13-22 billion per year) and reduced fraud and error (£1-3 billion per year) could help cut public expenditure significantly. Additionally, the availability of a single citizen view could enable the government to boost Treasury coffers by an additional £2-8 billion per year. Theoretically, if councils are able to draw together the data obtained through multiple touch points, they should be able to see a strong return on investment - even before other less-measurable factors are considered.

> "Better quality data and improved management techniques could save the public sector £16-£33 billion per year"[3]

5. The role of technology solutions

Centralised databases and data sharing initiatives are improving access to relevant and reliable data.

But in order to benefit practically, public bodies need to define what they are trying to achieve. They also require an appropriate strategy for drawing insight from data, in terms of understanding what the facts and figures are telling them. This determines the true value of data.

Technology is no 'silver bullet' for effective data management. IT plays a crucial role as a facilitator, enabling councils to consolidate systems, share information, refine processes and identify key trends. But without human guidance and reasoning, even the most sophisticated of IT tools can become a blunt instrument. Technology provides precision and guides analysis, but

a more holistic view - based upon experience and informed scepticism - is also required. Data needs to be validated and assessed throughout the process to minimise the potential for error.

However, the role played by technology in public sector data management should not be underestimated. Local authorities - or their data management partners - are now able to unify and cross-reference large and complex information sets, and use advanced analytics to deliver valuable insight. Data virtualisation offers access across different network locations - helping authorities to boost productivity and speed up decision making.

[3]Policy Exchange (2012) 'The Big Data Opportunity: Making government faster, smarter and more personal'

Meanwhile, hosted IT services are driving efficiencies in line with the government's G-Cloud agenda.

Research conducted by Gartner suggests organisations - both public and private - are alert to the potential benefits of IT. The firm expects master data management software revenue to reach £1.19 billion in 2012, up 21 per cent on last year. By 2015, the global market is projected to be worth £2 billion[4]. Colleen Graham, research director at the IT analyst, said pressures to optimise costs and efficiencies in a heterogeneous IT environment are driving organisations to turn to master data management. They see it as a more efficient way to manage and maintain data across multiple sources, while meeting governance, risk and compliance obligations.

The key is identifying a clear role for digital solutions, where their capabilities and limitations are fully understood. Used in the right way, IT adds significant value to the process, in terms of pooling, managing and interpreting complex data. But human intervention is equally crucial.

5.1 Digital by Default

The government is aiming to save £1.2 billion per year by 2015, by moving everyday transactions online[5]. Citizens are being urged to use the internet for a wider range of tasks - such as completing tax returns, booking driving tests and applying for their state pension. The 'digital by default' agenda gives local government bodies the chance to significantly cut operational costs and improve the quality of service. However, they need to ensure non-web users are not left behind.

Public bodies have a responsibility to ensure services are accessible to all citizens, meaning a variety of channels should be offered - such as phone, post and the internet. Communicating with individuals through the most appropriate channel can help save money and boost engagement - however this in itself requires accurate data. When migrating to digital services public bodies need to account for where their information has come from and assess its reliability. Offering a range of different citizen touch points can help improve accuracy levels.

"Britain is in a global race and that's why we need to have modern, efficient, digital-by-default public services that are fit for the 21st century.

Digital services are much more convenient because they can be accessed whenever you want them. They are also much more efficient, saving taxpayers' money and the user's time. Online transactions can be 20 times cheaper than by phone, 30 times cheaper than face-toface, and up to 50 times cheaper than by post."

Francis Maude,
Minister for the Cabinet Office[6]

6. Putting a strategy in place

Public bodies have two main options when it comes to sourcing data management expertise - to hire internally or contract a third-party specialist.

Both approaches can work, providing councils put the necessary technology, processes and people in place. But with limited funds to achieve their lofty ambitions, ever-more authorities are considering the outsourced model. This sees them work with a private sector partner to develop a tailored approach to data management, minus the capital expenditure usually associated with major IT projects. This enables public bodies to access data management expertise they may not possess inhouse, helping to minimise risk.

One of the most important tasks when outsourcing data management is to ensure the aims and expectations of both parties are aligned. Both the public body and the service provider need to have a clear idea of the short, mid and long-term goals for the project. They should also understand the role each will play in improving data management, both during the implementation and operational stages.

A collaborative approach is required from the outset, establishing targets and measuring progress against key performance indicators.

[4]Gartner (2012) 'Gartner Says Master Data Management Software Revenue to Grow 21 Percent in 2012'

[5]Cabinet Office (2012) 'Government Digital Strategy'

[6]Cabinet Office (2012) 'Government Digital Strategy moves Whitehall closer to being 'Digital by Default'

> "Information governance responsibilities will become part of the roles of more people, and the time and funding allocated to these roles will need to increase dramatically.
>
> Organisations will have to increase their investment in related tools and technologies, both to facilitate the development and refinement of policy, and to distil policies into executable rules that tools can apply to information."
>
> Ted Friedman,
> Vice President and distinguished analyst at Gartner. [7]

7. Action plan for better data management

Working together, the local government body and data management provider should consider the following key principles to maximise the success of their strategy:

Start by understanding where you are
Consider where you want to be and the steps required to take you there. Does your current strategy deliver the information needed to deliver against key objectives?

- Are data processes documented and understood throughout the organisation?

- Do your employees understand their roles and responsibilities towards data?

- Are your data processes consistent across business units and functions?

- Are regulatory and compliance requirements for your business met through data processes?

- Is the root cause of data quality issues easily identified and are there plans to correct and mitigate?

- Can your business easily monitor data quality and understand the impact of poor data?

Get the basics right
Although data quality management is not always seen as a priority, the accurate capture and collection of data is essential for public bodies aiming to work more efficiently, provide a better service to citizens, and remain compliant with government initiatives (e.g. Government Gateway) and legislation (e.g. Data Protection Act 1998).

To assess data quality levels, organisations can benchmark themselves against seven key components:

- Accessibility – is the data easily accessible, understandable and useable?

- Accuracy – does the data accurately represent reality?

- Completeness – is all necessary data present?

- Consistency – are data elements consistently defined and understood?

[7]Policy Exchange (2012) 'The Big Data Opportunity: Making government faster, smarter and more personal'

- Integrity – is the data and linkages maintained consistently?

- Timeliness – is the data up to date and available when needed?

- Validity – is the data relevant?

Integrating data management tools into your systems can help ensure the accuracy of information stored on databases. This allows organisations to get the most from their data and applications.

Develop your strategy
Once the basics have been accounted for, the next step is to consider whether any improvements can be made to operational processes.

- Seek to establish how data can be published and distributed for maximum effect. Are you successfully measuring the impact of data on your initiatives?

- Identify any areas where data could be better utilised to improve levels of citizen engagement and build trust

- Is any additional information needed to help achieve your goals?

- Are you using the most effective solutions?

- Are you maximising the value of available knowledge?

Futureproof
Keeping up to date with the latest developments in data management helps ensure your strategy remains relevant and offers the maximum possible value. Evaluating its success over time and planning new initiatives can help avoid common project pitfalls.

8. Setting an example for UK business

Data management is becoming an ever-more pressing concern for all UK organisations.

"Data is the 21st century's new raw material" [8]

Francis Maude, Minister for the Cabinet Office and Paymaster General, described data as "the 21st century's new raw material" - alluding to its potential value to organisations if used appropriately. He said data offers value in terms of driving choice and improvements in public services, holding authorities to account, and inspiring innovation and enterprise.8 Through targeted investment in technology and people processes, local authorities are starting to exploit this resource more effectively.

Businesses too are being confronted with a deluge of data from a variety of different sources. The effective use of this raw information can inform firms about their customers, partners, competitors and industries as a whole.

Following the lead of local government on data management can better position businesses for future growth.

The wider availability of accurate data helps eliminate the false assumptions which too often lead organisations down the wrong path. It informs decision makers, giving them the confidence to act authoritatively and deliver more personalised services and a better end-user experience. In a tough economic climate, these are laudable achievements.

[8]Experian Data Quality; Cabinet office (2012); Open Data White Paper; Unleashing the potential

About Experian Data Quality

Experian Data Quality has built up exceptional market coverage assisting customers with their unique data quality challenges.

We provide a comprehensive toolkit for data quality projects combining our market leading software with a vast scope of reference data assets and services. Our mission is to put our customers in a position to make the right decisions from accurate and reliable data. The size and scope of data management projects varies considerably but the common factor in all ventures is unlocking operational efficiency and improving customer engagement. We see the potential of data. Whether it's in enabling ambulances to be sent to the exact location of an emergency or attributing charitable donations to the people who need it the most - data accuracy makes all the difference to service provision.

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