Capturing Profile of Halal Chicken Meat Slaughterhouse in Indonesia: A Clustering Approach

Harwati
Department of Mechanical and Industrial Engineering
Faculty of Engineering
Universitas Gadjah Mada, Yogyakarta, Indonesia
Department of Industrial Engineering
Faculty of Industrial Technology
Universitas Islam Indonesia, Yogyakarta, Indonesia
harwati@mail.ugm.ac.id; harwati@uii.ac.id

Anna Maria Sri Asih, Bertha Maya Sopha
Department of Mechanical and Industrial Engineering
Faculty of Engineering
Universitas Gadjah Mada, Yogyakarta, Indonesia
amsriasih@ugm.ac.id, bertha_sopha@ugm.ac.id

Abstract

Slaughterhouse is the entity in the chicken meat supply chain that has the highest halal risk. Mapping of slaughterhouses is important to captures which characters of slaughterhouses could harm the halal chain. This paper segments and profiles the slaughterhouses using an extended theory of planned behavior (TPB) as clustering variables. A total of 41 slaughterhouses from Yogyakarta Province in Indonesia were investigated. Using Ward’s method, two clusters of slaughterhouses were identified based on their characteristics in activities, knowledge, attitude, intention, and actual behavior. The findings show that 51% of slaughterhouses are grouped into “obedient” and 41% belong to “vulnerable”. The obedient cluster consists of slaughterhouses with a very high awareness of halal behavior, while the vulnerable cluster consists of slaughterhouses that have high halal behavioral risk. Pearson correlation shows that the age of slaughterhouses has a significant influence on the intention and actual behavior, but it does not significantly correlate to knowledge and attitudes. On the other hand, the quantity of production and the number of workers was founded to have no significant correlation to halal behavior. These findings give a contribution to all stakeholders involved. The government should consider the profile and behavior of slaughterhouses in the traceability process. Sellers and consumers should choose slaughterhouses with obedient's profiles.

Keywords
Slaughterhouse, Behavior, Clustering, Ward’s Method

Acknowledgments

This study was funded by the Ministry of Research, Technology and Higher Education-Republic of Indonesia with the Indonesian Endowment Fund for Education (LPDP), Ministry of Finance and-Republic of Indonesia under BUDI DN for doctoral study.