

EXAMINING DATA WAREHOUSING IN FINNISH ORGANIZATIONS – A QUALITATIVE APPROACH

EBRF '08

Jussi Myllärniemi
Jaani Väisänen



Content

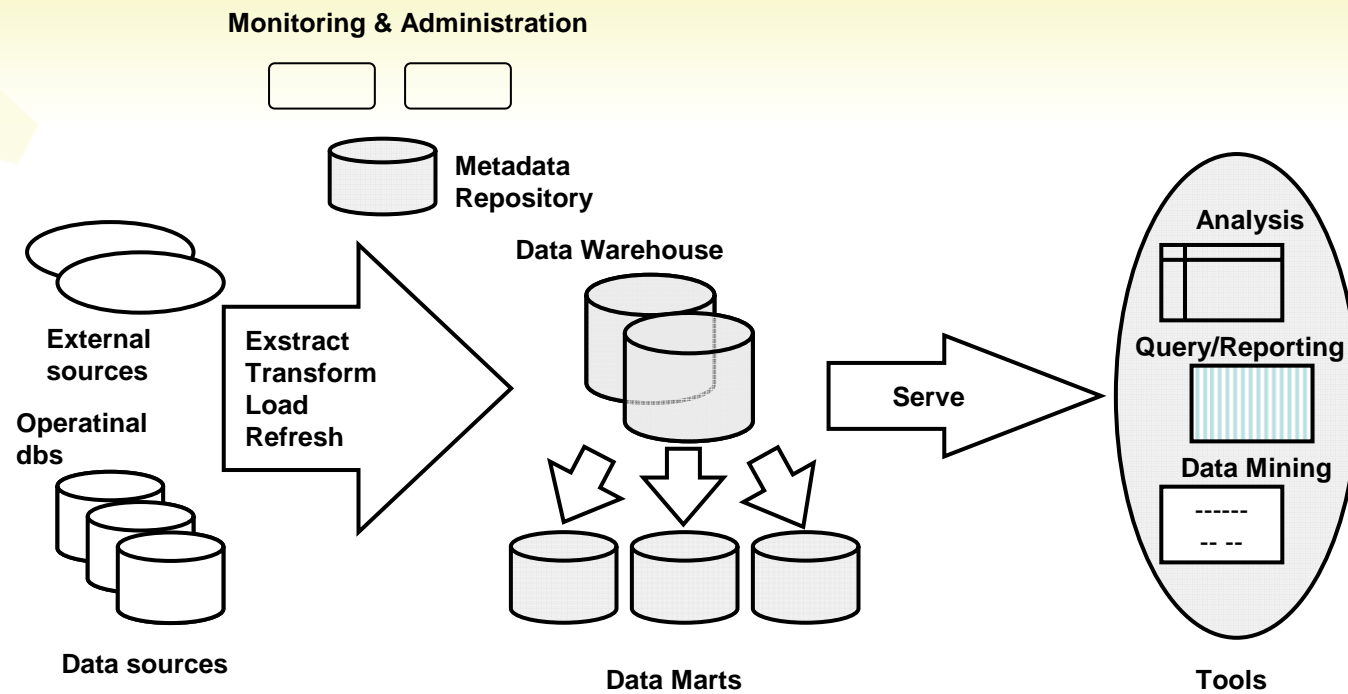
Data warehousing from BI point-of-view
Measuring and verifying benefits

Table of contents

- Defining data warehousing
- Benefits and pitfalls of data warehousing
- Empiric part of presentation
- Results
- Implications of future research



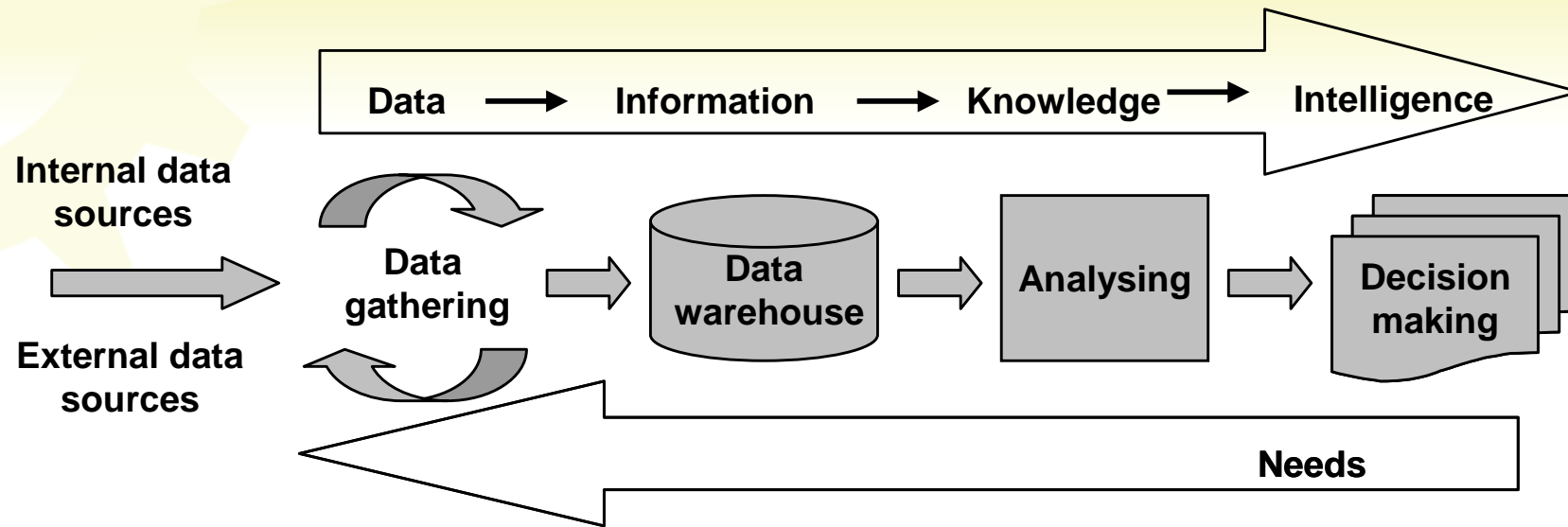
Data Warehousing



Modified from source: Chaudhuri & Dayal, 1997



Business Intelligence Value Chain



modified from source: Pudas, 2002

Benefits and pitfalls

Benefits

- Better and faster decisions
- Information in one place
- Multidimensional and consolidated data
- Reporting
- Forecasting

Cases

- Continental Airlines (Turban et al, 2007)
 - Data warehousing (collecting historical data) → profitable business
 - Real-time decision making
- Wal-Mart (Foote & Krishnamurthi, 2001)
 - "Wanted to know everything"
 - Forecasting

Common pitfalls to avoid

- Focus on technology instead of business
- Data warehouse success is tied directly to user acceptance
- There is no management support
- Information collection without knowing how to use it
- Lack of education
- Don't know how to use available information
- Difficulty of pointing out benefits

(modified from sources: Farhoomand 2005, Kimball 2002)



Empiric research

Study data warehousing from BI context and increase knowledge about DW practices in Finnish organisations

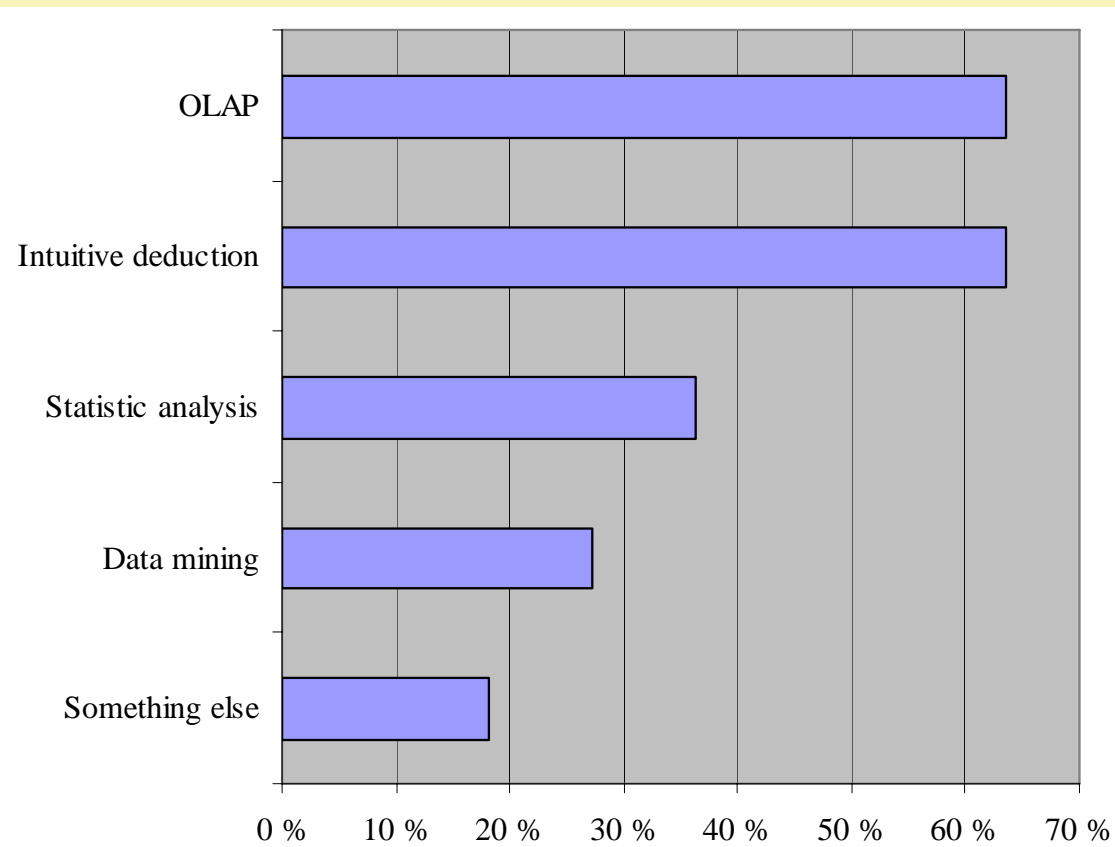
- How data warehousing is handled in Finnish organisations?
- What benefits organisations achieve?
- How these benefits are verified?

- 11 interviews from large Finnish organisations
- Questionnaire study – three themes:
 - What kind of data the organizations collect?
 - Information processing
 - The benefits of data warehousing

- Qualitative research → quantitative research



Results: Information processing methods



More results...

What kind of economic / non-economic benefits does your company get from data warehousing?

- "it is necessity for business"
- "business become more effective"

How do you verify these benefits? And how do you measure these benefit?

- "we do not know"
- "we can't and we do not have time"

Conclusion → Information is collected, although organisations don't know how it appears in business.

Reporting → Forecasting

- "Time for gathering and reporting information is over. Now it's time for forecasting and future simulation." (Jouko Katajisto 2008)



Implications of future research

- Qualitative research → quantitative research
- Expand survey for covering the largest organisations of Finland
 - Using the extracted components as a basis of the research instrument
 - Larger sample
- During spring 2009

Thank you for your attention! Any questions or comments?



References

- Chaudhuri, S. & Umeshwar, D. An Overview of Data Warehousing and OLAP technology.
- Farhoomand, A. 2005. Managing (e)Business Transformation. Palgrave Macmillan, New York.
- Foote, P.S. & Krishnamurthi, M. 2001. Forecasting Using Data Warehousing Model: Wal-Mart's Experience. The Journal of Business Forecasting 2001. pp. 13-17.
- Katajisto, J. 2008. in source: run.sas. 1/2008, pp. 18-20.
- Kimball, R. & Ross. M. The Data Warehouse Toolkit. John Wiley & Sons, Inc., Canada.
- Pudas, A. 2002. Raportoinnista johtamisen tietotukeen. Numeroista päätöksentekoon –seminar 25.04.2002.
- Turban, E., Sharda, R., Aronson, J.E. & King, D. 2007. Business Intelligence: A Managerial Approach. Upper Saddle River, New Jersey.

