CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter presents an overview of the study. Section 1.2 will describe the background of the study, and Section 1.3 will discuss the problem statement. The research questions and research objectives will be highlighted in Sections 1.4 and 1.5, respectively. Section 1.6 will address the significance of the study. Meanwhile, Section 1.7 will specify the scope of the study. The research method for this study will be outlined in Section 1.8. In Section 1.9, the operational definition of the study will be explained. Section 1.10 will cover the organisation of the study. Finally, Section 1.11 will present the conclusion of the chapter.

1.2 Research Background

Climate change is defined as a shift in the earth's environmental conditions. Over the last few decades, climate change has become a major global concern. Furthermore, these climate shifts have various effects on life on earth. Climate change affects the environment and ecology in various ways, including the extinction of several plant and animal species.

Human activity is the primary driver of climate change. Over the last century, human activities have released huge amounts of carbon dioxide (CO_2) and other greenhouse gases (GHG) into the atmosphere. GHGs are like a blanket around the Earth. They trap energy in the atmosphere and cause it to warm up. In this case, it is called the greenhouse effect and it is natural and necessary for life on Earth to have this kind of heat in the air. However, the gas emitted into the air increases global

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temperature, indirectly impacting human life and reducing environmental vitality. The impacts of climate change will be more difficult and costly in the future unless urgent action is taken today. Therefore, it is crucial to mitigate climate change to ensure the environment is clean and safe for human development. Globally, efforts have been made to reduce carbon emissions in compliance with the Paris Agreement, which aims to limit the increase in global mean temperature to well below 2˚C pre-industrial levels (United Nation Climate Change, 2020).

Adopting carbon pricing has become one of the most effective approaches to addressing carbon emission issues. Carbon pricing refers to the initiatives that put an exact price on GHG emissions expressed in a monetary unit per tonnes of carbon dioxide equivalent (tCO_2e) (World Bank, 2020). It has also been recognized as an instrument that effectively delivers the transition to low carbon among societies (World Bank Group, 2019). Most European countries have adopted carbon pricing, which entails emission trading systems (ETS) and carbon tax. About 57 carbon pricing initiatives in national and sub-national countries have been implemented or are scheduled for implementation of carbon pricing (World Bank Group, 2019). It consists of 28 carbon pricing initiatives that adopt ETS spread across national and sub-national jurisdictions and 29 carbon pricing initiatives that adopt carbon taxes, primarily on the national level (World Bank Group, 2019).

Carbon tax plays a crucial role in reducing carbon emissions. The underlying rationale behind a carbon tax is the polluter-pays principle (OECD, 1992), which states that polluters responsible for pollution must pay for the damage done to society (Metcalf, 2019). Due to causing a rise in pollution, polluters hence should bear the cost of measures taken for reversing it (OECD, 2011). Imposing taxation on carbon emissions is an effective way to change human behaviour and increase environmental

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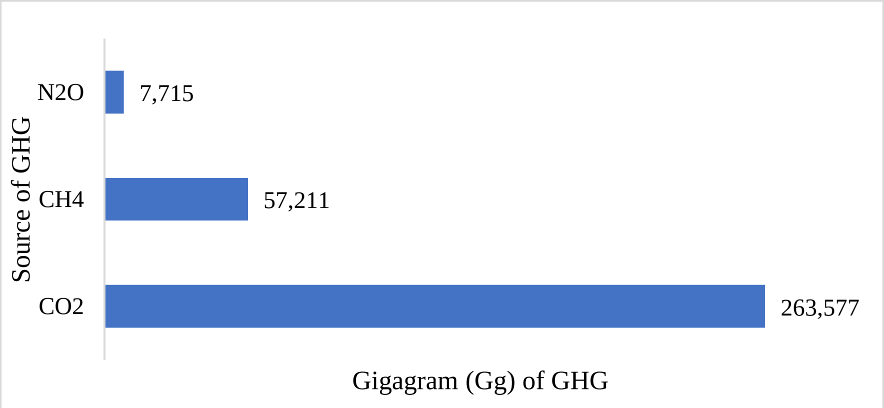
responsibilities. In 1991, Pearce carried out a study on the role of the carbon tax in mitigating CO_2 issues. He discovered that carbon tax could influence human behaviour, boost economic growth, increase revenue, and reduce CO_2 emissions (Pearce, 1991).

Malaysia is a major developing country with a rapidly growing population due to increased economic industrialization, leading to higher GHG levels (Zulkifli, 2021). Malaysia was ranked 57th in the Climate Change Performance Index (CCPI) in 2021, placing it in the bottom ten (Climate Change Performance Index, 2021). Therefore, the country intends to achieve a 45% reduction in emission intensity against the gross domestic product (GDP) in 2030 compared to the 2005 levels (MESTECC, 2018).

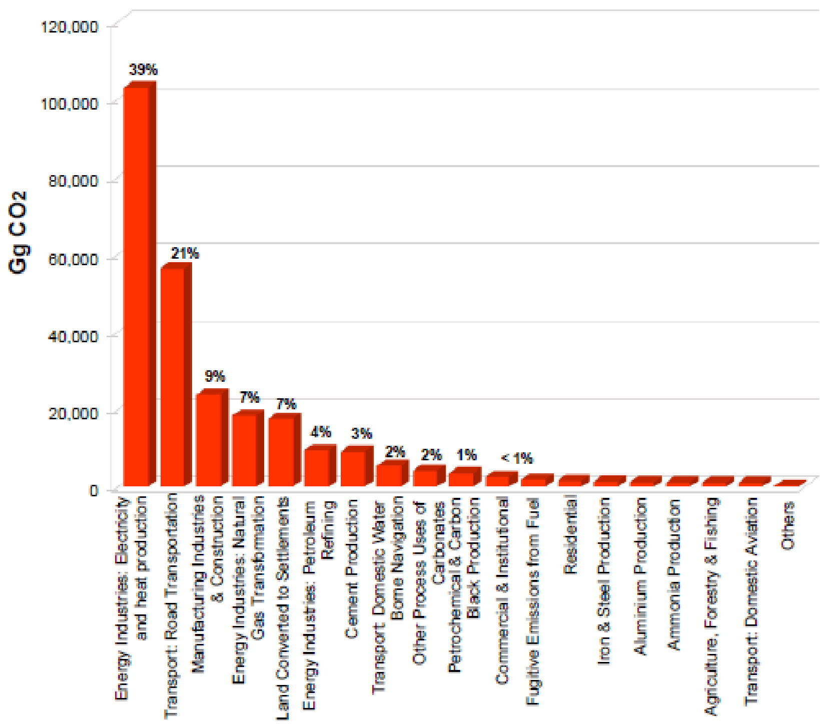
According to the Ministry of Environment and Water, the primary source of GHG emissions in 2016 was CO_2, which accounted for 263577 Gg of CO_2 emissions, while methane (CH_4) emissions accounted for 57211 Gg of CH_4 emissions, and nitrous oxide (N_2O) emissions accounted for 7715 Gg of N_2O emissions (Figure 1.1) (Ministry of Environment and Water, 2020). Therefore, substantial reductions in CO_2 emissions are required in order to accomplish the mitigation plan.



Source: Ministry of Environment and Water (2020)

Figure 1.1: Major sources of GHG Emissions in Malaysia 2016

In Malaysia, the energy industry (electricity and heat production) has been identified as the main contributor of CO_2, accounting for 39% of CO_2 emissions, followed by the transportation sector which accounts for about 21% of CO_2 emissions, the manufacturing and construction sector which accounts for 9% of CO2 emissions, and other sectors accounting for less than 7% (Figure 1.2) (Ministry of Environment and Water, 2020).



Source: Ministry of Environment and Water (2020)

Figure 1.2: Major Sources of Carbon Dioxide Emissions in Malaysia 2016

Due to the high levels of carbon emissions, Malaysia intends to implement a carbon tax as one of the policies for future environmental sustainability development and reduce GHG emissions (Unit Perancang Ekonomi, 2021).

As a Muslim, protecting the environment is one of the responsibilities that need to be carried out in this world. In Al-Quran, Allah gave a command in surah Al-A’raf, verse 56:

﴿وَلَا تُفْسِدُوا۟ فِى ٱلْأَرْضِ بَعْدَ إِصْلَـٰحِهَا وَٱدْعُوهُ خَوْفًا وَطَمَعًا ۚ إِنَّ رَحْمَتَ ٱللَّهِ قَرِيبٌ مِّنَ ٱلْمُحْسِنِينَ﴾

“Do not spread corruption in the land after it has been set in order. And call upon Him with hope and fear. Indeed, Allah’s mercy is always close to the good-doers.”

(Al-Qur’an. Al-A’raf 7:56)

This surah explains that everyone is responsible for the environmental devastation they cause. Everyone has a role to play in reducing the impact of environmental degradation. Having a high level of environmental awareness does not imply that people will change their behaviour and accept responsibility for the environmental damage caused by them (Mei et al., 2016).

Consequently, it is clear that an essential mechanism is needed to impose fines on those responsible for environmental damage, so that people will be more will be more conscious of their impact on the environment and indirectly enhance their sense of responsibility. Therefore, one of the most efficient ways to reduce carbon emissions over the long run is to impose a carbon tax, whereby every individual is responsible for any environmental damage they contribute to (Milne & Andersen, 2012).

To successfully implement a carbon tax, having public support is vital because the opposition from the public will cause failure to the carbon tax implementation in the long term (Baranzini & Carattini, 2017; Fairbrother et al., 2019; Harring & Jagers, 2013; Kallbekken & Sæælen, 2011; Kitt et al., 2021). The demonstration of public opposition against carbon tax implementation in other countries show how

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government support is essential to avoid the failure of the policy (Hammar & Jagers, 2006; Rhodes et al., 2017).

According to study conducted by Muhammad et. al (2021), there are four main factors that influence public supports which are policy, personal traits, demographic and governance. The outcome of the policy such as use of revenue, tax rate, exemption, experience, competitiveness can influence public support. Studies conducted in France, Australia, and Sweden, approximately 70%, 53%, and 77% of respondents, respectively, would oppose carbon tax policy, owing to misperceptions about the policy outcome and overestimation of its impact on purchasing power (Douenne & Fabre, 2020; Dreyer & Walker, 2013; Hammar & Jagers, 2007).

The most common indicator used to evaluate personal traits are environmental protection attitude, perceived severity of climate change, psychological, social sharing, health, actual polluters and visited abroad. The findings demonstrate that public support for environmental taxes increases as individuals become more knowledgeable about climate change, its detrimental effects on the environment, and the factors that contribute to climate change (McLaughlin et al., 2019; Rosentrater et al., 2012; Rotaris & Danielis, 2019),

Location, income, gender, education, age, and energy dependency are the most tested demographic variables, and researchers found mixed results on their impact on environmental tax support. The majority of studies conclude that people are more likely to give support (Birol & Das, 2010; Kenny, 2019; Rotaris & Danielis, 2019) and are willing to pay tax (Bachus et al., 2019; Denstadli & Veisten, 2020) when they have a higher income.

Trust in the government appears to be one of the most important predictors of support for governance. Increases in trust in government are associated with an increase in public support (Brown & Johnstone, 2014; Savin et al., 2020; Umit & Schaffer, 2020). To ensure the carbon tax was successful, long-lasting, and effective, having public support is very essential. Without support from individuals and businesses, the policy implementation will be more difficult, and it may not achieve the objective itself to improve the environment, economy or the budget (Heine & Black, 2019).

Most of the government all over the world received public rejection (Vandyck & Van Regemorter, 2014). In developing countries where corruption is widespread, gaining public support is very challenging. Despite the possibility of policy rejection, some developing countries, including Malaysia, are adopting the carbon tax as a strategy to reduce carbon emissions. In the 12th Malaysian Plan (2021-2025), the Malaysian Prime Minister has assertively announced a carbon tax to be implement in Malaysia. The policy aims to change human behaviour in addressing the issues of climate change and global warming.

However, it was found that the political instability in Malaysia has reduced public trust in the government (Haroon, 2021). The impact of the unstable political environment can be seen from the year 2018 to the present when the 14th Malaysia General Election (GE-14th) was held, and the new government was established after gaining the majority vote (The Star, 2018). The main crusade brought by the new government was to abolish the Goods and Services Tax (GST) (Iskandar, 2019). By having the main support from the public, the government abolished the GST starting 1st Jun 2018 and replaced it with the Sales and Services Tax (SST) (Saari, 2018). However, the government lost RM 21 billion when the GST was abolished, which greatly impacted tax collection (New Straits Times, 2018). Therefore, it can be understood that the changes in political parties directly changed the direction of the government in leading the country. As the government intends to implement a carbon tax policy in the future, examining the public's trust in the government before implementing a carbon tax is vital to avoid public rejection of the new tax policy.

Studies on public acceptance are vital towards understanding public attitude, plan strategies and policy reversal. Public support and trust in the government are interrelated as the government works on behalf of the public; thus, trust becomes important in order for the public to rely on the government's decisions (Kitt et al., 2021). Having trust from the public is essential for the government to decide on effective and efficient policies (OECD, 2013). Many previous studies found that trust in the government is linked to political trust in gaining support for carbon tax (Fairbrother et al., 2019; Hammar & Jagers, 2006). In Malaysia, several studies on carbon taxes have been undertaken (Goh & Matthew, 2021; Joshi, 2019a; Wong et al., 2018; Yahoo & Othman, 2015). But none have examined public trust in the government. Therefore, this study aims to examine how trust in the government influences public acceptance of carbon tax implementation in Malaysia.

1.3 Problem Statement

In the 12th Malaysia Plan (2021-2025), the Prime Minister firmly stated that Malaysia will impose carbon tax in the near future (Unit Perancang Ekonomi, 2021). The government plans to impose carbon tax on the carbon content of fossil-fuel supplies, which will drive the price of energy including electricity and gasoline. To combat climate change and global warming, it is hoped that this strategy can change people's behaviour in relation to energy consumption, which causes high levels of carbon emission.

However, public resistance become one of the main obstacles in implementing carbon tax. Policy implementation is likely to be hampered and may not have the desired long-term effects on the economy, the environment, or the budget without the support of firms and households (Heine & Black, 2019). This is due to the fact that several governments around the world have experienced public resistance, which impeded its implementation (Vandyck & Van Regemorter, 2014). Therefore, it is important to examining public acceptance in order to ensure the carbon taxes are effective and can be sustained in the long-term (United Nations, 2021). Gaining public acceptance requires building public trust in the government to avoid public resistance and to ensure the implementation of a carbon tax policy is successful.

Public trust in the Malaysian government was decreased due to the change in the government in early 2018 (Strategic Comments, 2020). The public felt betrayed because some politicians changed political parties and joined forces to form a new government. This has had a negative influence on the Malaysian government, with the public losing trust in the government in comparison to other organisations (Ipsos, 2020). Concerns have been raised regarding the government's ability to properly implement the carbon tax in Malaysia.

Public trust in the government is one of the most important factors that influences public acceptance of carbon tax (Muhammad et al., 2021). Public trust in the government's capabilities will result in either public support or opposition to the environmental policy implemented in the country. Trust in the government matters the most as it will drive the public's belief that the government will perform in accordance to the normative public expectation (S. Kim, 2017). According to the OECD (2013), public expectation refers to the key trust in the government to perform actions that would safeguard the public's interests and not harm them (Baier, 2014).

Trust in the government increases public acceptance and indirectly influences their behavior on tax compliance. Having public trust in the government is crucial because it shows the legitimacy built by the government towards the citizens. Therefore, developing trust between the government and the public is important to ensure the effectiveness and efficiency of the government's operations (OECD, 2013).

Trust in the government is varied among the public in other countries. The study on trust in the government with regards to carbon tax and other climate policies related to the environment show that trust in the government is one of the most important elements in determining the public opposed or support. Kitt et al. (2021) examined the relationship between trust in the government and public acceptance in Canada on climate policy, including carbon tax. The study used the components of integrity trust, competence trust, and value similarity to measure public trust in the government. They found that trust in the government influences public acceptance of carbon tax.

Furthermore, Fairbrother et al. (2019) conducted a study on the role of political trust on public support for fossil fuel taxes in European countries, and found that higher political trust has a positive effect on public support towards fossil fuel taxes. The study's findings are consistent with those of Harring and Jagers (2013) who examined whether political and interpersonal trust have a substantial impact on the support for environmental taxes among Swedish residents.

On the other hand, Dresner et al. (2006) found that lack of trust in the use of revenue collection increases public distrust and contributes to non-compliance with environmental tax. Hence, public trust in the government with regards to carbon tax implementation is important to achieve the long-term benefits as well as efficiency and effectiveness of the policy implemented.

As Malaysia intends to implement carbon tax to address the issue of carbon emissions (Unit Perancang Ekonomi, 2021), examining public trust in the government in implementing it should be conducted prior to its introduction to evaluate the public acceptance. However, studies on public acceptance of carbon tax policy among developing countries are limited. Several researchers on carbon tax, including those in Malaysia, did not cover the literature on public trust and tax policy (Loganathan et al., 2014; Tufail et al., 2018; Wong et al., 2018; Yahoo & Othman, 2015, 2017). Most of the studies on trust in the government and public acceptance were conducted in developed countries (Dresner et al., 2006; Fairbrother et al., 2019; Hammar & Jagers, 2006; Kallbekken & Sææien, 2011; Kitt et al., 2021). In addition, very few researches had been conducted on the elements of trust in the government with regards to the acceptance of carbon tax. Thus, evaluating trust in the government in relation to public acceptance of carbon tax before implementing the new tax policy is very crucial.

Recognizing this gap, this study aims to examine how trust in the government influences public acceptance of the carbon tax implementation in Malaysia. This study will further explain the components of trust that influence public trust in the government in accepting carbon tax implementation in Malaysia by using the trust theory. An empirical investigation was conducted using the components of political trust, government's integrity, government's competence and government's accountability as the determinants of public acceptance of carbon tax implementation in Malaysia.

1.4 Research Questions

This study aims to examine how trust in the government influences public acceptance of carbon tax implementation in Malaysia. The variables from the trust theory namely political trust, integrity, competence and accountability are used to examine trust in the government with public acceptance of carbon tax. Besides that, the study attempts to identify which factor among the four variables has the most influence on the public acceptance of carbon tax implementation in Malaysia. Therefore, the research questions that will guide this study are:

1. Does political trust positively influence public acceptance on carbon tax implementation in Malaysia?
2. Does government's integrity positively influence public acceptance on carbon tax implementation in Malaysia?
3. Does government's competence positively influence public acceptance on carbon tax implementation in Malaysia?
4. Does government's accountability positively influence public acceptance on carbon tax implementation in Malaysia?

1.5 Research Objectives

1. To examine the relationship between political trust and public acceptance on carbon tax implementation in Malaysia.
2. To examine the relationship between government's integrity and public acceptance on carbon tax implementation in Malaysia.
3. To examine the relationship between government's competence and public acceptance on carbon tax implementation in Malaysia.

4. To examine the relationship between government's accountability and public acceptance on carbon tax implementation in Malaysia.

1.6 Significance of the Study

As this study examines how trust in the government influences public acceptance of the carbon tax implementation in Malaysia, the findings will assist researchers and government authorities in better understanding public perceptions toward carbon tax. The following sub-sections emphasise the significance of the study.

1.6.1 Carbon Tax Literature

Examining trust in the government has been identified as one of the most crucial steps in pre-determining the public acceptance of the proposed carbon tax. As this study is a pre-implementation study on the public acceptance of carbon tax, it contributes to the trust literature by using different trust models. The literature on the role of trust as the main foundation for ensuring the success of the carbon tax implementation can assist future researches in extending the knowledge of the study.

1.6.2 Government

This study will aid the government in analysing the implementation of carbon tax by providing data on public perceptions on it. Additionally, this study will shed light on the efficacy of carbon tax policies, based on the public trust in the government's ability to reduce carbon emissions. The high level of trust will help ensure that the carbon tax policy is widely accepted. As a result, the government can take proactive measures to avoid future public opposition to the carbon tax implementation in Malaysia.

1.7 Scope of the Study

This study aims to examine how trust in the government influences public acceptance of the carbon tax implementation in Malaysia. The focus of the study is on Malaysians who are currently residing in Malaysia. The variables involved are political trust, government's integrity, government's competence, and government's accountability.

1.8 Research Method

This study adopts a quantitative research method using questionnaires distributed among Malaysian citizens living in Malaysia. The questionnaire was distributed among individuals living in peninsular Malaysia, Wilayah Persekutuan Labuan, Sabah and Sarawak using an online survey through communication and social media platforms such as WhatsApp, Facebook and Instagram. This study uses the probability sampling design specifically area sampling in selecting the sample from the population who will be the potential respondents of the study to generalize the population. The online survey was conducted from November 2021 to December 2021, which collected a total of 566 respondents. Furthermore, this study uses the Statistical Package for Social Sciences (SPSS) to analyze and interpret the data.

1.9 Operational Definitions

An operational definition is a part of the study that measures the variables or terms of the study. In this study, the variables are divided into two parts namely the independent variables and dependent variables. Each variable has its specific operational definition as follows:

i. Political trust

Public trust to the government and its components (political parties, politicians).

ii. Government's integrity

The public’s personal perception that the government is fair, open, honest, and acts in the public's best interest.

iii. Government‘s competence

The public’s personal perception that the government is skilled and experienced enough to deal with climate change.

iv. Government’s accountability

The public’s personal perception on the government’s ability to manage revenue spending.

v. Public acceptance of carbon tax

The public acceptance of carbon tax implementation in Malaysia.

1.10 Organization of the Study

The research is divided into five chapters. **Chapter 1** presents the introduction, which outlines the background of the study, problem statement, the research questions and research objectives, the significance of the study, the scope of the study, the research method and operational definitions.

Chapter 2 discusses past literature on carbon tax, public acceptance, trust in the government, the trust theory, the dimensions of trust that influence acceptance, the conceptual framework and the hypothesis development.

Chapter 3 discusses the research methodology, which contains the research design. This chapter also discusses the research approach, population and sampling, data collection method, data analysis for the quantitative approach and pilot study. Next, **Chapter 4** presents the research findings drawn from the data analyzed from the online questionnaire distributed to Malaysian residents.

Finally, **Chapter 5** further discusses the findings presented in Chapter 4. This chapter also elaborates on the contributions and practicality of the implications of the present study. It also highlights the research limitations and offers some suggestions for future research. This chapter then summarises and concludes of the study.

1.11 Conclusion

This chapter presented the overview of the study. The research background was describe and problem statement was discussed in this chapter. The research questions and research objectives were highlighted, followed by the significance of the study. Meanwhile, the scope of the study was determined and the research method was outlined. Furthermore, the operational definitions of the terms used in the study were clearly explained and finally the organisation of the study presented.