

Overview of case studies: Botswana



Case study: Lobatse Clay Works (LCW)
(June 2011)

Summary

- Example of the application of the ISO methodology
 - Brick manufacturing company (Industry sector: Construction materials)
- Credits
 - BOBS Project team: Ms. Kopano Bogopa, Project coordinator, Ms. Lindiwe Mbulawa, Project assistant
 - Mr. Michael Mogamisi, Project administrator, student (University of Botswana, faculty: International business)
 - Mr. Reinhard Weissinger, ISO, Manager of Research, Education, and Strategy

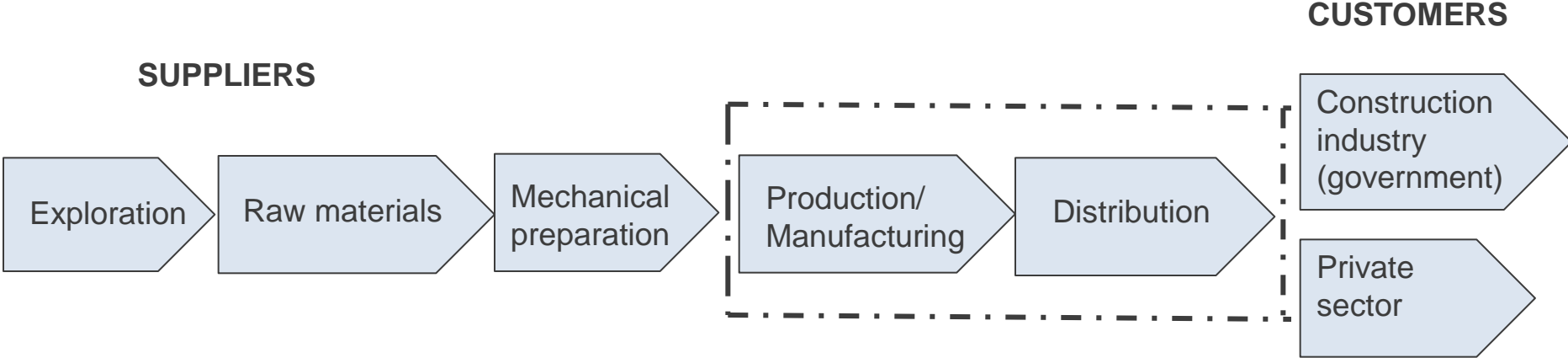
The company – 1

- Construction materials company: Bricks
- The company serves the construction industry for public buildings as well as for private homes and was founded in 1992
- Lobatse Clay Works (LCW) is located around 70 km south of Botswana's capital Gaborone, in the town of Lobatse
- The company produces various types of bricks:
 - a) Clay bricks used in building construction are the main product
 - b) Special bricks: Used for window sills and as paving bricks
- Bricks can be produced in different colours and textures (rough or smooth)

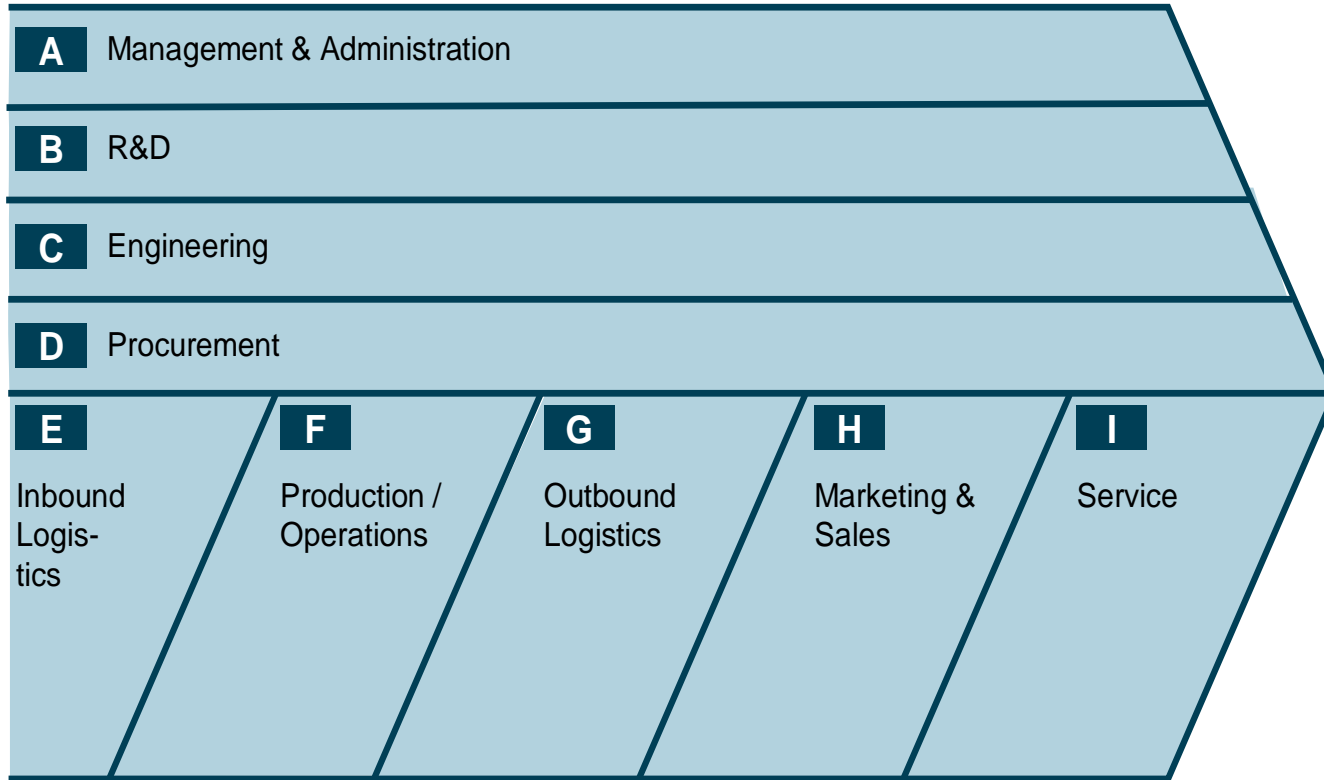
The company – 2

- In 2006, the company managed a turn-around after a difficult period when it was close to bankruptcy
- The government of Botswana is the main customer (95% of the sales). The company exports 1% of its products, the remaining 4% are sold to the private sector in Botswana
- In Botswana, LCW has a domestic market share of around 48%
- LCW employs 175 people and produces over 30 million units of bricks annually
- Revenues in the fiscal year 2009/2010 have been 64 million Botswana Pula (around USD 9,73 million)

Industry value chain & segments covered by operations of LCW

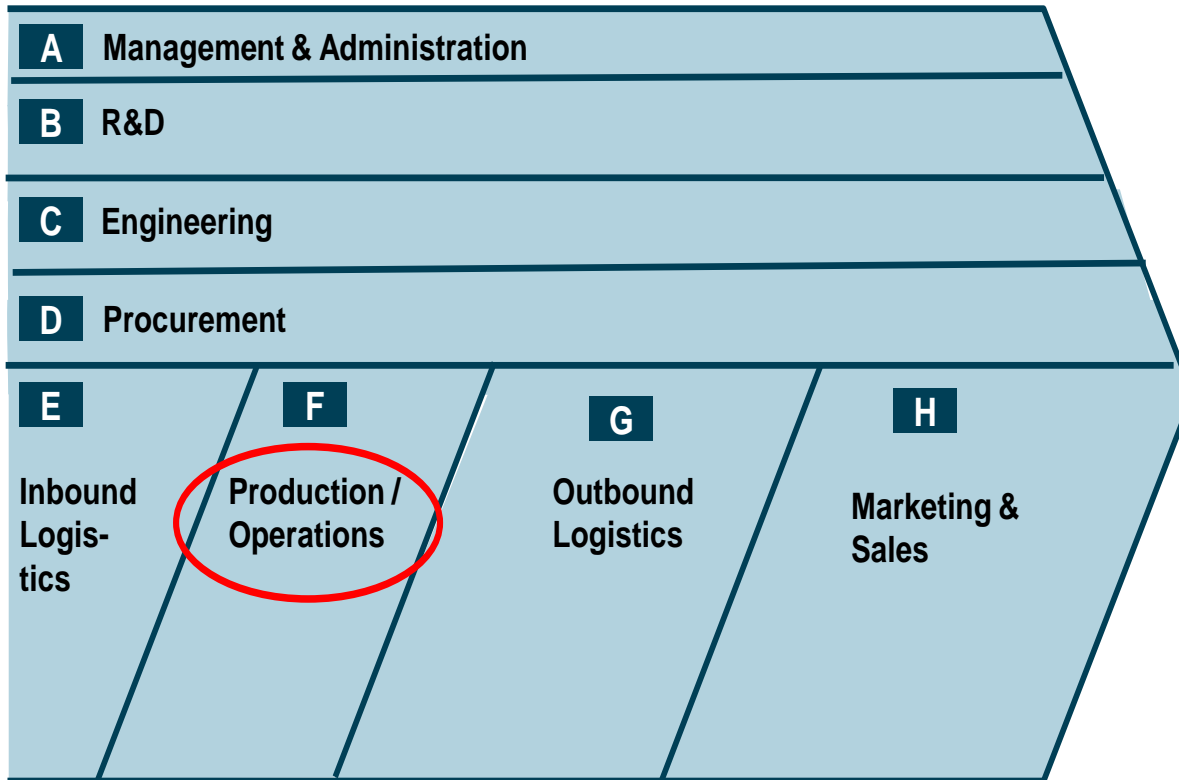


Model of a company value chain (M. Porter)



A company value chain & the business functions « A » to « I » that constitute the Value Chain

Company value chain and selected business function for an assessment of the impacts of standards (highlighted)



For a manufacturing company like LCW, the business function most impacted by standards is production.

It was therefore decided to limit the assessment to this single business function.

Value drivers

- The company is 100%-citizen owned and has support from the government of Botswana
- The main raw material, clay soil, is accessible and mined locally
- The treatment of workers is good: All are insured and have a right to pensions
- The company knows the market well and has around 20 years of experience
- It is able to offer reasonable prices
- It is able to deliver on time

Use of standards

- LCW uses the following standards and specifications:
 - BOS 28 *Burnt clay masonry units*: This standard defines requirements for shape, appearance, texture, colour, dimensions, warpage, strength, efflorescence and soundness of bricks
 - BOS ISO 9001 *Quality Management Systems - Requirements*: Preparations for certification are underway
 - BOS OHSAS 18001 *Occupational Health and Safety Management Systems - Requirements*
 - Other standards and company-internal specifications are used to test for compliance with BOS 28

Company attitude towards standards

- Standards are used to a significant degree and systematically since 2006 (after the company went through a difficult period and managed a turn-around)
- The manufacturing process is closely monitored and quality controlled to ensure products meet the demanding requirements of the standard BOS 28 of the Botswana Bureau of Standards
- LCW was certified to BOS 28 first in 2006 and then again in 2009
- The company is active in standards development and participates in national technical committees on cement, lime and masonry units and occupational health and safety

Impacts of standards on production

- The impacts of standards can be measured on the basis of the following four indicators:
- **Indicator 1:** Reduction in failure rate of equipment and supplies: 25%
- **Indicator 2:** Increase in production output: 44%
- **Indicator 3:** Reduction in product failure rate: 18%
- **Indicator 4:** Reduction in accident rate: 5%

Note: The figures are based on a comparison with the situation before 2006 when standards were introduced systematically

Impact of standards on the selected business function

Business Function	Operational indicators	EBIT impact (in BWP)
Production	Reduction in equipment & supplies failure rate	315 789,47
Production	Increase in production output	1 152 000,00
Production	Reduction in product failure rate	216 000,00
Production	Reduction in accident rate	1 500,00
Total:		BWP 1 685 289,47
Total:		USD 256 213

- The impacts correspond to **2,63 %** of the company annual sales revenue or turnover and **4,96 %** of the company EBIT

Additional considerations

- LCW has reduced the number of brick types from 13 to 8 which contributed to a stronger focus in production and a better use of equipment
- Standards contributed to better communication across business functions
- Training of staff is easier since product specifications are standardized and better documented

However, the specific impacts of the changes above could not be quantified

Thank you for your attention!



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