DATA WAREHOUSE–BUSINESS INTELLIGENCE (DW-BI) INTEGRATION: BETTER INSIGHTS, BETTER DECISIONS

DATAMATICS

Industry:

Non-profit organization

About the Client:

The client is a known non-profit organization helping refugees build future in new countries. It works with Private Sector Partnerships (PSP) to develop transformative solutions to address refugee challenges and fuel organization's funding base.

The Challenge: Data Silos and Manual Reporting

For the client, income from PSPs was slowly becoming a sustainable and predictable stream of income. Though the income from PSPs was very small compared to overall revenue, it was significant and was increasing rapidly. In order to pull more donors, the client wanted to build a platform which brings in maximum ROI and attracts more donors.

Now let's see what challenges lay in front of the client prior to fulfilling this vision.

- **Absence of unified data view:** Data was highly scattered across different systems and businesses, which resulted in 'Data Silos'. Due to disconnected data sources, departments and business units operated in isolation.

- **Manual Reporting Processes:** Reporting processes were either non-existent or heavily manual, which resulted in time-intensive and slow processes with limited scalability.

- **Compromised decision making:** Decision-making hindered due to underutilized critical data, and the organization lost opportunities to analyze the data and make timely decisions. Moreover manual reports were often outdated by the time they reached decision-makers further delaying strategic actions.

The Solution: Data Warehouse and Business Intelligence framework

Recognizing that data forms the backbone of valuable insights and underpins effective decision-making, the Datamatics team built a robust Data Warehouse and Business Intelligence framework utilizing Microsoft technologies. Below is the step-by-step approach the Datamatics team adopted.

- **Data Integration (ETL):** With the help of the SQL Server Integration Services (SSIS) ETL engine, data was extracted from multiple sources, including Excel sheets, SharePoint lists, and Oracle databases from headquarters and regional offices. After processing, the data was moved to another stage for analysis.

- **Data Analytical Engine:** SQL Server Staging served as the initial landing zone where raw or minimally processed data from various sources was collected and temporarily stored. This data was then transferred to the SQL Server Data Warehouse, which acted as the central repository for integrated, historical, and processed data, structured specifically for efficient reporting and analysis. To enable fast and complex queries, the Analysis Services OLAP Database created a multidimensional analytical environment that supported Online Analytical Processing (OLAP), allowing users to explore data across multiple dimensions. Finally, tools like SharePoint and Power Pivot directly accessed data from the staging area or data warehouse, enabling the creation of interactive reports and dashboards that transformed data into actionable insights for business decision-makers.

- **User Interface:** The Datamatics team developed an interactive UI using SharePoint, Excel 2013 – Power Pivot, Reporting Services, and PowerView to provide clients with collaborative dashboards, engaging reporting interfaces, data interaction and analysis, as well as self-service visualization and exploration of data.
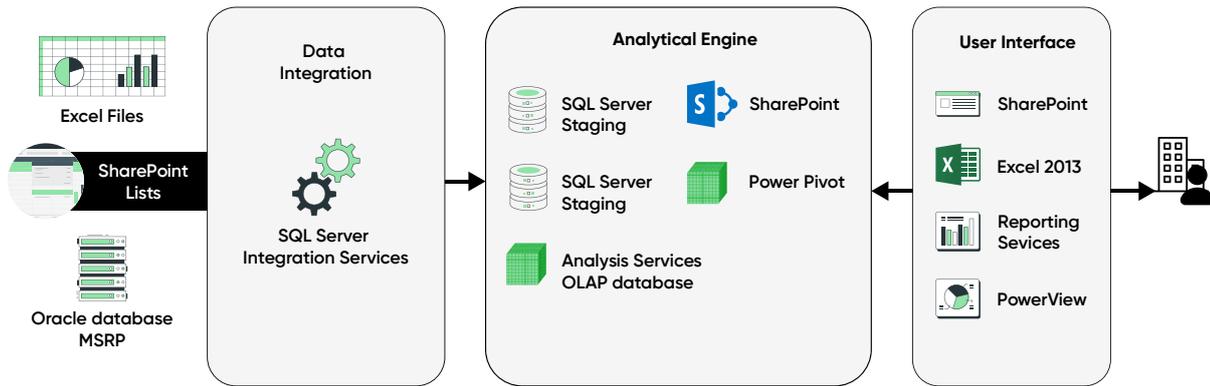
The Impact

Up to 80% cut in reporting time saved hundreds of staff hours yearly

18% rise in donor engagement and funding within 1-2 years

40% faster decision-making through real-time data access

20% reduction in operational costs due to automation

ABOUT **DATAMATICS**

Datamatics enables enterprises to go Deep in Digital to boost their productivity, customer experience, and competitive advantage. Datamatics' portfolio spans across three pillars of Digital Technologies, Digital Operations, and Digital Experiences. It has established products in Intelligent Document Processing, Robotic Process Automation, AI/ML models, Smart Workflows, Business Intelligence, and Automatic Fare Collection.

Datamatics caters to a diverse global clientele across Banking, Financial Services, Insurance, Healthcare, Manufacturing, International Organizations, and Media & Publishing. The Company has a presence across four continents with significant delivery centers in the USA, India, and the Philippines. To learn more about Datamatics, visit www.datamatics.com

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