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**RT: Operational Resilience and Production Efficiency of the Food and Beverages
Manufacturing Industry in Nigeria**

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AB: Production efficiency is crucial to the survival of any manufacturing organization and has become a subject of interest to both practitioners and researchers. The frequent price hikes and shortage of food and beverages products amidst crises within the production environment has impeded production efficiency and consequently, economic growth. The declining production efficiency levels of the food and beverages manufacturing industry revealed by escalating production costs, poor technological performance, low employee output, capacity underutilization, and process inefficiency, are likely the result of lack of operational resilience. Extant studies on production efficiency issues of the food and beverages manufacturing industry had focused on developed rather than developing countries like Nigeria. Therefore, this study investigated the effect of operational resilience (technological resilience, recoverability, workplace resilience, disruption absorption and resilient culture) on production efficiency of the food and beverages manufacturing industry in Nigeria.

The study adopted survey research design. The population comprised 16,088 top, middle, and lower level management staff of seven listed food and beverages manufacturing companies in Nigeria. A sample size of 491 was determined using the Krejcie and Morgan table. A simple random sampling technique was adopted in selecting the respondents. An adapted and validated questionnaire was used. The Cronbach's alpha reliability co-efficient

ranged from 0.85 to 0.92. A response rate of 82.7% was achieved. Data were analyzed using descriptive and inferential (Partial Least Square-Structural Equation Model) statistics.

The findings revealed that operational resilience had significant effect on production efficiency ($Adj.R^2 = 0.650$, $f^2 = 0.048$, $Q^2 = 0.642$, $p < 0.05$). Operational resilience had significant effect on cost reduction ($Adj.R^2 = 0.447$, $f^2 = 0.031$, $Q^2 = 0.436$, $p < 0.05$); technological performance ($Adj.R^2 = 0.587$, $f^2 = 0.034$, $Q^2 = 0.574$, $p < 0.05$); employee output ($Adj.R^2 = 0.565$, $f^2 = 0.036$, $Q^2 = 0.564$, $p < 0.05$); capacity utilization ($Adj.R^2 = 0.094$, $f^2 = 0.004$, $Q^2 = 0.083$, $p < 0.05$); and process efficiency ($Adj.R^2 = 0.342$, $f^2 = 0.015$, $Q^2 = 0.331$, $p < 0.05$). However, disruption ($\beta = 0.011$, $\Delta R^2 = 0.069$, $p > 0.05$) and leanness ($\beta = -0.018$, $\Delta R^2 = 0.03$, $p > 0.05$) did not significantly moderate the effect of operational resilience on production efficiency.

The study concluded that operational resilience improved production efficiency of the food and beverages manufacturing industry in Nigeria. The study recommended that the management of food and beverages manufacturing companies should give sufficient attention to developing operational resilience capabilities in order to enhance production efficiency.

Keywords: Cost reduction, Disruption absorption, Operational Resilience, Production efficiency, Technological resilience

Word Count: 407

Abbreviations: *RFN: Researcher's Full Name, RD: Researcher's Department, RS: Researcher's School, RE: Researcher's Email, RAE: Researcher's Alternate Email, RP: Researcher's Phone Contact, RT: Registered Title, MS: Main Supervisor, ME: Main Supervisor's E-mail Address, SP: Main Supervisor's Phone Contact, CS: Co-Supervisor, CE: Co-Supervisor's E-mail Address, CP: Co-Supervisor's Phone Contact, AB: Abstract*

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