Hidden costs of poor data quality

Why is data quality important?

High quality data is essential for policy and decision making and underpins your organisation's strategic outcomes. Poor quality data, including data that is inaccurate, incomplete, or out of date, is data that is not fit for purpose. Poor quality data increases risk and can cost you time and money. This article looks at the costs and risks associated with poor quality data.

The costs of poor data quality

Poor quality data costs the government, businesses, and society every single day. The DAMA Data Management Body of Knowledge states that estimates differ, but experts think that organisations spend between 10-30% of revenue on handling data quality issues. However, there are also direct and indirect costs associated with poor quality data that are more than just monetary.

The direct costs of poor quality data are often seen in short-term operational issues. We may send staff to the wrong place, pay the wrong amount, fail to provide services correctly, or spend extra time on verification or re-entering data.

Indirect costs caused by poor data quality can include the costs of poor or wrong decisions or the costs of reputational damage. These often have strategic costs or risks that can have a longer-term, negative impact in the future.

There are costs involved in improving data quality, such as training, monitoring, IT and planning costs. However, the benefits of high quality data will always outweigh the costs of poor data quality.

The impact of poor data quality

Decision making

Indirect costs can be harder to measure. You may not immediately realise the true cost of poor data quality. It may be a longer-term consequence, such as a damaged reputation. Poor data quality can weaken evidence, create mistrust, and lead to poor decision making. This in turn can lead to poor outcomes for society.

Evidence based decisions and policies are only as good as the data they are based upon. Missing or duplicate data could result in you over or undercounting and then in poor decisions being made, leading to negative outcomes.

Reputational risk

Poor quality data also poses a reputational risk. This could include negative media exposure and GDPR issues, with data quality being a requirement of GDPR. Duplicated data could result in you contacting the same person multiple times. This can lead to feelings of frustration and mistrust, as well as wasted time and resources.

Incorrect or missing personal information could also have significant impact on the individual. For example, they could miss important deadlines or not receive necessary information. Unreliable and contradictory data can make it difficult to know what is correct. Users may then question the accuracy of your data, and this may create mistrust towards your organisation.

Missed opportunities

Data that is poor quality may also lead to you missing vital opportunities, or cause failures in service provision. For example, inaccurate or out of date data may result in an unnecessary service provision in one area, whereas high quality data could outline more valuable opportunities.

Poor data quality can also lead to organisations being unable to assess their own effectiveness and whether money and resources are used in the best way possible. High quality data can lead to more targeted organisational strategy, better spend of public money and increased operational effectiveness.

Planning for data quality

High quality and trustworthy data can improve efficiency, help mitigate risk and reduce costs. Understanding the importance of data quality and having procedures to tackle the root cause of problems will ensure your organisation is able to use data to make effective decisions. High quality, reliable data will enable you to have confidence in your decisions. Analysts and policy makers can spend more time using the data to drive insight, and less time trying to figure out if the data is fit for purpose, or what the consequences of poor data quality are on their results.

The cost of getting data quality right the first time is cheaper than the costs of having poor quality data and having to fix it further down the track. Producing high quality data requires planning and commitment. Developing a data quality plan with achievable and measurable goals that everyone can commit to can be a good place to start. Remember that data quality is everyone's responsibility, as poor data quality can occur at any stage of interaction with data.

Preventative measures and effective data quality management should be embedded into your organisation. It is a continual process, and everyone should be aware of the risks and have procedures in place to account for data quality. Ensuring data quality throughout all stages of the data lifecycle and being able to identify data problems proactively and as they occur is more beneficial and cost effective than retrospectively trying to fix poor

quality data.

The Government Data Quality Hub (DQHub) is developing tools, guidance, and training to help you with your data quality initiatives. You can find the [Government Data Quality Framework](), tools and case studies on the [DQHub website]().

We also offer tailored advice and support across government. Please contact us by emailing [dqhub@ons.gov.uk.]()