http://www.ijrst.com

ISSN: 2249-0604

(IJRST) 2015, Vol. No.5, Issue No. I, Jan-Mar

A STUDY OF PERFORMANCE OF DATA WAREHOUSE AND ITS ASSOCIATED RETURN ON INVESTMENT

Bikramjit Pal¹, Mallika De²

¹Assistant Prof. and Head, Department of Computer Application
JIS College of Engineering, Kalyani, Nadia – 741235
West Bengal, India

²Ex-Head, Department of Engineering and Technological Studies
University of Kalyani, Kalyani, Nadia – 741235
West Bengal, India

ABSTRACT

A data warehouse as we all know has become a vital entity for any business. Companies are investing in data warehouse not only to achieve enormous profit in their business but also to get a strategic advantage over its competitors. We in this paper has investigated various reports to find out whether it is invaluable to implement a data warehouse or it is just for the sake of going at par with today's technology. How much a strategic advantage will help a company by investing a huge amount in its data warehouse is also a part of the survey.

Keywords: Data warehouse, strategic advantage, competitors, survey.

INTRODUCTION

Bill Inmon once said that it is the data warehouse that will create a historical revolution in industry. CEOs who will understand this will flourish together with their organization, others have to exit. He was so true when we see data warehouse creating havoc changes in the business methodologies of the organization. Companies find that implementing a data warehouse gives them an exponential profit in terms of money and use of resources.

The Survey: We have gone through various aspects of data warehouse and compare the cases where a warehouse implementation has really bypassed the investment made on it. In other words, how easily and quickly the Return On Investment would be available to the investors of data warehouse had been studied in this paper.

The following are the parameters which were studied to understand the payback:

1. Reporting: The reporting module is a very important module for data warehouse. A warehouse that does not perform proper reporting is of no value. We have observed that without a data warehouse the cost of reporting is very high, approximately 10 lacs / year. Also, as the number of

International Journal of Research in Science And Technology

http://www.ijrst.com

ISSN: 2249-0604

(IJRST) 2015, Vol. No.5, Issue No. I, Jan-Mar

reports increases the cost value without a warehouse increases. But when a data warehouse is introduced, there is a huge cut off (almost 98%) in the cost of reporting from the very first report. Moreover, from the second and subsequent reports the company will start receiving its payback.

- 2. Corporate Perspective: An organization has customers from various regions, types like retail or distributor, and categories like house makers, working men & women, kids. Different applications have to be developed for different customers as they have distinguishable interpretations. Thus, if we have a data warehouse the different perspectives can be integrated in a data warehouse and the same can be used by various customers which give the company an integrated perspective. Also, corporation gets the view if it's integrated information.
- 3. Historical Perspective: Data warehouse is the only medium which provides historical data. Historical data are very useful for analysis. The storage of data warehouse is so huge that it can store large amount of historical data. Historical data are invaluable is understanding the customer, in studying trends, product analysis and so on.

CONCLUSION

Thus, we conclude from the survey that data warehouse is invaluable because it provides:

- 1. The cost and accessibility of information.
- 2. Integrated corporate information.
- 3. Historical Information.

So, to invest in warehouse is worthy as it will give a good Return On Investment, provided it is properly implemented and used.

REFERENCES

- [1] Chowdhury R., Pal B., "Proposed Hybrid Data Warehouse Architecture Based on Data Model", International Journal of Computer Science and Communication, Vol. 1, No. 2, 2010, pp. 211–213.
- [2] Pal B., "Comparison of Data Warehouse Architecture Based on Data Model", International Journal of IT and Knowledge Management, 2010, No. 2, pp. 303 304.
- [3] Peter R. Welbrock, "Is your data warehouse successful?" 23rd Annual SAS User Group International Conference, Nashville, Tennessee, March 22 25, 1998.
- [4] Kimball R., "The Data Warehouse Toolkit: Practical Techniques for Building Dimensional Data Warehouses." John Wiley and Sons, 1996.

International Journal of Research in Science And Technology

http://www.ijrst.com

ISSN: 2249-0604

(IJRST) 2015, Vol. No.5, Issue No. I, Jan-Mar

- [5] Data Warehousing and OLAP: A Research-oriented Bibliography by A. Mendelzon, C. Hurtado and D. Lemire.
- [6] Golfarelli, M., Rizzi, S., "Designing the Data Warehouse: Key Steps and Crucial Issues", Journal of Computer Science and Information Management, Volume–2, Number–3, 1999.
- [4] Inmon, W.H., "Building the Data Warehouse", Second Edition, 1996.



About Communicating Author:

Mr. Bikramjit Pal is currently working as Assistant Prof. and Head in Department of Computer Application, JIS College of Engineering, Kalyani, Nadia, West Bengal from October 2006. He has an overall experience of more than 16 years of teaching post graduate and under graduate students. He is an MCA from Berhampur University, Berhampur, Orissa of 1998 batch and has obtained B. Sc. (Hons.) degree in Statistics from B. H. U., Varanasi in 1995. Mr. Pal has been involved in active research for the last five years and presently pursuing Ph. D. from University of Kalyani, West Bengal.