Overview of case studies: South Africa

Case study: Pretoria Portland Cement Company (PPC Cement) (May 2011)
Summary

- Example of application of the ISO methodology
  - PPC Cement, cement company

Credits

- SABS Project team: Mr. Terrance Moodley, Head of Marketing & Sales, Ms. Praneshri Pillay, Researcher
- Prof. Ian Jandrell, Head of the School of Electrical and Information Engineering, University of Witwatersrand, South Africa
- Mr. Reinhard Weissinger, ISO, Manager of Research, Education, and Strategy
The company overview - 1

- PCC Cement was founded already in 1892.

- Main market is South Africa, but it also exports to Botswana, Namibia and Zimbabwe.

- The company has 8 manufacturing plants and 3 milling depots. The head office is in Pretoria.

- Annual production capacities are almost 18 mill. tons of cement.

- The total sales revenue in 2009 is Rand 5.4 Bill. The construction market in South Africa is currently in a downturn following the global financial crises and the drop after the heavy investments due to the soccer World Cup in 2010.
The company overview – 2

- The company serves mainly the construction industry. Key sectors are the residential market as well as large infrastructure projects.

- The most important target market for PPC is retail, by supplying cement to the building and construction industry, to concrete product manufacturers, hardware stores and Do-It-Yourself (DIY) centres.
Industry value chain (simplified)

SUPPLIERS

Limestone, clay, other raw material inputs

Quarrying & crushing

Blending & storage

Milling & Homogenization

Burning

Cement milling

Dispatch cement

CUSTOMERS

Construction industry

= PCC Cement

Case study: PPC Cement
A company value chain & the business functions « A » to « I » that constitute the Value Chain

Case study: PPC Cement
Key value drivers in PCC Cement

Based on interviews with staff in PCC the following areas of company operations have been identified as key value drivers:

- Sales effectiveness
- Relationship building with suppliers
- Quality of products
- Efficiency of production
- Quality & reliability of the production process
- R&D effectiveness
- Reduction in maintenance costs
Attitude of PCC Cement towards standards

- PCC Cement is actively involved in standards committees in SABS and is an active user of standards.
- Overall the use of standards is wide spread in the cement industry in South Africa and simply the use of standard does not constitute a competitive advantage.
- The company is certified against ISO 9001:2008 and applies a number of other key management system standards, such as ISO 14001:2005, OHSAS 18001:2007, SANS 17025:2005 (identical with ISO/IEC 17025) as well as a number of other standards related to cement, such as SANS 50197 (identical with EN 197) and SANS 50196 (identical with EN 196) and SANS 1841.
Preliminary analysis of the Standards Impact

Based on a preliminary analysis (supported by the Standards Impact Map) and interviews with staff in PCC the following four business functions have been selected for the assessment:

- Research & Development
- Procurement
- Production/Operations
- Marketing & Sales

Case study: PPC Cement
Value chain of PCC Cement -- Business functions selected for the assessment of the impacts of standards are highlighted.

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<thead>
<tr>
<th>A</th>
<th>Management &amp; Administration</th>
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<td>B</td>
<td>R&amp;D</td>
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<td>C</td>
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<td>I</td>
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Case study: PPC Cement
Research & Development

- Time needed to collect information about products of suppliers and customer requirements can be saved.
- Time could be saved in communicating information about products and services.
- Information transfer between departments is easier and more reliable.

- Total savings (per year): 14.3% of costs for R&D.

Case study: PPC Cement
Procurement

- Time could be saved and misunderstandings have been avoided in passing on information and requirements between PCC and its suppliers.
- The preparation of contracts has been made easier with the possibility to reference external standards.
- Total savings (per year): **0.2% of costs for procurement**
Production/Operations

- Key impacts are the streamlining of the production process resulting in reductions of the production costs
- Staff training was made easier, more consistent and less costly by being able to reference external standards

- Total savings (per year): 1,3% of costs of production
Marketing & Sales

- For the preparation of sales contracts, systematic reference is made to standards, which results in important savings
- Due to the use of standards, PCC has built a reputation for consistency and reliability

- Total savings/benefits (per year): **14.1% of costs for M&S**
Summary: Standards EBIT impact of the selected business functions (2009)

<table>
<thead>
<tr>
<th>Business Functions</th>
<th>% of savings/benefits of the costs of the business functions</th>
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<tbody>
<tr>
<td>Research &amp; Development</td>
<td>14,3%</td>
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<tr>
<td>Procurement</td>
<td>0,2%</td>
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<tr>
<td>Production/Operations</td>
<td>1,3%</td>
</tr>
<tr>
<td>Marketing &amp; Sales</td>
<td>14,1%</td>
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</tbody>
</table>

- The contribution from standards in 2009 amounts to
  - 2,5% of the company sales or turnover (ZAR 5,9 bill.)
  and
  - 5,8% of the company EBITA (ZAR 2,5 bill.)

Case study: PPC Cement
Qualitative considerations

- Qualifications of suppliers has been raised due to the systematic use of standards by PCC
- The use of ISO 14001 has resulted in lower energy consumption and a better environmental record
- The use of OHSAS 18001 has created a safer working environment for the employees and, indirectly, the safety of the public
- Taken together, the measures above have contributed to increasing the reputation of PCC in the eyes of its customers
Thank you for your attention!

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