



Current Issues Leading to the Failure of Data Warehousing

Parismita Bora

MBA-IT, SICSIR, affiliated to Symbiosis International University (SIU), Pune, Maharashtra, India

Pravin Metkewar

Assoc. Professor, SICSIR, affiliated to Symbiosis International University (SIU), Pune, Maharashtra, India

ABSTRACT

Data Warehouse enables information accessibility to organizations, it is a central storage where we have the detailed integrated data which are extracted from both the internal and external data sources. Data Warehouse consists of a repository which enables the storage of subject oriented data. Data Warehouse enables proper drill down analysis by users. There are number of factors which affect the success of data warehouse implementation. All those factors are needed to be taken care of during the Data Warehouse implementation. So it's important to determine these factors before the implementation of the Data Warehouse. In this paper we try put light on the current issues almost all of the data warehouse projects are facing

KEYWORDS : Data Warehouse, Decision support system, Metadata, Business Rules, Metadata, Information retrieval

INTRODUCTION

For business performance analysis we use Data Warehouse which enables proper storage of information and arrange them in a proper order. One important factor of Data Warehousing is Decision Making done by the Decision Support System (DSS) which enables proper managerial decisions.

Decision making happens successful only when structured organized and integrated data are available in a timely fashion and easily understandable manner. DW enables the use of BI tools for data transformation by recognizing all the issues and the opportunities. There are numbers of factors that lead to the failure of Data Warehouse.

PROBLEM DEFINITION

Now a day the DW project failure rate is more. Each and every year there are failures in Warehousing. So it's important for us to identify those factors that lead to its failure. The time taken in an average to build up a data warehouse is 12 to 36 months and its cost comes to one million approx. This study was undertaken to depict of the factors that might lead to the failure of data warehousing.

1. CURRENT ISSUES
2. Deteriorated data quality.
3. Poor Quality Documentation.
4. Flexibility.
5. Availability.
6. Implementation of Business Rules.
7. Metadata.
8. Cost.
9. Top Management Support.
10. Ease of use.
11. Information Retrieval
12. Data Security.
13. Accessibility.

DETERIORATED DATA QUALITY

The information provided by the data warehouse depends on the quality of data, these faulty data hampers the running of the organisation. These faulty data lead to many issues such as unsatisfied customers, inaccurate analysis etc. Here cost increases as to maintain the data quality.

So when it comes to ETL process the organisation shouldn't only concentrate on extraction,

transformation and loading process, they should also check the quality of the data. There should be continuous monitoring of the data to check its quality. The consistency and integrity in data should be maintained.

POOR QUALITY DOCUMENTATION

The presence of faulty data leads to the poor quality of documentation may it be reports, queries which in turn affects the productivity of the organisation. The need for verifying the documents is a must. Thus to prepare a good quality report there should be availability of good quality data.

FLEXIBILITY

As the number of users increases with time the need of data also increases, and the complexity in the queries also increases, users ask for more defined detailed data, or might ask for more of historical data. So the data warehouse structure should be flexible enough i.e. easy to expand.

AVAILABILITY

There should be proper service level agreements followed by the data warehouse system. The response time should be proper and the system should be available for the allotted time period. The entire functioning of an organisation depends on the availability of the system.

IMPLEMENTATION OF BUSINESS RULES

The data warehouse system should follow proper business rules for the proper functioning of the organisation. Without the implementation of the business rule we can't deliver value to the customers. Technology can run only when business rules are its place in the organisation.

MAINTAINING METADATA

Metadata Management is one of the important factor of Data Warehouse. What does metadata mean? "Metadata is data about data" it provides all the details in depth to a particular data, for e.g. the date of modification of data, its related files etc. The base of Data warehouse system lies on metadata itself. Metadata provides the understanding of the system once the data is loaded to the data warehouse. It is a repository which stored data about data from multiple sources and integrate it together so it every important to maintain the metadata.

COST

The Data Warehousing projects are often costly as there are complex queries running, there might be need of more storage, need of more data, there might be need to update the systems. There are various other factor which might lead to the additional expenses.

TOP MANAGEMENT SUPPORT

The involvement of the top level management is a must for e.g. A project manager is responsible for delivering project outputs.

The top level management should be responsible for their work.

EASY OF USE

The system should be easy to use, not all the users are It experts so the tools and all should be such that could be used by non it people. The system should be user friendly.

INFORMATION RETRIEVAL

Information Retrieval process begins with the execution of queries. Depending on the type of query there should be proper information retrieval, here the degree of relevancy should be good enough.

DATA SECURITY

The data security is a major factor of organizational success. A organisation is safe only when its information is secure enough. To maintain the security, the of the organisation one should implement different standards & framework and should implement layers of security. Information should be available only to authorized person only.

ACCESSIBILITY

The success of an organisation depends on how effectively and efficiently you are able to use the system. operating within the widest possible range of situations. Especially the employees should be able to have proper on time access.

CONCLUSION

There are number of issues which leads to the failure of the Data Warehouse System. In this paper some of the issues are explained above. Before the implementation of a DW project these issues should be considered and understand by the members of the organisation and try to avoid those issues in the future which in turn will lead to a successful implementation of Data Warehouse.

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