

**INSIGHTS INTO PLASTIC POLLUTION:
CONSUMER TRENDS WITH PLASTIC BAGS**

FKP

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by

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2024

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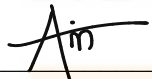
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ABSTRACT

Plastic pollution is a serious environmental problem with far-reaching consequences for ecosystems and human health. This paper summarizes the findings of a study on consumer trends and plastic bag usage in Malaysia, revealing light on individuals' behaviors and attitudes regarding plastic consumption and trash management. In addition, reusable bags are one of the ways to prevent this plastic pollution from happening. Reusable bags are made from recycled or sustainable materials and are intended to be reused. The main advantage of reusable bags is that they can do everything plastic bags can do, without the negative environmental impact. Therefore, behavior and attitude towards the use of plastic has an impact on plastic pollution in Malaysia. In this study, a conceptual model consisting of different variables such as willingness, awareness, perceived behavior control and engagement consumers has been studied which affects the use of reusable bags. The researchers have chosen the sample size respondents in Selangor. The quantitative method has been used to select the sample by choosing the convenience sampling method. The questionnaires have been distributed through google form and 318 respondents participated in answering the questionnaires of this study. The data collected was analyzed using Statistical Packages for Social Science (SPSS) software. Based on the data, different data analysis methods have been used such as Pearson correlations, regression, and multiple regression. In this study, all the variables have a significance toward the adoption of reusable bags. The adoption of reusable bags can avoid plastic pollution and waste management.

Keywords: reusable bags, plastic pollution, plastic bags, recycling

ABSTRAK

Pencemaran plastik adalah masalah alam sekitar yang serius akibat yang meluas kepada ekosistem dan kesihatan manusia. Kertas kerja ini meringkaskan dapatan kajian mengenai trend pengguna dan penggunaan beg plastik di Malaysia, mendedahkan kelakuan dan sikap individu berkenaan penggunaan plastik dan pengurusan sampah. Selain itu, beg boleh guna semula adalah salah satu cara untuk mengelakkan pencemaran plastik ini daripada berlaku. Beg boleh guna semula dibuat daripada bahan kitar semula atau bahan lestari dan bertujuan untuk digunakan semula. Kelebihan utama beg boleh guna semula ialah mereka boleh melakukan semua yang boleh dilakukan oleh beg plastik, tanpa kesan negatif alam sekitar. Oleh itu, tingkah laku dan sikap terhadap penggunaan plastik memberi kesan kepada pencemaran plastik di Malaysia. Dalam kajian ini, model konseptual yang terdiri daripada pembolehubah yang berbeza seperti kesanggupan, kesedaran, persepsi kawalan tingkah laku dan penglibatan pengguna telah dikaji yang memberi kesan kepada penggunaan beg boleh guna semula. Pengkaji telah memilih responden saiz sampel di Selangor. Kaedah kuantitatif telah digunakan untuk memilih sampel dengan memilih kaedah persampelan yang mudah. Borang soal selidik telah diedarkan melalui google form dan 318 responden telah mengambil bahagian dalam menjawab soal selidik kajian ini. Data yang dikumpul dianalisis menggunakan perisian Statistical Packages for Social Science (SPSS). Berdasarkan data, kaedah analisis data yang berbeza telah digunakan seperti korelasi Pearson, regresi, dan regresi berganda. Dalam kajian ini, semua pembolehubah mempunyai signifikan terhadap penggunaan beg boleh guna semula. Penggunaan beg boleh guna semula boleh mengelakkan pencemaran plastik dan pengurusan sisa.

Kata kunci: beg boleh guna semula, pencemaran plastik, beg plastik, kitar semula.

CHAPTER 1: INTRODUCTION

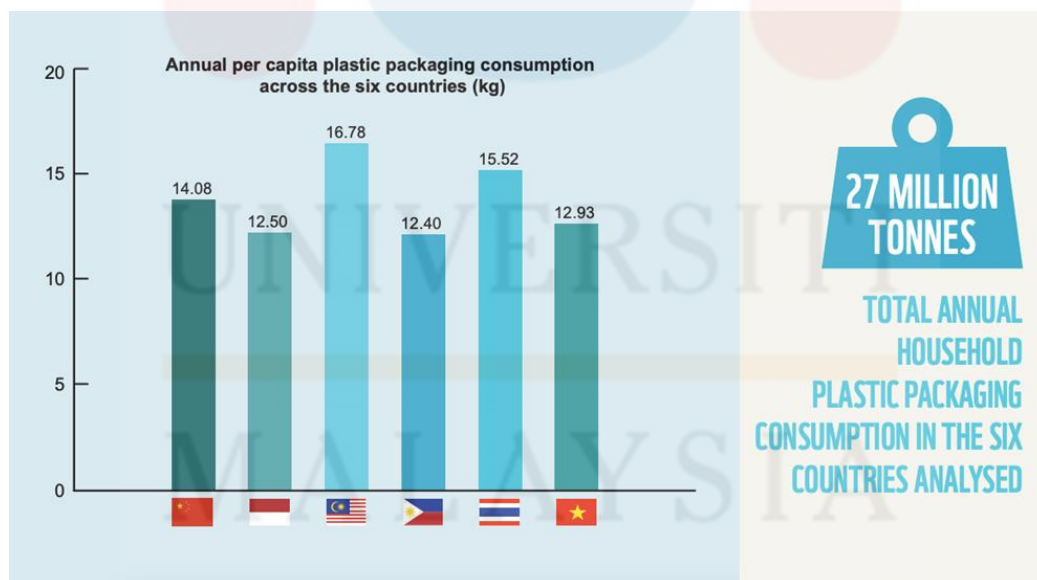
1.1 Background of the Study

In this opening chapter, we embark on a captivating journey into the heart of our research, as we explore the complex dynamic surrounding our chosen subject. This chapter introduces the core elements of our research, which include delving into the historical background, defining the significant questions we aim to address and laying the foundation for our exploration of fresh insights into the realm of consumer attitudes and behaviors related to plastic pollution in Malaysia. In an era marked by growing environmental concerns, plastic pollution has become a major global problem. Malaysia, a country known for its rich natural landscapes and diverse ecosystems, is no exception to this predicament. Malaysia's plan for achieving zero single-use plastics highlighted the significant global impact of the country's environmental plastic waste issue due to the mishandling of the plastic waste (Mohamed, M.I.P., & Ming, W.L., 2021). The plastic manufacturing industry has one of the highest growth rates of all industries since 2000 (Chen, H. L., et. al., 2021).

This research entitled "Insights into Plastic Pollution: Consumer Trends with Plastic Bags," endeavors to delve into the complex interplay between consumers and the environment within the Malaysian context. The extensive use and improper disposal of plastic materials have contributed to environmental degradation, threatening the country's natural beauty and biodiversity. Environmentally conscious consumers may also consider the environmental impact of packaging, such as whether it is constructed from recycled materials or consists of reusable shopping bags (Smith, M., et. al., 2016). Therefore, it is crucial to comprehend how consumers perceive packaging, specifically shopping bags, and its influence on their attitudes

and intentions when it comes to making purchases from clothing retailers (Smith, M., et. al., 2016).

Malaysia ranks among the world's leading producers of plastic, boasting over 1300 plastic manufacturing facilities. The country generates approximately 0.5–1.9 kg of municipal waste per capita per day, with plastic waste constituting the second largest category at 24% (Coco Chin, K. K., et. al., 2023). Despite growing awareness of plastic pollution through societal practices, the production and consumption of plastic products persist. Hence, individuals might endeavor to reduce their consumption of single-use plastics by opting for reusable bottles and bags. Altering human behaviors to steer clear of single-use plastics is a gradual and demanding process (Van, L., et. al., 2021). The challenge is exacerbated by the limited availability of alternatives to single-use plastics, like eco-plastic items, paper bags, and biodegradable plastic bags, often due to their higher cost.



Source: SAYS Malaysia (2020)

Figure 1.1: Consumption of Plastic

By embracing the ‘No Plastic Bag Day’, with active participation from both state governments and the federal authority, Malaysia underscores its resolute commitment to combat plastic waste and protect the environment (Zainudin, N., et. al., 2021). Despite being conscious of the harmful impact of plastic bags, consumers often opt for them over reusable alternatives, contributing to a significant environmental problem (Jallaludin, N. S. K. et. al., 2021). The use of plastic bags tends to become an automatic and habitual behavior. Initially, the concept of "free plastic bags" was considered a standard offering, with little regard for their environmental cost, as people perceived them as having minimal economic value. However, these free-of-charge plastic bags have generated adverse environmental impacts because they are derived from non-renewable resources and degrade very slowly, taking hundreds of years to break down. Policies aimed at implementing charges for plastic bag usage in the name of environmentally responsible practices may not always be seen as consumer-friendly, but they hold significant benefits, both in terms of conserving resources and fostering a greener environment. Under this approach, consumers are offered the choice to opt out of purchasing plastic bags by bringing their own reusable bags.

Nonetheless, despite various initiatives and strategies aimed at reducing the use of plastic bags for shopping, few of them have undergone comprehensive evaluation to determine their success or efficiency. The efficacy of plastic bag charges is typically linked to alterations in user behavior. A study concluded that the imposition of a plastic bag tax did not yield the desired results, as consumers continued to forget to bring their reusable bags when shopping. Similarly, Zainudin et al. (2021) characterized the effectiveness of the charge as contingent on

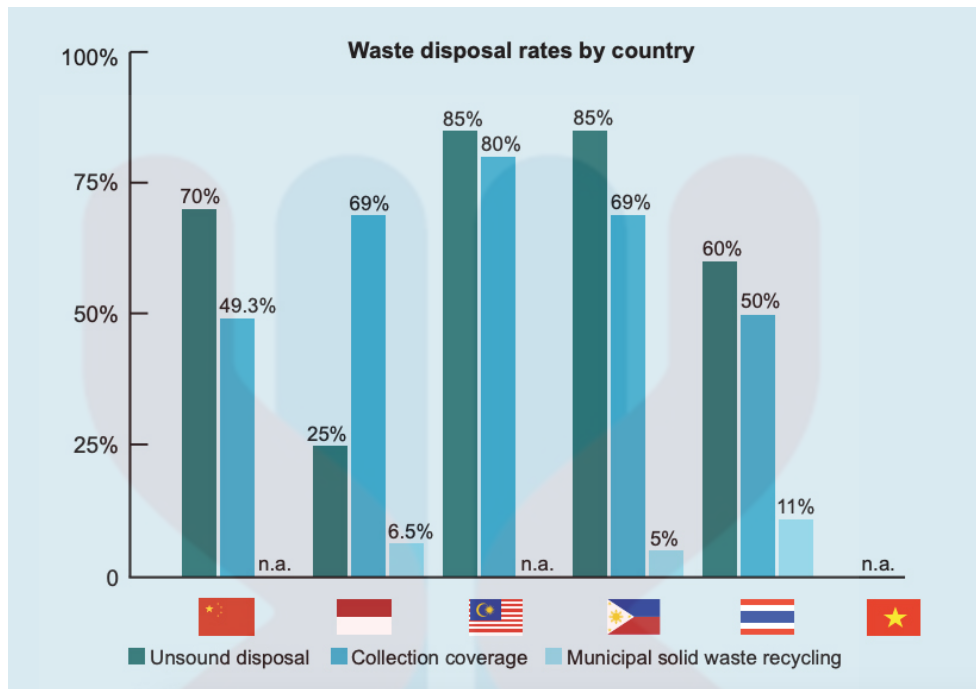
consumers developing the habit of consciously bringing their own reusable bags. The perceived inconvenience associated with bringing one's reusable bag has been demonstrated to impact consumers' choices when it comes to using plastic bags during shopping (Zainudin, N., et. al., 2021).

Malaysia's initiative to curtail plastic bag usage commenced in 2009 when the state of Penang prohibited the use of plastic bags at retail stores on Saturdays (Zainudin, N., et. al., 2021). In 2010, Selangor followed suit by implementing a similar ban on plastic bags for customers specifically on Saturdays. This move encouraged stores to refrain from offering plastic bags and urged customers to either bring their reusable bags or opt for environmentally friendly alternatives. Some stores also introduced paper bags and synthetic fiber carrier bags designed for multiple reuses. In 2011, the Malaysian federal government introduced the nationwide No Plastic Bag Day Campaign, which took place every Saturday. The primary aim was to diminish the consumption of plastic bags, and it mandated the participation of all retail stores, supermarkets, and hypermarkets.

This study not only illuminates the evolving landscape of environmental consciousness but also contributes valuable insights that have implications for the development of effective policies, the promotion of eco-conscious business practices and the fostering of a greener, more resilient future for Malaysia and beyond. Opting for eco-friendly reusable bags is a prime example of environmentally responsible behavior, actions that make the smallest ecological footprint or actively benefit our environment (Ekasari, A., & Zaini, S. M., 2020). By focusing on the pivotal aspect of reusable bag adoption, this research aims to shed light on the evolving attitudes and behaviors of Malaysian consumers in Selangor in their quest to mitigate plastic pollution, contributing to a more comprehensive understanding of sustainable consumer choices in the nation.

1.2 Problem Statement

The problem statement in this research is the prevalence of plastic pollution in Malaysia and the challenges associated with changing consumer behavior and attitudes regarding the use of plastic bags. Specifically, we aim to understand why Malaysian consumers continue to use single-use plastic bags, even in the face of growing environmental awareness and government initiatives to reduce plastic bag usage. Despite the widely held belief among Malaysians that environmental conservation is crucial, they still heavily rely on plastic bags in their daily lives. Nevertheless, research has shown that individuals that are well-informed about the environmental consequences of plastic bags are more inclined to reduce their usage (Mohamed, M.I.P., & Ming, W.L., 2021). The absence of environmentally conscious behaviors in Malaysia contributes to the increased use of plastic bags. Failing to raise awareness about environmental concerns may impact their choice between using reusable or plastic bags. In Malaysia, there is a noticeable lack of understanding regarding the adverse environmental effects of plastic bag usage. Malaysian environmentalist Andrew Sebastian has noted that Malaysians remain largely unaware of the detrimental impacts of plastic bags on the environment (Mohamed, M.I.P., & Ming, W.L., 2021). The decision to use plastic bags can be attributed to this lack of environmental awareness and knowledge.



Source: SAYS Malaysia (2020)

Figure 1.2: Waste Management

Remarkably, limited attention has been devoted to understanding people’s attitudes and behaviors concerning the risks posed by plastic when formulating interventions to address plastic-related issues. Recognizing the significance of public knowledge, it has been that attitudes and awareness concerning plastic pollution play a pivotal role in influencing people’s conduct, practices, and the effectiveness of recycling initiatives (Van, L., et. al., 2021). According to Ekasari et al. (2020), the field of marketing can play a pivotal role in promoting pro-environmental behavior through social marketing, which employs conventional marketing principles to induce behavioral change to eco-friendly reusable bags. Simultaneously, consumer awareness about bringing their own shopping bags remains low, perpetuating the widespread use of plastic bags. This situation raises critical questions about the extent to which consumers are willing to purchase and use eco-friendly reusable bags voluntarily and what factors can motivate them to do so (Ekasari, A., & Zaini, S. M., 2020). It is, therefore, imperative to identify the factors that influence individuals’ attention to reduce their reliance

on plastic bags among Malaysian consumers (Mohamed, M.I.P., & Ming, W.L., 2021). The battle against plastic pollution involves diminishing plastic usage, improving recycling and waste management, and developing eco-friendlier alternatives for plastic items.

1.3 Research Question

The research questions aim to uncover the factors that drive Malaysian consumers to adopt reusable bags. These questions are as follows:

1. What are the key factors influencing consumers' adoption to use reusable bags instead of disposable bags?
2. How is the effect of key factors on adoption of reusable bags?
3. How is the level of awareness towards adoption of reusable bags?

1.4 Research Objectives

The study's objectives encompass the exploration of factors impacting the adoption of reusable bags by Malaysian consumers. These three key objectives are emphasized in the research:

1. To explore the key factors associated with consumers' adoption to use reusable bags.
2. To investigate the effect of key factors on adoption of reusable bags.
3. To identify the level of awareness of consumers towards adoption of reusable bags.

1.5 Scope of the Study

This comprehensive research aims to delve into the adoption and usage patterns of reusable or eco-friendly bags as a sustainable alternative among consumers in Selangor, Malaysia. The study has specific objectives, including investigating the extent of adoption, analyzing the drivers and barriers influencing consumer choices, understanding usage patterns

across different demographics, and exploring the correlation between reusable bag adoption and the reduction of plastic waste. Data collection will involve questionnaires for quantitative insights and qualitative understanding.

1.6 Significance of the Study

The significance of this study is highlighted by the urgency of addressing plastic pollution in Malaysia. This country has been grappling with the consequences of plastic waste, which include clogged waterways, damaged marine ecosystems, and a growing environmental conscience among its citizens (Spranz, R., et. al, 2018). Beyond national borders, Malaysia's actions are significant in the broader context of global environmental conservation efforts, particularly given its role as a signatory to international agreements that promote sustainability (Ekasari, A., et. al., 2021). Globally, there is an increasing focus on reducing single-use plastics and promoting eco-friendly alternatives, and consumer choices play a pivotal role in this transition (Coco Chin, K. K., et. al., 2023). Understanding the behavior and attitudes of Malaysian consumers towards plastic usage, and more specifically, the adoption of reusable bags, is crucial for developing targeted strategies and policies aimed at reducing plastic pollution.

In this research, we aim to comprehend the willingness of individuals to reduce their use of plastic bags, a critical step in minimizing worsens environmental issues (Mohamed, M.I.P., & Ming, W.L., 2021). This research uncovered the factors that influence Malaysian consumers' willingness to adopt reusable bags instead of plastic bags. Moreover, it has the potential to raise public awareness and motivation for reducing, reusing, and recycling plastic bags, contributing to environmental problem-solving (Li, P., et al., 2021). Additionally, this research could be a valuable resource for governmental, private, or individual stakeholders in

formulating effective policies and actions aligned with consumer behavior (T'ing, L. C., et al., 2021).

1.7 Definition of Term

1.7.1 Plastic Pollution

Plastic Pollution in Malaysia refers to the environmental issue resulting from the excessive presence of plastic waste, primarily single-use plastics, in the country's ecosystems, including water bodies, landscapes, and the environment as a whole. This pollution stems from the improper disposal, inadequate recycling, and littering of plastic materials, leading to adverse impacts on the natural environment, wildlife, human health, and the overall quality of life in Malaysia (Coco Chin, K. K., et. al., 2023). It encompasses a wide range of problems, including the contamination of water sources, damage to terrestrial and marine ecosystems, and the visual and ecological degradation of the environment (Van, L., et. al., 2021). Addressing plastic pollution in Malaysia is a significant environmental and societal challenge, and efforts are made to mitigate its detrimental effects through waste management, recycling programs, and public awareness campaigns.

1.7.2 Adoption Reusable Bags

The Adoption of Reusable Bags refers to the practice and willingness of individuals in Malaysia to incorporate and use reusable bags, typically made from materials like cloth, jute, or other sustainable options, as an alternative to single-use plastic bags in various aspects of their daily lives, particularly for shopping and carrying goods. This behavior reflects a conscious effort by Malaysian consumers to make environmentally friendly choices, reduce their reliance on disposable plastic bags, and contribute to reducing plastic pollution in the country (Ekasari, A., & Zaini, S. M., 2020). Understanding the factors influencing the adoption

of reusable bags among Malaysian consumers is essential for crafting policies and strategies aimed at encouraging more sustainable consumer behavior.

1.8 Organization of Proposal

The initial chapter provides an overarching introduction to the issue of plastic pollution in Malaysia. It delves into the factors that impact Malaysian consumers' attitudes and behaviors concerning the adoption of eco-friendly or reusable bags, including aspects like willingness, concern, perceived behavior, and engagement in eco-friendly activities. This chapter encompasses the study's background, problem statement, research questions, objectives, scope, significance, and definition of key terms. Moving forward, Chapter 2 delves into the literature review, previous studies, and the formulation of hypotheses. Furthermore, Chapter 3 addresses the research design, methods for data collection, variable measurement, and the procedure for analyzing data concerning the factors influencing the adoption of reusable bags among Malaysian consumers focusing on Selangor consumers.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Literature review is an overview of the topic and explains why it is important. It also identifies the research questions that the literature review will address. It will summarize and evaluate the key sources on the topic. It is important to be critical of the sources reviewed, and to identify any areas where there is disagreement or debate. Literature reviews can be challenging to write, but they are an essential part of the research process. By writing a thorough literature review, it will be better equipped to conduct the research and make a significant contribution to the field. Chapter 2 also discusses the literature review on the dependent variable, which is about environmental knowledge of plastic pollution and independent variables, including willingness to use a tote bag, recycling behavior, engagement in plastic pollution reduction activities and lastly awareness about plastic pollution.

2.2 Underpinning theory

The underpinning theory for the research on "Insights into Plastic Pollution: Selangor Consumer Trends with Plastic Bags" is likely to draw on both environmental and social science theories. One of the theories suitable for this research is Theory of Planned Behavior (TPB).

2.2.1 Theory of Planned Behavior (TPB)

The social cognitive theory known as the theory of planned behavior (TPB) describes how intentions affect people's conduct. Three factors in turn impact intentions: perceived behavioral control, subjective norms, and attitudes (Kan & Fabrigar, 2017). TPB may be important to comprehending customer attitudes and actions around the use of reusable bags. It makes the argument that a person's attitude, perception of behavioral control, and subjective

norm all affect their conduct. In this case, it can be useful to examine the variables that affect consumers' propensity to use reusable bags. The underpinning theory for the independent variables of willingness, perceived behavior control, engagement, and awareness and the dependent variable, adoption of reusable bags, is the Theory of Planned Behavior (TPB).

The TPB is a social cognitive theory that attempts to explain human behavior in terms of intentions. It posits that intentions are the strongest predictor of behavior, and that they are influenced by three factors which are attitude, subjective norm and perceived behavior control. Attitude is the person's evaluation of the behavior, whether they see it as positive or negative. Subjective norm is the person's perception of whether other people expect them to perform the behavior.

Perceived behavioral control is the person's belief in their ability to perform the behavior. The four independent variables in your question are all related to the TPB in diverse ways. For example, willingness is a measure of the person's attitude towards adopting reusable bags. Perceived behavior control is a measure of the person's belief in their own ability to adopt reusable bags. Engagement is a measure of how involved the person is in activities related to reusable bags, such as reading articles about them or talking to friends about them. Awareness is a measure of the person's knowledge about reusable bags, such as their environmental benefits or their cost.

All of these factors can influence the person's intention to adopt reusable bags, and therefore their actual behavior. For example, a person who has a cheerful outlook towards reusable bags and believes that they can easily adopt them is more likely to do so, regardless of what other people think. Similarly, a person who is highly engaged in activities related to reusable bags is more likely to adopt them, even if they have a negative attitude towards them.

In other words, people who have a cheerful outlook towards reusable bags, believe that they can easily adopt them, are highly involved in activities related to them, and are aware of

their benefits are more likely to adopt reusable bags. The Theory of Planned Behavior is a useful framework for understanding the factors that influence the adoption of sustainable behaviors, such as the adoption of reusable bags. By understanding the factors that influence this behavior, we can develop more effective interventions to promote the adoption of reusable bags.

2.3 Previous studies

2.3.1 Adoption of Reusable Bags (DV)

We are aiming for consumers to accept and feel comfortable using reusable bags, which is where the adoption of reusable bags comes in. Of the entire globe's coastal trash, 9.4% is made up of plastic bags. Every year, swallowing plastic causes the deaths of more than 100,000 birds, marine mammals, and turtles (Spranz et al., 2018). Reusable shopping bags made of non-plastic, sometimes referred to as "bags for life" (Thomas, Poortinga & Sautkina, 2016:126), are an eco-friendly packaging option that may be repeatedly used for grocery shopping with no impact on the environment when disposed of. Shoppers are urged to purchase and bring their own reusable, non-plastic shopping bags whenever they go shopping to minimize pollution (Muposhi et al., 2021).

For instance, tote bags are becoming quite popular among young people, yet the usage of disposable bags is still concerning because the older generation is unaware of them. The reusable bags serve to decrease the amount of the plastic bags used, minimize litter, save the environment, and encourage green entrepreneurship in Malaysia. The purpose of this section is to investigate customer acceptability and adoption of the project's primary goal, which is the use of reusable bags.

2.3.2 Relationship between willingness and adoption of the reusable bags (IV)

This research is to study whether consumers are willing to switch from plastic bags to reusable ones to lessen the stated annual increase in plastic pollution. All behavioral economic demand indicators have moderate to substantial connections according to previous studies based on the exponentially demand model (Hursh & Silberberg, 2008), except for the relationship among intensity and P_{max} (e.g., Murphy et al., 2011). Nevertheless, there hasn't been much research done to show these same relationships using the exponentiated demand model (Koffarnus et al., 2015).

This work extends these findings to a new domain, the exponentiated demand equation, while also replicating these relationships, which may support the reliability of the construct of our purchasing task for an environmentally friendly product (Kaplan et al., 2017). Because it indicates that interventions that raise people's willingness to use the reusable bags are likely to be successful in encouraging the adoption of the reusable bags, the association between willingness to use the reusable bags and adoption of reusable bags is significant.

Reusable bag adoption is anticipated to increase because of, for instance, public awareness initiatives that inform people about the advantages of utilizing reusable bags and norms of society campaigns that promote using reusable bags. We can encourage the usage of reusable bags and lessen the impact that single-use plastic bags have on the environment by encouraging more people to use them.

Hypothesis 1: There exists a noteworthy affirmative correlation between willingness and adoption of reusable bags.

2.3.3 Relationships between perceived behavior control and adoption of reusable bags (IV)

With a focus on perceived behavioral control (PBC), a social cognitive theory called the Theory of Planned Behavior (TPB) explains how intentions influence human

behavior. PBC is a term used to describe someone's confidence in their capacity to conduct a specific action. PBC, as it relates to reusable bags, is a person's confidence in their capacity to extensively use reusable bags. Customers' attitudes influence their inclination to use products that are environmentally friendly. When predicting performance intention, attitude is a reliable indicator. Furthermore, several independent variables, including goods appearance, perceived price, perceived value, and environmental awareness, have an impact on the attitude variable. In summary, consumers must make a complex decision when choosing ecologically friendly items (Arifani & Haryanto, 2018).

Reusable bag uptake is going to be aided by interventions that raise people's PBC. To increase people's PBC, for instance, interventions that tell individuals where to find reusable bags, how to use them, and how to get past obstacles to doing so are going to be successful. Furthermore, social norm-creating initiatives that encourage the usage of reusable bags are going to be successful in raising people's PBC.

***Hypothesis 2:** There exists a noteworthy affirmative correlation between perceived behavior and adoption of reusable bags.*

2.3.4 Relationships between engagement in activities and adoption of reusable bags (IV)

Reusable bag uptake is positively correlated with participation in initiatives to reduce plastic pollution. Individuals who participate more in programs meant to lessen the pollution caused by plastic are also more likely to be inspired to cut back on their personal use of plastic. Using reusable bags could be perceived by them as a means of lessening their personal environmental effect.

Reusable bag adoption is positively correlated with participation in initiatives to reduce plastic pollution, according to research. For instance, a study by Chen and Tsai (2022)

discovered that using reusable bags are common among those who were more actively involved in efforts to reduce plastic pollution. Similarly, Zhang et al.'s study from 2021 discovered that reusable bag use was more common among those who were more driven to lessen their environmental effect.

***Hypothesis 3:** There exists a noteworthy affirmative correlation between engagement in activities and adoption of reusable bags.*

2.3.5 Relationship between awareness and adoption of reusable bags (IV)

The use of reusable bags is positively correlated with worries about plastic pollution. Reusable bag adoption is common among those who are more worried about plastic pollution. This link exists for several reasons. First, single-use plastic bags have an adverse effect on the environment; those who care about the issue of plastic pollution are more likely to be conscious of this. They might be aware that single-use plastic bags can clog up our waterways and oceans and that it can take hundreds of years to make it worse.

Minimize the usage of plastic bags by the public. Several academics have studied PB use determinants and behavioral changes. The government policy cognition, PB knowledge, concerns about the environment, ecology feeling, policies satisfaction, and socioeconomic factors (gender, age, family size, education level, and income level) were the main subjects of these investigations. Furthermore, anti-plastic bag behavior is positively impacted by those influence factors (Xu et al., 2022).

The relationship between the use of the reusable bags and worries about plastic pollution is significant because it indicates that interventions aimed at raising awareness of plastic pollution issues are going to have a positive impact on the uptake of reusable bags. To increase the use of reusable bags, for instance, programs for raising public awareness about the damage that plastic pollution does to the environment are likely to be effective.

Hypothesis 4: *There exists a noteworthy affirmative correlation between concerning and adoption of reusable bags.*

2.4 Hypothesis statement

As an addition to this research study, the conceptual framework was used to determine willingness, concerning conduct, perceived behavior, and involvement in activities. The adoption of reusable bags was the only dependent variable.

H1: There exists a noteworthy affirmative correlation between willingness and adoption of reusable bags.

H2: There exists a noteworthy affirmative correlation between perceived behavior control and adoption of reusable bags.

H3: There exists a noteworthy affirmative correlation between engagement in activities and adoption of reusable bags.

H4: There exists a noteworthy affirmative correlation between the awareness and adoption of reusable bags.

2.5 Conceptual framework

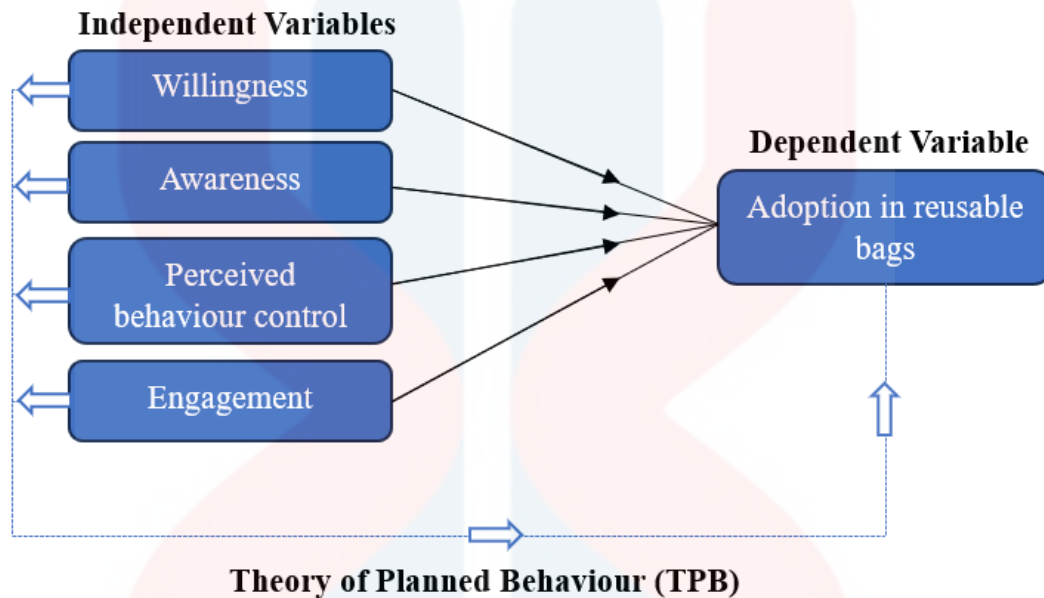


Figure 2.5: Conceptual Framework

2.6 Conclusion

In conclusion, this chapter elaborates in more detail about the adoption of reusable bags among Malaysian consumers. Moreover, independent variables such as willingness, concerning, perceived behavior and engagement in activities are noteworthy affirmative correlation between dependent variables which is adoption of reusable bags. Furthermore, this research will encourage more people or consumers in Malaysia to participate in acceptance and the adoption of the replacement of plastic bags with reusable bags such as tote bags. This conceptual framework in this research is based on the current issues, research objectives and research questions that involve independent and dependent variables.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The term "research methodology" refers to a researcher's intended course of investigation. It is a rational and methodical approach to resolving a research quandary. The methodology describes how the researcher plans to conduct the study to produce valid and trustworthy results that meet the aims and objectives. It covers the types of data that will be gathered, where they will come from, and how they will be gathered and examined. In this paper, we discuss the data collection and the techniques of analysis we employed in this study.

3.2 Research Design

A research design is a plan for employing empirical data to address your research issue. When researchers utilize design to set up their studies for success, they can increase the focus and success of their study approach.

Quantitative methods have been used on Malaysian consumers to adopt reusable bags to allow researchers to link variables to explain the consumer behavior and attitudes regarding plastic pollution in Malaysia. In this research, the process of gathering and evaluating numerical data is known as quantitative research. It is useful for determining averages and patterns, formulating hypotheses, examining causality, and extrapolating findings to larger populations. Quantitative methods can thus be advantageously applied in descriptive, correlational, or experimental research. In this study, we used survey methods to answer questionnaires, including gathering quantitative information from the respondents, including their age, gender, race, employment status, monthly income and shopping frequency. This

questionnaire is especially important to allow respondents to understand the purpose of the questionnaire and their involvement.

3.3 Data Collection Methods

Methods of data collecting are approaches and procedures used to acquire information for research objectives. These methods can range from basic self-reported surveys to more elaborate experiments, and they can use either quantitative or qualitative data collection methods (Adi Bhat, 2023). There are two types of data collection methods which are primary and secondary data. Primary data is gathered from first-hand experience and has never been utilized before. Primary data gathering procedures yield extremely accurate data that is specific to the research's purpose. Next, the questionnaire is the primary data to collect data from the respondents. The respondents must answer the survey which is a questionnaire to collect the data. Usually, primary data is used by researchers because it can save time.

Meanwhile, secondary data refers to data acquired and documented by some researchers for their own goals and ongoing study. It is accessible as data collected from many sources. Secondary data is information that has previously been used. The researcher can get data from both internal and external data sources to the organizational data. Secondary data is more readily available, takes less time, and is more expensive than primary data. Secondary data such as websites, articles, and libraries to access the data. So, data collection procedures are important in the research process because they determine the quality and accuracy of the data obtained.

3.4 Study Population

A study population is a group that is considered for a study or statistical reasoning. The research population does not consist solely of humans. It is a collection of features that have something in common. They can be items, creatures, measurements, or anything else with several qualities within a group (Fabyio Villegas, 2023). The target respondents of our research is Malaysian consumers. We chose Malaysian consumers for our study project to know their understanding about plastic pollution in Malaysia and the adoption of reusable bags. In this research, there is a collective group of people in Malaysia who are involved in activities related to the purchase, use and disposal of goods and services in the market. The study population was selected randomly to fulfill the research study objectives.

3.5 Sample Size

A quantitative study's sample size is the number of persons who complete questionnaires as part of a research effort. It is a sample of the target audience in whom you are interested. According to Peers (1996), one of the four fundamental elements of a study design that can influence the identification of significant differences, correlations, or interactions is sample size. Assume a researcher did a simple product survey. If the survey reveals multiple inaccuracies, the researcher's strategy for selecting a suitable sample size should be reviewed. Next, we choose Selangor consumers for our research because Selangor is one of the states that suffer from plastic pollution. Selangor's population is estimated to be at 7.2 million people this year. In this study, at least 269 respondents will be sufficient to represent the Malaysian consumers by Krejcie & Morgan (1970).

3.6 Sampling Techniques

The study employed convenience sampling methods for its sampling techniques. Convenience sampling is a method used in research to select participants or subjects based on

their easy availability and accessibility to the researcher. Unlike random or stratified sampling techniques, convenience sampling relies on choosing subjects based on their proximity, willingness to participate, or ease of access. This approach is often employed when time, resources, or logistics are constraints in the research process.

Convenience sampling is a non-probability sampling technique that allows researchers to gather data from individuals or groups who are conveniently located or easily accessible. This method is often used in exploratory studies or initial research phases where the primary focus is on ease of participant recruitment rather than ensuring a representative sample.

In this research, respondents were represented using a convenience sampling method, resulting in the collection of 269 questionnaires. The process of convenience sampling involves selecting participants based on their availability, proximity, or willingness to participate. This could mean gathering data from individuals who are nearby, accessible through existing networks, or readily available at a particular time. For instance, if a researcher conducts a survey by approaching people in a public place or uses individuals from their immediate social circles as participants, this constitutes convenience sampling.

One advantage of convenience sampling is the ease and speed with which participants can be recruited, making it a cost-effective and time-saving method, particularly in preliminary research stages. However, a major limitation is the lack of representativeness in the sample. Since participants are not selected randomly, the findings might not be generalized to the broader population. This could introduce bias and affect the validity and reliability of the research outcomes.

Convenience sampling is a valuable method in research, especially in situations where resource constraints or time limitations are prevalent. While it offers convenience in participant selection, researchers must be aware of its limitations and carefully consider the potential

biases introduced, aiming to supplement this approach with other sampling methods or to interpret results with caution.

3.7 Research Instrument Development

The instrument used for this research is questionnaire. Past studies done by many expert authors have been viewed and used to develop the questionnaire. There are 3 sections in this form. Section A refers to the information and demography of the respondents such as their gender, age, employment status, monthly income and how often do you shop?. Next, in Section B questions were asked regarding the adoption of reusable bags. Lastly the Section C of the questionnaire contains questions to study the willingness to use a tote bag, perceived behavior, engagement in plastic pollution based on the dependent variables. Likert Scale is being used to measure the responses from the respondents for both of the Section

3.7.1 Measurement Scale

A measurement scale is a valuable tool for identifying each individual and highlighting their distinctions from one another. The four primary measurement scales include nominal, ordinal, interval, and the ratio scale. This research, however, employs only three of these scales: nominal, ordinal, and interval. In the following section, we will delve into a discussion of the three measurement scales utilized in the questionnaire.

a) Nominal Scale

The nominal scale is employed to categorize all the information into distinct groups without any specific order or ranking. Using the nominal scale makes it easy for respondents to select their answers as the data is already organized into various categories. In this study,

Section A's questionnaire will utilize the nominal scale to collect data from respondents, particularly regarding their gender and race.

b) Ordinal scale

The data in ordinal scale will be categorized into groups and also can be ranked. Variables in this scale have their own specific order. Questions in Section A also contain answers using the ordinal scale. The questions are such as the respondent's age, educational background, occupation, and monthly income level.

c) Interval Scale

The interval scale is employed for gauging the separation between two points or marks on a scale, resulting in various measurements falling within a specified range. In this research survey, the Likert Scale is applied to assess the diverse responses from participants. This scale encompasses a range from 1 to 5, representing a continuum from "strongly disagree" to "strongly agree." It's important to note that there are no absolute right or wrong answers, as respondents will express their opinions across a spectrum of degrees.

3.7.2 Pre-testing of the instrument

This research study will employ a pre-testing phase with the utilization of a questionnaire format. Questionnaires represent a highly dependable means of collecting data because they permit the inclusion of numerous questions that yield reliable responses for the research. This approach offers efficiency by yielding a wealth of information from a substantial sample group. In addition, questionnaires are cost-effective and enable quicker data acquisition when compared to alternative data collection methods. Pre-testing will facilitate an earlier analysis of the questionnaire outcomes. To conduct the pre-test, 20 questionnaire forms will be distributed via social media platforms.

3.7.3 Questionnaire Design

Questionnaires are a research tool comprising a series of questions presented to respondents for answering, encompassing both closed-ended and open-ended questions, as outlined by Daniel Ndukwu in 2020. Properly crafting the questionnaire's design is essential to guarantee the precision of the collected data and, consequently, facilitate prompt analysis of the results.

Initiating the questionnaire design process should commence with the identification of the research's objectives and the intended purposes of the questionnaire. Once the research objectives are defined, researchers gain a clear understanding of the questions to be presented to the respondents.

Secondly, we must define our target respondents. In this study, we will distribute the questionnaire to the Selangor consumers. The question will answer based on their consumer behavior and attitudes regarding plastic pollution and also the adoption of reusable bags. Thirdly, the method to reach the respondent should also be convenient for them to fill in. For this study, all the questionnaires will be distributed through an online application such as WhatsApp.

The fourth step is the question in the questionnaire should start with a simple question such as a demographic question about their age, gender, race, etc. The beginning question should not be too deep. The fifth step is the question will be asked in closed-end question where the respondent will answer the question by using Likert- scale from strongly disagree to strongly agree. The question should be written precisely to avoid ambiguity.

The length of the question is the final steps. As we do not want to overtake people's time to answer the question, we must prepare the question with the right order.

3.7.4 Pilot Study

Pilot studies are preliminary, small-scale investigations conducted to assess the feasibility of essential components in a larger study, typically a randomized controlled trial (RCT). They serve to determine whether it is possible to carry out crucial aspects of the RCT. These pilot studies can be employed to estimate an appropriate sample size for the full-scale research and enhance various aspects of the study's design. Given the considerable time and financial investments often required for RCTs, it is imperative that researchers have confidence in the critical procedures to avoid wasting resources and time

Conducting pilot tests is crucial for refining final questionnaires to achieve the desired outcomes. According to Hill (1998), a pilot study typically involves 15-30 respondents to confirm their understanding and gather feedback. It is advisable to administer the pre-testing questionnaire to a smaller group of respondents before deploying it on a larger scale. However, in this case, the researcher distributed the pre-testing questionnaires to 20 respondents.

3.8 Measurement of the Variables

The variables of this study are measure by using several level or measurement and The level of measurement is present in the below table according to the questionnaires section.

Table 3.8.1: Demographic section

Section A: Demographic of Respondent	
Variables	Level of Measurement
Gender	Nominal
Age	Ordinal
Race	Nominal

Employment Status	Nominal
Monthly income	Ordinal
How often do you shop?	Ordinal

Table 3.8.2: Dependent variables section

Section B :Dependent Variables	
Variables	Level of Measurement
Adoption of Reusable Bags	5-points Likert Scale

Table 3.8.3: Independent variables section

Section C : Independent Variables	
Variables	Level of Measurement
Willingness	5-points Likert Scale
Perceived Behavior Control	5-points Likert Scale
Engagement	5-points Likert Scale
Awareness	5-points Likert Scale

3.9 Procedure for Data Analysis

The methods of data analysis relating to the research goals were listed under the following table and an overview of the rest of the data collection methods was also discussed.

Table 3.9: Data Analysis Method

Research Objectives	Data Analysis Method
To explore the key factors associated with consumers' adoption to use reusable bags.	Pearson Correlation
To investigate the effect of key factors on adoption of reusable bags.	Multiple Regression
To identify the level of awareness of consumers towards adoption of reusable bags.	Multiple Regression

3.9.1 Pearson Correlation

This research uses the Pearson Correlation Coefficient to determine consumer behavior and attitudes regarding plastic pollution and also the adoption of reusable bags. This is because Pearson Correlation can indicate path, intensity and relevance of the bivariate relations between the various variables calculated at interval or ratio level.

3.9.2 Reliability Test

The reliability test is being chosen as one of our data analysis methods to test for both consistency and stability. The consistency and stability are being needed to indicate correlation

3.9.3 Descriptive Statistics

Descriptive statistics are employed to gather information regarding the demographics of the respondents. They were instructed to provide precise responses. This data is then collected for analysis, including the examination of frequencies, measures of central tendency, and dispersion. Descriptive analysis holds significance, as it can reveal the fundamental characteristics of the data.

3.9.4 Multiple Linear Regression

In this research, the investigator will also employ multiple linear regression to assess the associations between two or more independent variables and a sole dependent variable. Leveraging the understanding of its connection with established values of other variables, multiple regression can be applied to predict values of a particular variable and evaluate empirical theories regarding the extent to which these independent variables account for the variance in a specific dependent variable of concern. We will examine multiple linear regressions to assess the impact of independent variables such as willingness, perceived behavior, engagement, and concern. The higher the percentage of influence these independent variables have on dependent variables, the stronger the relationship between the variables in question will be.

3.9.5 SPSS

We will conduct an analysis using multiple linear regressions to evaluate how independent variables like willingness, perceived behavior, engagement, and concern. The

greater the percentage of influence these independent variables exert on the dependent variables, the more robust the relationship between the variables in question will become.

3.10 Conclusion

In summary, this chapter underscores the methodology used for conducting the research. It covers various aspects, including the study's target population, sample size, and data analysis, encompassing descriptive analysis, reliability testing, and Pearson correlation.



CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.1 Introduction

In this chapter, the researchers will discuss the research findings from a survey. The preliminary analysis also will be carried out to test the reliability of the questions. A total of 269 respondents had answered the questions and the questionnaire had been successfully collected. This chapter also covers descriptive analysis, reliability testing, Spearman Correlation analysis, and hypothesis testing. The researcher will use IBM SPSS Statistics Version 26.

4.2 Preliminary

Analysis

A pilot test is conducted with a limited sample of participants in the questionnaire research to assess the question technique. Data from 20 respondents were gathered and utilized to conduct the pilot test in this study. To evaluate the validity of the correlations between the independent and dependent variables, the researcher used a reliability test.

A reliability test is required to determine the dependability of the observed variables concerning the article's variables, which included independent willingness, perceived behavior, engagement, and concern. Cronbach's Alpha is a measure of the variables' dependability. Because the measurement's value is greater than one, all independents have acceptable dependability. The purpose of this reliability check is to evaluate the accuracy of the information gathered. To ensure that the survey data used for the analysis is dependable, a reliability study was also carried out. The SPSS program's Cronbach Alpha value was used to gauge the data.

Table 4.0: Reliability Test using Cronbach Alpha

<i>Variables</i>	<i>Cronbach Alpha</i>	<i>Number of Items</i>
Willingness	0.911	5
Perceived Behaviour Control	0.934	5
Engagement	0.894	5
Awareness	0.909	5

4.3 Demographic Profile of Respondents

Demographic analysis in an article or report refers to the examination and interpretation of various demographic factors within a specific population or target group. Demographics involve the statistical study of human populations, focusing on characteristics such as age, gender, income, education, ethnicity, marital status, and other relevant variables. Five demographic questions were asked in Section A of this survey, including topics like gender, age, race, employment status, monthly income. The total number of respondents who participated in answering the research was 269 respondents.

4.3.1 Gender

For the first demographic question, it shows the frequency of respondents for questions about the gender of the consumers. From both genders, the highest value of consumers who answered the questionnaire is Female with 147 (59%) of consumers. Followed by 102 (41%) male consumers who answered the questionnaire. The data is shown below.

Table 4.3.1: Gender of the respondents

<i>Gender</i>				
	Percent	Frequency	Valid Percent	Cumulative Percent
<i>Male</i>	102	41.0	41.0	41.0
<i>Female</i>	147	59.0	59.0	100.0
<i>Total</i>	249	100.0	100.0	

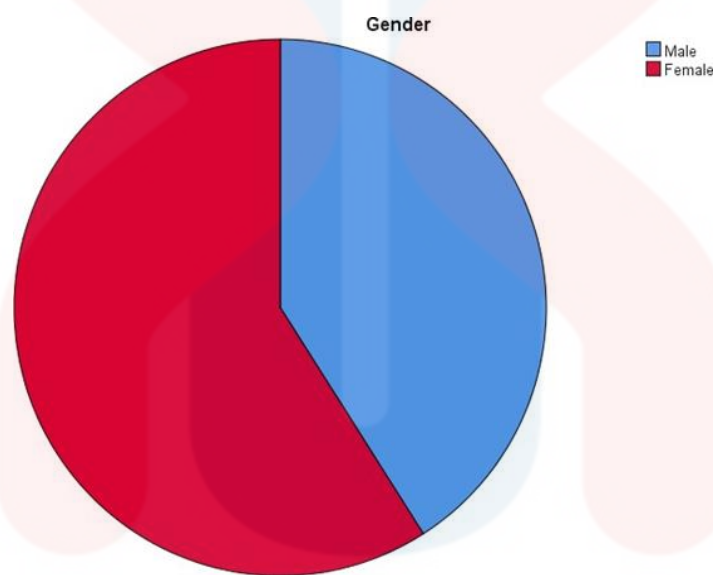


Figure 4.3.1: Gender Pie Chart

4.3.2 Age

Table 4.3.2 shows that most of the the respondent's average age was between 25 to 35 years old consumers that was 61%. Followed by 23.7% of consumers aged between 18 to 24 years old. There was a small number of consumers aged between 50 years & above old, which was only 6%. The rest 9.2% were consumers that are aged between 36 to 49 years old. The result is shown clearly in Figure 4.3.2.

Table 4.3.2: Age of respondents

	<i>Age</i>			
	Percent	Frequency	Valid Percent	Cumulative Percent
<i>18-24 years old</i>	59	23.7	23.7	23.7
<i>25-35 years old</i>	152	61.0	61.0	84.7
<i>36-49 years old</i>	23	9.2	9.2	94.0
<i>50 years old & above</i>	15	6.0	6.0	100.0
<i>Total</i>	249	100.0	100.0	

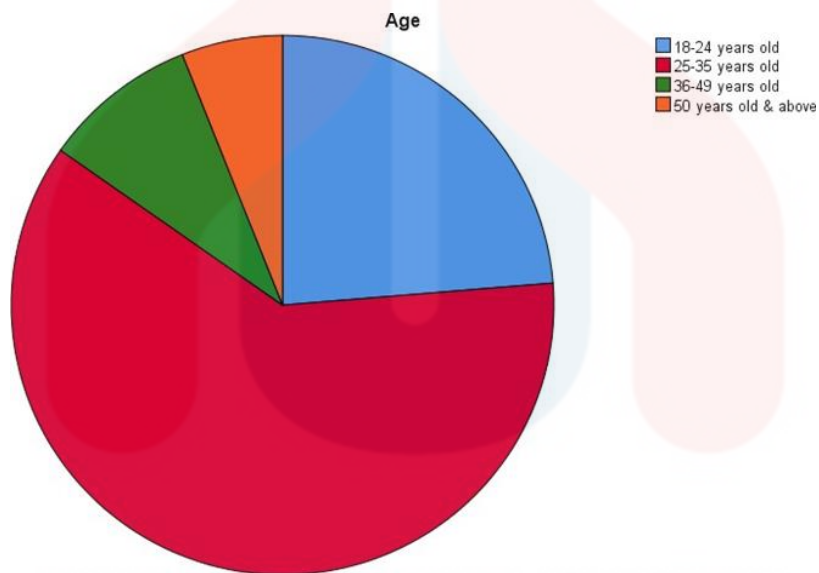


Figure 4.3.2: Age Pie Chart

4.3.3 Race

Table 4.3.3 shows that many of the consumers that answered the survey question was Malay, which was 89.6%. Followed by 4.4.% of Chinese consumers and 3.6% come from Indian consumers while the rest come from other races which was 2.4%. The result is reflected in figure 4.3.3.

Table 4.3.3: Race of the respondents

Race

	Percent	Frequency	Valid Percent	Cumulative Percent
<i>Malay</i>	223	89.6	89.6	89.6
<i>Chinese</i>	11	4.4	4.4	94.0
<i>Indian</i>	9	3.6	3.6	97.6
<i>Others</i>	689.6	2.4	2.4	100.0

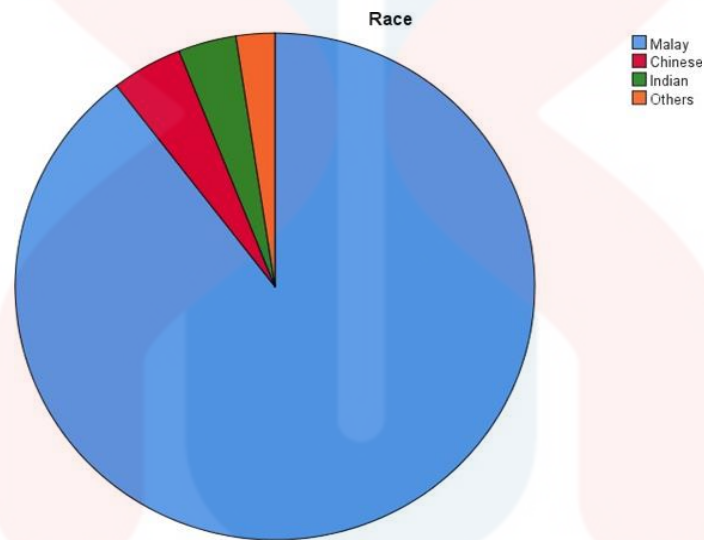


Figure 4.3.3: Race Pie Chart

4.3.4 Employment Status

According to the table 4.3.4 shows that most of the consumers that answered the survey question was employment, which was 46.6%. Followed by 29.3.% of self-employment consumers and 20.5% come from student consumers, while the rest come from unemployed consumers which was 3.6%. The result is reflected in figure 4.3.4.

Table 4.3.4: Employment status of respondents

<i>Employment Status</i>				
	Percent	Frequency	Valid Percent	Cumulative Percent
<i>Student</i>	51	20.5	20.5	20.5
<i>Employed</i>	116	46.6	46.6	67.1
<i>Self-employed</i>	73	29.3	29.3	96.4
<i>Unemployed</i>	9	3.6	3.6	100.0
	249	100.0	100.0	

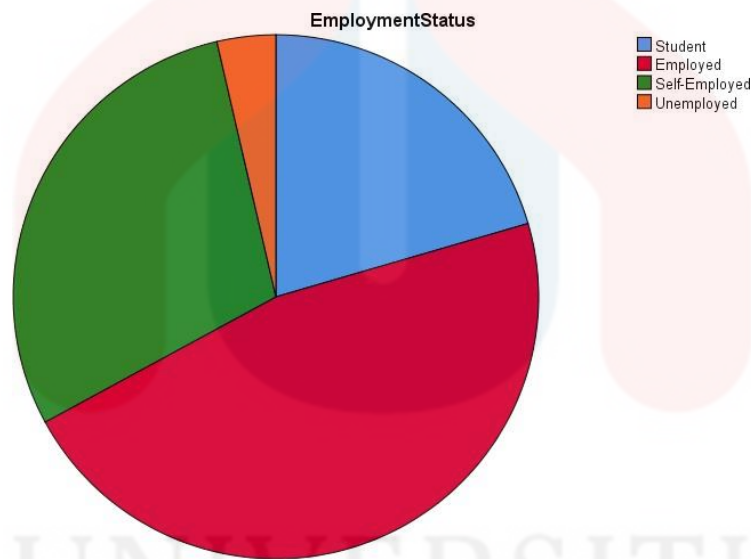


Figure 4.3.4: Employment Status Pie Chart

4.3.5 Monthly Income

The below table shows the monthly income of the Selangor consumers who answered the questionnaire. Table 4.3.5 shows that most of the consumers who answered the survey question were RM3000 to RM 5000, which was 33.7%. Followed by 31.7% of RM 1500 to RM 3000 consumers and 23.3% come from less than RM1500 consumers while the rest come from more than RM 5000 which was 11.2%. The result is reflected in Figure 4.3.5.

Table 4.3.5: Monthly income of respondent

<i>Monthly Income</i>				
	Percent	Frequency	Valid Percent	Cumulative Percent
<i>Less than RM1500</i>	58	23.3	23.3	23.3
<i>RM1500-RM3000</i>	79	31.7	31.7	55.0
<i>RM3000-RM5000</i>	84	33.7	33.7	88.8
<i>More than RM5000</i>	28	11.2	11.2	100.0
	249	100.0	100.0	

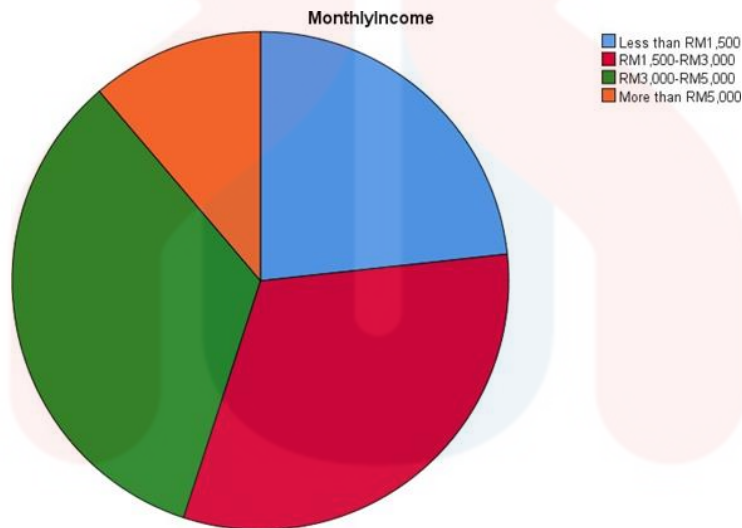


Figure 4.3.5: Monthly Income Pie Chart

4.4 Descriptive Analysis

Typically, the mean is used to derive the central tendency, which is obtained by summing all of the values and dividing by the number of values. The total number of respondents who completed the questionnaire was 269 reusable bags consumers from Selangor. Gender, age, race, employment status, monthly income.

4.4.1 Willingness

Table 4.4.1 displays the mean value of the independent variable, willingness. " I am willing to make a conscious effort to reduce my use of single-use plastic bags," had the highest mean value of 4.04 with the value of standard deviation being 1.196.

Table 4.4.1: Descriptive Statistic for Business Performance

	Statements	Mean	Std. Deviation
W1	I am willing to make a conscious effort to reduce my use of single-use plastic bags.	4.06	1.196
W2	I am willing to invest in reusable bags to reduce my plastic wastes.	3.80	1.126
W3	I see reusable bags as a convenient and effective alternative to plastic bags for my shopping needs, and I am willing to make the switch.	3.86	1.090
W4	I am open to the idea of purchasing and using stylish or customized reusable bags to make a statement against plastic pollution.	3.93	1.116
W5	I am motivated to use reusable bags because I want to set a positive example for others and encourage them to adopt this eco-friendly practice.	3.88	1.088

4.4.2 Perceived Behavior Control

Shown in Table 4.4.2 are the mean values for perceived behavior control. The item with the highest mean value of 3.90 is "I believe that my use of reusable bags aligns with the values of sustainability and environmental responsibility. After that, it is followed by the item " I perceive my adoption of reusable bags as a positive role model for others to follow and I am confident that my use of reusable bags is a meaningful step toward reducing plastic waste. (4.00). Next, these both have the same value which is 3.90 which means I am confident in my ability to consistently use reusable bags when I shop, and I perceive that using reusable bags for shopping is an effective way to reduce my plastic waste.

Table 4.4.2: Descriptive Statistics for Perceived Behavior Control.

	Statements	Mean	Std. Deviation
PB1	I perceive that using reusable bags for shopping is an effective way to reduce my plastic waste.	3.90	1.151
PB2	I am confident in my ability to consistently use reusable bags when I shop.	3.90	1.082
PB3	I perceive my adoption of reusable bags as a positive role model for others to follow.	4.00	1.122
PB4	I believe that my use of reusable bags aligns with the values of sustainability and environmental responsibility.	4.04	1.155
PB5	I am confident that my use of reusable bags is a meaningful step toward reducing plastic waste.	4.00	1.127

4.4.3 Engagement

Shown in table 4.4.3 is the mean value for the variable perception of the engagement. The item with the highest mean value of 4.06 is " I engage in discussions with friends and family about the importance of reducing plastic pollution.". Followed by the item " I actively encourage local businesses to adopt eco-friendly practices and reduce their use of single-use plastics, (4.00), and the lowest mean value of 3.89 is " I actively support businesses that have sustainable and eco-friendly practices, such as reducing single-use plastics" This shows that consumers are very agreeing to adoption of the reusable bags.

Table 4.4.3: Descriptive Statistics for Engagement

	Statements	Mean	Std. Deviation
E1	I engage in eco-conscious consumer behavior, such as choosing products with minimal plastic packaging.	3.97	1.135
E2	I engage in discussions with friends and family about the importance of reducing plastic pollution.	4.06	1.116
E3	I actively seek out and use alternative, sustainable products to reduce my plastic waste.	3.91	1.120
E4	I actively support businesses that have sustainable and eco-friendly practices, such as reducing single-use plastics.	3.89	1.168
E5	I actively encourage local businesses to adopt eco-friendly practices and reduce their use of single-use plastics.	4.00	1.068

4.4.4 Awareness

Shown in Table 4.4.4 is the mean value for the variable perception of the concern. The item with the highest mean value of 4.02 is "I am deeply concerned about the current state of plastic pollution in Malaysia.". Followed by the item " I am worried about the long-term consequences of plastic pollution on the health and well-being of Malaysians, (3.96), and the lowest mean value of 3.86 is " I feel a sense of responsibility to address plastic pollution as an environmentally conscious consumer." This shows that consumers are very willing to adopt reusable bags.

Table 4.4.4: Descriptive Statistics for Awareness.

	Statements	Mean	Std. Deviation
C1	I am deeply concerned about the current state of plastic pollution in Malaysia.	4.02	1.139
C2	I believe that plastic pollution is a serious environmental issue in Malaysia that requires immediate attention.	3.90	1.023
C3	I am worried about the long-term consequences of plastic pollution on the health and well-being of Malaysians.	3.96	1.079
C4	I feel a sense of responsibility to address plastic pollution as an environmentally conscious consumer.	3.86	1.168
C5	I am committed to changing my consumption habits to reduce the use of single-use plastics.	3.92	1.140

4.5 Validity and Reliability Test

In this section Cronbach's Alpha was used to test the reliability coefficient to know if each statement positively correlated with another statement. This reliability contained 269 sets of the questionnaire and the result will be shown below.

Based on Table 4.5, the result has shown Cronbach's Alpha for the dependent variable and independent variable. The value of Cronbach's Alpha for the adoption of reusable bags is 0.899, then the value of willingness is 0.936, the value of the perceived behavior is 0.927 and the engagement is 0.937 and the value of concern is 0.939, according to the result of the reliability test, it can be seen that each question of the questionnaire was consistent and stable. From the table, we can see that the result of the reliability test is mostly high and more than 0.5 which means that the result is accepted and answers the objective perfectly.

Table 4.5: Reliability test for all variables

	Variable	Coefficient Alpha	Number of items	Strength of Association
Dependent Variable	Adoption of Reusable bags	0.899	5	Good
Independent Variable	i) Willingness	0.936	5	Good
	ii) Perceived Behavior	0.927	5	Good
	iii) Engagement	0.937	5	Good
	iv) Concern	0.939	5	Very Good

4.6 Normality Test

Based on table 4.6 the test of normality, there are 2 types of tests used which are the Kolmogorov-Smirnova test and the Shapiro-Wilk test was running in this normality test. The significant value of both tests between the Kolmogorov-Smirnova test and Shapiro-Wilk test shows the value of all the variables are abnormal data ($p=0.00$) which is less than 0.05. This variable is normally distributed and the null hypothesis for each variable is accepted.

Table 4.6: Normality test of all variables

	Kolmogorov-Smirnov			Shapiro-Wilk		
AORB	0.238	249	.000	0.820	249	.000
W	0.297	249	.000	0.780	249	.000
PB	0.265	249	.000	0.781	249	.000
E	0.249	249	.000	0.817	249	.000
C	0.315	249	.000	0.762	249	.000

4.7 Hypotheses Testing

4.7.1 Hypothesis 1

H1: There is a significant difference between the willingness and adoption of reusable bags.

Table 4.7.1 shows the relationship between willingness and adoption among consumers around Selangor. The null hypothesis has been rejected after Pearson Correlation testing was conducted. It means that this study accepts an alternate hypothesis (H1.). From the result of the significant value $p < 0.01$, this indicates that there was a positive relationship between willingness and adoption of reusable bags. The positive value of Pearson Correlation 0.855 indicates the strength of the relationship between willingness and adoption of reusable bags.

Table 4.7.1: Correlation Between willingness and Adoption of reusable bags

		W	AORB
<i>W</i>	Pearson Correlation	1	855**
	Sig. (2-tailed)		.000
	N	249	249
<i>AORB</i>	Pearson Correlation	855**	1
	Sig. (2-tailed)	.000	
	N	249	249

**Correlation is significant at the 0.01 level (2-tailed)

4.7.2 Hypothesis 2

H2: There is a significant difference between the perceived behavior and adoption of reusable bags.

Table 4.7.2 shows the relationship between perceived behavior and adoption among consumers around Selangor. The null hypothesis has been rejected after Pearson Correlation testing was conducted. It means that this study accepts an alternate hypothesis (H1.). From the result of the significant value $p < 0.01$, this indicates that there was a positive relationship

between perceived behavior and adoption of reusable bags. The positive value of Pearson Correlation 0.848 indicates the strength of the relationship between perceived behavior and adoption of reusable bags.

Table 4.7.2: Correlation between Perceived behavior and Adoption of reusable bags

		PB	AORB
PB	Pearson Correlation	1	848**
	Sig. (2-tailed)		.000
	N	249	249
AORB	Pearson Correlation	848**	1
	Sig. (2-tailed)	.000	
	N	249	249

**Correlation is significant at the 0.01 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

4.7.3 Hypothesis 3

H3: There is a significant difference between the engagement and adoption of reusable bags.

Table 4.7.3 shows the relationship between engagement and adoption among consumers around Selangor. The null hypothesis has been rejected after Pearson Correlation testing was conducted. It means that this study accepts an alternate hypothesis (H1.). From the result of the significant value $p < 0.01$, this indicates that there was a positive relationship between engagement and adoption of reusable bags. The positive value of Pearson Correlation 0.829 indicates the strength of the relationship between engagement and adoption of reusable bags.

Table 4.7.3: Correlation between engagement and Adoption of reusable bags

		E	AORB
E	Pearson Correlation	1	.829**
	Sig. (2-tailed)		.000
	N	249	249
AORB	Pearson Correlation	.829**	1
	Sig. (2-tailed)	.000	
	N	249	249

**Correlation is significant at the 0.01 level (2-tailed)

4.7.4 Hypothesis 4

H4: There is a significant difference between the awareness and adoption of reusable bags.

Table 4.7.4 shows the relationship between awareness and adoption among consumers around Selangor. The null hypothesis has been rejected after Pearson Correlation testing was conducted. It means that this study accepts an alternate hypothesis (H1.). From the result of the significant value $p < 0.01$, this indicates that there was a positive relationship between awareness and adoption of reusable bags. The positive value of Pearson Correlation 0.860 indicates the strength of the relationship between awareness and adoption of reusable bags.

Table 4.7.4: Correlation between awareness and Adoption of reusable bags

		C	AORB
C	Pearson Correlation	1	.860**
	Sig. (2-tailed)		.000
	N	249	249
AORB	Pearson Correlation	.860**	1
	Sig. (2-tailed)	.000	
	N	249	249

**Correlation is significant at the 0.01 level (2-tailed)

Table 4.7: Summary of Hypotheses Testing

Hypothesis	Statement	Results
H1	There is a significant relationship between Willingness and Adoption of reusable bags	Accepted
H2	There is a significant relationship between Perceived Behavior Control and Adoption of reusable bags	Accepted
H3	There is a significant relationship between engagement and Adoption of reusable bags	Accepted
H4	There is a significant relationship between Awareness and Adoption of reusable bags	Accepted

4.8 Multiple Regression Analysis

To test for the adoption of the reusable bags, the multiple regression analysis was carried out. The multiple regression analysis was below.

Table 4.8: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.881a	.776	.773	.49258

- a. Predictors: (Constant), W, PB, E, A
- b. Dependent variable: AORB

Based on Table 4.8, the value of R Square of Multiple linear regression results showed that 77.6% agree to the adoption of the reusable bags in Selangor. This indicated that the independent variable comprising Willingness, Perceived Behaviour Control, Engagement, and Concern explained 77.6% of the variation in the adoption of the reusable bags to the consumers in Selangor. The remaining 22.4% cannot be explained. It means that there were other factors that can be used to influence the adoption of the reusable bags in Selangor.

Table 4.9: Anova

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	205.581	4	51.395	211.822	.000b
	Residual	59.203	244	.243		
	Total	264.784	248			

- a. Dependent Variable: AORB
- b. Predictors: (Constant), W, PB, E, A

For the Anova table, F-value needs to be analyzed. F-value is equal to 211.822at four (4) degrees of freedom with P value significance at 0.000 ($0.000 < 0.05$). This means four independent variables which were willingness, perceived behavior control, engagement and awareness together predict the percentage of adoption of reusable bags.

Table 4.10: Coefficients

Coefficients(a)						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std.Error	Beta		
1	(Constant)	.067	.132		.503	.615
	W	.229	.098	.222	2.326	.021
	PB	.196	.093	.188	2.097	.037
	E	.199	.074	.193	2.666	.008
	A	.322	.098	.311	3.302	.001

a. Dependent Variable: AORB

From Table 4.10, the results showed that the standardized beta value for business characteristics was 0.311, $p < 0.05$ which was the largest among the four independent variables. Thus, 31% of business characteristics are the most dominant factor that influence the effect of the adoption of the reusable bags to the consumers in Selangor. Willingness, perceived behaviour control, engagement and awareness were also significant predictors that influence the adoption of the reusable bags to the consumers in Selangor. with standardized beta values of 0.222, 0.188 and 0.193 respectively. It showed that 23% of willingness, 19% of

perceived behaviour control and 20% of concern contribute to the adoption of the reusable bags to the consumers in Selangor.

Based on the table above, equations can be formed to identify the relationship between independent variables and dependent variables. Therefore, the equation of regression can be measured by the formula below.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

$$\text{Adoption of reusable bags} = 0.7 + 0.23 (\text{Willingness}) + 0.18 (\text{Perceived Behaviour Control}) + 0.20 (\text{Concern}) + 0.32 (\text{Awareness})$$

4.9 Conclusion

The purpose of this chapter is analyzed to identify the relationship between independent variables and dependent variables either positive or negative. All analyses were shown in statistical form to make it easier for the researchers to assess whether this study was accepted. However, the results of this study show positive value and the hypothesis is not being rejected and all hypotheses have a strong significance. Further description will be discussed in chapter 5.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Introduction

In this section, we, as researchers, elaborate on the findings presented in chapter 4, which primarily focused on the analysis of statistical summaries and the discussion of significant results. Furthermore, we will explore the implications and limitations of this study while also providing recommendations for future research endeavors.

5.2 Key Findings

The primary aim of this research is to establish the connection between the independent and dependent variables. Pearson correlation was employed to demonstrate this relationship. The study encompassed 269 participants from Selangor, with each questionnaire meticulously analyzed using SPSS to ensure detailed and precise data. As detailed in chapter 4, the reliability test conducted on the measurement variables yielded coefficients ranging from 0 to 1, encompassing all tests against the variables. Consequently, the Cronbach's alpha coefficient for the study's questionnaire falls within the range of 0.8 to 0.9, indicating a positive outcome for the variables.

In the demographics part, a total of five questions were asked in Section A of this survey, including topics like gender, age, race, employment status, and monthly income. The total number of respondents who participated in answering the research was 269 respondents based on the Krejcie and Morgan's sample size table.

Based on the data analysis that has been done using SPSS from the questionnaire collected, the summary of the percentage analysis of gender showed as much as 147 (59%) females influence more the buying than male. Most of the respondents were in the age

between 25 to 35 years old, Malay, employed and the monthly income in between RM1,500 to RM3,000.

According to the research hypothesis, the researcher also discovered that all independent variables including willingness, perceived behavior control, engagement, awareness have a strong committed relationship toward acceptance of reusable bags. Cronbach's Alpha for the dependent variable and independent variable. The value of Cronbach's Alpha for the adoption of reusable bags is 0.899, then the value of willingness is 0.936, the value of the perceived behavior is 0.927 and the engagement is 0.937 and the value of concern is 0.939, according to the result of the reliability test, it can be seen that each question of the questionnaire was consistent and stable. From the table, we can see that the result of the reliability test is mostly high and more than 0.5 which means that the result is accepted and answers the objective perfectly.

These findings collectively suggest that willingness, perceived behavior, engagement, and concern all play significant roles in influencing the adoption of reusable bags among consumers in Selangor. The strong positive correlations imply that enhancing these factors, raising willingness, promoting positive behavior, encouraging engagement, and addressing environmental awareness could effectively increase the adoption of reusable bags in the region.

5.3 Discussion

This section summarizes the result in Chapter 4, which focuses on the research objectives, research questions, and hypothesis for this analysis.

5.3.1 Hypothesis 1

Table 5.3.1: hypothesis statement with the result

Hypothesis	Statement	Correlation Results	Remarks
H1	There is a meaningful relationship between Willingness and Adoption of reusable bags	R= 0.855 P= 0.000	Accepted

The p-value is less than 0.01, indicating a statistically significant relationship at the 0.01 level (2-tailed). The Pearson correlation coefficient is 0.855, which is a strong positive correlation. This means that people in Selangor who have a higher willingness to use reusable bags are also more likely to adopt them in their daily lives.

The strong positive correlation coefficient (0.855) suggests that there is a substantial connection between these two variables. In simpler terms, for every increase in willingness, there's a significant increase in adoption. The statistically significant p-value confirms that the observed relationship is unlikely to be due to chance. It strengthens the evidence that willingness genuinely influences adoption behavior. (Kaplan et al., 2017) indicates that interventions that raise people's willingness to use the reusable bags are likely to be successful in encouraging the adoption of the reusable bags, the association between willingness to use the reusable bags and adoption of reusable bags is significant.

5.3.2 Hypothesis 2

Table 5.3.2: hypothesis statement with the result

Hypothesis	Statement	Correlation Results	Remarks
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H2	There is a significant relationship between Perceived Behavior Control and Adoption of reusable bags	R= 0.848 P= 0.000	Accepted
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This suggests that when individuals perceive a widespread use of reusable bags in their surroundings for example friends, family, community, they become more likely to adopt and use them themselves. The strong positive correlation coefficient (0.848) implies a substantial influence of perceived behavior on adoption. In other words, as perception of others' usage increases, so does the likelihood of adopting the behavior oneself. The significant p-value confirms that the observed relationship is highly unlikely to be coincidental. It strengthens the evidence that perceived behavior genuinely impacts one's own adoption of reusable bags.

A number of independent variables, including goods appearance, perceived price, perceived behavior control, and environmental awareness, have an impact on the attitude variable. In summary, consumers must make a complex decision when choosing ecologically friendly items (Arifani & Haryanto, 2018).

5.3.3 Hypothesis 3

Table 5.3.3: hypothesis statement with the result

Hypothesis	Statement	Correlation Results	Remarks
H3	There is a significant relationship between Engagement and Adoption of reusable bags	R= 0.829 P= 0.000	Accepted

Confirmation of Hypothesis where the null hypothesis stating no relationship between engagement and adoption was rejected, indicating acceptance of the alternative hypothesis (H3). Statistically Significant Relationship where the p-value < 0.01 confirms the relationship is unlikely to be due to chance. It's statistically significant at the 0.01 level. It is a strong positive correlation since the Pearson correlation coefficient of 0.829 signifies a strong and positive relationship. This means higher engagement in pro-reusable bag activities predicts a higher likelihood of actual adoption.

Exploring the Nature of Engagement: It's interesting to consider the specific engagement activities measured in your study. Similar to the discussion for willingness, factors like accessibility, cost, and social norms might moderate the relationship between engagement and adoption. This finding emphasizes the importance of fostering engagement. Educational campaigns, community initiatives, and convenient access to reusable bags can be tailored to promote engagement, ultimately leading to increased adoption and positive environmental impact.

Reusable bag adoption is positively correlated with participation in initiatives to reduce plastic pollution, according to research. For instance, a study by Chen and Tsai (2022) discovered that using reusable bags are common among those who were more actively involved in efforts to reduce plastic pollution. Similarly, Zhang et al.'s study from 2021 discovered that reusable bag use was more common among those who were more driven to lessen their environmental effect.

5.3.4 Hypothesis 4

Table 5.3.4: hypothesis statement with the result

Hypothesis	Statement	Correlation Results	Remarks
H4	There is a significant relationship between Awareness and Adoption of reusable bags	R= 0.860 P= 0.000	Accepted

Rejection of the Null Hypothesis since the null hypothesis stating no relationship between concern and adoption was rejected, indicating acceptance of the alternative hypothesis (H4). Where a statistically significant relationship when the p-value < 0.01 confirms a statistically significant relationship at the 0.01 level. This means the observed connection between concern and adoption is unlikely to be due to chance. It is a strong positive correlation where the Pearson correlation coefficient of 0.860 signifies a very strong positive relationship, even higher than the correlations observed for willingness and engagement. This suggests that individuals with higher levels of concern about environmental issues are significantly more likely to adopt reusable bags compared to those with less concern.

Investigating the specific environmental concerns measured in your study could shed light on which areas of concern have the strongest link to adoption behavior. Knowing if concerns about plastic pollution, climate change, or other specific issues hold the most influence can inform targeted interventions. Minimize the usage of plastic bags by the general public. Several academics have studied PB use determinants and behavioral changes. The government policy cognition, PB knowledge, concerns about the environment, ecology feeling, policies satisfaction, and socioeconomic factors (gender, age, family size, education level, and income level) were the main subjects of these investigations. Furthermore, anti-plastic bag behavior is positively impacted by those influence factors (Xu et al., 2022).

5.4 Implications of the Study

This study on the adoption of reusable bags among Selangor consumers holds several significant implications for both consumers, policymakers, and businesses. The study highlights the importance of environmental concern as a strong motivator for adopting reusable bags. This suggests targeted campaigns raising awareness about plastic pollution and environmental impacts of disposable bags could encourage more widespread adoption. Addressing issues of accessibility and convenience will be crucial in increasing adoption. This could involve making reusable bags readily available at stores, offering cost-effective options, and promoting infrastructure like bag dispensers at markets.

Social norms and community initiatives can foster positive social norms around reusable bags through community initiatives and peer-to-peer campaigns can significantly influence individuals' behavior. Policy and incentives implementing policies such as plastic bag bans or levies on disposable bags can create a strong nudge towards using reusable alternatives. Additionally, offering incentives like discounts for using reusable bags can further encourage adoption.

Overall, this study emphasizes the need for a multifaceted approach to encourage the adoption of reusable bags among Selangor consumers. By willingness, perceived behavior control, engagement and awareness we can build a more sustainable future for the region.

5.5 Limitations of the Study

(Wordvice Hj, 2022) describes research limitations as the unavoidable constraints that shape a study, impacting its results and conclusions. These limitations can arise from various factors, such as the researcher's chosen methodology, the available data, or the study's defined scope. While acknowledging these limitations may seem like a weakness, it is actually a vital strength. By openly discussing the boundaries of their research, researchers pave the way for

learning and improvement. Analyzing weaknesses allows them to refine their findings, identify gaps in knowledge through existing literature, and pinpoint areas that require further investigation. This ultimately strengthens the research and contributes to a more comprehensive understanding of the subject matter.

This study found that the independent variables willingness, perceived behavior control, engagement and awareness have an impact on the adoption of reusable bags in Selangor. However, there were some limitations in the conduct of the study. First, the researchers' study scope was the Selangor area where from the data collected from the state, Selangor has the biggest issues with plastic pollution than other states in Malaysia. Selangor boasts a diverse population, allowing for a broad study sample representing various socioeconomic backgrounds, ages, and lifestyles.

Next, regarding the sample size and representation. Limited sample size or a sample biased towards a particular demographic might hinder generalizability. For instance, if the study predominantly includes a certain age group or socioeconomic class, it might not reflect the broader population accurately. During collecting the data there are some difficulties in obtaining comprehensive data from diverse consumer groups across Selangor might be a limitation. Issues like survey non-response, data accuracy, or incomplete information could impact the study's validity. Besides, temporal factors where the study might face limitations regarding the timing of data collection. For instance, if the research is conducted during a period with ongoing environmental campaigns or policy changes specifically influencing reusable bag adoption, the results might not represent a typical scenario.

Based on subjectivity and self-reporting where reliance on self-reported behavior or attitudes towards reusable bags could introduce bias. Participants might not accurately recall

or report their actual behaviors, impacting the reliability of the data. Lastly, cultural and regional variations since Selangor's diverse population might have varying cultural norms or regional differences influencing perceptions and practices regarding reusable bags. Failing to capture these nuances could limit the study's depth.

5.6 Recommendations/ Suggestion for Future Research

Based on the willingness, perceived behavior control, engagement and awareness as the independent variables, there are many plans that can be considered for the future plan to make Selangor's consumers adopt reusable bags very well. From the data collected from 269 people based in Selangor, we believe that reusable bags are very necessary as the consumer becomes more aware about the negative effects of using plastic bags too much. Since the limitation of the study affects the study research to be better in future.

First suggestion for the researcher to improve in making a research based on sample size and representation is by increasing sample size. Aim for a larger sample that more accurately reflects the demographic spread of the Selangor population. Stratified sampling to ensure proportionate representation of different demographic groups based on age, socioeconomic background, location by employing stratified sampling techniques. Also, use online and offline methods to combine online surveys and face-to-face interviews to reach diverse demographics, particularly those with limited internet access since we believe not everyone is aware about the research, especially the elderly.

Second suggestion based on data collection and validity. Improve data collection methods such as implementing methods like incentives, follow-up reminders, and clear instructions to reduce non-response rates and missing data. Also, triangulating data very efficiently combines quantitative data surveys with qualitative methods, interviews, focus groups to gain a deeper understanding of motivations, challenges, and context.

Third is based on temporal factors. Control for external influences conduct the study during a period with minimal ongoing environmental campaigns or policy changes affecting reusable bag use to capture a more "typical" scenario. Longitudinal studies also can track the same participants over time to observe how adoption behavior changes in response to different events or interventions.

Fourth suggestion for the improvement of the research based on subjectivity and self-reporting is to use validated instruments. For example, employ established and validated scales or questionnaires designed to measure environmental attitudes and behaviors to minimize self-reporting bias. Also, implementing indirect measures can utilize indirect measures like purchase records or app data to corroborate self-reported behaviors and add objectivity. Include open-ended questions where it can allow participants to elaborate on their responses in open-ended questions to gain deeper insights beyond self-reported data.

Fifth and lastly is based on cultural and regional variations. Stratified sampling by region such as employing stratified sampling considering regional variations within Selangor to capture diversity in cultural norms and practices. Also, qualitative research in specific communities conduct in-depth qualitative research within different cultural communities to understand their unique perceptions and motivations related to reusable bags. Last is comparative studies where the comparison adoption patterns in Selangor with other regions or countries with diverse cultural contexts to identify universal and culturally specific factors influencing behavior.

5.7 Overall Conclusion of the Study

This study provided valuable insights into the factors influencing the adoption of reusable bags among Selangor consumers. It highlighted the key roles of environmental concern, willingness, perceived behavior control, engagement, and awareness in driving

adoption behavior. The introductory chapter of this research proposal establishes the critical context of plastic pollution in Malaysia, particularly emphasizing the issue of single-use plastic bags. It highlights the challenges associated with changing consumer behavior and attitudes towards the adoption of reusable bags. Moreover, 269 respondents participated in this survey through Google Forms, and we also conducted a pilot test with 20 Selangor consumers. SPSS software version 26 was used to gather and analyze the data, which provided descriptive statistics, reliability analysis, and correlation analysis

The study underlines the significance of this study in addressing plastic pollution, emphasizing the urgency of the situation within Malaysia's environmental landscape. It also acknowledges the broader global implications of understanding and influencing consumer behavior towards sustainable choices. It establishes a theoretical foundation using the TPB and draws upon previous studies to form hypotheses regarding the factors influencing consumers' decisions to adopt reusable bags. This study sets the stage for the subsequent analysis and empirical investigation in the research, aiming to encourage greater acceptance and adoption of eco-friendly alternatives to plastic bags among Malaysian consumers.

This study encapsulates the comprehensive methodology adopted for the research, outlining various strategies for data collection, analysis, and interpretation. It emphasizes the suitability of quantitative methods for investigating correlations and associations between variables related to consumer behavior and attitudes concerning plastic pollution and the adoption of reusable bags among Malaysian consumers. The chosen methods and tools align with the research objectives, aiming to yield valid and reliable insights into the targeted consumer segment's preferences and behaviors regarding eco-friendly practices and plastic pollution reduction.

Four hypotheses were formulated and tested using Pearson Correlation. All hypotheses regarding the relationship between willingness, perceived behavior control, engagement, awareness, and the adoption of reusable bags were supported by statistically significant positive correlations. This study encapsulates the empirical findings of the study, showcasing robust statistical analysis to affirm relationships between variables and the adoption of reusable bags among consumers in Selangor. The results, aligned with the formulated hypotheses, suggest a strong positive association between consumers' willingness, behavior, engagement, awareness, and their adoption of reusable bags.

delineates the practical implications arising from the research. It underscores the significance of environmental concern as a driving force behind the adoption of reusable bags, offering insights into strategies for policymakers, businesses, and consumers to foster increased adoption. Recommendations span across awareness campaigns, policy implementation, and community engagement initiatives.

Acknowledging the inherent constraints and shortcomings within the research is crucial. This section outlines various limitations such as sample size and representation, temporal factors, self-reporting bias, and cultural variations, recognizing these constraints as opportunities for future improvement. This section provides a roadmap for future researchers, suggesting avenues for enhancement and refinement in subsequent studies. Recommendations encompass expanding sample size and representation, refining data collection methods, considering temporal factors, employing validated instruments, exploring cultural variations, and conducting comparative studies.

Lastly, it culminates in synthesizing the entire study, emphasizing the depth of understanding gained from the correlations between willingness, perceived behavior control, engagement, awareness, and the adoption of reusable bags. It underscores the need for a

multifaceted approach to encourage widespread adoption, while also highlighting avenues for future research to address limitations and further enrich the understanding of consumer behavior regarding reusable bags in Selangor.



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APPENDIX A - Questionnaire

“Insights Into Plastic Pollution: Consumer Trends with Plastic Bags”

Greetings to all dear respondents,

We are fourth year students at the Universiti Malaysia Kelantan's Faculty of Entrepreneurship and Business (FKP) studying for a degree in Bachelor of Entrepreneurship (Commerce) with Honors. We are in the middle of a study on “Insights into Plastic Pollution: Consumer Trends With Plastic Bags”. We really appreciate you taking part in this study. You should allocate 5 to 10 minutes of your precious time to finish the survey. Your response will be kept completely confidential and used only for academic purposes.

Thank you very much for your cooperation.

SECTION A: DEMOGRAPHIC INFO

BAHAGIAN A: MAKLUMAT DEMOGRAFI

You are required to place a tick (/) at the appropriate answer.

Anda dikehendaki meletakkan tanda (/) pada jawapan yang sesuai.

1. Gender/*Jantina*

Male/ <i>Lelaki</i>	Female/ <i>Perempuan</i>

2. Age/*Umur*

18-24 years old/ <i>tahun</i>	25-35 years old/ <i>tahun</i>	36-49 years old/ <i>tahun</i>	50 years old & above/ <i>50 tahun & ke atas</i>

3. Race/*Bangsa*

Malay/ <i>Melayu</i>	Chinese/ <i>Cina</i>	Indian/ <i>India</i>	Others/ <i>Lain-lain</i>

4. Employment Status/*Status Pekerjaan*

Student/ <i>Pelajar</i>	Employed/ <i>Bekerja</i>	Self-Employed/ <i>Bekerja Sendiri</i>	Unemployed/ <i>Tidak Bekerja</i>

5. Monthly Income/*Pendapatan Bulanan*

Less than RM1,500/ <i>Kurang daripada RM1,500</i>	RM1,500- RM3,000	RM3,000- RM5,000	More than RM5,000/ <i>Lebih daripada RM5,000</i>

6. How often do you shop? /*Berapa kerap anda berbelanja?*

Daily/ <i>Setiap hari</i>	Weekly/ <i>Setiap minggu</i>	Monthly/ <i>Setiap bulan</i>	Yearly/ <i>Setiap tahun</i>

SECTION B: DEPENDENT VARIABLES

BAHAGIAN B: PEMBOLEH UBAH BERGANTUNG

This section will measure your adoption of reusable bags. Please mark your answer based on the scale from 1 to 5.

Bahagian ini akan mengukur penggunaan beg boleh guna semula anda. Sila tandakan jawapan anda berdasarkan skala dari 1 hingga 5.

Strongly Disagree/<i>Sangat Tidak Setuju</i> (SD)	Disagree/<i>Tidak Setuju</i> (D)	Neutral/<i>Neutral</i> (N)	Agree/<i>Setuju</i> (A)	Strongly Agree/<i>Sangat Setuju</i> (SA)
1	2	3	4	5

Adoption of Reusable Bags/Penggunaan Beg Boleh Digunakan Semula		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I own and use reusable bags when shopping. <i>Saya memiliki dan menggunakan beg boleh guna semula semasa membeli-belah.</i>	1	2	3	4	5
2.	I find it convenient to use reusable bags when shopping. <i>Saya rasa senang menggunakan beg boleh guna semula semasa membeli-belah.</i>	1	2	3	4	5
3.	I feel social pressure to use reusable bags when I shop. <i>Saya merasakan tekanan sosial untuk menggunakan beg boleh guna semula apabila saya membeli-belah.</i>	1	2	3	4	5
4.	I am willing to pay a small fee for single-use plastic bags to encourage the use of reusable bags. <i>Saya sanggup membayar sedikit bayaran untuk beg plastik sekali guna untuk menggalakkan penggunaan beg boleh guna semula.</i>	1	2	3	4	5
5.	I am influenced by government policies and initiatives that promote the use of reusable bags, and I am more likely to use them because of these initiatives. <i>Saya dipengaruhi oleh dasar dan inisiatif kerajaan yang menggalakkan penggunaan beg boleh guna semula, dan saya lebih cenderung menggunakannya kerana inisiatif ini.</i>	1	2	3	4	5

SECTION C: INDEPENDENT VARIABLE

BAHAGIAN C: PEMBOLEH UBAH BEBAS

Your perception of the willingness to use a tote bag, perceived behavior, engagement in plastic pollution reduction activities, awareness about plastic pollution. Please rate your response from 1 to 5 using the scale.

Persepsi anda tentang kesanggupan menggunakan beg tote, persepsi tingkah laku, penglibatan dalam aktiviti pengurangan pencemaran plastik, kebimbangan tentang pencemaran plastik. Sila nilaikan jawapan anda dari 1 hingga 5 menggunakan skala.

Willingness/Kesanggupan		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I am willing to make a conscious effort to reduce my use of single-use plastic bags. <i>Saya bersedia untuk membuat usaha sedar demi mengurangkan penggunaan beg plastik sekali guna.</i>	1	2	3	4	5
2.	I am willing to invest in reusable bags to reduce my plastic waste. <i>Saya sanggup melabur dalam beg boleh guna semula untuk mengurangkan sisa plastik saya.</i>	1	2	3	4	5
3.	I see reusable bags as a convenient and effective alternative to plastic bags for my shopping needs, and I am willing to make the switch.	1	2	3	4	5

	<i>Saya melihat beg boleh guna semula sebagai alternatif yang mudah dan berkesan kepada beg plastik untuk keperluan membeli-belah saya, dan saya bersedia untuk menukarnya.</i>					
4.	I am open to the idea of purchasing and using stylish or customized reusable bags to make a statement against plastic pollution. <i>Saya terbuka kepada idea untuk membeli dan menggunakan beg boleh guna semula yang bergaya atau tersuai untuk membuat kenyataan menentang pencemaran plastik.</i>	1	2	3	4	5
5.	I am motivated to use reusable bags because I want to set a positive example for others and encourage them to adopt this eco-friendly practice. <i>Saya terdorong untuk menggunakan beg boleh guna semula kerana saya ingin menunjukkan contoh positif kepada orang lain dan menggalakkan mereka mengamalkan amalan mesra alam ini.</i>	1	2	3	4	5
Perceived Behavior/Tingkah Laku		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I perceive that using reusable bags for shopping is an effective way to reduce my plastic waste. <i>Saya merasakan bahawa menggunakan beg boleh guna semula untuk membeli-belah adalah cara yang berkesan untuk mengurangkan sisa plastik saya.</i>	1	2	3	4	5
2.	I am confident in my ability to consistently use reusable bags when I shop. <i>Saya yakin dengan keupayaan saya untuk menggunakan beg boleh guna semula secara konsisten apabila saya membeli-belah.</i>	1	2	3	4	5
3.	I perceive my adoption of reusable bags as a positive role model for others to follow. <i>Saya menganggap penggunaan beg boleh guna semula saya sebagai contoh yang positif untuk diikuti oleh orang lain.</i>	1	2	3	4	5
4.	I believe that my use of reusable bags aligns with the values of sustainability and environmental responsibility. <i>Saya percaya bahawa penggunaan beg boleh guna semula saya selaras dengan nilai kemampanan dan tanggungjawab alam sekitar.</i>	1	2	3	4	5
5.	I am confident that my use of reusable bags is a meaningful step toward reducing plastic waste. <i>Saya yakin bahawa penggunaan beg boleh guna semula saya adalah langkah yang bermakna ke arah mengurangkan sisa plastik</i>	1	2	3	4	5
Engagement/Penglibatan		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I engage in eco-conscious consumer behavior, such as choosing products with minimal plastic packaging. <i>Saya terlibat dalam tingkah laku pengguna yang mementingkan alam sekitar, seperti memilih produk dengan pembungkusan plastik yang minimum.</i>	1	2	3	4	5
2.	I engage in discussions with friends and family about the importance of reducing plastic pollution.	1	2	3	4	5

	<i>Saya terlibat dalam perbincangan dengan rakan dan keluarga tentang kepentingan mengurangkan pencemaran plastik.</i>					
3.	I actively seek out and use alternative, sustainable products to reduce my plastic waste. <i>Saya secara aktif mencari dan menggunakan produk alternatif yang mampan untuk mengurangkan sisa plastik saya.</i>	1	2	3	4	5
4.	I actively support businesses that have sustainable and eco-friendly practices, such as reducing single-use plastics. <i>Saya secara aktif menyokong perniagaan yang mempunyai amalan mampan dan mesra alam, seperti mengurangkan plastik sekali guna.</i>	1	2	3	4	5
5.	I actively encourage local businesses to adopt eco-friendly practices and reduce their use of single-use plastics. <i>Saya secara aktif menggalakkan perniagaan tempatan untuk mengamalkan amalan mesra alam dan mengurangkan penggunaan plastik sekali guna.</i>	1	2	3	4	5
Awareness/Kesedaran		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I am deeply concerned about the current state of plastic pollution in Malaysia. <i>Saya amat prihatin dengan keadaan semasa pencemaran plastik di Malaysia.</i>	1	2	3	4	5
2.	I believe that plastic pollution is a serious environmental issue in Malaysia that requires immediate attention. <i>Saya percaya bahawa pencemaran plastik adalah isu alam sekitar yang serius di Malaysia yang memerlukan perhatian segera.</i>	1	2	3	4	5
3.	I am worried about the long-term consequences of plastic pollution on the health and well-being of Malaysians. <i>Saya bimbang tentang kesan jangka panjang pencemaran plastik terhadap kesihatan dan kesejahteraan rakyat Malaysia.</i>	1	2	3	4	5
4.	I feel a sense of responsibility to address plastic pollution as an environmentally conscious consumer. <i>Saya berasa bertanggungjawab untuk menangani pencemaran plastik sebagai pengguna yang mementingkan alam sekitar.</i>	1	2	3	4	5
5.	I am committed to changing my consumption habits to reduce the use of single-use plastics. <i>Saya komited untuk mengubah tabiat penggunaan saya untuk mengurangkan penggunaan plastik sekali guna.</i>	1	2	3	4	5

Thank you for your participation.

Terima kasih atas penyertaan anda.

Google Form Link: <https://forms.gle/Fa3znVGyoNyUBMM19>

APPENDIX B - Gantt Chart

RESEARCH ACTIVITIES	MONTH			
	OCTOBER	NOVEMBER	DECEMBER	JANUARY
Discussion with the supervisor and given the PPTA topic				
Conducting discussions with groupmates and writing a research project proposal draft				
Start writing for Chapter 1, 2 and 3				
Review by supervisor and prepare a set of questionnaires				
Presentation and FYP 1 Report submission				
Procedure for data analysis				
Distribute questionnaire				
Actual data collection				
Key in data in SPSS				
Making poster for the presentation				
Data analysis and discussion of findings in chapter 4				
Proceed to chapter 5				
Conclusion and recommendation				
Presentation of FYP				
Submission of final research report				

