CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Chapter 1 outlined the research objectives of the study. In Chapter 2, a review of the relevant literature for this study was presented. As a result, political trust, government's integrity, government's competence, and government's accountability have been identified as the independent variables, whilst public acceptance of carbon tax has been identified as the dependent variable. Chapter 3 describes the quantitative research method used in this study. The data collection and analysis methods were briefly discussed. Four hypotheses were developed which were later tested and the results presented in Chapter 4. Therefore, this chapter will discuss and summarise the findings related to the hypotheses test results presented in the previous chapter.

This chapter will begin with the summary and discussion of the findings in Section 5.2. Then, the contribution of the study and the limitation of the study will be explained in Section 5.3 and 5.4, respectively. Next, in Section 5.5, the recommendation of the study will be highlighted for future research on carbon tax. Finally, the conclusion will be presented in Section 5.6.

5.2 Discussion of the Findings

This chapter addresses the findings of the study in relation to earlier research. This section begins with a discussion of the data analysis methods for this study, including the demographic, descriptive, validity, reliability, and multiple regression analyses. The respondents' demographic profile was determined based on their age, education level, employment status, monthly gross income, gender, race, and location. Table 5.1 shows the summary of the respondents' demographic profiles.

Table 5.1: Demographic Profile of Respondents

Description	Frequency	Percentage	Valid (%)	Cumulative (%)
Age				
18-20 years old	75	13.3	13.3	13.3
21-39 years old	377	66.6	66.6	79.9
40-49 years old	74	13.1	13.1	92.9
50-59 years old	36	6.4	6.4	99.3
60-69 years old	4	0.7	0.7	100.0
Total	566	100.0	100.0	
Education level				
No schooling completed	1	.2	.2	.2
Primary school	3	.5	.5	.7
High school	54	9.5	9.5	10.2
Matriculation/ Pre-Diploma/ Certificated	31	5.5	5.5	15.7
STPM/ Diploma	102	18.0	18.0	33.7
Professional Certificate	9	1.6	1.6	35.3
Bachelor’s degree	271	47.9	47.9	83.2
Master’s degree	68	12.0	12.0	95.2
Doctor of Philosophy	27	4.8	4.8	100.0
Total	566	100.0	100.0	
Employment status				
Full-time employed	281	49.6	49.6	49.6
Part-time employed	25	4.4	4.4	54.1
Self-employed	51	9.0	9.0	63.1
Student	165	29.2	29.2	92.2
Retired	3	.5	.5	92.8
Not employed	41	7.2	7.2	100.0
Total	566	100.0	100.0	
Monthly gross income				
Less than RM1,200	224	39.6	39.6	39.6
RM1,201 – RM3,000	167	29.5	29.5	69.1
RM3,001 – RM6,000	96	17.0	17.0	86.0
RM6,001 – RM9,000	42	7.4	7.4	93.5
RM9,001 – RM12,000	21	3.7	3.7	97.2
RM12,001 or more	16	2.8	2.8	100.0
Total	566	100.0	100.0	
Gender				
Male	163	28.8	28.8	28.8
Female	403	71.2	71.2	100.0
Total	566	100.0	100.0	

Race				
Malay	496	87.6	87.6	87.6
Chinese	14	2.5	2.5	90.1
Indian	6	1.1	1.1	91.2
Iban	29	5.1	5.1	96.3
Others	21	3.7	3.7	100.0
Total	566	100.0	100.0	
Location				
Johor	21	3.7	3.7	3.7
Kedah	39	6.9	6.9	10.6
Kelantan	30	5.3	5.3	15.9
Melaka	23	4.1	4.1	20.0
Negeri Sembilan	103	18.2	18.2	38.2
Pahang	20	3.5	3.5	41.7
Perak	56	9.9	9.9	51.6
Perlis	5	.9	.9	52.5
Pulau Pinang	38	6.7	6.7	59.2
Sabah	9	1.6	1.6	60.8
Sarawak	77	13.6	13.6	74.4
Selangor	93	16.4	16.4	90.8
Terengganu	18	3.2	3.2	94.0
Wilayah Persekutuan Kuala Lumpur	29	5.1	5.1	99.1
Wilayah Persekutuan Labuan	1	.2	.2	99.3
Wilayah Persekutuan Putrajaya	4	.7	.7	100.0
Total	566	100.0	100.0	

In the next part, the validity of the data was assessed by using factor analysis to identify the correlations between the variables. In this study, two statistical measures were used to determine the validity of the data, which are Bartlett's test of sphericity and the KMO. The value for Bartlett's test of sphericity is considered significant when p is less than 0.50. Meanwhile, the minimum value of KMO should be 0.60 to consider it an acceptable factor analysis. Furthermore, for factor loading to be considered significant, the value must be greater than 0.40; otherwise, it will be excluded (Hair et al., 2010). The value of Bartlett's test of sphericity for all the variables (political trust, government integrity, government competence, government accountability, and public acceptance of the carbon tax) is 0.000, indicating that all the variables are significant for this study. As indicated in Table 5.2, the value of KMO for all the variables is more than 0.6, showing that the results are acceptable. The

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value of factor loading for all the variables is greater than 0.40, demonstrating that all the items are significant for this study.

For reliability analysis, this study used Cronbach's alpha to examine the consistency of the instrument and whether the score is reliable by referring to the Cronbach's alpha rule of thumb, which states that the optimal number should be more than 0.70. Table 5.2 shows that the value of Cronbach's alpha is within the acceptable range of 0.838 to 0.940, indicating that the results are acceptable as they exceed the satisfactory value of 0.7. The overall validity and reliability analysis findings are shown in Table 5.2 below.

Table 5.2: Summary Results of Validity and Reliability Analysis

Variables/Items	Validity		Reliability
	KMO value	**Factor Loading**	**Cronbach's Alpha**
Political trust	0.829		0.884
PT1		*0.843*	
PT2		*0.877*	
PT3		*0.888*	
PT4		*0.822*	
PT5		*0.697*	
Government's integrity	0.793		0.838
GI1		*0.805*	
GI2		*0.886*	
GI3		*0.876*	
GI4		*0.723*	
Government's competence	0.692		0.865
GC1		*0.912*	
GC2		*0.925*	
GC3		*0.822*	
Government's accountability	0.749		0.909
GA1		*0.926*	
GA2		*0.931*	
GA3		*0.902*	
Public acceptance of carbon tax	0.767		0.940
PA1		*0.949*	
PA2		*0.951*	
PA3		*0.935*	

The multiple regression model analyses the relationship between the four independent variables and the single dependent variable to answer the research questions (Table 5.3). Therefore, the relationship of each variable was identified, resulting in the rejection of the first and second research questions shown below, as the variables of public trust and government's integrity did not influence public acceptance of carbon tax implementation in Malaysia. The p-value was found to be not significant for political trust and government's integrity, with $p=0.099$, $\beta=0.117$ for political trust and $p=0.836$, $\beta=0.012$ for government's integrity. Both variables have a p-value that is more than the appropriate significant value where the p should be less than 0.05.

Meanwhile, government's competence and accountability were found to have a significant influence on public acceptability of carbon tax implementation in Malaysia. The significant value of government's competence is p-value=0.008. and $\beta=0.162$, whereas government's accountability indicated the highest value ($\beta=0.165$; p-value=0.022), showing that this variable is the most significant component in explaining the dependent variable among all the independent variables.

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Table 5.3: Summary of the Research Findings

Independent Variables	Research Questions	Hypotheses	Regression Analysis		Results
			Beta	Sig.	
Political trust	**RQ1:** Does political trust positively influence public acceptance on carbon tax implementation in Malaysia?	**Hypothesis 1:** Public perceptions of political trust positively influence the public acceptance of the carbon tax implementation in Malaysia.	0.117	0.099	Not support
Government's Integrity	**RQ2:** Does government's integrity positively influence public acceptance on carbon tax implementation in Malaysia?	**Hypothesis 2:** Public perceptions of the government's integrity positively influence the public acceptance of the carbon tax implementation in Malaysia.	-0.012	0.836	Not support
Government's competence	**RQ3:** Does government's competence positively influence public acceptance on carbon tax implementation in Malaysia?	**Hypothesis 3:** Public perceptions of the government's competence positively influence the public acceptance of the carbon tax implementation in Malaysia.	0.162	0.008*	Supported
Government's accountability	**RQ4:** Does government's accountability positively influence public acceptance on carbon tax implementation in Malaysia?	**Hypothesis 4:** Public perceptions of the government's accountability positively influence the public acceptance of the carbon tax implementation in Malaysia	0.165	0.022*	Supported

Note: *Significance level is at $p<0.05$

The next part will explain in detail the four hypotheses that have been proposed and tested in this study. Overall, two hypotheses were found to be supported (Hypothesis 3 and Hypothesis 4), while the other two were found to be unsupported (Hypothesis 1 and Hypothesis 2). Table 5.3 illustrates the summary of the hypotheses testing results. The following section will explain the relationship of the hypothesis outcome.

5.2.1 Public Perception on Political Trust and Acceptance of the Carbon Tax

The result of the data analysis conducted found that political trust has a negative relationship with public acceptance of carbon tax implementation in Malaysia. This finding demonstrated that political trust does not influence the public acceptance of the carbon tax implementation in Malaysia. This finding is consistent with the findings of Kulin & Sevä (2021), which found that trust in the government such as the parliament, politicians and political parties does not have a direct relation on public concern of climate change. Instead, the study found that people who are concerned about climate change are more likely to have positive attitudes about climate policies in high-trust countries, where they have more trust in impartial institutions such as the legal system, government bureaucracy, and the police.

Across the political spectrum, the public has shown a moderate level of acceptance of carbon tax implementation in Malaysia. It can be seen that the public is aware and has knowledge on the importance of mitigating the climate change issue regarding carbon emission rather than focusing on the issues of political crisis. This is due to the fact that climate change is an issue that spans generations and national borders, whereas the political issues are a matter of time and space. Regardless of the political issues, international cooperation on climate change, such as the United Nations Sustainable Development Goals, has compelled governments to do their best to maintain their political commitment by demonstrating their performance in mitigating carbon emission issues in the short and long term.

As a developing country, the Malaysian government is facing several challenges in mitigating climate change including reliance on fossil fuels, corruption, policy capture, and a lack of institutional capacity, which hindered the government from acting appropriately in the short term. Furthermore, institutional changes such as the adoption of climate legislation and advisory bodies, as well as government operations, have rendered them less vulnerable to short-termism.

In conclusion, functioning government is essential to effectively deal with the climate crisis. However, political issues might become a hindrance, preventing them from delivering as promised. Consequently, efforts to develop and support the government need to be sustained, but it is also necessary to undertake certain measures, activities and reforms to make the government more able to tackle the issues of carbon emission by improving public trust in the government which will increase acceptance of the carbon tax implementation in the future.

5.2.2 Public Perception on Government's Integrity and Acceptance of Carbon Tax

The analysis result from this study has come out with a different point of view than other studies. A previous study found that integrity-based trust influences the support for carbon tax (Kitt et al., 2021). However, the study was conducted during the post-implementation of the carbon tax in European countries. A different perspective was found in this current study which was conducted as a pre-implementation study of carbon tax implementation in Malaysia. In this study, government's integrity does not influence public acceptance of the carbon tax implementation in Malaysia. This means that personal outcome expectancy demonstrates the unfairness experienced among the individuals such as tax reliefs for certain industries whereby some groups will benefit more than others (United Nations, 2021). Due to this, it has reduced the public's acceptance of carbon tax. Thus, the government needs to take action on how to perceive fairness among the public in order to increase public acceptance of carbon tax.

According to the United Nations (2021), by allowing focused exceptions for disadvantaged groups, the perception of fairness could be increased which may in turn raise acceptability. This can be accomplished by paying a single dividend (lump sum), which will compensate apparent income implications, particularly among lower-income groups. Many low-income residents may not have access to a car at all, but they may still benefit from the dividend if it is tied to an annual tax return. If this compensation is linked to a person's annual income tax return, then a flat dividend can even help people who do not have cars at all. In this example, people who may not have cars at all will still get the dividend. An alternative way to compensate people who pay taxes is to link the money they pay to other policy goals, like improving health care, education, or other policies that improve the general well-being. Other than that, combining the tax with compensatory measures should be considered. Finally, avoiding exceptions is another way to minimize the public resistance against the tax, because the tax will then "hit" people more evenly.

5.2.3 Public Perception on Government's Competence and Acceptance of Carbon Tax

The results obtained from the data analysis for public perceptions on government's competence is positively related to the public acceptance of the carbon tax implementation in Malaysia. In this study, government's competence influences public perceptions to accept the carbon tax implementation. This finding is consistent with a previous study on public acceptance of carbon tax (Kitt et al., 2021). The component of competence is one of the main components needed in developing trust between the public and the government (Farr, 2007; Kasperson et al., 1992). The individuals and the government form a social relationship to build trust because people expect the government to be able to perform their assigned work on the behalf of the public.

To assess the public's perceptions of the government's competency, three questions (Table 4.11) were addressed. From the results, it was found that the public believe that the government has the necessary skilled people to carry out the work on environmental protection and they also agreed that the government is competent and responsible when it comes to environmental concerns. Thus, it can be said that the government’s competence has a positive influence on the public’s perceptions in accepting carbon tax implementation in the future.

5.2.4 Public Perception on Government’s Accountability and Acceptance of Carbon Tax

The results obtained from the data analysis for public perceptions on government’s accountability is positively related to the public acceptance of the carbon tax implementation in Malaysia. This finding demonstrated that the government's accountability has an impact on the public acceptance for carbon tax implementation in Malaysia.

According to the findings of the study, public acceptance of carbon tax is influenced by the direction in which the government is managing the revenue collected. This finding is aligned with that of previous studies which stated that the value of accountability will increase the public acceptance to trust or distrust the government on accepting the new carbon tax policy (Dresner et al., 2006; Frewer et al., 1996). Kallbekken and Sæælen (2011) also showed the same results i.e. to gain public support of a new tax imposed, the accountability of the government in managing the revenue will determine the public support or opposition to the new tax policy. Furthermore, redistributing the revenue to the public will increase public acceptance of the carbon tax because people will gain a better understanding of the government's future plans, which will indirectly increase their support for the carbon tax.

5.3 Contribution of the Study

5.3.1 Contribution to Carbon Tax Literature

This study adds to the limited research on public acceptance of carbon tax implementation in Malaysia. Additionally, this study adds value to the carbon tax literature because it is the first to explore the elements influencing public acceptance of carbon taxes as a strategy of environmental protection.

The trust theory was used to answer the research questions in this study. The researcher examined the relationship between public acceptability of carbon tax and four components of trust (political trust, competence, integrity, and accountability). The outcome of the study identified the components of trust that influence public acceptance of carbon tax implementation in Malaysia. Consequentially, academic research will acquire additional information about the role of trust as the primary foundation for assuring the success of carbon tax implementation and also assist future research in extending the knowledge of the study. Apart from that, this study may assist future researchers in developing new strategies for enhancing public support for carbon taxes.

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5.3.2 Contribution to the Government

Besides its contributions to the carbon tax literature, this study also provides the government with insight into the public perceptions on acceptance of carbon tax. Imposing a carbon tax is one of the main targets to be achieved in order for the government to achieve the target in the 12MP in reducing the number of carbon emissions. This study provides findings among Malaysians on factors of trust that influence the public acceptance of carbon tax. Therefore, inspecting the influence and the public acceptance will help the government to take earlier precaution to avoid public opposition against carbon tax. Without sufficient support, carbon tax might not even be implemented in the first place.

5.4 Limitations of the Study

There are several limitations to this study. Firstly, it only analyzes four variables that may influence the acceptance of carbon tax (political trust, government's integrity, government's competence and government's accountability). As a result, it is recommended that future studies use various indicators to assess public support for carbon tax in the future.

The second limitation is that the study was carried out during the pandemic of COVID-19 and floods season. As a result, the public's interest in participating in the survey which was held from November to December 2021 decreased. During that time, people were more interested to know more about COVID-19 and the devastating flood that occurred in Malaysia.

5.5 Recommendations of the Study

Several recommendations are offered by this study. Firstly, it is advisable for other researchers to conduct a quantitative study on carbon tax from an econometric standpoint in order to predict the efficiency of the variables. In addition, other researchers can use the same conceptual framework in this study, but include more independent variables to evaluate the public acceptance of carbon tax. This study can provide new knowledge by including an additional independent variable, which is the second best way to accomplish the objective of the study.

Secondly, future research can use qualitative study on the industry that contributes the most to carbon emission by gaining their understanding on their readiness towards accepting carbon tax implementation in Malaysia. By conducting interview sessions with the industry players, the input will give more understanding on their readiness in terms of management and accounting. Furthermore, a study on the readiness of the policymaker should also be conduct, so as to increase the knowledge of the public and industry on how to adopt carbon tax in the future.

The researcher also recommends future researchers to conduct a comparative study on the different policy instruments such as carbon tax and ETS. Future researchers could investigate the public preference between ETS and carbon tax by using a quantitative study as for now Malaysia is in the midst of proposing these two policy instruments.

5.6 Conclusion

The aim of the study is to examine how trust in the government influences public acceptance of the carbon tax implementation in Malaysia. Four research questions and research objectives were addressed in Chapter 1. Furthermore, four independent variables (political trust, government’s integrity, government’s competence, and government’s accountability) and a dependent variable (public acceptance of the carbon tax) were discussed and identified in Chapter 2.

A quantitative method was adopted for this study by using the research instrument of online questionnaires to collect the data among the public. Four hypotheses were developed and tested using the SPSS in Chapter 3 and the analysis results presented in Chapter 4. Therefore, this chapter provided a discussion and summary of the study.

Due to the high levels of carbon emissions, Malaysia has shown its intention to implement a carbon tax as one of the policies for future environmental sustainability development and reduce GHG emissions. To reduce the high number of carbon emission, Malaysia has announced its intention to introduce a carbon tax in the near future (Unit Perancang Ekonomi, 2021). The announcement was made by Prime Minister of Malaysia about the implementation of a carbon tax as part of the 12th Malaysian Plan (2021-2025) that aims to mitigate the issues of climate change and global warming.

However, the political issues in Malaysia was unstable. This has given impact to the public, where public trust in the government was eroding when changes in the government occurred less than two years after the 14th general election in 2018 (Haroon, 2021). The public felt betrayed because some politicians changed political parties and joined forces to form a new government (The Star, 2018).

The impact of political instability, abolishment of the GST had occurred which cost of revenue lost for about RM 21 billion (Iskandar, 2019; New Straits Times, 2018). To a certain extent, the abolishment of GST in 2008 indicates the instability of government policy in tackling a particular issue and the public may have a similar concern about the effectiveness of carbon tax policy if it is being implemented. By examining public acceptance of the carbon tax, it is hope there no more policy reversal like GST would happened in Malaysia. If a carbon tax is unfeasible in the future because of political instability and public opposition, the government of Malaysia should explore into other environmental policies, particularly the command-and-control approach.

In overall, it can be said that the public accept the implementation of carbon tax in Malaysia. In this study, the variables of government's competence and government's accountability was found to be the factors that influenced public acceptance of carbon tax implementation in Malaysia. In contrast, the other two variables, political trust and the government's integrity are negatively related to the public acceptance of carbon tax. Therefore, the government's mission to reduce carbon emissions through a carbon tax can be achieved with increase public trust in the government's competence and accountability. According to previous literatures, redistributing the revenue to the public could increase public acceptance of a carbon tax as people value the government's assistance in lightening their financial load (Dresner et al., 2006; Hsu et al., 2008).

Next, the contribution of the study was explained specifically towards academia and the policymakers. Conducting a survey on public perceptions for a new policy is considered to be necessary because it may help the government in overcoming public objection after its implementation. From these, the limitations of the study were demonstrated and recommendations were put forth for future researchers who are interested to discover more on carbon tax and other related topics.

With these findings, it can be concluded that the conceptual framework (Figure 2.5) is proven and all the research questions and research objectives in this present study have been answered. It is hoped that this study can contribute to the relevant carbon tax literature and can be used as a guideline for future researchers who are interested in this research topic.

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