



UNIVERSITI TEKNOLOGI MARA

**THE TRANSITION OF INDUSTRIAL 4.0 AND
COMPETITIVENESS WITHIN MALAYSIAN
BANKING SECTOR**

**NOR IZHwana HAFILDA BINTI ABDUL BASIR
2020966293**

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ABSTRACT

The innovation and technology in the financial sector are undeniable in Industrial 4.0. It will need a continuous adaptation in the financial sector as it will improve its market position and increase competitiveness in this sector. The purpose of this study is to determine the effect of bank's investment on Artificial Intelligence (AI) Investment, bank performance, and bank size (SIZE). This force is further classified based on dual banking (Islamic and Conventional). The data of 30 financial institutions which are registered under Bank Negara Malaysia. Period of 11-Years and the panel data analyzed by using Ordinary Least Square (OLS) method. The findings revealed cost of technology adaptation, bank's performance and size have a connection toward bank's competitiveness. Thus, investment on technology in new era of financial industry is crucial to improve competitiveness in banking industry.

Keywords: Industrial 4.0, Competitive Advantage, Bank Performance, Artificial Intelligence (AI) Investment, Bank Size (SIZE)

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The revolution of industry 4.0 has brought opportunities and challenges in the financial services industry. It will benefit the increased productivity, reduce cost, and improve the continuation of their business processes. The financial industry needs to imply the use of information technology, especially to improve efficiency, and meet public demand for the effectiveness in their system (Muljani, 2000). The Industrial Revolution was a period of new change in the world. All financial processes will be carried out via the technologies, such as transferring dollars, investing to receive financing. Industry 4.0 is the digital era that has brought the public to a variety of functional things and without restrictions (Ellitan & Natalia, 2019).

The financial sector is a fast-paced industry with aggressive product and services competition. This has resulted in the banking institutions continuously working to develop and evolve to prevent becoming outperformed by their competitors. In addition, financial technology enables banks to offer products and services to customers that reduce operational costs, generate profit, and improve accessibility to customers, all of which contribute to overall competitiveness. The need to adapt to a changing world's fast pace of competitiveness necessitates the adoption of information technology and services (Karsal, 2016). Furthermore, rather than investing in integrated infrastructures, cost-cutting and productivity structures that can swiftly develop as needed and give cost advantages to be important for industry 4.0 (Karsal, 2016).

Thus, Financial services are one of the sectors in the economy that will have a constraint that will give opportunities and unpredictable risk factors. Furthermore, the adoption and spread of technology in financial services is growing at a rapid speed, with a transition from traditional to more innovative financial products being well-established (Adam Marszk, 2018). Besides, the impact of Industry 4.0 on the banking industry can be seen through the fast-digital revolution over the last decade because financial institution