



Business Intelligence Solution for a Retail Organisation

CLIENT OVERVIEW

This client of DigiQuill is a distribution chain with over a hundred retail and wholesale stores in South Africa and Botswana. Their outlets vary and however have relatively leading brand names. Industries include catering supplies, wholesale, steel, online trading etc. Our client has plans to expand into the greater Southern African region.

CUSTOMER REQUIREMENTS

The size of the group gives it valuable bargaining power with major suppliers. However, this can only be leveraged by balancing customers' needs and trends with effective pricing strategies. This was a challenge for the group executives because they were unable to obtain up-to-date insights into the operations and profitability of regions, individual stores or product lines, given the geographical dispersion of the chain.

The outlet's transactional platforms were operating on a varying set of point-of-sale applications and operated remotely without real-time data links to the head office. Therefore, making the process of consolidating these data sources a considerably large challenge. In addition to this, the product mix and management style also differ widely between regions and stores.

SOLUTION & RESULT

In order to facilitate for a reliable and robust consolidation solution, given the challenges of a distributed business and diversified system platform, a FTP loading mechanism was developed to obtain data directly from each store. All point-of-sale transactions, as well as localised customer and product data, are obtained daily from each store. The line level invoice data is imported into the data warehouse on a daily basis. Finally, a data warehouse was build and is reconciled on a weekly basis, in order to control files obtained from the various point-of-sale systems.

In addition to the static reports, the data warehouse is also used to extract dynamic up-to-date sales statistics for supplier rebate negotiation purposes, utilising OLAP cubes. Staff performing inventory management and monitoring are now able to identify obsolete stock and low stock items through simply slicing and dicing their data. Further to this, the solution was extended to facilitate for budget vs. actuals variance reporting as well.



VISUAL REPRESENTATION

Below is a simplified visual representation of the overall solution, indicating the ETL layers, Warehouse integration and OLAP cube structures:

