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SOLUTION GUIDE

3 Considerations for Creating a Winning Data Quality Business Case

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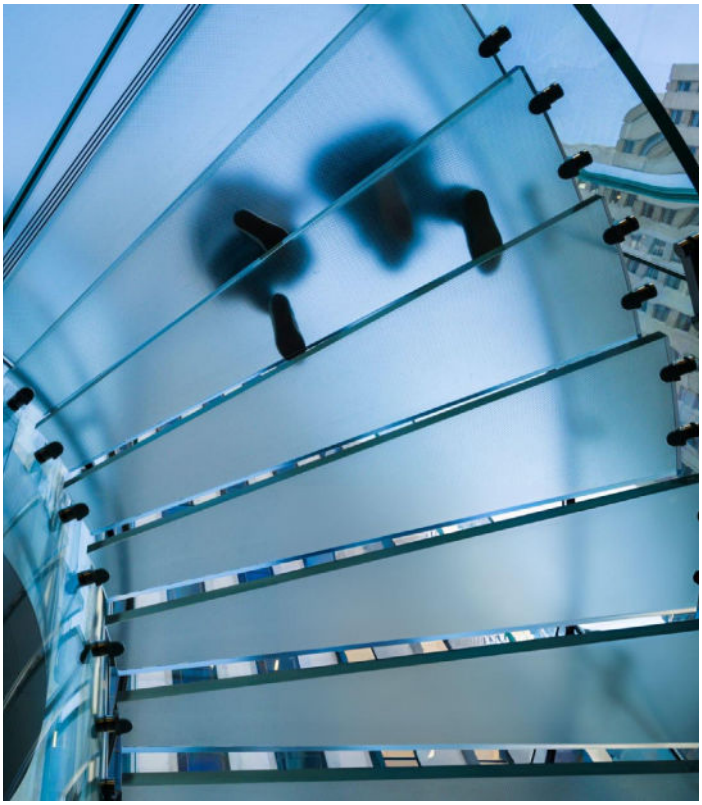

Businesses like yours rely on data, and the quality of your data can dictate the trajectory of your business decisions and growth. Flawed data results in inaccuracies, leading to missed opportunities and decisions that become a matter of luck rather than a product of strategic planning. It's imperative, therefore, to harness actionable strategies and techniques to improve data quality and leverage the full potential of your data assets. Tackling the complexities of data management requires a comprehensive approach, fully leveraging data integration to ensure data integrity.

Building a solid data quality business case centers on understanding your data management strategy and its significance in the broader context of your organization's success. It involves aligning your data strategy with business goals to drive efficiency and innovation and embracing self-service enablement for better decision-making. This guide will help you understand your current data quality, outline steps to build your business case, and help you navigate common obstacles in data quality improvement. It provides an insightful blueprint for reinforcing data integrity as a pillar of your business strategy.

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Setting the Foundation

Understanding the Importance of Data Quality

Data quality is about the usefulness of data in your organization. It includes accuracy, validity, completeness, and consistency. High-quality data ensures reliable analysis, reporting, and decision-making.

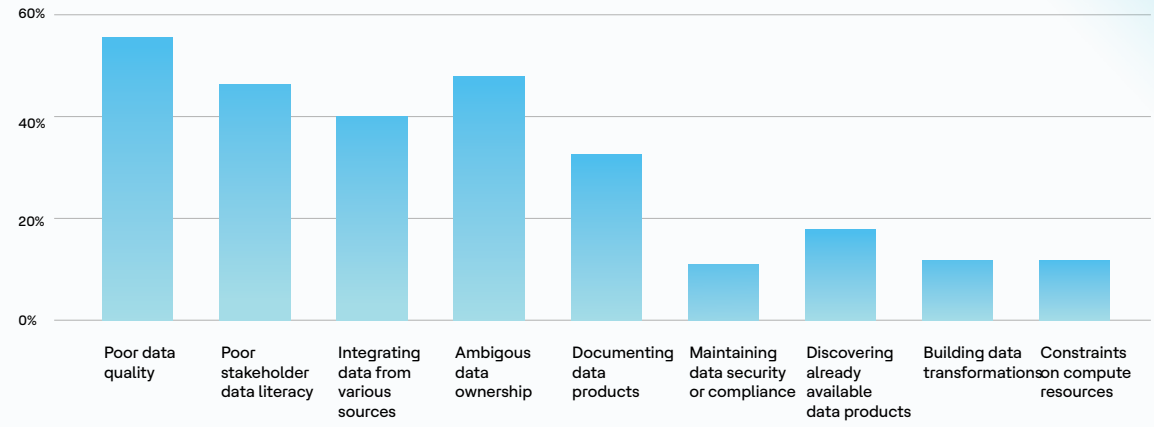
High-quality data offers many benefits that impact different parts of a business. Better data quality improves efficiency by streamlining processes and reducing the time and resources spent fixing errors. This saves money and lets employees focus on strategic tasks instead of data cleanup. Accurate data boosts customer satisfaction by enabling personalized and timely interactions, building trust, and improving customer retention. Data quality also supports better compliance and risk management, ensuring information and records meet regulatory standards to avoid potential financial impacts.

Of course, these days the hot topic is Generative AI (GenAI). Accurate, complete, and reliable data enables GenAI models to produce more precise, relevant, and high-quality outputs. For instance, well-curated data sets help minimize biases, enhance the model's ability to understand context, and improve overall performance in generating human-like text, images, or other forms of media. Additionally, good data quality reduces the need for extensive data preprocessing, accelerates training processes, and ensures that the AI system remains robust and trustworthy in various applications. While many companies are still in the early stages of capitalizing on GenAI, it's important to consider data quality now since high-quality data is a foundational element for GenAI model training.

Impact of Poor Data Quality on Financial Performance

Neglecting data quality has far-reaching consequences and can severely undermine your operational efficiency, customer satisfaction, and innovation initiatives. Data must meet your expected standards of accuracy, validity, completeness, and consistency to avoid significant negative impacts on customer service, employee productivity, and the execution of key strategies.

Revenue and Finance	Operational Efficiency	Corporate Risk	Innovation
Sales Forecasting Inaccurate sales data can lead to unreliable sales forecasts, impacting inventory planning, budgeting, and resource allocation.	**IT Infrastructure Costs** Maintaining and storing inaccurate or redundant data can increase IT infrastructure costs, including storage, processing, and maintenance.	**Data Security** Poor data quality can lead to vulnerabilities and breaches, resulting in financial losses due to data theft, legal penalties, and remediation costs.	**Product Development** Incorrect data on customer needs and market trends can lead to the development of products that do not meet market demand, resulting in wasted R&D investments.
Marketing Efficiency Low-quality data can lead to ineffective marketing campaigns, wasted marketing budgets, and missed targeted audiences.	**Employee Productivity** Employees may spend excessive time correcting data errors or working with inaccurate data, reducing overall productivity.	**Service Level Agreements (SLAs)** Inaccurate performance data can result in failure to meet SLAs, leading to financial penalties and loss of business.	**Pricing Strategy** Inaccurate data can result in inappropriate pricing strategies, either overpricing or underpricing products, which can affect competitiveness and profitability.
Vendor Management Poor data on vendor performance and contracts can lead to unfavorable terms, increased costs, and supply chain disruptions.	**Analytics and Reporting** Inaccurate data can compromise business intelligence and analytics efforts, leading to unreliable insights and flawed strategic decisions.	**Compliance and Legal Issues** Poor data quality can result in non-compliance with regulatory requirements, leading to fines and legal expenses.	**Project Management** Incomplete or stale data project data can lead to poor project planning and execution, resulting in delays and budget overruns.



Source: 2024 State of Engineering report, DBT Labs

Data quality also significantly affects operational efficiency and employee productivity. Employees may waste valuable time correcting errors, reconciling inconsistencies, or searching for missing information, leading to frustration and decreased morale. Furthermore, data quality directly impacts your market positioning and stakeholder relations. High-quality, reliable data can provide insights into market trends and customer preferences, enabling you to position your company advantageously. Conversely, poor data quality can erode trust among investors, suppliers, and customers, potentially leading to legal complications.

$12.9 million

Poor data quality costs organizations an average of $12.9 million annually.
-**Gartner**

The financial implications of data quality issues are staggering, with organizations incurring an average loss of $12.9 million per year due to poor data quality. This cost underscores the critical need to prioritize data quality management as a core component of your overall data governance strategy to mitigate the risks associated with low-quality data and to leverage data as a strategic asset for driving business decisions and achieving competitive advantage.

Reconstructing Data Quality for Better Business Outcomes

Before we discuss the steps necessary to improve data quality, it's important to note that this is not a DIY project. Data quality requires organizational dedication to continuous data improvements. Along with stakeholder support, it's essential to acknowledge that data quality is not achieved overnight and does not ever stop. It is a continuous effort.

Understanding the Needs for a Successful Data Quality Business Plan

To build a compelling business case for data quality, it's essential to follow a structured approach demonstrating the value of investing in improvements in data quality. Here's how you can build your case effectively:

Step 1: Assess the Current State of Data Quality

Data quality problems are most evident in areas such as data accuracy, consistency, completeness, and timeliness. Inaccurate data, such as incorrect customer information, can disrupt customer relationship management and marketing efforts, while inconsistent data formats and duplicate records can complicate data integration and reporting processes. Incomplete data fields and outdated information hinder operational efficiency and strategic planning, causing delays and increased costs. Additionally, untimely data updates compromise the reliability of real-time analytics and forecasting. Below, we define these areas and offer some signals that may indicate that these are areas for improvement.

Building a good business case for change should follow a narrative. In order to justify spending time, resources, and budget on a data quality project, you need to establish a baseline for where your data quality stands today. Before you begin your project:

Conduct a data quality assessment: Utilize data profiling tools to analyze your current data and identify areas for improvement. This step helps pinpoint specific data quality issues, such as missing client information, that could impact customer service or lead to customer churn.

Understand what poor data is costing your company: Quantify the cost of poor data quality to your organization in terms of operational inefficiencies, lost revenue, and penalties for non-compliance with regulations. You can achieve this by working with analysts in your organization and sending a simple survey to staff to have them estimate the time spent finding and fixing data.

Accuracy and Consistency

Accuracy measures how well your data reflects real-world entities or events. Data accuracy is crucial for maintaining correct customer, financial, and product information. For example, an accurate phone number ensures an employee or customer is reachable, enhancing communication and service reliability.

Assess consistency by comparing data across different systems to check if they match. This metric ensures that data used in various applications is reliable and that analytical processes leverage consistent data values, thus avoiding potential discrepancies that could affect business decisions.

Signs of trouble:

- Discrepancies in data reports
- Poor marketing email delivery rates
- Declining business development efficacy, such as leads being returned due to "bad data"

Completeness and Timeliness

Completeness involves verifying that all required data fields are populated. This metric is vital for effective analytics and AI applications, ensuring that all necessary data is available for making informed decisions. For instance, customer records must include essential details like contact information to be considered complete.

Timeliness refers to getting fresh data when needed. This metric ensures that the data is updated regularly to meet the dynamic needs of users, which is crucial for maintaining its relevance in decision-making processes.

Signs of trouble:

- Missing fields in systems, such as customer relationship management (CRM) applications
- Increase in customer or vendor complaints due to delayed shipments or fulfilments
- Inventory issues, such as under or over-stocking of products and materials

Validity, Duplication, and Uniqueness

Validity checks whether data adheres to specific formats and business rules, ensuring it is usable for its intended purpose. For example, a valid ZIP code or a correctly formatted date is essential for operational processes like shipping or scheduling.

Duplication identifies multiple instances of the same data entry within a dataset. Managing duplication is essential for minimizing risks associated with data redundancy, which can lead to inefficiencies and increased costs.

Uniqueness ensures that each data entry is represented only once within a dataset, which is crucial for maintaining data integrity across business applications. High uniqueness scores indicate minimal duplication, which enhances data reliability and trustworthiness.

Signs of trouble:

- Increasing costs with data storage and data processing
- Increasing email opt-outs, which could indicate multiple email sends
- Records lack sufficient information to be useful for promotion targeting

Step 2: Align Data Quality with Business Strategy

Identifying business priorities

The first step is understanding your organization's key business drivers to effectively align data quality with your business strategy. These drivers are the most critical elements your business needs to achieve its goals. For instance, if increasing customer satisfaction is a primary goal, your data quality efforts might focus on improving the accuracy and completeness of customer data. This targeted approach ensures that data quality initiatives directly support measurable business outcomes, integrating data quality management into broader business planning and strategy.

Linking data quality Initiatives to business goals

The next step involves linking data quality initiatives to these goals once business priorities are clearly defined. This connection is vital for demonstrating the value of data quality improvements in achieving business objectives.

For example, a strategic goal to enhance revenue by 5% through better cross-selling and up-selling can drive initiatives to cleanse and integrate customer data from multiple sources into a single, comprehensive customer profile. This unified view allows for more effective identification of sales opportunities, directly supporting the strategic goal. Table 1 is an illustration of how you can organize and communicate impact.

Gaining agreement

As previously mentioned, data quality is a cross-functional commitment. Once you know how data quality improvements will align with strategic goals, identify the stakeholders who will need to be involved in execution. Also, be sure that the key stakeholders in the project agree upon the improvements you've identified.

Benefits of Aligning Data Quality with Business Strategy

Business Goal	Data Quality Initiative	Expected Outcome
Increase Revenue by 5%	Cleanse and integrate customer data	Improved cross-selling and up-selling
Enhance Customer Satisfaction	Improve accuracy and completeness of customer data	More personalized customer experiences
Achieve Operational Excellence	Implement robust data governance and standardization	Streamlined processes and reduced errors

By setting clear data quality targets and establishing a culture of continuous improvement, you can ensure your data management practices align with your strategic objectives.

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Identify Priority Use Cases	Identify Problem Areas	Identify Priority Quality Concerns	Define Metrics	Continuous Improvement
Decision Analytics	Inaccurate Dashboards	Accuracy	Data Profiling	Dashboard
Go to Market	Reporting Inconsistencies	Completeness	Data Quality Scorecards	Deliver
Product Development	Slow/Stale Data	Consistency	Human Verification	Monitor
User Experience	Data Access	Timeliness	Issue Creation	
Risk Mitigation	Compliance Concerns	Relevance Usability	Error Rates	

Step 3: Track Progress and Measure Impact

Define Data Quality Metrics

Determining the appropriate metrics that align with your organizational goals is crucial to effectively measuring and improving data quality. Begin by identifying key business processes that rely heavily on data and assessing the impact of data quality on these processes. To evaluate data quality improvement, you should monitor metrics such as accuracy, completeness, consistency, timeliness, and validity. Engage with business stakeholders to ensure these metrics reflect your organization's operational needs and strategic priorities.

Data Profiling

Data profiling is essential to understand your data's structure, content, and interrelationships. It involves collecting descriptive statistics, such as minimum, maximum, and average values, and identifying data types, lengths, and patterns. Data profiling can reveal data quality issues that you should address before they impact your business operations. It's important to note that data profiling should be a continuous activity.

Tracking Data Quality Scores

Tracking data quality scores involves continuously measuring the effectiveness of data quality improvement efforts. This can be done by calculating ratios of data to errors, monitoring the number of empty values, and observing data transformation error rates. It's also beneficial to track metrics like email bounce rates and data storage costs to better understand your data quality landscape. Regularly updating these scores will help you make informed decisions and maintain high data integrity.

Data Quality Reports

Data quality reporting is crucial for providing a comprehensive view of your data quality. These reports typically include metrics such as data completeness, accuracy, timeliness, and consistency and are instrumental in identifying areas for improvement. Regular data quality reports summarize data quality scores and metrics, often incorporating visualizations like charts and graphs to make trends more accessible.

Data Quality Dashboards

Data quality dashboards offer real-time or near-real-time visibility into data quality metrics. They enable you to identify and address data quality issues quickly. You can customize dashboards to display metrics most relevant to the business, allowing continuous data quality monitoring. Automated features in these dashboards provide actionable data views, helping stakeholders make informed decisions.

Data Quality Alerts

Implementing data quality alerting mechanisms is vital. These alerts trigger notifications when data quality falls below predefined thresholds, helping you proactively address issues before they significantly impact the business. For instance, business intelligence dashboards can inform users about problems like failed data refreshes or deprecated data sources.

Data Quality Issue Tracking

Establishing a system for tracking and managing data quality issues is essential. When problems are identified, they should be documented, assigned to responsible parties, and tracked until resolution. This centralized repository helps maintain a clear record of data quality problems and the steps to address them, ensuring accountability and continuous improvement.

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Final Thoughts

Enhancing data quality is a technical endeavor and a strategic necessity influencing every aspect of business operations. This guide outlines why data quality is critical for making accurate, timely, and informed decisions. Poor data quality can lead to significant financial losses, operational inefficiencies, and a loss of trust among stakeholders. Conversely, high-quality data can provide a competitive advantage, improve customer satisfaction, and drive innovation.

Building a robust business case for data quality involves a comprehensive understanding of the current state of your data, identifying the costs and risks associated with poor data quality, and aligning data quality initiatives with business goals. By focusing on key metrics such as accuracy, consistency, completeness, and timeliness, you can systematically address data quality issues and track their improvement over time Moreover, integrating data quality management into broader data governance strategies ensures that data quality remains a continuous, organization-wide commitment.

Implementing tools for data profiling, tracking data quality scores, and setting up alerts for data quality issues can help maintain high standards and quickly address any emerging problems. Prioritizing data quality is essential for sustaining business growth and achieving competitive advantage. By following the steps outlined in this guide, you can build a compelling business case for data quality, ensuring that data is accurate and reliable and an asset that drives better business outcomes.

About Actian

Actian makes data easy. We deliver cloud, hybrid cloud, and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization's growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: **www.actian.com**.

Tel +1 512 231 6000 Fax +1.512.231.6010 710 Hesters Crossing Road, Suite 250, Round Rock, TX 78681 **Actian.com**

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