

UNIVERSITI TEKNOLOGI MARA

**AN INVESTIGATION OF
AUTOMATION AND HUMAN
INTERACTION ON GUEST
LOYALTY IN THE ADVANCED
TECHNOLOGY SERVICE
MARKETING OF UPSCALE
HOTELS IN CHINA**

ZHANG XIAOWEI

Thesis submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy
(Hotel and Tourism Management)

Faculty of Hotel and Tourism Management

January 2026

ABSTRACT

In an era where technological innovation and human-centric service converge as defining competitive factors, the luxury hotel sector faces the imperative of harmonizing digital capabilities with emotional craftsmanship. This study examines the critical balance between high-tech and high-touch service dimensions within upscale hospitality environments, addressing how they influence guest satisfaction and loyalty. Drawing on UTAUT2 and ACSI theory, this study investigates crisis-era transformations in service delivery through a sequential mixed-methods approach. Qualitative insights were first gathered, followed by quantitative data collection to ensure demographic diversity. "Intelligentization," "functionalization," "privacy," and "usability" represent high-tech, serving as indicators of the utilization and tangible implementation of high-tech equipment in hotels. On the other hand, the themes of "special care," "opportuneness," and "deep friendliness" fall under the category of high-touch, setting them apart from traditional service in upscale hotels. Guest satisfaction emerged as the pivotal psychological bridge translating service experiences into enduring relationships. Notably, guest characteristics significantly influenced receptivity to technological versus human interactions, with business travelers prioritizing efficiency innovations while leisure guests valued emotional engagement. These findings establish an integrated framework that demonstrates that neither technological sophistication nor human attentiveness alone is sufficient; their strategic orchestration drives competitive advantage. The research advances service theory by unifying technology adoption and emotional labor constructs, providing hotel operators with actionable segmentation strategies for resource allocation. In an increasingly automated landscape, this study confirms that the soul of hospitality remains irreplaceably human, yet indispensably augmented by technology.

ACKNOWLEDGEMENT

First and foremost, I am grateful for the opportunity to begin my PhD and for successfully completing this challenging and demanding journey. Throughout this time, I would like to sincerely thank my exceptional research mentor and supervisor, Assoc. Prof. Dr. Mohd Raziff Jamaluddin. Every detail of my thesis was discussed and analysed with me, which helped me a lot, both in my studies and in my life in a foreign country. My sincere appreciation goes to my co-supervisor, Dr. Anderson Ngelambong for his great encouragement. Without their advice, assistance, and knowledge, my thesis would not have been completed. I am appreciative of all the time, work, and effort they put into helping me refine my study.

I would want to express my gratitude to my friends and colleagues who helped me throughout my studies. Thanks for their assistance in sharing vital contacts that assisted me to complete my data collection.

Similarly, I would like to express my appreciation to all those who have supported me from various departments in the Faculty of Hotel and Tourism Management, UiTM particularly Assoc. Prof. Dr. Mazlina Mahdzar, Assoc. Prof. Dr. Faiz Izwan Anuar, Assoc. Prof. Dr. Norhidayah Binti Abdullah, Dr. Mohd Faez Saiful Bakhtiar, Dr. Lovelyna Benedict Jipiu, Mrs. Masturah Ramli, and Dr. Mohd Aliff Abdul Majid for all their assistance.

My family, who are the greatest source of my strength, deserve my sincere gratitude since without them, none of this would have been possible. I appreciate my husband's and my adorable daughter's understanding. Without their unwavering devotion during the challenging times, I would not have been able to complete my PhD.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xiii
LIST OF SYMBOLS	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER 1 INTRODUCTION	1
1.1 Preamble	1
1.2 Research Background	1
1.3 Problem Statement	4
1.4 Research Objectives	7
1.5 Research Questions	7
1.6 Significance of the Studies	8
1.7 Scope of the Study	9
1.8 Operational Definition of Terms	10
1.8.1 High-Tech	10
1.8.2 High-Touch	10
1.8.3 Guest Satisfaction	10
1.8.4 Guest Loyalty	11
1.8.5 Guest Segments	11
1.8.6 Upscale Hotels	11

CHAPTER 1

INTRODUCTION

1.1 Preamble

This chapter provides the foundation of the current study. It begins by providing the reader with an overview of previous research on the upscale hotel industry and the emerging concepts of “high-tech” and “high-touch” service within the guest loyalty framework. The problem statement or related concerns explain how previous studies in the hotel industry have not adequately formed the foundation for current research. The current study aims to fill this gap by investigating the factors in high-tech, high-touch services and examining their relationship to guest loyalty. Following the problem statement, the present author will discuss objectives, research questions, and the significance of the study. The results are discussed from both academic and practical perspectives. Keywords are defined at the end of the chapter, along with a description of both the scope and the structure of the research.

1.2 Research Background

AI and robotics are still relatively new in the hotel industry (Buhalis, 2020; Fomby, 2019), and the innovative nature of these technologies has introduced essential features such as real-time capabilities, co-creation, data-driven approaches, consumer-centricity, and experience enhancement (Chen et al., 2021; Buhalis & Sinarta, 2019). These indicated all tourism-related industries, including the hotel industry, are undergoing significant technological changes. High technology (also referred to as high-tech) refers to the practical application of sophisticated scientific knowledge and expertise, as well as the creation of new technical equipment (Vrontis et al., 2022). Ivanov and Webster (2019) believe that high-tech technology includes self-service and artificial intelligence but does not require human interaction. They also described the critical role of high-tech in the future and claimed that the “*robonomic*” economy would profoundly impact the nature of work, income, leisure time, trade, and social, economic, and political aspects.

On the other hand, high-touch generally refers to the involvement of personal