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## Study of productivity improvement of manual operations in soya sauce factory (Article) [\(Open Access\)](#)

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### Abstract

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Today with a rapidly changing world and markets, SMEs are facing a critical challenge to remain competitive in the business market. In this paper, a case study of the SMEs food industry is presented. Work study methodology was embedded in the strategy to improve the productivity of the soya sauce enterprise. The sample size required for the study was calculated and random observations were determined through a work sampling technique to achieve a 95% confidence level. The result from this study reveals that work sampling data can be used as a reliable estimation for identification of any potential bottleneck as well as idle time in the factory. The process flowchart at the filling and capping terminal were examined and the travelling distance was optimized to 12.5 feet from original distance of 17 feet. The modified plant layout significantly improves the people flow, production material handling, work safety, space utilization, and better working conditions. The survival of SMEs is critical as this sector contributes 38.3% to Malaysian's gross domestic productivity (GDP). Thus, these findings demonstrated that enhancing the productivity of SME food industries is effective through a work study. However, the successful adoption of this approach is mostly because of top administrative involvement and the participation of all staffmembers. © 2020, IIUM Press, International Islamic University Malaysia.

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