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Antecedent of Operational Capabilities and Effect on Process  
Management in Halal Food Manufacturing Firm

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## Research Highlights

This study try to explore the operational capabilities effect on process management in Halal food manufacturing company. To achieve this, six hypotheses has been formulated to examine the relationship between operational capabilities and process management.

*Hypothesis 1a: Improvement positively related to Process Management.*

*Hypothesis 1b: Innovation positively related to Process Management.*

*Hypothesis 1c: Customization positively related to Process Management.*

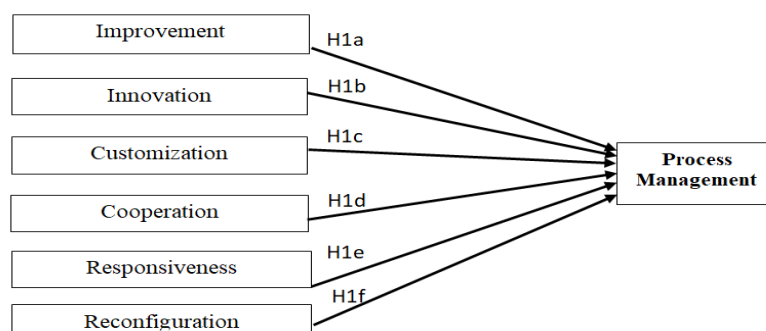
*Hypothesis 1d: Operational Cooperation positively related to Process Management.*

*Hypothesis 1e: Responsiveness positively related to Process Management.*

*Hypothesis 1f: Reconfiguration positively related to Process Management.*

The result indicated that all the antecedent of operational capabilities have the significant effect on process management practices except innovation capabilities. The achievement of research objectives were further explained by the evaluation of the effect size of the predictor constructs using Cohen's  $f^2$  (Cohen, 1988). The result shows that the effect size of operational capabilities as a predictor to process management is ranging from 0.022 to 0.081, thus indicate that small effect size. Even though the effect size is small but the  $f^2$  value the sub construct of operational capabilities shows that operational improvement have the highest effect size on process management followed by customization, reconfiguration, responsiveness and cooperation.

## Graphical Abstract



**Figure 1:** Conceptual framework for the relationship of operational capabilities and process management.



## Research Objectives

This purpose of this study is to explore the operational capabilities effect on process management in different context, in this case Halal food manufacturing company. Identification of operational capabilities constructs is pertinent for the firm to position themselves competitively in the challenging market environment. In addition, the research would like to address research question whether there is a relationship between operational capabilities and process management? The understanding of thorough operational capabilities effect provides insights for the firm to translate the resources with process management practices to gain leverage from it. The research findings will contribute to the practical contribution from manufacturing strategy perspectives in operation management for the firm and formulation of policy to respective authority body to assist the development of Halal industry.

## Methodology

The population of this study is defined as the Halal food manufacturing companies in Sarawak, Malaysia that certified by JAKIM. The populations list was acquired from JAKIM and HDC whereby unit of analysis is a firms. A total of 302 questionnaires were distributed to the companies and 229 useable questionnaires received from the respondent, giving the response rate 75 percent. Higher response rate achieved through assistance from government agencies such as JAIS, MATRADE and Smebank that provide support in relation to platform for questionnaire distribution and collection. The response rate of over 70 percent indicates non-response error was not a concern (Nulty, 2008). Constructs have been operationalised using five-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree were applied. The operational capabilities dimensions were measured using multi-item and adapted from in prior literature. Operational capabilities construct were gauged by using six sub dimensions based on (Wu et al., 2010) adapted from relevant literature (Teece et al., 1997; Swink & Hegarty, 1998; Sen & Egelhoff, 2000; Schroeder et al., 2002; Subramaniam and Youndt (2005) and supported by focus group discussion output. The study has used the Statistical Package for Social Sciences (SPSS) Version 22 and SmartPLS Version 3 Software to perform statistical analysis from data surveys.





## Results

Path-coefficient is assessed to evaluate the significance of hypothesized relationship between the constructs. Based on the model, they are 6 direct relationship by dimension under operational capabilities and Process Management. The relationship of cooperation capabilities on process management were assessed and show that the relationship between cooperation and process management has positive relationship. The influence of operational customization and process management were assessed and show positive relationship. The influence of operational improvement and process management shows positive relationship. Whereas, the result of path coefficient assessment for operational innovation towards process management shows that proposed relationship are not significant. The path coefficient for operational reconfiguration and process management were assessed and shows significant positive relationship. The result of path coefficient assessment for operational responsiveness shows the relationship are significant.

## Findings

The antecedents of Halal operational capabilities based on effect size can be prioritize as follows sequence; improvement, customization, reconfiguration, responsiveness and cooperation. In this research, the relationship between operational innovation and process management is found not significant, on the other hand there is no relationship between innovation and process management adoption or implementation in the organization. Consistence with Antunes et al. (2017) there are some inconclusive results regarding the interdependencies between innovation and quality management practices which is an essence of process management.

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## References

- Antunes, M.G., Quirós, J.T., Justino, M. do R.F., 2017. The relationship between innovation and total quality management and the innovation effects on organizational performance. *Int. J. Qual. Reliab. Manag.* 34, 1474–1492. <https://doi.org/10.1108/IJQRM-02-2016-0025>
- Cohen, J., 1988. *Statistical power analysis for the behavioral science*, Second. ed. Lawrence Erlbaum Associates, Hillsdale, NJ.
- Nulty, D.D., 2008. The adequacy of response rates to online and paper surveys: What can be done? *Assess. Eval. High. Educ.* 33, 301–314. <https://doi.org/10.1080/02602930701293231>
- Schroeder, R.G., Bates, K.A., Junttila, M.A., 2002. A resource-based view of manufacturing strategy and the relationship to manufacturing performance 117, 105–117. <https://doi.org/10.1002/smj.213>
- Sen, F., Egelhoff, W., 2000. Innovative capabilities of a firm and the use of the technical alliances. *IEEE Trans. Eng. Manag.* 47, 174–183.
- Subramaniam, M., Youndt, M.A., 2005. The influence of intellectual capital on the types of innovative capabilities. *Acad. Manag. J.* 48, 450–463. <https://doi.org/10.5465/AMJ.2005.17407911>
- Swink, M., Hegarty, W.H., 1998. Core manufacturing capabilities and their links to product differentiation. *Int. J. Oper. Prod. Manag.* 18, 374–396. <https://doi.org/10.1108/01443579810199748>
- Teece, D., Pisano, G., Shuen, A., 1997. Dynamic capabilities and strategic management. *Strateg. Manag. J.* 18, 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Wu, S.J., Melnyk, S.A., Flynn, B.B., 2010. Operational Capabilities: The Secret Ingredient. *Decis. Sci.* 41, 721–754. <https://doi.org/10.1111/j.1540-5915.2010.00294.x>

