

UNIVERSITI TEKNOLOGI MARA

**MAPPING THE PATTERN OF
MUSLIM COLLEGE STUDENTS'
FOOD WASTE REDUCTION
BEHAVIOUR: A GENDER-BASED
STUDY IN YPJ COLLEGE, KOTA
TINGGI**

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Thesis submitted in fulfilment
of the requirements for the degree of
Master of Contemporary Islamic Studies

Academy of Contemporary Islamic Studies

September 2025

ABSTRACT

Food waste is a growing global concern, particularly in educational institutions where students' consumption behaviours significantly impact waste generation. This study explores gender-specific and personality-driven food waste behaviours among Muslim students enrolled in hospitality and culinary programs at YPJ College, where food-related knowledge and sustainability values are shaped by both academic and religious influences. Grounded in the Theory of Planned Behaviour (TPB), the study examines how attitudes, subjective norms, perceived behavioural control, and emotions differ across genders and affect food waste intentions. Data were collected using a structured questionnaire from 222 students and analysed using the Descriptive Statistic, Mann-Whitney U Test and pattern mapping. Results reveal that female students are more strongly driven by emotional and ethical motivations such as guilt, care, and social responsibility while male students exhibit higher tendencies in knowledge, habits, and behavioural control, suggesting a more rational and structured approach. Despite these differences, both genders demonstrated similar attitudes and perceived control toward food waste reduction, affirming TPB's relevance in predicting behaviour beyond gender categories. Additionally, Islamic teachings were found to influence sustainable practices, with students referencing religious values like moderation and avoiding wastefulness. The study contributes to Sustainable Development Goals (SDG 12: Responsible Consumption and Production and SDG 5: Gender Equality) by providing practical recommendations for gender-sensitive interventions: emotional, ethics-based campaigns for female students, and knowledge-based, behaviour-oriented programs for male students. These insights offer valuable guidance for universities, educators, and policymakers to design effective, faith-aligned sustainability strategies. Future research is encouraged to apply this model across different academic disciplines and cultural settings to further validate and refine targeted approaches to food waste reduction.

ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest gratitude to Allah (SWT) for granting me the strength, patience, and perseverance to complete this research. Without His guidance and blessings, this journey would not have been possible.

I would like to extend my heartfelt appreciation to my supervisor, Dr Mohd Amzari Tumiran, for his invaluable support, insightful feedback, and continuous encouragement throughout this research process. His expertise and guidance have played a crucial role in shaping the direction of this study.

My sincere thanks to YPJ College and the School of Hospitality and Tourism for providing the necessary resources and a conducive research environment. I am also grateful to the students who participated in this study, whose willingness to share their experiences and perspectives made this research possible.

A special appreciation goes to my family and friends for their unwavering love, patience, and emotional support. Their encouragement has been my driving force during the challenging moments of this research.

Lastly, I would like to acknowledge the contributions of fellow researchers, academic staff, and all individuals who have provided insights, constructive feedback, and motivation throughout this journey. Your support has been instrumental in the successful completion of this study.

Muhammad Adieb Ahmad Wafi,
Kangkar Pulai.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Food waste is a significant global issue, with approximately one-third of all food produced around 1.3 billion tons being wasted annually (FAO, 2013). It occurs at various stages, including production, transportation, retail, and consumer levels, leading to economic losses and environmental harm. Food waste contributes to greenhouse gas emissions, with decomposing food in landfills releasing methane, a potent contributor to climate change (UNEP, 2021). In developed countries, food waste primarily happens at the consumer level due to over-purchasing, misinterpretation of expiration labels, and improper storage, while in developing nations, it results from inadequate infrastructure, poor supply chain management, and post-harvest losses. Efforts to reduce food waste include government policies, corporate sustainability initiatives, improved food distribution, consumer education, and technological innovations like food tracking apps and waste-to-energy solutions. Reducing food waste not only helps mitigate environmental damage but also addresses global food insecurity by ensuring more efficient use of resources and redistribution of surplus food to those in need.

However, despite growing awareness of food waste and its environmental, economic, and ethical implications, significant disparities exist in food waste reduction behaviours, particularly among college students (Chuah & Singh, 2020). While general food waste patterns have been studied, limited research explores gender differences, especially in cultural and religious contexts. Muslim college students, guided by Islamic teachings on moderation and waste avoidance, may exhibit distinct food management practices, yet the role of gender in these behaviours remains underexplored (Wang et al., 2024). At YPJ College in Kota Tinggi, where students share religious values but have diverse backgrounds, understanding gender-based differences in food waste reduction can provide insights into behavioural patterns, motivations, and barriers. Males and females may differ in attitudes, awareness, and practices due to social norms, personal habits, and levels of responsibility in food management (Valentin et al., 2023). This study aims to map gender-based food waste reduction behaviours among Muslim