

A woman with dark hair, wearing glasses and a white lab coat, is shown in profile, looking at a computer monitor. The monitor displays various data visualizations, including a world map with a grid overlay, bar charts, and line graphs. The background is a bright, out-of-focus office space with large windows and indoor plants. The overall tone is professional and tech-oriented.

Mastering the Art of Data Management to **Transform Customer Engagement**

*Sudhakar Joshi & Tanvi Goila,
Subject Matter Experts, Analytics*

A series of thick, wavy, overlapping lines in shades of orange and red, flowing from the bottom left towards the right, creating a dynamic, modern graphic element.

WNS



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The pandemic shifted the gears on organizations' approach to digital, and compelled many to hit the reset button on their customer engagement strategies. Data, analytics, Machine Learning (ML) and Artificial Intelligence (AI) are now crucial levers to drive improved digital experience. Take the case of a leading Australian bank.¹ Its customer engagement engine, driven by data and ML, is now processing approximately 157 billion data points and running around 400 ML models to deliver — in terms of throughput — nearly 35 million decisions per day in real-time.

Data is central to shaping a cohesive digital strategy for the Banking and Financial Services (BFS) industry. Bugged down by legacy systems for years, banks and Financial Institutions (FIs) are now investing heavily in upgrading their technology, and gleaning significant value from their customer data. While the data offers actionable insights, the lack of a single customer view often results in the bank getting an incomplete picture of the customer and irrelevant products being pitched, and in some instances missing out on opportunities to up-sell / cross-sell.

To gain the full value from their data, banks and FIs should organize and index it using Master Data Management (MDM) systems. MDM is the process of creating and managing master data as the system of record for the organization. It ensures there is a single version of truth for master data across all departments which is often referred to as a 'Golden Record'.

¹<https://www.zdnet.com/article/commonwealth-banks-refreshed-digital-strategy-to-focus-on-the-power-of-ai/>

Why MDM?

While banks and FIs are capturing more data than ever in order to hyper-personalize their services, today's customers are likely to have diverse portfolios with multiple touchpoints such as mobile, voice and social media.

A customer can have a current account, a savings account, a loan, a mortgage, a pension and even an insurance product. Added to these products and their associated customer touchpoints are buying history, financial and non-financial transactions, and data from various applications, devices and channels. This data deluge opens up a number of opportunities to produce valuable insights.

But the problem for the BFS industry is that multiple departments might capture their own version of customer data leading to data silos. This means that different functions might hold varying data about a particular customer across structured and unstructured databases. For instance, a customer's data held by the product department might be different to that stored in the systems of the risk department or the marketing function.

The result of all this confusion? Customers often have sub-par experience, and given the sensitivities of the BFS sector, the risks posed by inconsistent data across systems, and of potentially being misunderstood or mishandled, are higher. It's important for organizations to know if they're holding data they don't need, and are therefore increasing their risks while reaping no benefits from it.

An MDM solution profiles various data sources and identifies the quality of the data in each one. It consolidates data from multiple systems and imports it into a centralized system. It also cleans, enriches and manages the consolidated data, while offering a 360-degree view of the customer.

When to Implement MDM

There are a number of factors or events that could indicate when an organization should consider implementing MDM. But the most obvious one is when the organization is struggling to create a unified view of the customer because the information is fragmented across multiple systems.

Customers also expect seamless omni-channel experience. When a customer calls the bank and is transferred to different departments, they are likely to be unhappy about having to repeat their details and security information.

With badly managed master data, the marketing department will not have accurate and up-to-date information of the customers they are contacting. Sales conversion rates will fall and e-mail marketing campaigns will return disappointing results. Customer attrition rates will go up as will customer complaints about confusing, contradictory and irrelevant conversations.

With MDM, banks and FIs can integrate customer data from multiple lines of business such as private banking, wealth advisory, securities, retail banking, and across multiple channels to provide a holistic picture of the customer. Implemented effectively, MDM can ensure that every customer interaction is authentic, relevant, personalized and valuable to both the organization and the customer.

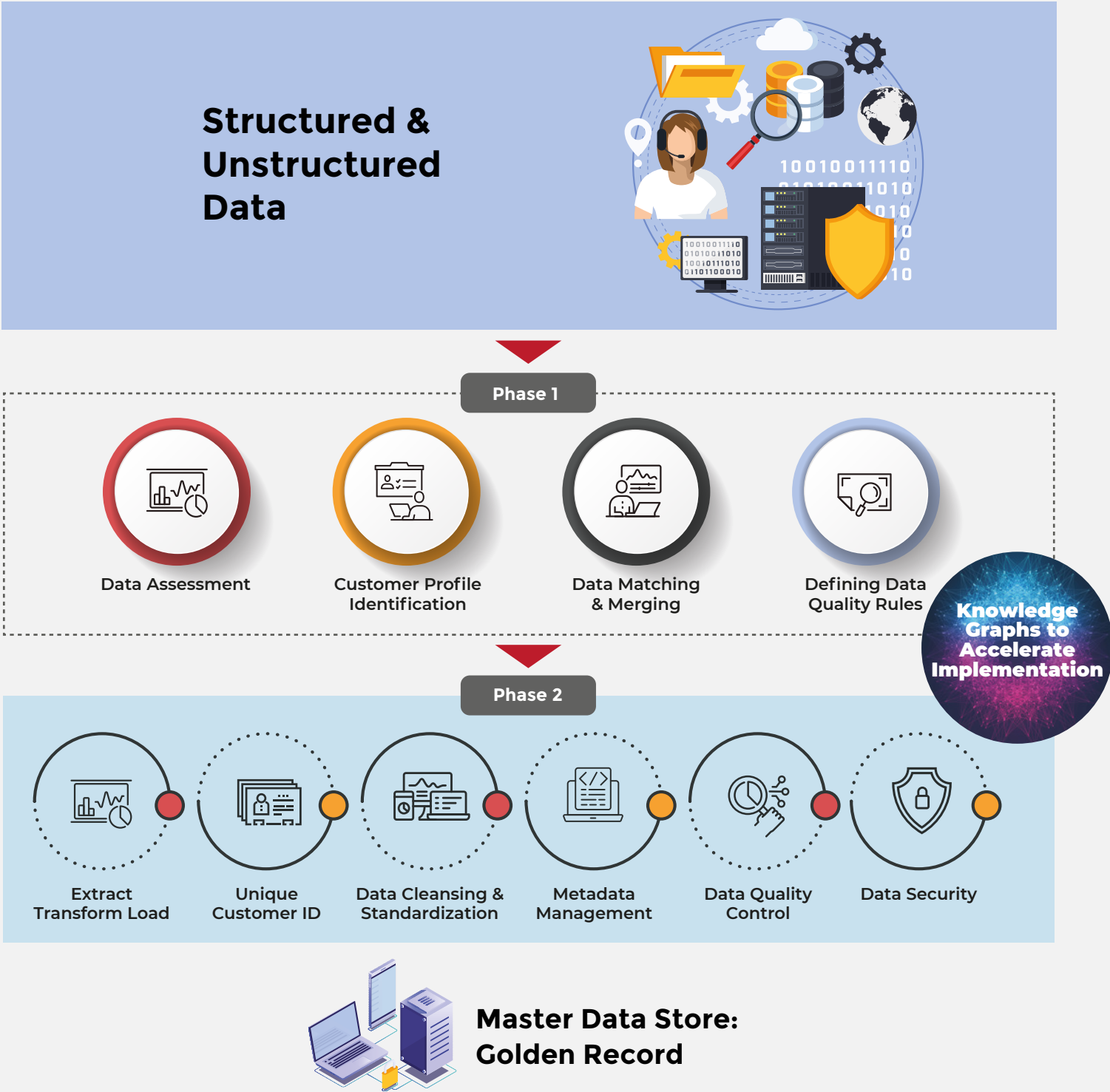
For example, a leading US bank leveraged WNS' MDM solution to connect and manage data from disparate sources and glean valuable insights. WNS' solution helped the bank meet all data security requirements, create high quality data, and increase up-selling and cross-selling opportunities.

Two-phase Approach to Implementation

An organization can choose to implement MDM by creating a central repository of master data aggregated from multiple systems, matching and merging duplicate records, but keeping the

data in the source systems unchanged. On the other hand, it can choose to update the source systems with the latest copy of the master data as well. The approach that an organization takes will largely depend on the maturity of its data management and business needs.

Figure 1. Creating a ‘Golden Record’ for Each Customer



However, to reduce risks and drive successful implementation, banks and FIs should adopt a two-phased approach. Phase one should start with the assessment of all data sources by identifying customer profiles and relationships within each function in order to move towards a single customer view and single source of truth. Data must then be categorized and classified by type such as general or Personally Identifiable Information (PII).

Customer data should be matched and merged with duplicates, and outdated information removed. The teams leading the MDM transformation should also define data quality rules in order to validate unique customers across systems, and to ensure that the relevant customer information is captured.

At the end of the first phase, the organization should have a list of assessment results by business function and a data dictionary with key MDM attributes. They should also have developed a data classification policy on MDM attributes together with data quality rules, and catalogue and logical data models.

Phase two starts with the extraction of customer data from source systems ready for loading to the master data hub. Each customer should have a unique ID assigned to them. Duplicates should be removed, and data rules should be standardized. A metadata should be maintained for each customer record, while establishing an audit trail.

Executing data quality control will ensure that each customer is identified across multiple systems and their information is captured

effectively. It's also essential, of course, during these processes to satisfy data security requirements.

At the end of the second phase, the organization should have an MDM data model, an Extract, Transform and Load (ETL) design document, identification of ETL jobs from source to stage and stage to MDM, and the final customer MDM data hub. Buy-in from all functions is essential to make this work.

To accelerate MDM implementation and to augment the solution, knowledge graphs can be used to look beyond structured and unstructured data. Knowledge graphs connect information from disparate sources, models and unstructured formats within the organization, thereby improving the quality of data. They can also enable the addition of new data sources and relationships without re-engineering existing models – thus strengthening AI efforts within the company.

Data-led Future

The MDM market is expanding globally and is expected to touch USD 146 Billion by 2023.² As data challenges continue to increase, banks and FIs will see benefits from implementing MDM. However, it is not a silver bullet. As data, especially unstructured data, continues to proliferate, organizations will have to find the right partner³ to implement the right solution, and ensure they have covered every base in the implementation journey.

²<https://www.marketresearchfuture.com/reports/enterprise-data-management-market-5863>

³<https://www.wns.com/solutions/functional-solutions/analytics>

A woman with long dark hair, wearing glasses and a white button-down shirt, is sitting at a desk in a bright, modern office. She is looking at a large computer monitor that displays various data visualizations, including a world map and several line and bar charts. Her hands are on a keyboard. The background is a large window with a view of greenery outside, and the overall lighting is soft and natural.

About WNS

WNS (Holdings) Limited (NYSE: WNS) is a leading Business Process Management (BPM) company. We combine our deep industry knowledge with technology, analytics and process expertise to co-create innovative, digitally led transformational solutions with over 375 clients across various industries. The industries include banking and financial services, consulting and professional services, healthcare, insurance, manufacturing, media and entertainment, retail and consumer packaged goods, telecommunications and diversified businesses, shipping and logistics, travel and leisure, and utilities and energy. We deliver an entire spectrum of BPM solutions including industry-specific offerings, customer interaction services, finance and accounting, human resources, procurement, and research and analytics to re-imagine the digital future of businesses. We have delivery centers worldwide including in Australia, China, Costa Rica, India, the Philippines, Poland, Romania, South Africa, Spain, Sri Lanka, Turkey, the United Kingdom and the United States.

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