## ASSESSMENT OF RELATIONSHIP BETWEEN PLANT AND EQUIPMENT MAINTENANCE STRATEGIES AND FACTORY PERFORMANCE OF THE KENYA SUGAR FIRMS

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## **ABSTRACT**

The study was carried out on the assessment of the relationship between plant and equipment maintenance strategies and the factory performance of the Kenya sugar firms. The focus was on South Nyanza, Mumias, Chemelil, Muhoroni, Nzoia and West Kenya Sugar Companies. The study was prompted by the continued deficit in national sugar production occasioned by the inability of the industry to consistently produce sugar at the factory rated capacities. In addition no study has been carried out in this area in Kenya. Factory time efficiency dropped from 79.58% in 2006 to 74.91% in 2008 in comparison to the international set standard of 92%. Technology adoption in the Kenya sugar industry is slow resulting in the operations of obsolete plant and equipment whose maintenance costs are very high and procurement of spares expensive and difficult to find. The specific objectives of the study were to: identify the plant and equipment maintenance strategies adopted by the sugar firms; identify the factory performance indicators of the sugar firms; and assess the relationship between the plant and equipment maintenance strategies adopted and the factory performance of the sugar firms. The researchers used survey research design. A sample of sixty respondents composed of ten respondents from Mumias, Chemelil, Muhoroni, Nzoia, South Nyanza and West Kenya Sugar Companies was used to provide information for analysis. A Likert-scale weighted average was used in the data analysis. The study established that robust plant and equipment maintenance strategies play a key role in the factory performance.

**Keywords:** Plant, capacity utilization, cost of maintenance, factory time efficiency, reduced overall recovery.