

IMPLEMENTATION OF HALAL ASSURANCE SYSTEM OF KOMBUCHA PRODUCTS IN PT XYZ

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ABSTRACT

JESSICA NAYLA PARTOKUSUMO. Implementation of Halal Assurance System of Kombucha Products in PT XYZ. Supervised by **HANIFAH NURYANI LIOE.**

The growing demand for halal-certified products in Indonesia, driven by its majority Muslim population, has made halal certification a critical factor for food businesses. The government has made halal certification mandatory for businesses following the mandate Law Number 33 of 2014 article 4 which reads, “Products entering, circulating and being traded in Indonesia must be certified halal.” This study analyzed the implementation of Halal Assurance System (HAS) for kombucha products at PT XYZ, a micro, small, and medium enterprise (MSME). The objective was to assess compliance with the five HAS criteria, identify the halal critical points, and evaluate the alcohol content using gas chromatography with flame ionization detection (GC-FID) and headspace sampling. The analyzed kombucha variants were made from tisane (lavender and chamomile), water, sugar, and a symbiotic culture of bacteria and yeasts (SCOBY) as the starter culture for fermentation. Kombucha undergoes two fermentation processes, namely alcoholic fermentation and acetic acid fermentation, which produce trace amounts of ethanol. Results indicated that both products met the permissible alcohol content of less than 0.5% as mandated by Fatwa MUI Number 10 of 2018. Lavender kombucha exhibited an alcohol content of 0.06%, while chamomile kombucha contained 0.02%. The HAS implementation at PT XYZ showed compliance with all five HAS criteria: commitment and responsibility, material control, halal product processes, product control, and monitoring and evaluation. This research provided valuable insights into quality assurance practices for halal-compliant fermented beverages.

Keywords: Alcohol Content Analysis, Gas Chromatography, Halal Assurance System (HAS), Kombucha, Micro, Small, and Medium Enterprises (MSME)



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IMPLEMENTATION OF HALAL ASSURANCE SYSTEM OF KOMBUCHA PRODUCTS IN PT XYZ

JESSICA NAYLA PARTOKUSUMO

Undergraduate Thesis
Submitted as a requirement for obtaining
Bachelor's Degree in Food Technology

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PREFACE

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Bogor, May 2025

Jessica Nayla Partokusumo

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