COLLEGE OF BUILT ENVIRONMENT
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THE ADAPTABILITY OF INDUSTRIAL REVOLUTION 4.0 TECHNOLOGY IN VALUATION FIELD

Academic Project Submitted in Partial Fulfilment of the Requirements for award of the Degree Bachelor of Estate Management (Hons)

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ABSTRACT

The research study investigates the adaptability and effects of Industrial Revolution 4.0 (IR4.0) technologies in the property valuation field in Malaysia. By integrating advanced technologies like big data analytics, artificial intelligence (AI), machine learning (ML), geographic information system (GIS), and drones, valuers have witnessed significant improvements in efficiency, accuracy, and cost savings. The study reveals that the majority of valuers have embraced IR4.0 technologies, finding them beneficial for simplifying work processes and making informed decisions. Drones and GIS systems have been utilized for property inspections and site analysis, while AI and ML algorithms have automated data analysis, leading to improved decision-making. The integration of digital platforms and applications has further enhanced connectivity and collaboration among valuers. The study emphasizes the importance of staying updated with the latest technological advancements to remain competitive and deliver reliable services. The support of professional organizations, such as the Royal Institution of Surveyors Malaysia (RISM), will be crucial in guiding valuers through the challenges and opportunities presented by IR4.0 in the valuation field. By embracing these technologies, valuers can revolutionize the industry, ensuring a progressive and successful future for property valuation in Malaysia.

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CHAPTER 1

RESEARCH BACKGROUND

1.1   Introduction

Industry 4.0, commonly referred to as the fourth industrial revolution, is the term used to describe the digitization and integration of cutting-edge technology across several industries. Its effects are felt not just in the production and manufacturing sectors, but also in other industries including finance, healthcare, and valuation. Industry 4.0 technology adoption has started to influence the valuation industry in Malaysia, improving efficiency, accuracy, and transparency.

One study, "Big Data Analytics in Real Estate Valuation" by Tan, C. T., Ooi, G. B., and Teh, P. L. (2019), highlights the potential benefits of adopting big data analytics in the valuation industry. It explores how utilizing big data and sophisticated analytics methods can enhance risk assessment procedures, uncover market trends, and improve the accuracy of property appraisals. This study further supports the integration of Industry 4.0 technologies in the valuation sector.

Furthermore, efficiency and accuracy have been further improved by the incorporation of artificial intelligence (AI) and machine learning (ML) algorithms in valuation procedures. Valuers may concentrate on more complex activities that require for human skill by using AI-powered tools to automate repetitive operations like data collection and analysis. Valuers can forecast market trends and volatility by using ML algorithms that can learn from historical valuation data.

Numerous Malaysian organisations and experts have acknowledged the use of Industry 4.0 technology in the valuation industry. As an illustration, the Royal Institution of Surveyors Malaysia (RISM), the organisation that represents surveyors professionally in Malaysia, has recognised the significance of technology and digitization in valuation procedures. They emphasise that in order to give precise and