DESCRIPTIVE RESEARCH ON MUNICIPAL BOND MARKET WITH ENVIRONMENTAL, SOCIAL AND GOVERNANCE COMPONENTS FOR ECONOMIC GROWTH IN MALAYSIA

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ASIA e UNIVERSITY
2023

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A Thesis Submitted to Asia e University in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

August 2023

ABSTRACT

This thesis aims to investigate the potential of a Malaysian municipal bond market that incorporates components of ESG financing to accelerate economic development in Malaysia. The research covers the literature on bond markets and the important position they play in facilitating economic growth. Specifically, the role of municipal bonds as a vehicle for infrastructure financing and the increasing influence of ESG principles. The study developed a conceptual framework of four independent variables: bond issuance, credit rating, interest rate, and market infrastructure, with investor demand as the mediating variable and risk management as the moderating variable. This was represented as conceptual framework whereby six hypotheses were constructed based on this. Literature for all the constructs were gathered from 2018 until 2023 comprehensively. This research covered the literature in Malaysian bond market and global bond market. This research adopted a mixed-method approach as suggested in literature. Sample of 201 respondents were considered based on Krejcie and Morgan's sample size formula. Non-random sampling technique was adopted to select the samples. Atlas.ti is used for the qualitative analysis while SmartPLS was used for the quantitative analysis. Mind mapping, word cloud and mind tree were part of qualitative analysis. Structural and measurement model were executed in quantitative analysis. The study's six hypotheses are all positive, and the results show that ESG financing can positively impact the economic development of Malaysia. This research provides insights and recommendations for policymakers, investors, and financial institutions to leverage ESG financing for sustainable economic growth in Malaysia. Interpretivism Research Philosophy was concluded as the research had mix method approach in the epistemology point of view.

Keywords: Malaysia, Municipal Bond Market, ESG, Economic Development

APPROVAL

This is to certify that this thesis conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, for the fulfilment of the requirements for the degree of Doctor of Philosophy

The student has been supervised by: **Professor Dr. Bala Shanmugam**

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This thesis was submitted to Asia e University and is accepted as fulfilment of the requirements for the degree of Doctor of Philosophy.

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Professor Dr. Siow Heng Loke
Asia e University
Chairman, Examination Committee
(20 July 2023)

DECLARATION

I hereby declare that the thesis submitted in fulfilment of the PhD degree is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and/or exclusion from the award of the degree.

Name: HUW SAMUEL GARDNER

Signature of Candidate: **Date:** 25 August 2023

ACKNOWLEDGEMENT

I am profoundly indebted to the many individuals and institutions who have contributed to my academic journey.

I extend my heartfelt appreciation to Asia e University for providing the platform and resources that enabled me to seize this opportunity. I am particularly thankful to the Dean of the Business School, Professor Dr. Siow Heng Loke, for his support and assistance throughout my time at AeU.

I am deeply grateful to my Supervisor, Professor Dr. Bala Shanmugam, for his invaluable guidance, scholarly insights, and unwavering encouragement throughout this research. I am honoured to have had the privilege of working under his supervision.

I sincerely thank all the interviewees who generously shared their time, expertise, and insights. Your willingness to contribute to this research has enriched its depth and relevance. Your valuable input has been essential in shaping the findings and conclusions of this study.

To my parents, your enduring support, sacrifices, and belief in my aspirations have been my constant motivation. It has been a long journey, so thank you, Mum and Dad.

To my beloved wife, Iman, your patience, understanding, and encouragement have been a blessing. I couldn't have done this without you by my side.

Completing this journey would not have been possible without the collective support and encouragement of these remarkable individuals and institutions. I am deeply honoured and humbled by their contributions.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

Several economists and scholars have researched Municipal Capital Markets, whereas certain intricacies, like financing elements, bond mobilisation, and ESG financing were not seen from the Malaysian perspective (Caporale et al., 2020). The researcher's experience in a small boutique investment bank in Colorado led to a practical exposure to the benefits of Municipal Bond Financing for facilitating infrastructure development in various municipalities across the Mid-West of the USA (Lin, 1994). It is understood that Municipal Bonds provided an alternative source of funds to finance local government infrastructure needs during the contraction of the economy during the last recession (Bhattacharyay, 2013).

Municipal bonds, also known as "Munis," are debt securities issued by state and local governments or their agencies to finance public infrastructure projects, such as roads, schools, hospitals, and other public facilities (Bliss & Gul, 2012). The Municipal Bond Market is an integral part of the overall bond market and is an important source of funding for state and local governments. One of the key features of the Municipal Bond Market is its tax-exempt status. Interest income from municipal bonds is exempt from federal income tax and, in many cases, state and local taxes as well. This tax advantage makes municipal bonds particularly attractive to high-net-worth individuals, retirees, and other investors seeking tax-efficient investments (Lai & Lau, 2010).

1.1 Background of Research

This research is carried out to explore the Municipal Bond Market in Malaysia predominantly. Municipal bonds offer several attractive features for investors, such as tax-exempt interest payments, relatively low default rates, and predictable cash flows (Ghani, 2021). Additionally, municipal bonds provide an opportunity for investors to invest in socially responsible projects that promote public welfare and economic growth.

The Municipal Bond Market is a diverse and complex market that involves a wide range of market participants, including investors, issuers, underwriters, broker-dealers, rating agencies, and regulatory bodies (Taha et al., 2013). The U.S. market is regulated by the Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB), which have established rules and regulations to ensure fair and transparent trading practices.

Another important feature of the Municipal Bond Market is its relatively low default rates. Municipal bonds historically have had lower default rates than corporate bonds, largely due to the taxing power of the issuing government and the essential nature of the infrastructure projects financed by the bonds. In addition, many municipal bonds are backed by insurance or other credit enhancements, which provide an additional layer of protection for investors (Clare & Priestley, 1998).

Despite these attractive features, the Municipal Bond Market is not without risks. Investors in municipal bonds face risks related to interest rate fluctuations, creditworthiness of the issuer, liquidity, and market conditions. Moreover, the Municipal Bond Market is highly sensitive to changes in tax laws and government regulations, which can significantly impact the demand for and pricing of municipal bonds (Mohammad & Wasiuzzaman, 2021).

The Municipal Bond Market plays a critical role in financing public infrastructure projects and is an important source of funding for state and local governments. The market offers domestic investors the opportunity to invest in socially responsible projects (Setiawan et al., 2022). However, investors must also be aware of the risks associated with investing in municipal bonds and carefully evaluate their investment objectives and risk tolerance before making investment decisions.

1.2 Significance of Research

In the U.S., the Municipal Bond Market is a crucial part of the bond market that helps fund public infrastructure projects (Godlewski et al., 2013). It has evolved over time and now includes a wide range of market participants. The SEC and the MSRB regulate the market to ensure fair and transparent trading practices. The Municipal Bond Market's tax-exempt status is one of its most important features, as interest income from municipal bonds is exempt from federal income tax and sometimes state and local taxes as well. This makes municipal bonds attractive to investors seeking tax-efficient investments. Additionally, municipal bonds have historically had lower default rates than corporate bonds due to the issuing government's taxing power and the essential nature of the infrastructure projects financed by the bonds (Chia et al., 2022).

This thesis aims to analyse the Municipal Bond Market in-depth, including its historical evolution, structure, key features, and risks. The pricing factors of municipal bonds will be explored, as well as the regulatory framework that governs the market (Uddin et al., 2022). This thesis will also provide recommendations for investors and policymakers in the Malaysian economy.

The Municipal Bond Market is a complex and dynamic market that has played a critical role in financing public infrastructure projects (N. Ren, 2021). Investors must carefully evaluate their investment objectives and risk tolerance before investing in this market. By analysing the Municipal Bond Market comprehensively, this thesis aims to enhance our understanding of this important market and provide useful insights for investors and policymakers and to evaluate its theoretical impact on the developing Malaysian financial markets.

1.2.1 ESG Financing

ESG financing in the Municipal Bond market is a relatively recent development that involves considering environmental, social, and governance (ESG) factors when making investment decisions (Mustafa et al., 2015). This approach is aimed at promoting sustainable and responsible investing practices that are aligned with the investors' values and beliefs (Sharma, 2001). Municipal Bond investors are showing an increasing interest in ESG financing as they seek to support socially responsible projects and municipalities that prioritise sustainability. Green Bonds are a specific example of ESG financing in the Municipal Bond Market (Asri et al., 2021). These bonds are used to finance environmentally friendly projects such as renewable energy, clean transportation, and sustainable infrastructure. Third-party organisations certify the issuance of Green Bonds to ensure that the funds raised are allocated to specific green projects that meet predetermined environmental standards.

Another form of ESG financing in the Municipal Bond Market is Social Bonds. These bonds are used to finance projects that promote social welfare and community development, such as affordable housing, education, and healthcare. Social Bonds also receive certification from third-party organisations to ensure that the funds raised are allocated to socially responsible purposes (Sovacool, 2021).

Sustainability Bonds represent another important form of ESG financing in the Municipal Bond Market, which combines environmental and social factors. These bonds are used to finance projects that support sustainable development and address social and environmental challenges. Investors who choose ESG financing in the Municipal Bond Market are not only seeking financial returns but also striving to have a positive impact on society and the environment. As institutional investors increasingly adopt ESG investment strategies that integrate ESG factors into their investment decisions, the popularity of ESG financing instruments is growing (Q. Ali et al., 2022).

ESG financing in the Municipal Bond Market is an important development that reflects the increasing demand for sustainable and responsible investing practices. By incorporating ESG factors into investment decisions, investors can support sustainable development while achieving their investment objectives.

1.2.2 Malaysian Bond Market

The Malaysian Bond Market has grown considerably in recent years and is a vital source of financing for both the public and private sectors in Malaysia. (Mensi et al., 2022) The Securities Commission Malaysia (SCM) and Bank Negara Malaysia (BNM) regulate the market to ensure fair and transparent operations. The Malaysian Bond Market has two main segments: the government bond market and the corporate bond market (Poon et al., 2020). The former is the larger of the two, and the government is the largest issuer of bonds. Corporate bonds are rated by credit rating agencies such as Moody's, Standard and Poor's, Fitch Ratings, Rating Agency Malaysia (RAM), and Malaysian Rating Corporation (MARC) to determine their creditworthiness. One distinguishing feature of the Malaysian Bond Market is the issuance of Shariah-compliant Islamic bonds, known as Sukuk, which have grown significantly in recent years.

Government incentives and regulatory initiatives have sustained the market's growth. To support the growth of the Malaysian Bond Market, the government has introduced tax incentives to encourage bond issuance, and regulators have implemented new regulations to improve market efficiency and transparency. The introduction of electronic trading platforms and settlement systems has also made the market more accessible to investors (Ng et al., 2017). However, the market faces various challenges, such as interest rate, credit, and liquidity risks, as well as exposure to external factors, such as global economic conditions and geopolitical risks. The Malaysian Bond Market is an important source of financing for the Malaysian economy (Bhuiyan et al., 2018). As previously stated, it is regulated by the Securities Commission Malaysia and Bank Negara Malaysia and comprises the government and corporate bond markets (Kamarudin et al., 2014). The issuance of Sukuk has been a notable development in the market, contributing to its growth. Nonetheless, the market faces challenges that investors must consider before investing.

1.2.2.1 Malaysian Municipal Bond Market

The Malaysian Municipal Bond Market is a nascent market that is still in its early stages of development. The market comprises debt securities issued by local government entities to fund public projects, and its limited size and issuance remain a challenge. However, the Malaysian government has established the Local Government Financing Vehicle (LGFV) as an intermediary between local governments and investors to facilitate access to the bond market. The LGFV aims to enable local governments to fund public projects and promote the market's growth (Tarjo et al., 2022).

As previously stated, the growth of the Municipal Bond Market is also hindered by several challenges, such as the lack of creditworthiness of some local governments, which may make it difficult for them to access the bond market. Furthermore, investors' unfamiliarity with the market may limit demand for these types of securities. Despite these challenges, the Malaysian government is committed to developing the Malaysian Bond Market, recognising its potential to support the country's socioeconomic development (Halim et al., 2021). The government has introduced initiatives to promote the growth of the Malaysian Bond Market, such as providing tax incentives for investors, enhancing the regulatory framework, and increasing transparency in the market. These measures aim to address some of the market's challenges and encourage investor participation (F. Liu et al., 2022).

It is without doubt that the development of a Malaysian Municipal Bond Market is critical to supporting the country's infrastructure development and economic growth. It provides a vital source of financing for local governments to fund public projects such as schools, hospitals, and transportation infrastructure (Billah et al., 2023). The success of a Malaysian Municipal Bond Market also depends on the collaboration between the government, local authorities, and investors. The Malaysian Municipal Bond Market is a developing market with limited size and issuance, the challenges faced by the market, such as creditworthiness and investor unfamiliarity, need to be addressed to promote investor participation and ensure market growth (M. N. Ali et al., 2015).

1.2.3 Global Municipal Bond Market

The Municipal Bond Market has been in the news globally due to the impact of the COVID-19 pandemic on state and local government finances. In the United States, for example, the pandemic has caused significant revenue shortfalls for state and local governments, leading to a rise in municipal bond defaults and bankruptcies (Qizam & Fong, 2019). However, the market has also seen strong demand from investors seeking low-risk investments with stable returns. In Europe, the Municipal Bond Market has been growing, with increasing numbers of local governments using bonds to finance public projects. The market is also seeing increased interest from socially responsible investors, with issuers incorporating Environmental, Social, and Governance (ESG) factors into their bond offerings.

Additionally, many countries are implementing initiatives to promote the growth of the Municipal Bond Market. For example, China has established a Municipal Bond Market to finance infrastructure projects. At the same time, India has introduced tax incentives for investors in municipal bonds to encourage their participation in the market (Kubińska et al., 2022). While the Municipal Bond Market has been in the news globally due to the impact of the COVID-19 pandemic, with some regions experiencing challenges while others are seeing growth and increasing interest from socially responsible investors. Governments are also introducing initiatives to promote the growth of the market, indicating that it is an important source of financing for public projects globally, as it could be for Malaysia (Fan et al., 2023).

1.3 Problem statement

Specifically, this study aims to determine whether the introduction of a municipal capital market instrument can significantly benefit the economic development of Malaysia and other emerging market countries by allowing municipalities to access alternative funding for infrastructure projects while simultaneously providing an alternative and tax-efficient investment opportunity for local investors. As Malaysia’s economic development progresses, it will be essential for the government to provide investors with opportunities to retain their investments within Malaysia rather than investing in international markets with the consequent loss of economic development in the country via capital outflows (Mu et al., 2022). However, the Malaysian

Municipal Bond Market faces various obstacles that impede its progress and growth. One significant challenge is the currently limited issuance of municipal bonds in the market, resulting from some local governments' lack of creditworthiness, which makes it hard for them to access the bond market. Another challenge is low investor demand, mainly due to the market's unfamiliarity with investors. This can lead to high borrowing costs for local governments and low liquidity in the market.

Furthermore, the absence of standardisation and the lack of a benchmark for pricing municipal bonds makes it challenging for investors to assess the risks and returns of these investments. This can further discourage investors from participating in the market. Moreover, the absence of a robust regulatory framework for municipal bonds in Malaysia can undermine investor confidence in the market. Therefore, it is essential to introduce more clarity and transparency in the market to safeguard investors' interests and foster market growth and participation.

To sum up, the challenges facing the Malaysian Municipal Bond Market include limited size and issuance, low investor demand, non-standardisation, and weak regulatory framework. Addressing these challenges is crucial to promote investor participation, enabling local governments to finance public projects and support Malaysia's socioeconomic growth.

From the research, it appears that there are several reasons why Malaysia is still reluctant to fully embrace the Municipal Bond Market.

1. There is a lack of understanding among potential issuers about the benefits of issuing municipal bonds as an alternative source of financing. Many local governments are still more inclined towards obtaining bank loans, which are more familiar and readily available.