DSA 8404

Lesson 5: BA at the Analytical and Data Warehouse Level

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### Establishing New Business Processes

Lead and lag information

- Lead information is information or knowledge that is necessary for even beginning our new business activities.

- Lag information let us monitor if we reach the strategic target

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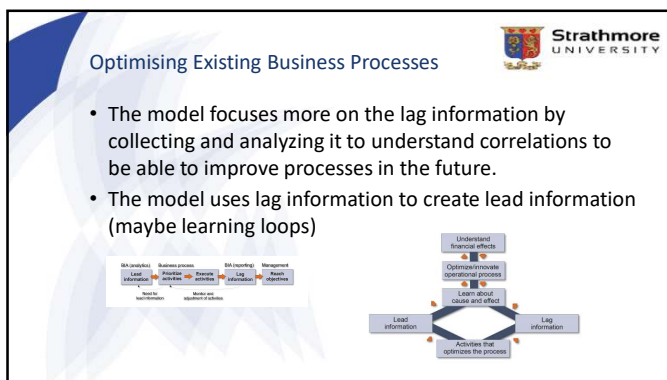

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Recap…

- *The Rockart model to describe the relationship between the objectives as defined at the strategic level and the new processes with the subsequent information needs.*
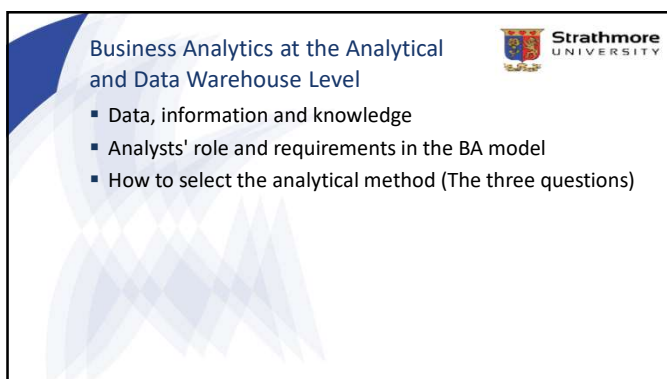

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Establishing New Business Processes
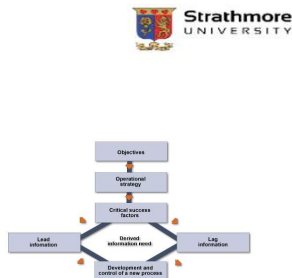
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Optimising Existing Business Processes

- The model focuses more on the lag information by collecting and analyzing it to understand correlations to be able to improve processes in the future.
- The model uses lag information to create lead information (maybe learning loops)

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Business Analytics at the Analytical and Data Warehouse Level

- Data, information and knowledge
- Analysts' role and requirements in the BA model
- How to select the analytical method (The three questions)

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Data, Information and Knowledge

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- Discuss the difference between data, information and knowledge – Are these concepts the same thing?

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Data, Information and Knowledge

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Data is defined as the carrier of information.

Information is data that is aggregated to a level where it makes sense for decision support.

Knowledge is information that has been analyzed and/or interpreted.

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Requirements of an Analyst

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Business competencies	Tool kit must be in order (method competencies)	Technical understanding (data competencies)
• First, the analyst must understand the business process he or she is supporting and how the delivered information or the delivered knowledge can make a value-adding difference at a strategic level	• Reporting • Statistical tests (to show any correlations that might be present in the tables.) • Data analytics (spot pattern, predictions)	• Analysts spend about 80% of their time retrieving and presenting data, so we also must place some clear demands on the analysts' competencies in connection with data processing

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How to Select the Analytical Method

- Tool for dialogue between management who wants information and the analyst who must deliver it:

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Question 1

- *Determine __with the process owner__ whether the quantitative analytical competencies, or the data manager and report developer competencies are required.*

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Question 2

- *Determine whether hypothesis-driven analytics, or data driven analytics can be expected to render the best decision support.*

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Question 3

- Determine whether the data-driven method has the objective of examining the correlation between one given dependent variable and a large number of other variables, or whether the objective is to identify different kinds of structures in data.

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Question 3

- Data reduction
- Cluster analysis
- Cross-sell models/basket analysis
- Up-sell models

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Choose appropriate analytical method for information wheels

- Exercise: What is the method?

  – HR wants to optimize their future hiring process by using analytics. As analyst you shall help them choose appropriate analytical methodologies for their information wheels
  – HR wants to compare the new sales managers performance with the 'old' sales managers performance
  – HR wants to identify a profile of a successful sales manager
  – HR wants to identify if there is a correlation between salary and sales results
  – HR wants to identify a good 10-year carrier path for the new sales managers
  – HR wants to know the average sales manager's historical sales result

  Which of the above questions/answers are lead information and which are lag information?
  Which of the above questions/answers belong to the information domain and which belong to the knowledge domain?
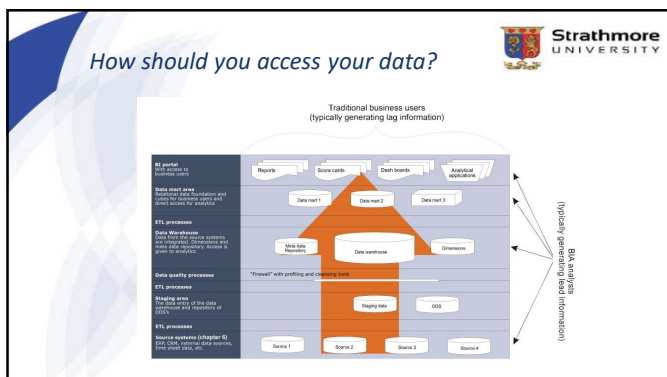
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Architecture and processes in a data warehouse
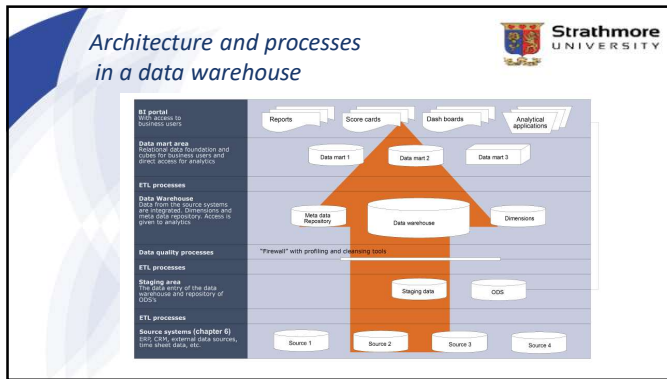
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Recap on DW concepts….

- What are dimensions and how can you use them? Examples?
- What are metrics/facts? Examples?
- What does an ETL job do? Examples?
- What does 'data quality' mean and why is it important?

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How should you access your data?

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Next Week…

- Given a business case, describe the process of identifying, collecting, cleansing, and organizing the data required for a solution.
- Given a business case requiring the analysis of large and rapidly changing datasets, discuss the roles in implementing a solution.

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Thank you!

Any Questions?

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