

**UNIVERSITI TEKNOLOGI MARA**

**INVESTIGATING CUSTOMER  
ACCEPTANCE AND USAGE  
INTENTION OF ROBOT SERVICES  
IN RESTAURANTS: INTEGRATION  
OF UTAUT2 AND TRUST WITH  
AGE GENERATION AS A  
MODERATOR**

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## ABSTRACT

In the endemic era, the success of robot services in Malaysian restaurants was closely linked to public opinion and acceptance. Therefore, understanding customer attitudes, concerns, and preferences regarding this technology was essential for its seamless integration. Key factors influencing customer satisfaction included the reliability and efficiency of robots, as well as their ability to provide a personalized and human-like dining experience. Robot service played a crucial role in helping Malaysia's restaurant industry adapt to the challenges posed by the endemic situation. This technology-driven approach had the potential to revolutionize restaurant operations and reshape customer expectations in the post-pandemic world by prioritizing dining safety and addressing public health concerns. The empirical findings of this study provided insights into customer acceptance, behavior, and usage of robot services in restaurants, using the Unified Theory of Acceptance and Use of Technology (UTAUT2) as the theoretical framework. A quantitative research methodology was adopted, utilizing a questionnaire as the primary data collection tool, with a cross-sectional time horizon. The collected data were analyzed using descriptive statistics, and Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to test the research hypotheses and develop the model. Additionally, multivariate analysis was conducted to examine technology usage across different age groups, offering comprehensive insights into the evolving landscape of restaurant services in the endemic era.

**Keywords:** Customer acceptance and Usage, Trust, Robot Service Technology, Restaurant

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# CHAPTER 1

## INTRODUCTION

### **1.1 Preamble**

This section provides an overview of the research. The study's introduction is covered first, followed by the problem statement, the objective of the research, and finally, the study's research questions. The next step is to provide the study's theoretical underpinnings, which are derived from the established literature on customers' attitudes about new technologies and customers' use intentions. The research hypothesis is then offered to back up the primary objectives and help the study succeed. The study's significance and justification lie in its outcomes. Finally, this chapter defines key concepts that were referenced throughout the thesis's research and structure.

### **1.2 Background of Study**

The food industry's yearly growth rate has increased dramatically, pushing food sector executives to explore long-term growth plans to assure corporate effectiveness and long-term survival (Marques et al., 2018). The food chain business has seen worldwide development and expansion in recent decades, owing to the saturation of the domestic market and their desire to enter more attractive markets (Bahorun et al., 2019). For example, scientists predicted that by 2050, the market for food products would have to meet the needs of more than 9 billion people (World Health Organisation, 2019).

The increased demand within the foodservice industry has prompted food producers to allocate further investments. In the foodservice industry, service robots, which are an example of automation-based services, have been getting a lot of attention lately (Huang & Lu, 2017). Despite the inherent cyclicality of discretionary restaurant expenditures, food companies have demonstrated resilience in their ability to resist economic fluctuations, so enabling them to sustain profitability over an extended duration. Nevertheless, the foodservice industry solidifies its position in the market by effectively meeting the wants of customers (Baba et al., 2020). However, while service robots can automate routine tasks, they still lack the emotional intelligence and adaptability required for high-contact services like dining. Research shows that