The relationship between technical efficiency and industrial concentration: Evidence from the Indonesian food and beverages industry

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\textbf{A B S T R A C T}

This paper investigates the relationship between technical efficiency and industrial concentration in the Indonesian food and beverages sector. Firm-level data obtained from the Indonesian Bureau of Central Statistics (BPS) are used to estimate technical efficiency scores and calculate measures of industrial concentration. The results show that the food and beverages industry is characterized by high industrial concentration and firms in the industry are inefficient. The Granger-causality test suggests a one-way direction of causality, with industrial concentration having a negative impact on technical efficiency, at the sector level. This suggests that the quiet-life hypothesis, rather than the efficient-structure hypothesis, applies to the Indonesian food and beverages industry.

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1. Introduction

The food and beverages sector is one of the economic sectors that contributes significantly to the Indonesian GDP and employment absorption. Since 2004, the output of this sector accounted for about 7% of the Indonesian GDP and about 23% of the total industrial manufacturing output. Additionally, the food and beverages sector absorbed about 23% of total employment in the Indonesian manufacturing industry in 2006. However, as shown by Setiawan, Emvalomatis, and Oude Lansink (2012), this sector is characterized by a tight oligopoly structure, with the concentration ratio for four firms (CR4) being about 66%, and has experienced high price-cost margins in the period 1995–2006. Given the importance of the food and beverages industry in the Indonesian economy, efficient transformation of inputs into outputs is necessary to ensure a competitive price and product quality for the consumers.

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