

Information Quality Fast and Simple*

A simulation for *Information Quality Improvement* by Michael Mielke *dgiq.e.V.*
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Business actions need high-quality and trustworthy information, in order to make fast decisions in flexible processes. Therefore there has to be a way to define and measuring the quality of data and information, including that into the process of development. The observation of today's successful enterprises shows, that there is a dependency between success and the way executives believe in the trustfulness of information. Successful businesses cultivate a *Business Excellence* into a *Business Information Excellence*.

This simulation *Information Quality Fast and Simple* will show you how problems in data and information quality are solved at the example of order, sales and production, and how an enterprise optimizes the quality of data lastingly. As an employee of Cheers GmbH you will experience the importance that *Information Quality* has, and how it influences decisions in businesses. Further you will learn methods to optimize the quality of Information in your company.

Within the Simulation you will work on the following topics getting a look at important backgrounds and methods. The central theme will be solution of the main problem of Cheers GmbH.

- Introduction into the Problem of DQ
- What is *Information Quality*?
- How is Information Quality defined, measured and optimized
- Project Management with the IQM Roadmap
- Important functions and 30-60-90 Method
- Methods of *Data Mining*
- Measuring of content
- Analysis of streams of information
- *Data Cleansing* and concept of lasting development
- Management of processes and demands
- Key figures in *Information Quality* and *IQM-Reporting*

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Information

Cheers GmbH is a subsidiary of the American Cheers-Beer Inc. in Paddington USA. The German subsidiary was founded in December 2002 after Cheers-Beer Inc. had bought the Kretschmeier Privatbrauerei in Munich.

From January 1st 2003 to December 31st 2005 the company attracted a lot of new customers with its products, and increased sales steadily.

Annual sales in 2005 were 25.000.000 € besides a production capacity of 17.000.000 litres. 15 account executives provide service for customers from all over Germany, in 5 regions and 3 products.

The Company is subdivided into 5 business sectors (bs)

- Corporate Sales
- Production
- Finances
- IT
- Labour

Cheers GmbH focuses on the production of pilsner and wheat beer. These sorts are soled as

- „Lager“ in 0,33 litres Long Neck bottles
- „Kristallweizen“ in 0,5 litres bottles
- „Pils“ in 50 litres barrels

Because of the growing order quantity the bs Corporate Sales aims to enlarge production capacity. The order quantity is 10% higher than the production capacity.

Since July 2005, there is a growing number of customer complaints and an increasing dissatisfaction among the employees. This is displayed by high churn rates, a loss of customers and a large number of resignations.

It seems that customer complaints happen in all sectors of customer relations, from customer service, to production and invoice.

The Employees of Cheers GmbH experience the dissatisfaction of customers and colleagues daily. There problems appear in all working processes, having a negative influence on labour relations.

In January 2005 changes to ERP-System with wide-ranging effects on customer and production systems were made

The training of employees was finished in summer 2005. All division managers confirmed that their staffs are fully-trained in the new systems.

The Process of production at Cheers GmbH

Step 1: Brewery

- Shredding of malt in a grist-mill
- Mixing of malt and water – at a temperature between 50 to 76 degree Celsius
- Formation of beer mash through reduction of strength in sugar
- Separation of beer mash from all indissoluble ingredients of malt
- Brewing of beer mash and hop together for 1 hour
- Separation of protein and cooling of beer mash

Step 2: Fermentation and Ripeness

- Assessing of cool beer mash with yeast at a temperature of 7 degree Celsius
- Transformation of malt-sugar into alcohol and carbon dioxide after 8 days of fermentation
- Yeast descends to the bottom
- Separation of yeast and beer
- Post fermentation and ageing of beer at a temperature of 0 degree Celsius for 3 weeks

Step 3: Filtration

- Separation of rest ingredients of yeast
 - beer gets its clear appearance
- Filling of 6 high-pressure tanks
 - the beer is ready for bottling

Step 4: Bottling

- Cleaning and inspection of all bottles and barrels
- Bottling
- Labelling of bottles
- Imprint of the sell-by date
- Controlling of filling level
- Wrapping

Introduction of the different teams and their exercises

1. bs Corporate Sales

The bs Corporate Sales seeks to enlarge the production capacities. It proceeds on the assumption of increasing sales in the next quarters. Based on the output of each quarter the calculated sales target for the year 2006 of 27.500.000 € will be outreached by more than 3.000.000 €. The bs Corporate Sales holds out the prospect of premiums to sales executives, that depend on the achievement of commissions.

The bs Corporate Sales reports high sales figures and a high rate of customer complaints at once. In addition to that there is growing unhappiness among the employees that correlates with the customers complaints. The CRM/Marketing opposes the enlargement of production capacity, and focuses the increase of customers satisfaction, in order to stop further migration.

The following complaints have reached the reclamation office and will be returned here exemplarily:

- I ordered a Charge Draft in a single-unit container and got one in a six-unit container! Actually I don't understand the bill at all and the customer service wasn't able to help me! Are you sure, I received the right beer and the correct bill?
- Bolero Bar: Different executives (Heinrichs und Holzwart) of the Cheers GmbH are calling us, wanting to have sales talks to us. What's wrong with you guys?! Do you have too much time left?
- I permanently receive different discounts for the same ordered product. These discounts are regularly too less, especially for „Pils“ and for „Lager“.
- We receive bills too late! Change that or we change our supplier!
- We cancelled a delivery but nevertheless got a bill from you.

There will be a high degree of customer migrations, if there isn't a significant improvement.

2. bs Production

The Production is working capacity for weeks. The Productivity is near maximum, but an enlargement of production capacity is focused.

The manufacturing-plant is currently able to produce

- 650.000 bottles of „Lager“
- 800.000 bottles of „Kristallweizen“
- 15.000 barrels of „Pils“

a month.

This equals a production capacity of 130.000 litres a month.

A second-hand bottling and wrapping plant is on sale. The plant costs 300.000 € and is offered on the market in the course of an insolvency. The contract negotiations will take 6 to 8 weeks. If the plant is bought, half of the selling price will become due 4 weeks later. The rest of the selling price has to be paid 4 weeks after that.

Information on the plant:

Bottling plant - 16.000 bottles per hour (btl/h) - year of manufacture: 1995 - from location 330.000 € with: pallet loader + loader, a stag of empty pallets, 2 lazy Susans, uncorking tool „Rink KM 670/1K“ - 1.300 km/h, unpacking tool + wrapping tool - 10 tacts per minute, tool for case control, tool for case washing, alkali inspection tool „Metec“, washing machine - 17.600 btl/h, inspecting tool for empty bottles „Filtec“, filling and locking tool - 21.000 btl/h, filling control system, locking control system, crown cork conveyor - year of manufacture: 1996, labeling machine „Gernep Labetta 6/4/12“ - 22.000 btl/h - body, back and front labelling, diverse transport equipment
(The capacity correlates to bottles with 0,33 litres. The capacity will be reduced when using bottles with 0,5 litres.)

The enlargement of production capacity will be achieved in stages of 40.000 litres per year (= 100.000 € per year). The expansion of production halls, project management etc. will cost 1.000.000 €.

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3. bs Finances

The bs Finances / Controlling is wary about the enlargement of production capacities, because the present data allows different interpretations. Besides that many outstanding debts cause high risks. Against the backdrop of that a wide enlargement of production capacity is too risky.

4. bs IT

The bs IT is asked to take stand on the validity of new system of production. The implementation of the new systems is regarded as success. The division manager has the opinion that the users are responsible for the quality of data. In his opinion the present data-environment is as faultless technology.

In January 2005 changes to ERP-System with wide-ranging effects on customer and product systems were made. Because the implementation has happened under deadline pressure, there is no documentation or manual for the latest modifications.

5. bs Labour

The Employees of Cheers GmbH experience the dissatisfaction of customers and colleagues daily. There problems appear in all working processes, having a negative influence on labour relations. Cheers GmbH faces a huge number of upcoming disputes with and among its employees.

- Mr. Meyer threatens to quit his job, because Mr. Richter negotiates contracts with his customers.
- Mrs. Gutbrot complains about Mr. Richter for the same reason Mr. Meyer did. Cheers GmbH blares out the thread to fire Mr. Richter.
- Customers pay their bill too late and then deduct cash discount. This leads to problems in the accounting department. Tip: quit the relation to the customer!
- Account executives face the anger of customers on unreasonably bills, long delivery times and wrong products.
- The bs Corporate Sales has no idea of our possibilities.
- The bs IT delivers wrong data all along.

Detailed description of the following exercises

1. Exercise: Analysis of the table's data and preparation of Boardmeeting

In order to enlarge the capacity of production the management called for a meeting. Based on the provided information, the business sectors have to elaborate their point of view.

- Elect the speaker of your team, that represents your bs at the Boardmeeting
- Analyse the available data regarding information on Cheers GmbH and the position of your bs within the company. Find the position of your team's speaker at the Boardmeeting.
- Find arguments for the view your bs has on the enlargement of production capacity.
- Be assure that your speaker is well prepared
- Let a person record the results.