

Lightweight DWH Data Analysis for SMEs

Lukas Dötlinger, Manuel Penz, Markus Reiter & Stephanie Widauer

January 8, 2021

- Motivation
- Methodology
- DWH Needs for SMEs
- Review of DWH Services
- Interim results

Motivation

- Increasing digitisation results in collection of more data
- SMEs are more commonly using digital systems
- They therefore need a proper way to organise their data

- Determine the specific needs for a DWH
- Summarise key factors and challenges

- Research for different DWH solutions targeted at SMEs
- Comparison and classification of those systems
- Check of suitability for SMEs

- **Heavy reliance on spreadsheets**
 - growing number of spreadsheets across multiple departments is unmanageable combining them all together
- **Overwhelming spreadsheets**
 - spreadsheets can reach the point where no data can be added anymore
- **Takes too much time to wait**
 - one spreadsheet per department means other employees have to wait for the newest version

DWH Needs for SMEs (contd.)

- **Discrepancies on data and reports**
 - different third party information in every department's spreadsheet could lead to data discrepancies after combining all together
- **Too much time invested in creating reports**
 - auto update the DWH System after data in sources changes – departments can rely on always correct up to date Data

- **Software as a Service (SaaS) / Data Warehouse as a Service (DWaaS)**
 - cost-effective pay-as-you-go model
 - straightforward setup
 - no hardware necessary, can be deployed instantly
- **Review & Comparison of DWaaS Products**
 - What do they have in common?
 - How do they differ?
 - Are they suitable for small businesses?

Interim Results: DWH Services

Services we found so far:

- Bime Analytics
- Panoply
- Stitch
- Vertica
- Segment
- Xplenty
- Tableau
- Snowflake
- AWS Redshift
- Google BigQuery
- IBM DB2