

# Dossier About Data Marts

Bhaumik C Prajapati<sup>#1</sup>, Arpit S Raval<sup>#2</sup>

<sup>#12</sup>Department of CE, Shree Swami Atmanand Saraswati Institute of Technology, Surat, Gujarat, INDIA

**Abstract:-** A data mart is a persistent physical store of operational and aggregated data statistically processed data that supports business people in making decisions based primarily on analyses of past activities and results. Data marts have specific purposes such as measuring the impact of marketing promotions, or measuring and forecasting sales performance, and impact of new product introductions on company profits in a new company division. A data mart contains a predefined subset of enterprise data organized for rapid analysis and reporting. This research paper discuss the role of data marts.

**Keywords:** Data Marts, Types of Data Marts, Reasons to Create Data Marts, Advantages & Disadvantages of Data Marts.

## I. INTRODUCTION

The data mart has evolved from the data warehouse concept. Because, data marts can be delivered in a matter of months, and for hundreds of thousands, rather than millions of dollars. That defines them as within the range of divisional or departmental budgets, rather than as projects needing enterprise level funding. And that brings up politics or project justification. It only contains the specific data for local analysis. It is a simpler form of a data warehouse focused on a single subject (or functional area) such as sales, finance, marketing, HR etc. It represents data from single business process. It is a small data warehouse that satisfies the needs of a reduced set of users.

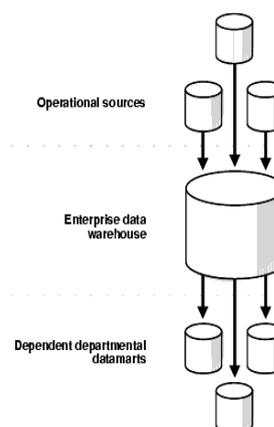
Data marts are easier to get through politically for at least three reasons. First, because they cost less, And often don't require digging into organization-level budgets, they are less likely to lead to interdepartmental conflicts. Second, because they are completed quickly, they can quickly produce models of success and corporate constituencies that will look favorably on data mart applications in

general. Third, because they perform specific functions for a division or department that are part of that unit's generally recognized corporate or organizational responsibility, political justification of a data mart is relatively clean. Perhaps for the first time in computing history those conditions may exist for DSS applications. Nothing in these basic definitions limits the size of a data mart or the complexity of the decision-support data that it contains. Nevertheless, data marts are typically smaller and less complex than data warehouses; hence, they are typically easier to build and maintain.

## II. TYPES OF DATA MARTS

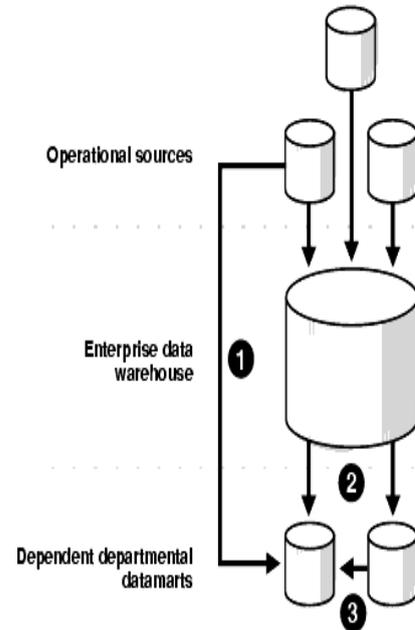
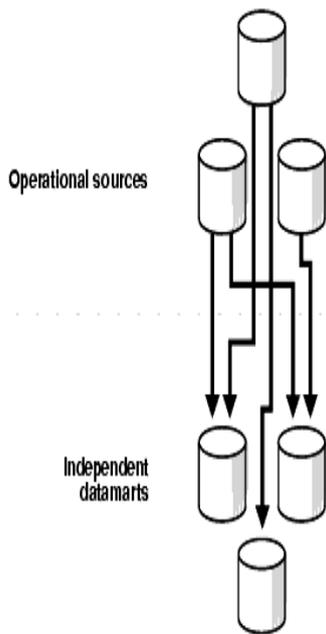
### i. Dependent Data Marts.

A dependent data marts is a logical subset of a physical subset of a higher data warehouse. According to this technique, the data marts are treated as the subsets of a data warehouse. In this technique, firstly a data warehouse is created from which further various data marts can be created. These data mart are dependent on the data warehouse and extract the essential record from it. In this technique, as the data warehouse creates the data mart; therefore, there is no need for data mart integration. It is also known as a top-down approach. Figure illustrates a dependent data mart.



**ii. Independent Data Marts**

The second approach is Independent data marts (IDM) Here, firstly independent data marts are created, and then a data warehouse is designed using these independent multiple data marts. In this approach, as all the data marts are designed independently; therefore, the integration of data marts is required. It is also termed as a **bottom-up approach** as the data marts are integrated to develop a data warehouse. Figure illustrates a independent data mart.



**III. ADVANTAGES**

- 1) Improves end-user response time by allowing users to have access to the specific type of data they need.
- 2) A condensed and more focused version of a data warehouse.
- 3) Each is dedicated to a specific unit or function.
- 4) Lower **cost** than implementing a full data warehouse.
- 5) Holds detailed information.

**iii. Hybrid Data Marts**

A hybrid data mart allow you to combine input from sources other than a data warehouse. This could be useful for many situations, especially when you need ad hoc integration, such as after a new group or product is added to the organization. Figure illustrates a hybrid data mart.

**IV. DISADVANTAGES**

- 1) Many a times enterprises create too many disparate and unrelated data marts without much benefit.
- 2) Data Mart cannot provide company-wide data analysis as their data set is limited.
- 3) They are most cost effective than data warehouses, but are also an added cost on the top of the data warehouse.

**V. CONCLUSION**

Data marts are means for business to gather intelligence about their products, customers and enable them to make informed effective business decision. And also the data marts functions as the analysis and cataloging center, to create fast and simply information queries. Data marts improves end-user response time by allowing users to have access to the specific type of data they need to view. A data mart is basically a condensed and more focused version of a data warehouse.

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