Chapter 3: PROBLEM STATEMENT

I. Introduction

Commercial users want to know which types of requirement are occurred in the data warehouse, how does observe the substances using analytical tool and how does present the outcomes of such study. Design and implementation to access the content of data warehouse through data analysis tool.

The following requests are associated between data analytical tool and corporate persistence for data warehouse:

1. In what way does the substances access in data warehouse? And what is the business need for it?
2. How do the substances examine with analytical tool? In what way to existing the outcomes of such study?
3. In what way do the several data analytical tools associate in relationships of price, determination and easy to use by logical approach?
4. How does it upturn functioning competence decrease data warehouse price with observing tool?
5. How does it maintain the operational decision support using active data warehousing
6. How does it examine the contents in data warehouse using analysis tools as Excel Tool Pak tools?
7. How does it access and time comparing the contents using Time Performance Analyzer tool?
8. How does it comparison is the data warehousing software using Time Performance Analyzer tool?

Above following four questions are evaluated in this chapter and next fifth to eighth are discussed in chapter 4. First question result, the data contents are used in data warehouse for business purpose. What is need of this technique? It is basically use and design the data warehouse accessing tool. Data application comprises enormous capacity of figures and facts. Decision support system can request to OLAP servers it supposed to be handled the queries sequence. Query processor optimizes approaches and calculation of cube system in data warehouse systems.
II. Data Cubes Competent Computation

The data cube computes run combinations of subgroups of the scopes quantified in the database. Whatever is elaborated the data cube competent to computation? It involved All Garment sale then you suppose to generate following attributes as – product, city, sales and year. It is analysed the statistics using requests as under:

The business process has used methodology concept and showed degree of recital. How does it run request of corporate? Analytical tool is to primes as:

- Key process is indicates the setup of process.
- Process completing and system components assessment [50].

Fig. 3.1 Sales and Multidimensional data sets relationship [7]

- Sales, group by city and product are compute.
- Sales, group by city are compute.
- Sales, group by product are compute.

Above Figure result showed calculate the sales by group wise, city wise and which product to be sale more. The result of published research paper [7] is showed analytical tool to offer an informal statistics to optimize data for end users. In this stage, analytical tool could be tested by simulator. This tool will interchange the environment to assessment environment and creation environment [51].
Second solution, the substances examine with analytical tool and present the outcomes study. Data online analysis tools in Excel Spreadsheets, Co-sort, Web FOCUS and Climate data analysis tools are divided into different forms. First of all the tools achieve fast data retrieving and cumulative universal size. The mainstream of the online analytical tools and Co-Sort tools were assessed for research paper, as well as illustration of the online analytical tools and Co-Sort tools. A prime list of queries produced report in literature review. A matrix is used in assessing data, developing the list and used for foundation data warehouse. Table1 is showed relationship of total sale of particular region. It is presented key steps and activities in defined order. Overhead list of queries is studied from small industry which is at the moment in the original phases of emerging the background for data warehouse by concern organization. Additional questions are solved by these figures and tables. A matrix (Figure3.2) is established that planned the structures of data analytical tool to optimize the substances [52].

Table 3.1 Comparison of items and total amount [5]

<table>
<thead>
<tr>
<th>Region</th>
<th>Item-name</th>
<th>Item-Quantity</th>
<th>Item-price</th>
<th>Sum of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>South U.P</td>
<td>XL-Trouser</td>
<td>60</td>
<td>450</td>
<td>27000</td>
</tr>
<tr>
<td>West U.P</td>
<td>M-Shirt</td>
<td>130</td>
<td>750</td>
<td>97500</td>
</tr>
<tr>
<td>Pune</td>
<td>S-Suit</td>
<td>550</td>
<td>1450</td>
<td>797500</td>
</tr>
<tr>
<td>Jammu</td>
<td>Coat</td>
<td>85</td>
<td>1000</td>
<td>85000</td>
</tr>
<tr>
<td>Kerala</td>
<td>Sherwani</td>
<td>55</td>
<td>6500</td>
<td>357500</td>
</tr>
</tbody>
</table>
The basic objective of the proposed tool is to obtain the best result for organization. Henceforth, this is the main goal of comparative analysis is to obtain the features of all the available tool on the parameters of their execution criteria and the results are depicted in table 3.1 and figure 3.2. It allows focusing on which attributes are required for addressing generic complications in the data warehouse [52].

III. Design the Measurable Model

The measurable model is designed and supplies the data by commercial user. It must be present the report for business requirements, database detail, and which dimensions are included in data warehouse. The computable approach should be uniform according to the user’s need that helps to direct access data. This approach should be modelled in such a way to easily sustain that may be ready to face the upcoming challenges [53]. The approach is provided “immediate” query results by experts in a relational database.
Figure 3.3 Classification of Computable Approach [5]

Figure 3.3 shows classification of data warehouse of an organization. To mitigate the data duplication of data collection in warehouse are the basic drive of data online analytical tool. Hindrance is occurred in a standalone database applications, when participative applications from various data resources. This process is implemented by design tool for online and offline condition [54]. The current market trends, virtual reality and visual simulation are provided by above model. The core advantage of term- cost, time and confirming the design of the product that best suited for of the purpose, the utilization of computer oriented tools and practices are mandatory and designate the development of sale [55].

Figure 3.4 in orders for a company to use a data warehouse successfully; it must be designed so that users are able to analyze historical and current data. There are a number of things that will result from this technique, and they will have an effect on the data measurable model and data collection star diagram. For instance, difference the very simplified Online Analysis Tools above diagram with the data warehouse measurable model and star diagram which one better supports the ease of developing reports and simple, efficient summarization queries.
The original aim of data warehouse online analytical tool was to eliminate duplicates in a data collection, a problem occurring already in single database applications and gets worse when integrating data from different sources and can implement online and offline state[3]. A star diagram is deformed in the intellect that dimension tables are not broken down into regularized tables thus providing aware end-user views. Star diagram activity the detail that the content of accurate transactions is unlikely to change, regardless of how it is analysed [56].

Our main objective is to reduce the execution time when someone access the content in data warehouse, but the main drawback is that it does not reduces the implementation time of the compressed data which can be done using programming implementation more easily. There are number of other techniques which can also compress the data and reduced the access time. In this particular implemented algorithm we have devolved so far is easy to use as compare other compress technique.

Third solution is analysed here. The different analytical tools of data warehouse are compared with the parameters of money, efforts and usability for the requirement of any organization. Data collection and storage of database are produced precise format items timely and not disturbing the routine task of the data to be operated for organization management [5] [57].
IV. Distribution Approach of Data Warehouse

The rational approach of data warehouse has to develop the multiple construction iteration in number of times. The project management requirements are gathering the data and metadata to facilitate the administrator of database (DBA), development of application team, tools to be used for testing and deployment policies [53].

![Diagram of Data Warehouse Multiple Iteration & logical Approach]

Figure 3.5 shows the project and number of iteration go to final release then store the data in data warehouse platform. It compromises a techniques based on alert that continuously develop the data warehousing application. Data can be optimized competent and permit data warehouse with rational attitude [58]. Logical structure is built relational or multidimensional data for taking conceptual view surviving effort are dedicated on several structures as simulations, framework precisely rational planned in different standards, essential reports, graphs screens and directories for database. Logical information is passed information to different fields and particular current data.

In this resolution, present iterative model is called dimensional fact model. A data warehouse involves structure, implementing design and execution techniques completely various from other database. The delinquent is solved in New York Government assistances for data foundations inside the events in particular
phase. 3.4 Table 1 is established a particular planned and structures of the data excellence tools and analysis tools solved that the problems.

Table 3.2 Comparison product in terms of Money, Sale, Purpose and Users Usability [6]

<table>
<thead>
<tr>
<th>Product</th>
<th>Company</th>
<th>Purpose</th>
<th>Price (in Rs)</th>
<th>Plate form/Training</th>
<th>Sales (in million dollars)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trouser</td>
<td>Eden burg Noida</td>
<td>Manufacturer/distributor</td>
<td>1400</td>
<td>MS-Excel/5-days</td>
<td>135</td>
<td>Name and address Includes house holding</td>
</tr>
<tr>
<td>Shirt</td>
<td>Fulon Delhi</td>
<td>Supplier</td>
<td>650</td>
<td>MS-Excel/5-days</td>
<td>135</td>
<td>No built-in functions, everything</td>
</tr>
<tr>
<td>Suit</td>
<td>John Hill Bangalore</td>
<td>Retailer</td>
<td>1350</td>
<td>ODBC/7-days</td>
<td>125</td>
<td>Name and address Includes house holding</td>
</tr>
<tr>
<td>Coat</td>
<td>John Hill Bangalore</td>
<td>Retailer</td>
<td>950</td>
<td>ODBC/7-days</td>
<td>128</td>
<td>Name and address Includes house holding</td>
</tr>
<tr>
<td>Sherwani</td>
<td>West Wood Noida/Gzb</td>
<td>Manufacturer/ Retailer</td>
<td>6000</td>
<td>MS-Excel/5-days</td>
<td>120</td>
<td>Name and address Includes house holding</td>
</tr>
<tr>
<td>Suit</td>
<td>Ritu Wear Noida/Delhi</td>
<td>Retailer</td>
<td>8000</td>
<td>Oracle/7-days</td>
<td>150</td>
<td>Name and address Includes house holding</td>
</tr>
<tr>
<td>Suit</td>
<td>Black Berry Delhi</td>
<td>Retailer/ Audit</td>
<td>10000</td>
<td>Oracle/7-days</td>
<td>200</td>
<td>Formation of business policies from data and data exception rules using audit of data warehouse techniques.</td>
</tr>
</tbody>
</table>
Table 3.2 and Figure 3.6 show relationship in terms of money, Sale, purpose and user usability environment. Present research and rational method is well-developed for the operation of the tool used in data warehousing that avoid the user to execution phases [59]. It is provided the user with a real-world method to data generic procedures and their application with data analytical tools.

Fourth result is analysis here that data warehouse cost is increased time to time; operational efficiency is reduced using data warehouse monitoring tool. Commercial user is used of logical requests for biggest database. Logical requests are getting bigger than physical requests. This problem is solved by data manager and proposed tool. Data warehouse is growing now with respect of storage- as terabytes storage space such as ten and hundred are promptly increasing. Current research showed as “Aberdeen Group of company” presented a huge creativities observed as forty per cent growth increase annually 2009 and 2010 (references: Database Management System for Business objective – Aberdeen Group of company). Although the increasing rate of data, the same study also found that fifty per cent of the commercial group presents that a vast quality of data is not used by commercial users.

Table 3.3 Existing research and Current research resources analysis [60]
Above tables and figures are showed the existing and recent research means and money execution. It represents how to get the advantages of commercial group that implemented time to time the policies of
advancement year wise as compare with the earlier space and the price increase of tools by this outdated database observing tools [60].

V. Summary

Earlier two chapters were concentrated on the various data types, optimization of the data warehouse, and compression of database with framework and literature of research. In this chapter, above following four questions are evaluated and next fifth to eighth objectives are described in chapter 4. First question result, the data contents are used in data warehouse for business purpose. What is need of this technique? It is basically use and design the data warehouse accessing tool. Data implementation contains huge volume of data. Other three question result is implemented by published in research papers. These questions’ solution is implemented here with tables, figures and chart also. We have explained two research objectives. One objective is accessed the contents in data warehouse and need for the business. Second objective is to compare in terms of money, objective and user usability increase operational efficiency to reduce data warehouse accessing time by various other data analysis tools. Next two objectives and above fifth to eight questions’ solution will discuss in chapter 4.