

ASSESSMENT OF IMPACT OF OUTAGES IN SELECTED ELECTRICITY INTENSIVE INDUSTRIES IN NIGERIA

HACHIMENUM N. AMADI, EPHRAIM N.C. OKAFOR & FABIAN I. IZUEGBUNAM

Department of Electrical & Electronic Engineering, Federal University of Technology, Owerri, Nigeria

ABSTRACT

The typical Nigerian firm incurs huge costs arising from frequent cuts in electricity supply. This paper investigated the impact of power outages in Nigeria's industries for the year 2014 through the simulation of statistical data collected from two hundred and fifty (250) electricity intensive industries drawn from the nation's three major industrial cities using the Statistical Package for the Social Sciences (SPSS) Version 16.0. This study found that in 2014 alone, Nigeria's industries spent a whopping ₦2, 558,562,894,261.7 equivalents to 2.26 % of the nation's GDP for that year or 56.9% of the budget for 2015 as a result of power outages. The results further showed that Nigeria's industries suffer low capacity utilization, significant reduction in productivity, low marginal profit and lack of competitiveness in the international market due to perennial shortages in energy supply resulting from high distribution losses. The paper suggested remedial measures to mitigate losses arising from unannounced electricity cuts as well as achieve more efficient power supply to the nation's industrial sector. The findings of this research provide a data bank for industry operators, future researchers in the areas of electricity distribution and power sector stakeholders.

KEYWORDS: Electricity Supply Failures, Impact of Outages, Nigeria Firms, Power Outages, Power Outages Costs