

UNIVERSITI TEKNOLOGI MARA

**INTENTION TOWARDS
BLOCKCHAIN IMPLEMENTATION
IN WAQF PROJECT
DEVELOPMENT THROUGH UTAUT
AND PERCEIVED RISK THEORY**

BALKIS BINTI KASMON

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ABSTRACT

This study examines how blockchain technology, guided by the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Theory of Perceived Risk (TPR), can address critical challenges in *Waqf* project development. Although *Waqf* plays a vital role in Islamic social finance by funding education, healthcare, and religious services, its management is often constrained by limited funding, inefficiency, poor transparency, and low stakeholder trust. Concerns over security, potential financial loss, privacy, and functional reliability further hinder its effectiveness. Blockchain offers a potential solution by enhancing trust, improving security, increasing transparency, and boosting operational efficiency. Accordingly, this research aims to: (1) analyse how expectation factors—performance, effort, social influence, and facilitating conditions—influence the intention to adopt blockchain; (2) assess how perceived risks—security, financial, privacy, and functional—affect adoption intention; (3) evaluate trust as a mediator between these factors and adoption intention; and (4) examine knowledge as a moderator between trust and adoption intention in the Malaysian *Waqf* context. Despite growing interest in blockchain for financial and philanthropic applications, there is a lack of empirical evidence on its adoption in Malaysian *Waqf* institutions, especially concerning how trust and perceived risks influence stakeholders' intentions. A quantitative approach using Structural Equation Modelling (SEM) analyzes data collected from *Waqf* practitioners across Malaysia's State Islamic Religious Councils (SIRCs) as the sample is the staff that involve with *Waqf* activities. The result of this study shows Facilitating Conditions emerged as the strongest predictor of blockchain adoption intention, while security risk showed no significant effect; trust mediated most relationships, but knowledge did not moderate the trust–intention link. Lastly for the contribution, this study offers policy and practical guidance to enhance trust, reduce risks, and accelerate blockchain adoption in Malaysian *Waqf* institutions, supporting more transparent, efficient, and sustainable *Waqf* management. These insights can assist regulators, practitioners, and stakeholders in formulating strategies that foster innovation while preserving Shariah compliance.

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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 | xiii |
| LIST OF FIGURES | xv |
| LIST OF ABBREVIATIONS | xvi |
| | |
| CHAPTER 1 | 1 |
| 1.1 Introduction | 1 |
| 1.2 Background of Study | 1 |
| 1.2.1 <i>Waqf</i> Project Developments Worldwide | 1 |
| 1.2.2 Issues in <i>Waqf</i> Project Development | 4 |
| 1.3 Problem Statement | 10 |
| 1.5 Research Objectives | 14 |
| 1.6 Research Questions and Hypothesis Development | 15 |
| 1.7 Significance of Study | 16 |
| 1.8 Scope (Delimitation) and Limitation | 19 |
| 1.9 Operational Definition | 21 |
| 1.10 Conclusion | 22 |
| 1.11 Summary | 24 |
| | |
| CHAPTER 2 | 26 |
| 2.1 Introduction | 26 |
| 2.2 Overview of <i>Waqf</i> | 26 |
| 2.3 <i>Waqf</i> | 27 |

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter presents an overview of the study, structured into several sections including Section 1.1. Section 1.2 first provides an overview of the background of the study. In Section 1.3, the problem statements and purpose for conducting the research were further outlined. In section 1.4 is about the Roles of Mediating (Trust) and Moderating (Knowledge) Variables. The chapter progresses with the explanation on the research objectives in Section 1.5 presents and research questions in Section 1.6. Section 1.7 then highlights the significance of the study before research limitations and scope of study are discussed in Section 1.8. Keywords used in this study are listed alongside their definitions in Section 1.9 before the conclusion of the entire study is described in Section 1.10.

1.2 Background of Study

The background of this study highlights the global significance of *Waqf* in supporting education, healthcare, and community welfare, while addressing persistent challenges such as inefficient management, insufficient funding, and lack of transparency that hinder its optimal development.

1.2.1 *Waqf* Project Developments Worldwide

Waqf has had a positive impact on society since the days of the Prophet Muhammad (SAW) and his companions to the present day (Ambo Masse et al., 2024; Sukmana, 2020). During the Islamic golden era, *Waqf* institution had undergone remarkable progress, with its funds being utilised as sources for project developments. Traditionally, *Waqf* funds are used for social and spiritual-related developments,