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ARTICLE

Make BIG decisions with your data

Nine steps to data quality success in financial institutions

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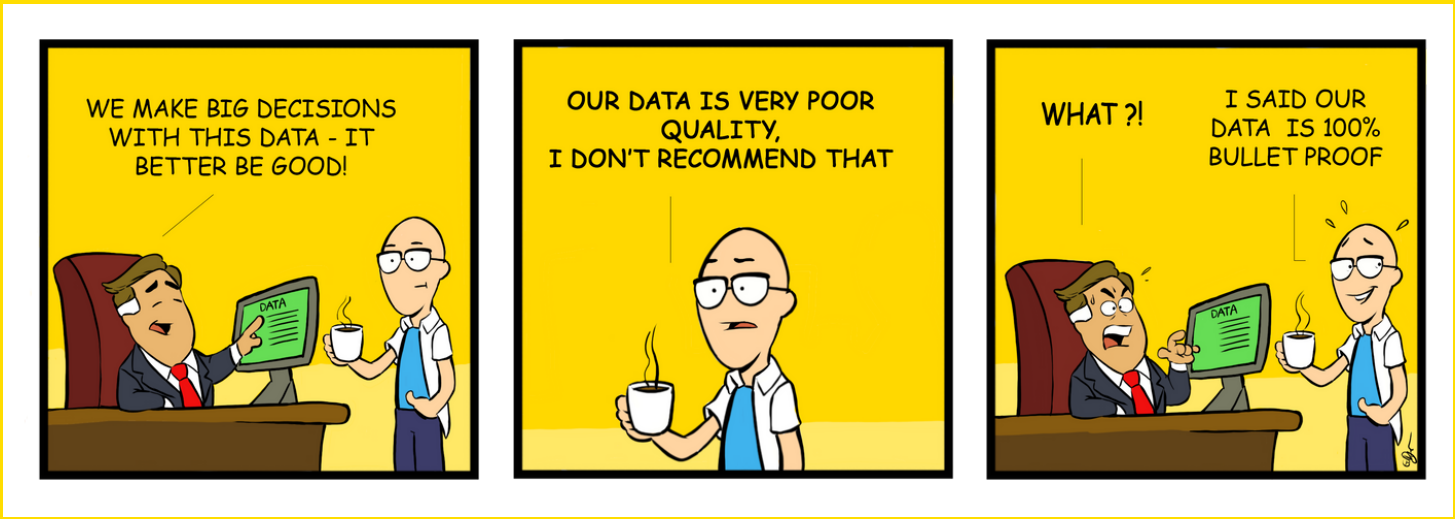

DATA QUALITY IS NEVER AS GOOD AS WE BELIEVE IT TO BE

Anyone that has tried, appreciates that achieving good data across an organisation is not easy. The quality of data is imperative to an organisation's strategic decision making, agility, productivity and survival. For regulated organisations in financial services sectors such as superannuation, banking, insurance and wealth management, poor data can also result in breaches, potential fines, and reputation loss.

Even if you think the data you have is of good quality it is often not the case. It all boils down to interpretation. Philosopher Friedrich Nietzsche (1844–1900) believed that everything boiled down to interpretation. He argued that truth was impossible. As an executive of your organisation, you must get to a place in which you are truly confident about your data.

- How would you tell shareholders that business decisions and more importantly risks undertaken were managed and informed by data, analysis and information in which there was a sub-optimum level of confidence?

- How could you explain to regulators the information your organisation supplied has holes all through it?

DATA QUALITY IS ONE OF THE BIGGEST CRITICAL CHALLENGES

It is important to note that data quality has emerged in the last decade as one of the biggest and most critical challenges facing all organisations and most importantly the financial services sector. In the United Kingdom (UK), "open banking" is forcing banks to open their customer data to third party firms (when customers give consent). This will allow other organisations to create new financial products by utilising the data of banks. What does this mean for Australian banks and superannuation funds?

"...why isn't there more urgency to achieve clean data across organisations?"

Besides just creating application programming interfaces (APIs) which will allow third parties secure access to their back-end data, there should also be a focus on the data quality that gets sent back via these APIs. In the 2017-18 Budget, the Australian Government announced it will introduce an open banking regime. The lessons learnt from the UK will surely apply for Australia, but in the meantime, why isn't there more urgency to achieve clean data across organisations?

GOOD DATA TAKES SERIOUS ORGANISATIONAL COMMITMENT

Data providers (for example banks, super funds etc) must take steps to ensure that data provided to a data recipient is accurate, up-to-date, complete and relevant. Getting to the point where your data is good will take commitment, effort and investment.

Many financial institutions struggle because they have complex and fragmented legacy environments and systems. Often data issues are dealt with via workarounds to focus on urgent regulatory compliance priorities. The quick "fixes" only partially remediate existing issues and often business lines create new silos, each maintaining their own datasets with no shared information between other business units.

There are examples whereby a business needs data which then comes with an "IT cost" related to pulling the data that is required for that business. Usually costs exceed allocated budget and the business then finds manual ways to do this to satisfy the needs for a project. Financial institutions must strive to develop a more holistic yet pragmatic data strategy.

"Many financial institutions struggle because they have complex and fragmented legacy systems."

IT IS ESSENTIAL TO ACHIEVE A 'CORRECT' SINGLE VIEW OF THE CUSTOMER

Data quality is very important as banks move onto process automation and implement systems that can provide machine assisted decision making. For banks to derive a 'correct' single view of the customer, it is important to ensure the customer interactions with the bank are satisfactory regardless of the channel.

Back office processes such as client onboarding, transaction monitoring and fraud prevention can all use process automation or machine assisted decision making which means that data quality is becoming more important because the consequences and risks of making incorrect decisions is now far greater.

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DATA LIFE CYCLE STAGES

Before we discuss data quality, let's outline the stages in the data life cycle that apply to most organisations. Most organisations will go through similar stages in the life cycle for their data so it is important to ensure data quality is monitored and assessed in the earlier stages of the life cycle (Stages 1 to 3).

STAGE 1. DATA CAPTURE

The process of creating data either through data acquisition, data entry or captured by other systems.

STAGE 2. DATA MAINTENANCE

Processing data without yet deriving value from it. Tasks such as movement, integration, cleansing, changes and the extract-transform-load (ETL) process.

STAGE 3. DATA SYNTHESIS

Applying data as an input to deduce data values using inductive logic.

STAGE 4. DATA USAGE

The application of quality data to inform decisions and activities performed by the organisation.

STAGE 5. DATA PUBLICATION

The sending of data outside of the organisation. For example, monthly reports to clients.

STAGE 6. DATA ARCHIVAL

The process of copying data to another environment for storage. Some organisations will also remove this data from their production environments.

STAGE 7. DATA PURGING

The process of deleting / removing the data from the organisation.

ESSENTIAL CHARACTERISTICS OF GOOD QUALITY DATA

To ensure we can confidently interpret our organisation's data , the following are essential characteristics to assess if the data is good:

COMPLETE

Data attributes should contain values other than blank or default values.

VALID

Data attributes need to contain valid values as specified by the business to ensure consistency and integrity.

ACCURATE

Data attributes should contain accurate values by enforcing conditional or field dependency rules.

EASY TO USE

The data values need to be easily interpreted without the need of complex parsing.

AVAILABLE

Data should be available and accessible in a timely manner for analytical use.

HOW TO ENSURE GOOD QUALITY DATA

"Data quality is not an IT problem. IT can help fix it, but the business must own the problem." (Gartner)

The most significant factors for achieving quality data is to have strong data governance processes with sound data validations at the time of ingestion, a well-designed data model, and metadata taxonomy.

There also needs to be alignment between the business needs and goals and with the IT architecture design and deployment plans. Key business sponsors must also be engaged.

Achieving correct data from the outset is important but the ongoing maintenance of data quality is even more so. It might be necessary to establish a data quality team with a primary focus on building key performance metrics, tools, and controls to monitor data quality.

The team can collaborate with data administrators and data governance teams to re-enforce quality standards and provide feedback into changes proactively. Furthermore, using software automation by the team will ensure data quality "scope creep" is kept to a minimum and managed accordingly.

DATA QUALITY CHECKLIST

- ✓ Build a single point of truth or data quality definition, understand where to find data, what it means, and how to use it within business and technology teams.
- ✓ Establish sound change management policies for the single point of truth or data quality definition, quality rules and data models.
- ✓ Identify the golden / primary source of data and avoid keeping duplicate copies of data.
- ✓ Establish data standards (i.e. standard formats for dates, customer reference numbers, allowed values, alphabets, codes etc.) and leverage reference metadata to reduce variations in values.
- ✓ Keep data validation rules and processes close to data ingestion processes as much as possible. Invest in good data quality tools that can be used by business users.
- ✓ Setup automated schedules to detect data quality issues which can be then resolved as early as possible therefore reducing the compounding effect on data quality issues.

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NINE STEPS TO DATA QUALITY SUCCESS

For organisations to embark on a journey of successful data quality implementation, the following is a high overview plan that you as a business executive can consider:

1. UNDERSTAND HOW GOOD DATA ADDS VALUE

It is important for the organisation to realise the value of data quality, then identify and develop use cases that illustrate quantitative and qualitative benefits. For example, identify a business process that requires a heavy use of data and identify any tangible benefits of error free data. This can serve as a business case to communicate the value across the organisation.

2. CONDUCT A HEALTH CHECK OF THE CURRENT STATE

Understand the current state of any data capabilities and identify if the organisation currently has a framework already in place. Then use this to determine what is working versus not working and what needs to be changed.

This will help create a baseline and starting point for your data initiative project. It will also identify hotspots, gaps and key opportunities which should then be used to structure data projects with a targeted scope and measurable tangible benefits. Documenting this will get the project off the ground and enable business funding and executive sponsorship.

3. FIND CHAMPIONS TO ENDORSE DATA QUALITY

Finding data champions in your organisation that can articulate the value of data quality to both business and IT will help drive data projects forward. It is important for senior management to sponsor and influence data quality objectives in team scorecards and individuals' development plans.

These data champions also needs to identify steering committee members so that measures of data quality and reporting is conducted frequently to ensure wins are celebrated and a momentum is created to build data quality improvements across the organisation.

NINE STEPS TO DATA QUALITY SUCCESS (CONT.)

4. START WITH A PILOT, TEST IT, THEN REPLICATE SUCCESS IN OTHER AREAS OF THE ORGANISATION

Do not start with a big bang all in approach; this will never work for data projects. Ensure you select an area that has relevant data problems but not too complex to fix and remediate. Implement and fix that area, ensure it is successful then move on to tackle the wider data issues. Learn from mistakes and update any skill sets that are missing. Celebrate small wins!

5. ATTRACT AND RETAIN TALENT

Ensure skills developed during the data quality project are retained, especially individuals that process data management and business experience. Build your data quality team with key resources that communicate between business and IT teams.

Ensure that knowledge transfer within the team occurs frequently to ensure all information learnt is shared. Define career progression plans beyond the data quality project such as leadership opportunities to help retain talent. If help is required, seek assistance from external consulting organisations that are focused on delivery of data quality and data remediation projects.

6. SELECT SOFTWARE TOOLS TO UPHOLD DATA QUALITY

Cleansing data is a labour-intensive task, identifying the errors is much harder. Ensure you select and scope out software that can help with the data errors identification (at a minimum). Most organisations do not like data remediation to be done automatically as usually their preference is to ensure it is fixed and controlled from their front-end applications.

If the front-end applications are allowing bad data, fix this! Put in a process to use the automated scheduling capabilities of the data quality software to check for ongoing data quality issues. If it occurs frequently, identify why it is recurring.

NINE STEPS TO DATA QUALITY SUCCESS (CONT.)

7. CONDUCT AN ONGOING AUDIT OF DATA QUALITY PROGRESS

Once you start the data quality initiative, it does not mean you stop there! There are many reasons why data projects can go off-track. It is important to revisit the original project charter and re-validate if the original scope and objectives are still on track for delivery?

Do you still have the budget to meet project objectives? Does your project still solve the identified issues? Are the timelines still reasonable against the original project plan?

8. REFRESH PERSPECTIVE AND ONGOING CHANGE MANAGEMENT

Sometimes it is difficult to understand why a project is not going well. You might need to get advice from others on how they successfully approached similar data quality problems. It might also be beneficial to get external perspectives to understand how other organisations have solved their data quality problems.

9. ONGOING DATA QUALITY CHECKS

Finally, it is critical to maintain continued focus on data quality as an ongoing function within the organisation. Data quality processes and protocols must be routinely monitored and enhanced. The organisation must remain ready to kick-start further data projects when required.

CONCLUSION

It is a requirement now for organisations to have high quality data that they can depend on continuously. It is very similar to how people depend on their cars. Driving your new car out of the showroom doesn't mean it will run forever. Regular maintenance and check-ups will ensure it will continually operate and get you from point A to B.

Just like data, without regular check-ups, your once "good data" will no longer become reliable if it is not maintained. Is it time you took data quality to the next level?

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WHERE TO NOW?

If your organisation has data quality front of mind, you might be interested to speak with QMV about our services and technology.

Make sure you check out Investigate, QMV's purpose built data quality management software platform.

[investigate]

Investigate is a data quality management solution that manages data for over 10% (and growing) of Australia's total superannuation balances.

HOW DOES IT WORK?

1. 

Simply connect Investigate to any data source.

2. 

Achieve a single view of data quality across your whole organisation.

3. 

Gain control of data quality and risk with real-time diagnostics, resolutions and reporting.

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