

Retail DWH model

DWH Model for retail and distribution

Retail



Retail

DWH
MODEL

1. PI Retail DWH Model business perspective



Why PI Retail DWH model is needed?

Model contains everything needed for successful implementation of analytical system for retailer or wholesaler, including:

- Detailed architecture of products and hierarchies
- Detailed customer architecture
- Detailed Sales analytics
- Market basket analytics
- Detailed profitability analytics
- Detailed supplier analytics
- Customer journey analytics

Model facts

Implemented and developed based on numerous successful projects for:

- Carrefour Group (Tunisia)
 - Retailers in South East Europe (Konzum, Mercator, Tisak)
 - Distributors (Orbico – largest distributor in Europe, Atlantic Group)
 - Other industries where retail and inventory is very important (telco operators, gas stations, banks)
- Developed with CA ERWin, but can be exported and used with any other database design tool (ERWin license is not included in model price, but we can provide it)
 - Logic of the model is following NRF ARTS, as a common reference model

Model benefits

- Delivers competitive advantage by enabling the consolidation of data across multiple systems
- Supports fast implementation of DWH / BI solutions
- Facilitates structured approach to subsequent customization and extension of the data warehouse
- Enables business users to more effectively control and reduce the time taken to scope their requirements, as well as subsequent customization and extension of the data warehouse
- Provides a basis for reporting, relationship management, decision support and executive information applications
- Minimize development costs
- Reduce the risk of failure by facilitating an incremental approach to delivering integrated data warehouse solution
- Foster collaboration and approval between business and IT, as necessary, to turn business requirements into actionable solutions
- Support for Enterprise Architecture standards (Data Governance)
- NRF ARTS compliance
- Comprehensive - Content collected from multiple client engagements is turned into a suite of related Subject Areas with a proven methodology and models that require minimal customization

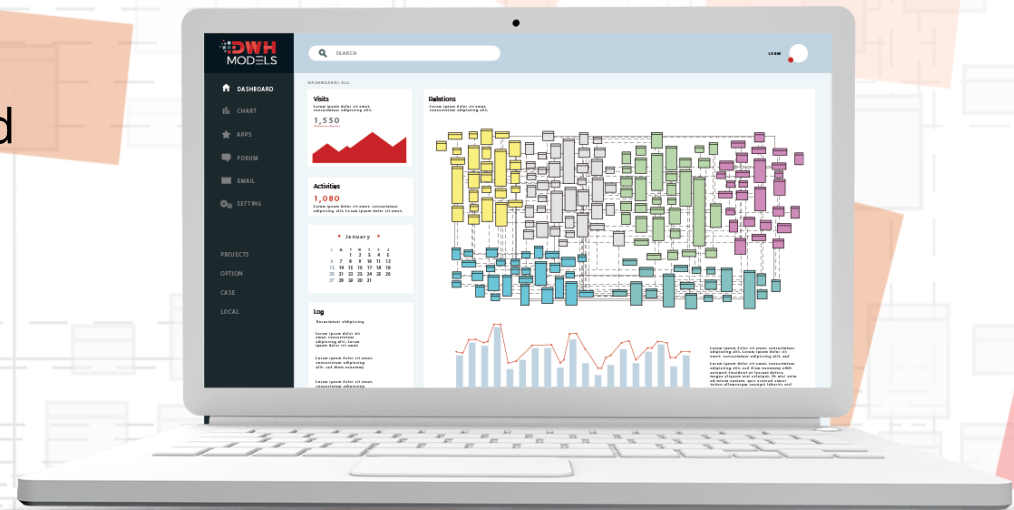
Big Data Analytics Enabled

- PI Retail DWH Model is also addressing new Big Data Analytics requirements, related to Customer Journey and Product Affinity
- Model provides foundation for integration of structured and non-structured data for unified analytical layer



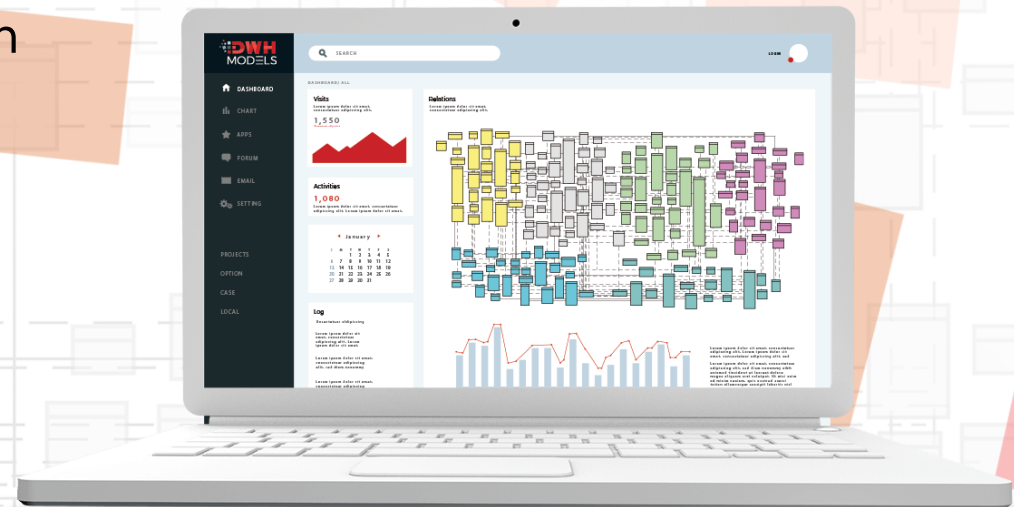
Model roadmap

- **Minor release (1.X) available 1-2 times a year**
 - New tables in existing Subject Areas
 - New attributes in existing tables
 - Other minor enhancements
- **Major release (X.0) available every 2 years**
 - New Subject Areas and related supported Analysis and KPI's
 - Everything included in Minor releases



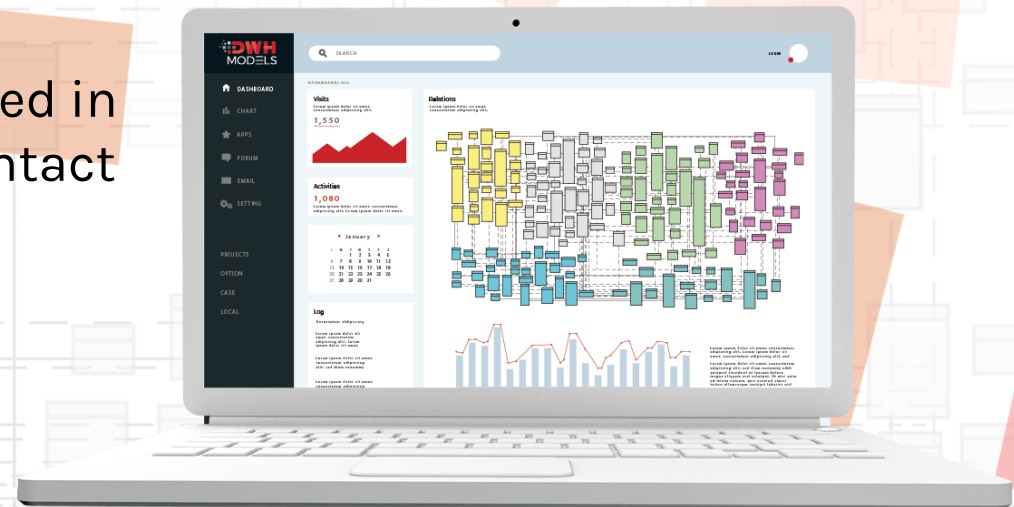
Model packaging

- Model in ERWin format and exported to other required formats
- Detailed Subject Areas Documentation (~50 pages)
- Detailed ERWin Model Report Documentation
- Customization Guide Documentation
- Source to Target Mapping templates
- Detailed Model content and Methodology Powerpoint Presentation



PI Retail Model & NRF ARTS

- PI Retail DWH Model is following the logic of NRF ARTS DWH model, that is standard basic industry model for retail
- However, in PI DWH model tables are organized in 3NF and more detailed
- Compared to ARTS model, PI Model is extended in many business areas (GDPR compliance, Contact Center, Marketing Campaign, Finance...)



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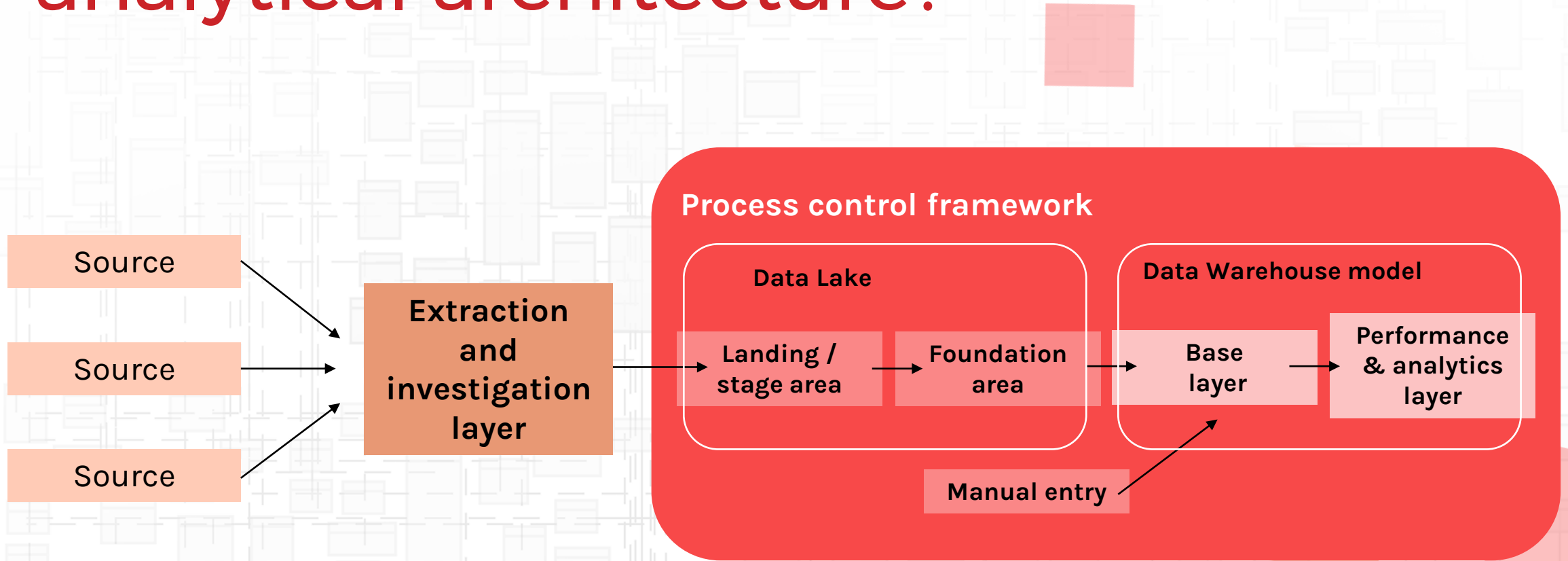


2. PI Retail DWH Model® Technical Perspective



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Where our model fits in analytical architecture?



Base Layer and Data Marts

- Base Layer contain tables loaded and transformed directly from source systems
- Data Marts have additional fact tables for analytical purposes based on aggregated data from Base Layer
- Some Data Marts are in separate Subject Areas
- Some aggregate (snapshot) tables are in the same Subject Area as corresponding Base Layer tables

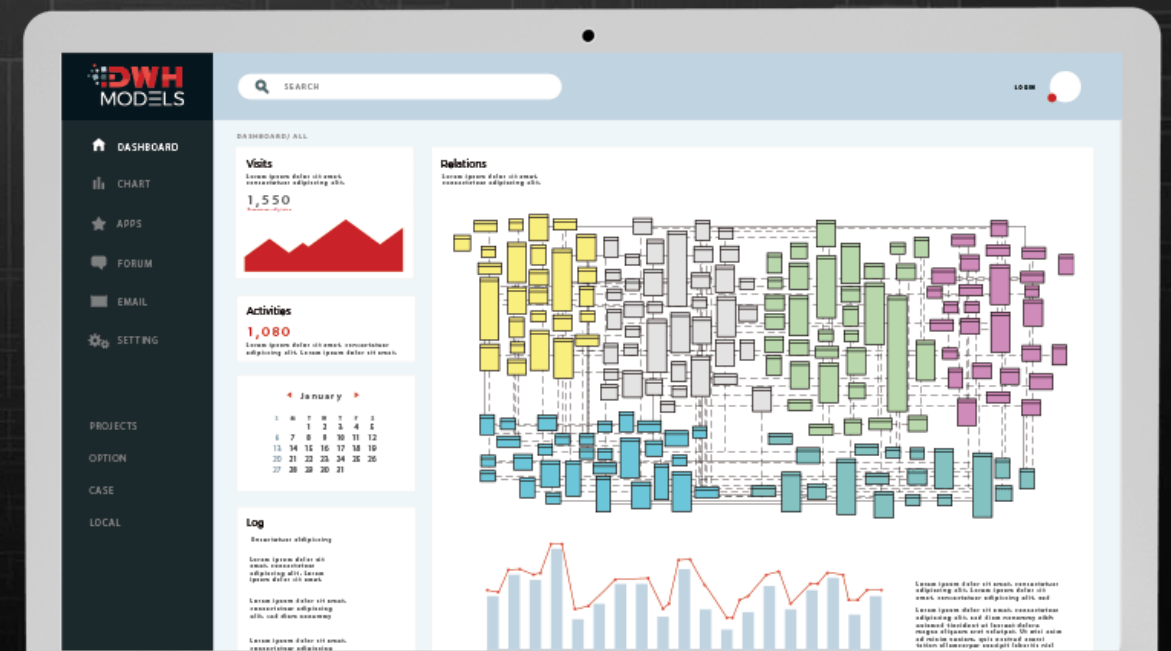
Model features

- 350+ tables
- Color-coding of tables and Subject areas
- Supertype - subtype relationships
- Primary - Foreign Key constraints
- Hybrid (SCD6) approach to Slowly Changing Dimensions
- Physical model implementations can be in every standard RDBMS
- Model is customizable per customer specific requests

Retail



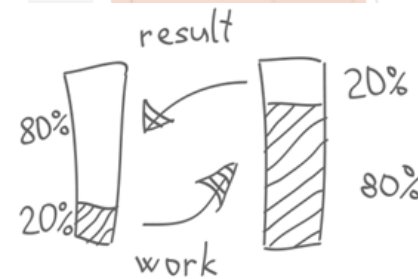
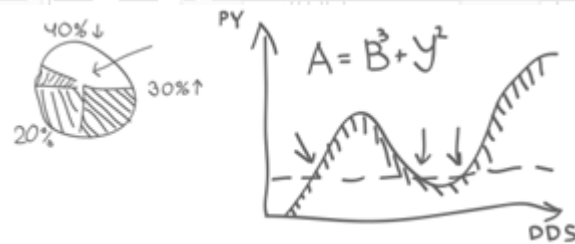
3. PI Retail DWH Model® implementation methodology



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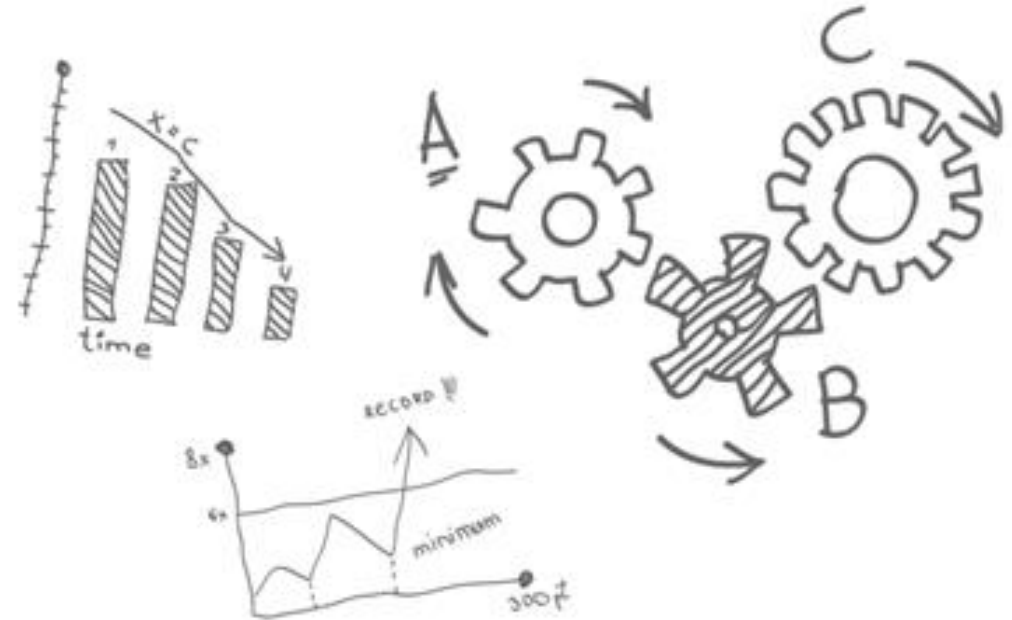
Implementation methodology

- Initial 1-2 weeks of workshops to define overall requirements and to establish expectations and timelines
- Model customization and source-to-target mappings are done based on FG's (PR, CC, SIS, FHR).
- For each FG customization and mappings may require 4-8 weeks, depending on complexity
- PR and CC are always first FG because all other FG rely on it. Order of other FG is defined with customer by priority



Main model Functional groups (FG)

- Common Business (CB)
- Product (PR)
- Customer & Contract (CC)
- Sales & Inventory (SIS)
- Finance & HR (FHR)



Retail

DWH MODEL

Banking

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Banking DWH Model

Gain insight into customer trends and historical data - optimize discounting, improve retention and segment your customer base to effectively acquire new customers. **Data warehouse provides the basis for quality analysis of available data by deriving accurate information.**

Insurance

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Insurance DWH Model

Make informed and data-driven decisions and **transform information into meaningful actions**. Turbulent times of saturated markets and new regulations, highlight the importance of the **availability of the right information at the right time** for the (re)insurance industry.

Telco

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Telco DWH Model

Improve your decision-making process based on quality data using advanced analytics and be a part of digital transformation. **Extract consumer insights** to learn more about their preferences and reinvent the customer experience.