CONSUMER'S COPING STARTEGIES TOWARD PACKAGING WASTE IN FOOD DELIVERY SERVICE

TAN SHIN RHU

BACHELOR OF INTERNATIONAL BUSINESS
(HONOURS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT
DEPARTMENT OF INTERNATIONAL BUSINESS

OCTOBER 2023

TAN SHIN RHU COPING STRATEGY BIN (HONS) OCTOBER 2023

CONSUMER'S COPING STARTEGIES TOWARD PACKAGING WASTE IN FOOD DELIVERY SERVICE

BY

TAN SHIN RHU

A final year project submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF INTERNATIONAL BUSINESS (HONOURS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT
DEPARTMENT OF INTERNATIONAL BUSINESS

OCTOBER 2023

DECLARATION

I hereby declare that:

(1) This undergraduate FYP is the end result of my own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Sole contribution has been made by me in completing the FYP.

(4) The word count of this research report is ____14077_____.

Name of student:	Student ID:	Signature:
TAN SHIN RHU	2002312	*shinrhu*

Date: ___2/5/2024_____

ACKNOWLEDGEMENT

I would like to express my deepest and most sincere gratitude to my supervisor, Mr. Lee Yoon Heng, for providing me with the opportunity to work on this research project, as well as for his guidance and inspiring instruction. Additionally, I would like to extend my appreciation to Universiti Tunku Abdul Rahman (UTAR) for granting me the opportunity and providing the necessary study materials to complete this research endeavor.

My heartfelt appreciation also goes out to all the respondents who participated and contributed their responses to the survey questionnaire. I truly value their efforts, which have played a crucial role in making this research a success.

Lastly, I want to express a special gratitude and love to my family and friends for their unwavering support and encouragement throughout this journey.

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION	
1.0 Introduction	1-2
1.1 Research Background	2-4
1.2 Research Problem	4-5
1.3 Research Questions	6
1.4 Research Objectives	6
1.5 Research Significance	6-7
CHAPTER 2 LITERATURE REVIEW	
2.0 Introduction	8
2.1 Underlying Theories	8
2.1.1 Contextual Background	8
2.1.1.1 Plastic Packaging Waste in Malaysia	8-9
2.1.1.2 Packaging Waste from Food Delivery Services	9-10
2.1.1.3 Consumer Awareness towards Plastic Pollution	10-11
2.1.2 Consumer Studies in Online Food Delivery Services	11
2.1.2.1 The Pre-Purchase Stage: Purchase Intention and Decision Making Process	11-12
2.1.2.2 The Post Purchase Stage: Post Purchase Dissonance and Stress	12-13
2.1.3 Consumer Coping Theory	13
2.1.3.1 COPE Inventory	13-15
2.1.3.2 Coping Theory with Food Packaging Waste in Food Delivery Service	15
2.2 Review of Variables	16
2.2.1 Self-Sufficient (IV1)	16-17
2.2.2 Avoidance Coping (IV2)	17
2.2.3 Socially Supported (IV3)	18-19
2.2.4 Consumer Environmental Concern (DV)	19-20
2.3 Conceptual Framework	20
2.4 Hypothesis Development	21
2.4.1 Self-Sufficient and Consumer Environmental Concern	21

2.4.2 Avoidance Coping and Consumer Environmental Concern	22-23
2.4.3 Socially Supported and Consumer Environmental Concern	23-24
CHAPTER 3: METHODOLOGY	
3.0 Introduction	25
3.1 Research Design	25
3.1.1 Quantitative Research	25-26
3.1.2 Descriptive Research	26
3.2 Sampling Design	26
3.2.1 Target Population	27
3.2.2 Sampling Frame and Location	27
3.2.3 Sampling Technique	27-28
3.2.4 Sampling Size	28
3.3 Data Collection Method	29
3.3.1 Primary Data	29
3.4 Research Instrument	30
3.4.1 Questionnaire Design	30
3.4.2 Origin of Construct	30-34
3.5 Scale Measurement	34
3.5.1 Nominal Scale	35
3.5.2 Ordinal Scale	35
3.5.3 Likert Scale	35-36
3.5.4 Pilot Test	36
3.6 Proposed Data Analysis Tool	36
3.6.1 Descriptive Analysis	36-37
3.6.2 Reliability Test	37
3.6.3 Inferential Analysis	38
3.6.3.1 Assumption Test	38
3.6.3.2 Multicollinearity Test	38-39
3.6.3.3 Multiple Linear Regression Analysis	39
3.6.3.4 Coefficient of Correlation Analysis	39
3.7 Data Collection Procedure	40
3.7.1 Data Checking	40

3.7.2 Data Editing	40
3.7.3 Data Coding	40
3.7.4 Data Transcribing	40
CHAPTER 4 DATA ANALYSIS	
4.0 Introduction	41
4.1 Descriptive Analysis	41
4.1.1 Frequency of Online Food Delivery Service Usage across Different Categories	41-42
4.1.2 Types of Food Packaging Materials Use	42-43
4.1.3 Practices for Disposing of Food Packaging	43-44
4.1.4 Pain Point and the Usage of Online Food Delivery Service	44-45
4.1.5 Pain Point and Average spending on a single online food order	45
4.2 Reliability Test	46
4.3 Inferential Analysis	47
4.3.1 Assumption Test	47
4.3.1.1 Mahalanobis Distance Test	47
4.3.1.2 Multicollinearity Test	47-48
4.3.1.3 Normality Test	48-49
4.3.1.4 Linearity Test	49-50
4.3.2 Pearson Correlation Coefficient Analysis	50
4.3.3 Multiple Linear Regression Analysis	51-52
4.4 Test of Significance	52-53
CHAPTER 5 DISCUSSION, CONCLUSION, AND IMPLICATIONS	
5.0 Introduction	54
5.1 Discussion on Major Findings	54-55
5.1.1 Relationship between Self-Sufficient and Consumer Environmental Concern	55-56
5.1.2 Relationship between Avoidance Coping and Consumer Environmental Concern	56-57
5.1.3 Relationship between Socially Supported and Consumer Environmental Concern	57
5.2 Implication of Study	58

5.2.1 Practical Implications	58
5.2.2 Theoretical Implication	59
5.3 Limitations of Study	59-60
5.4 Recommendation for Future Research	60
5.5 Conclusion	61
REFERENCES	62-68
APPENDICES	69-71

LIST OF TABLES

	Page
Table 3. 1 Operational Construct	30-34
Table 3.2 Pilot Test Reliability Test	37
Table 3.3 Cronbach's Alpha Rule of Thumb	37
Table 3.4 Pilot Test Multicollinearity Result	39
Table 4.1 Descriptive Analysis for Pain Point and the Frequency Usage of Online Food Delivery Services	44
Table 4.2 Descriptive Analysis for Pain Point and the Average spending on a single online food order	45
Table 4. 3 Cronbach's Alpha Reliability Test	46
Table 4. 4 Collinearity Statistics	48
Table 4. 5 Skewness and Kurtosis	49
Table 4. 6 Correlation Coefficient Results	50
Table 4. 7 Model Summary	51
Table 4. 8 ANOVA	52
Table 4. 9 Coefficient	52
Table 5. 1 Hypothesis Testing Analysis	54

LIST OF FIGURES

	Page
Figure 2.1: Proposed Conceptual Framework for Consumer's Coping Strategies toward Packaging Waste in Food Delivery Service	20
Figure 3. 1 G*Power Result	29
Figure 3.2 Example of Nominal Scale	34
Figure 3.3 Example of Ordinal Scale	35
Figure 3.4 Example of Likert Scale	36
Figure 4.1 Descriptive Analysis for the Frequency of Online Food Delivery Service Usage across Different Categories	42
Figure 4.2 Descriptive Analysis for the Types of Food Packaging Materials Use	43
Figure 4.3 Descriptive Analysis for the Practices for Disposing of Food Packaging	44
Figure 4. 4 Histogram of Dependent Variable	49
Figure 4. 5 Residual Plot	50
Figure 5. 1 Structural Equation Model Results	55

LIST OF ABBREVIATIONS

α	Cronbach's Alpha Value
ANOVA	Analysis of Variance
β	β Standardized Coefficients Beta
H	Hypothesis
VIF	Variance of Factor
SE	Self-Sufficient
AC	Avoidance Coping
SS	Socially Supported
EC	Consumer Environmental Concern

ABSTRACT

The rapid growth of e-commerce and busy lifestyles has led to a surge in demand for door-to-door food delivery services in Malaysia. However, the popularity of food delivery services has raised considerable environmental issues regarding the disposal of packaging materials. This study investigates consumer coping strategies towards food packaging waste in the context of food delivery services. Data were collected from a diverse sample of consumers across various demographic segments through questionnaire survey. The findings reveal that consumers employ a variety of coping strategies to address food packaging waste, which are self-sufficient coping strategy, avoidance coping strategy and socially supported coping strategy. These coping strategies can influence consumer awareness of single use plastic packaging. Thus, this study aims to understand how consumers behave and think about packaging waste from food delivery services.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This research focuses on the escalating issue of packaging waste in food delivery services, driven by the fast-paced lifestyle and rapid growth of e-commerce in Malaysia. The popularity of food delivery services, accelerated by the convenience of online platforms has led to a surge in single-use plastic packaging, posing significant environmental challenges. The proliferation of online food ordering services has worsened this plastic pollution issue (Coca-Cola, 2018; European Commission, 2018a, 2018b; Nestlé, 2019; UNEP, 2018).

Plastic pollution is widely recognized as one of the most pressing global challenges (Rhein & Schmid, 2020). (Hahladakis and Iacovidou, 2018; Mutha et al., 2006). The surge in plastic packaging has contributed to Malaysia's alarming plastic waste problem. The Malaysian online food delivery industry is projected to reach over 319.1 million USD by 2026. The research notes that Malaysia has the highest yearly per capita consumption of plastic globally. The subsequent surge in plastic containers led to increased plastic production, worsening Malaysia's plastic pollution situation. It is because single-use plastic packaging, commonly found in food packaging, contributes significantly to this crisis as consumers often dispose of it without much consideration. Plastic packaging frequently ends up as litter in open drains and on streets, clogging drains and causing flooding.

There has been substantial research on consumer adoption of online food delivery services (e.g., Wang, 2020; Nair, S., & Elangovan, N., 2020) and environmentally friendly packaging materials (e.g., Ketelsen et al, 2020; Kim & Choi, 2005). However, there remains a gap in understanding the post-purchase phase of consumer behavior concerning plastic waste disposal management (Vidal-Ayuso, 2023). This gap has become increasingly critical as

consumers are becoming more mindful of the environmental repercussions of packaging (Nguyen et al., 2020).

Thus, this research aims to address these gaps by examining consumer coping strategies regarding food packaging materials in online food delivery services. By doing so, it seeks to enhance our understanding of how consumer behavior may adapt in response to the environmental impact of plastic waste.

1.1 Research Background

The fast-paced lifestyle and the quick development of e-commerce in Malaysia have greatly increased the demand for food delivery services, especially in cities like Kuala Lumpur. Food delivery platform has developed into a widespread phenomenon, a way of life that makes easier and quicker everyday activities. Individuals are used to the ease with which they can get anything they want and have it delivered directly to their door. Approximately 37% of restaurants currently provide food delivery services. More and more people are turning to food delivery in recent years because of the current pace of life as well as the opportunity to discover more restaurants that food delivery offers. Online food delivery services are a convenient option during a busy work day in the city as it provides convenience and time savings for customers as they can purchase food without stepping out from their home or offices (Moriarty, 2016). With a predicted user penetration rate of 30.5% in 2023, the Malaysian online food delivery industry is expected to reach a significant value of over 319.1 million USD by 2026 (Statista, 2023). The emergence of the food delivery services could be attributed to the changing of consumer behaviour.

The growing trend of food delivery services in Malaysia has led to an increase in plastic consumption and raised the serious environmental concerns. Plastic pollution is considered to be among the greatest challenges the world faces (Rhein & Schmid, 2020). This crisis is

exacerbated by single-use plastic packaging, commonly used in food packaging, which is often discarded by consumers without much thought (Hahladakis and Iacovidou, 2018; Mutha et al., 2006). This is mostly because each transaction involves a significant amount of throwaway plastic bags and containers, which contributes to the environmental problems linked with plastic waste. Food delivery services often package meals in plastic bags, which contribute to the proliferation of plastic waste. However, due to their affordability and durability, plastics are widely used in various applications, leading to their preference over other materials by manufacturers. Unfortunately, most packaging is designed as single-use, and is typically thrown away rather than reused or recycled. Single-use plastic such as bottles, wrappers, straws, and bags, are commonly employed in packaging and serving food. It is because the combination of durability, lightweight construction, airtightness, moisture resistance, affordability, and adaptability makes plastic food packaging a prevalent and preferred choice in the food industry for storing, transporting, and preserving various food.

In turn, improper disposal of these plastic bags poses a threat to the environment by damaging soil, infiltrating water systems, and eventually reaching the ocean. This not only endangers wildlife but also disrupts the ecological balance. Consequently, the country's plastic waste pollution problem may worsen, leading to more significant and far-reaching environmental degradation. According to the US Environmental Protection Agency (EPA), food packaging materials make up almost half of all municipal solid waste. Consequently, large quantities of plastic waste enter the environment due to mismanagement, persisting in ecosystems and spreading through food webs. Plastic pollution affects land, waterways, and oceans, with an estimated 1.1 to 8.8 million tonnes of plastic waste entering the ocean annually from coastal communities. The global production of plastic has dramatically increased since the 1950s, reaching 335 million tons in 2016, leading to environmental concerns. A significant portion of plastic products, about 79%, is inefficiently treated and ends up in landfills or natural environments. It is projected that by 2050, there could be more plastic than fish in the oceans by weight.

Besides that, plastic pollution poses a significant challenge for Malaysia, which has been the world's top importer of plastic waste since 2017. Despite closely monitoring global trends in material production and disposable plastic use, the nation's waste disposal system faces

formidable obstacles. In 2021, Malaysia imported nearly 500,000 tonnes of plastic waste while returning only around 11,000 tonnes, solidifying its status as a major global importer. Additionally, Malaysia boasts a thriving RM30 billion plastics manufacturing industry, further complicating efforts to combat plastic contamination. Despite ongoing efforts, many small grocery stores and shops continue to distribute disposable plastic bags, disregarding their environmental impact and contributing to issues like clogged sewers and overflowing landfills (Rulia, 2023).

In conclusion, current lifestyle and the popularity of food delivery services have played a major role in the increase of food packaging waste. With more people choosing the convenience of ordering meals to their homes, there is been a surge in the use of disposable packaging, leading to greater environmental challenges associated with waste production and management.

1.2 Research Problem

In recent years, there has been a noticeable shift in consumer awareness towards the environmental impact of packaging waste. With increasing emphasis on sustainability and eco-consciousness, individuals are becoming more cognizant of the ramifications of excessive packaging on the environment. This heightened awareness stems from various sources, including media coverage, educational campaigns, and the proliferation of information on social media platforms. Consumers are now more informed about the detrimental effects of packaging waste on ecosystems, wildlife, and overall environmental health. Furthermore, as people witness first-hand the overflowing landfills, polluted oceans, and the devastating consequences of plastic pollution, they are compelled to reconsider their consumption habits. Moreover, legislative measures and government initiatives aimed at reducing single-use plastics and promoting recycling have further propelled this awareness. As regulations tighten and sustainability standards become more stringent, consumers are increasingly inclined to support businesses that align with their environmental values. This

has prompted many companies to rethink their packaging strategies, not only to meet regulatory requirements but also to cater to the evolving preferences of environmentally conscious consumers (Voisin, 2020).

This growing consciousness has led consumers to prioritize food with minimal packaging or eco-friendly alternatives. Consumers are increasingly inclined to support businesses that prioritize sustainability and environmental responsibility. As awareness of environmental issues continues to grow, consumers are actively seeking out companies that demonstrate a commitment to reducing their environmental footprint. This includes businesses that use eco-friendly packaging in packaging the food, as well as those that implement other sustainable practices throughout food delivery industry (Ketelsen, 2020). For example, consumers actively seek out brands and companies that demonstrate a commitment to sustainable packaging practices. Consumers are aware their buying choices can influence companies. Moreover, legislative measures and government initiatives aimed at reducing single-use plastics and promoting recycling have further propelled this awareness. As regulations tighten and sustainability standards become more stringent, consumers are increasingly inclined to support businesses that align with their environmental values.

However, there are limited studies conducted on food packaging waste. This lack of understanding is compounded by the fact that consumers often find themselves uncertain about how to effectively cope with the food packaging waste from food delivery services. With the rapid growth of food delivery services, the volume of packaging waste has increased, yet consumers are left grappling with questions regarding its disposal, recycling options, and overall environmental impact. The absence of clear guidance or established norms leaves consumers feeling unsure and powerless in the face of this issue. Consequently, there is a critical need to delve deeper into consumers' behaviour and coping strategies toward food packaging waste in order to develop informed strategies for waste reduction and sustainable consumption practices.

1.3 Research Questions

1. Is there any relationship between self-sufficient and consumer environmental concern?
2. Is there any relationship between avoidance coping and consumer environmental concern?
3. Is there any relationship between socially supported and consumer environmental concern?

1.4 Research Objectives

1. To investigate and understand the relationship between self-sufficient and consumer environmental concern.
2. To examine and analyze the relationship between avoidance coping and consumer environmental concern.
3. To assess and explore the relationship between socially supported and consumer environmental concern.

1.5 Research Significance

The current environmental challenges stemming from the escalating use of plastic packaging in food delivery services underscore the urgency and necessity of this research. Plastic pollution is considered to be among the greatest challenges the world faces (Rhein & Schmid, 2020). This crisis is exacerbated by single-use plastic packaging, commonly used in food packaging, which is often discarded by consumers without much thought (Hahladakis and Iacovidou, 2018; Mutha et al., 2006). Chen, Hui Ling, and Nath's investigation into

Malaysia's plastic waste problem (2021) emphasizes this urgency and the critical need for targeted measures to address plastic waste.

The rise of online food ordering services has further amplified this plastic crisis (Coca-Cola, 2018; European Commission, 2018a, 2018b; Nestlé, 2019; UNEP, 2018). There have been extensive studies on consumer adoption of online food ordering services (e.g., Wang, 2020; Nair, S., & Elangovan, N., 2020) and environmentally friendly packaging materials (e.g., Ketelsen et al, 2020; Kim & Choi, 2005).

However, limited studies have examined consumer post-purchase phase in relation to plastic waste disposal management (Vidal-Ayuso, 2023). This lack of post-purchase studies became more critical as consumers are increasingly concerned about the environmental consequences of packaging (Nguyen et al., 2020).

There remains a lack of understanding regarding how consumers cope with food packaging waste. Therefore, this research aims to fill these gaps by exploring consumer coping strategies toward food packaging materials in online food delivery services, contributing to a better understanding of how consumer behavior can evolve in response to the environmental impact of plastic waste.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter will delve into the literature review for both the dependent and independent variables. Also, the study includes both conceptual framework and a theoretical framework relevant to the topic. The process of investigation will involve formulating hypotheses to investigate the relationships between the independent and dependent variables. A brief description of the supporting study variables used in this study will also be included.

2.1 Underlying Theories

2.1.1 Contextual Background

2.1.1.1 Plastic Packaging Waste in Malaysia

Plastic packaging waste has contributed significantly to the issue of plastic pollution. Plastic pollution poses a significant challenge for Malaysia, which has been the world's top importer of plastic waste since 2017. Despite closely monitoring global trends in material production and disposable plastic use, the nation's waste disposal system faces formidable obstacles. In 2021, Malaysia imported nearly 500,000 tonnes of plastic waste while returning only around 11,000 tonnes, solidifying its status as a major global importer. Additionally, Malaysia boasts a thriving RM30 billion plastics manufacturing industry, further complicating efforts to combat plastic contamination.

According to Leoi (2019), Malaysians generated a substantial amount of packaging waste, totaling 3,108.9 thousand tonnes, encompassing plastic, paper, and organic materials. On average, approximately 38,000 tonnes of household waste were disposed of daily in Malaysia. Despite a modest increase of 0.7% in plastic output reported by the Malaysian Plastics Manufacturer Association up to August 2020, it fell short of the industry's 5% growth in 2019. Concerns are growing regarding the trajectory of plastic consumption, with projections indicating that if current usage patterns persist, the environment could accumulate a staggering 12,000 million metric tonnes of plastic waste by 2050. Recent data from The Star revealed that Kuala Lumpur and Putrajaya collectively produced 796,795 metric tonnes of waste last year, with plastic constituting approximately 210,966 metric tonnes, accounting for 13% of the total waste generated. These figures underscore the pressing need for concerted efforts to address Malaysia's mounting plastic pollution crisis.

2.1.1.2 Packaging Waste from Food Delivery Services

The increased popularity of takeaway and delivery food has had a negative impact on the environment, mostly as a result of the extensive usage of plastic bags, food containers, and package wrapping. Song, G., Zhang, H., Duan, H., & Xu, M. (2018) stated that food delivery packaging waste in China revealed a surge from 0.2 million metric tons in 2015 to 1.5 million metric tons in 2017. Unbelievably, Malaysians also used 148,000 tonnes of plastic packaging for food alone in 2020 (Yeo, 2021). Even with the government's launch of the national Roadmap Towards Zero Single-choose Plastics, the "tapau" (takeaway) culture has forced many food and beverage (F&B) businesses to choose the least expensive and most practical solution when it comes to packaging food: plastic bags. This problem has been made worse by the rise of food delivery online services, which is one of the reasons Malaysia has the highest yearly per capita consumption of plastic in the world—16.78 kilogrammes per person. According to the 2020 World Wildlife Fund (WWF) Malaysia, this amount is higher than that of nearby countries of ASEAN like Singapore (12.5 kg), the Philippines (12.4 kg), Thailand (15.52 kg), and Vietnam (12.93 kg) (Yeo, 2021). Over a million tonnes of plastic waste are produced in Malaysia year by year, according to WWF Malaysia, and problems are getting worse as more people order food online or pack

food in plastic bags (Yeo, 2021). If action is not taken quickly, the amount of waste will simply increase and become more difficult to handle in the future. By 2050, estimates indicate that the environment will have accumulated an extraordinary 12,000 million metric tonnes of plastic waste, if the current rate of plastic usage continues. Malaysia consumes 148,000 tonnes of plastic packaging for food alone, contributing to the country's mounting plastic problem. Although Malaysians are becoming more conscious of recycling, the country's recycling rate is still only 28%, which is lower than that of other countries (Serbajadi, 2022).

2.1.1.3 Consumer Awareness towards Plastic Pollution

According to Rousseau and Venter (1992), consumer awareness refers to the level of understanding or consciousness among individual consumers regarding their rights and responsibilities within the marketplace. Recently, there has been increasing recognition of its importance, especially in sustainability contexts, influencing consumer perceptions of companies and purchasing behavior (Dach and Allmendinger, 2014; Galbreth and Ghosh, 2013). This awareness is crucial in addressing issues like plastic packaging management and the plastic crisis, as highlighted by the European Commission (2018a) and Pahl et al. (2017). Scholars stress the need to fully comprehend consumers' awareness of plastic and its negative impacts to devise effective strategies for both businesses and policymakers (Hartley et al., 2018; Heidbreder et al., 2019). However, there is still a lack of precise understanding of consumer awareness and its influence on behavior.

Consumer awareness can be categorized into five distinct types. Firstly, there's awareness of environmental pollution, where consumers recognize the global issue of plastic pollution and its detrimental effects on the environment. Studies confirm that consumers are well aware of the negative impacts of the current plastic economy, as observed in previous research. Secondly, there is awareness of the intensive use of plastic, where consumers acknowledge the excessive and unnecessary use of plastic, especially in packaging. They perceive products with excessive packaging, such as multiple layers of plastic wrapping, as problematic and unnecessary. Thirdly, there is awareness of consumers' influence, where consumers understand how their purchasing decisions can influence companies. They recognize their market power

and believe that thoughtful purchasing choices can encourage companies to rethink their packaging practices. Fourthly, there is awareness of consumers' powerlessness, where consumers feel unable to change their plastic consumption habits due to the lack of alternatives and perceived inability to influence companies. They see themselves as powerless to affect change in the current situation. Lastly, there is awareness of the need for using plastic, where consumers recognize the positive attributes of plastic, such as its hygiene, durability, and practicality in daily life. They view plastic as superior to alternatives like paper or glass and are unwilling to change their consumption behavior.

It is crucial to understand that consumers' awareness types are not completely distinct from each other, and consumers often recognize multiple aspects of plastic packaging. As a result, consumers typically have a multifaceted perspective on plastic packaging, encompassing various sets of awareness types.

2.1.2 Consumer Studies in Online Food Delivery Services

2.1.2.1 The Pre-Purchase Stage: Purchase Intention and Decision Making Process

In research examining consumer adoption of food delivery services and attitudes toward plastic food packaging, the pre-purchase stage plays a significant role in shaping consumer behavior and attitudes. The attitude theory is widely utilized in social science and business research due to its applicability in studying behavior. Attitudes consistently show a positive correlation with behavioral intention across various cultures (Paul et al., 2016). Behavioral intention indicates the level of effort individuals are willing to exert, serving as a predictor of motivational factors influencing behavior (Ajzen, 1991). Attitude serves as a fundamental determinant of behavior and remains relatively stable within individuals. Moreover, attitudes play a role in heuristic decision-making processes, particularly in low-involvement decisions like food purchases (Gigerenzer and Gaissmaier, 2011).

During this stage, consumers may recognize a need or desire for convenience and time-saving options, prompting them to consider using food delivery services. This recognition of a need is influenced by various factors such as busy lifestyles, convenience, and social trends. As consumers explore the possibility of using food delivery services, they engage in an information search to evaluate their options. They may gather information about different delivery platforms, menu options, pricing, delivery times, and customer reviews. This information-seeking behavior influences their perceptions of the benefits and drawbacks of food delivery services and contributes to the formation of their attitudes toward these services.

Similarly, during the pre-purchase stage, consumers may also develop attitudes toward plastic food packaging used by food delivery services. Factors such as environmental consciousness, health concerns, convenience, and aesthetic preferences can shape these attitudes. Consumers may consider the impact of plastic packaging on the environment, the safety of food stored in plastic containers, and the overall experience of receiving food in plastic packaging.

The pre-purchase stage, therefore, serves as a critical juncture where consumers form attitudes and intentions related to both food delivery services and plastic food packaging. These attitudes and intentions influence subsequent purchase decisions and behaviors, such as whether consumers choose to order food delivery or opt for alternative dining options, as well as their preferences for eco-friendly packaging alternatives.

2.1.2.2 The Post Purchase Stage: Post Purchase Dissonance and Stress

After consumers have made a purchase and experienced the online food delivery service, they may encounter post-purchase dissonance and stress. Cognitive dissonance or post-purchase dissonance defined by social psychologist Festinger (1957), as a conflict occurs between a person's beliefs and the outcomes that challenge those beliefs. Cognitive dissonance occurs when an individual experiences discomfort or tension after making a purchase decision, especially if there are conflicting thoughts or feelings about the decision. In the post-purchase stage, consumers may encounter cognitive dissonance if they perceive a gap between their

expectations and the actual performance or satisfaction derived from the purchased product or service. They might regret not choosing an alternative brand and overlook positive aspects of their chosen product if it fails to meet expectations.

In the case of food delivery services, consumers may experience post-purchase dissonance if the delivery is delayed, the food quality is subpar, or if they encounter any issues with the packaging, such as leakage or spillage due to inadequate packaging materials. Similarly, concerns related to the environmental impact of plastic food packaging, such as its non-biodegradability and contribution to plastic pollution, may also contribute to post-purchase dissonance and stress. Furthermore, the post-purchase stage may also be characterized by stress related to the management and disposal of plastic food packaging. Consumers may feel overwhelmed by the accumulation of plastic waste resulting from food delivery orders, especially if they are concerned about the environmental consequences of plastic pollution. Additionally, the inconvenience of storing or disposing of plastic packaging in an environmentally responsible manner may exacerbate feelings of stress and guilt.

While dissonance can occur at any stage of the decision-making process, it is particularly pronounced post-purchase, potentially causing emotional distress. This post-purchase evaluation process influences consumers' future relationships with the organization and affects their buying behaviour. Thus, consumers attempt to mitigate dissonance in various ways, such as rationalizing their decision, seeking information that supports their choice, or selectively ignoring dissonant elements while emphasizing the positives, as suggested by Koller and Salzberger (2007).

2.1.3 Consumer Coping Theory

2.1.3.1 COPE Inventory

Coping refers to the various cognitive and behavioral strategies individuals employ to manage stress, as defined by Folkman and Moskowitz (2004). Folkman and Lazarus (1980, 1985) distinguished between two primary coping styles: problem-focused and

emotion-focused. Problem-focused coping involves addressing the source of stress, while emotion-focused coping entails handling thoughts and feelings associated with the stressor. To assess individual differences in these coping dimensions, Folkman and Lazarus (1988) created the Ways of Coping Scale, which includes checklists of problem- and emotion-focused coping strategies applicable to different stressful situations.

Carver et al. (1989) recognized the significance of these coping styles but suggested further differentiation. They developed the COPE inventory to measure a broader array of coping styles, including both useful and less useful strategies. Carver et al. (1989) identified four dimensions by factoring individual COPE scale scores. The first factor closely aligned with problem-focused coping, the second with emotion-focused strategies, including restraint, initially considered problem-focused. The third factor reflected seeking social support for advice or emotional expression, while the fourth factor corresponded to attempts to avoid addressing the problem or associated emotions.

Another consistent factor across studies involves coping through avoidance, defined by scales describing ignoring or withdrawing from stressors or associated feelings. Avoidance-oriented coping contrasts with more approach-oriented coping styles directed at addressing the problem or related emotions (Roth & Cohen, 1986). Avoidant coping styles are associated with negative personality traits and outcomes, whereas approach-oriented styles are linked to positive characteristics and results (Abbott, 2003; Moos & Holahan, 2003; Stowell, Kiecolt-Glaser, & Glaser, 2001).

According to Holton, M. K., Barry, A. E., & Chaney (2016), coping strategies can be divided into two categories: maladaptive (unhealthy) and adaptive (healthy). The concept of adaptive coping, as outlined in a paper from Cogent Psychology, refers to the approach individuals take in dealing with stressors by fostering personal growth, maintaining optimism, implementing solution-oriented actions, exercising creativity, and demonstrating flexibility. There exist various coping methods, including active, emotional, and behavioral strategies. Personality traits play a significant role in determining which coping strategies individuals are inclined to use, with traits like extraversion, conscientiousness, and openness being associated with adaptive coping.

Interestingly, individuals with higher levels of education beyond secondary schooling tend to consistently employ adaptive coping strategies more than those without such education, a correlation that may be unexpected to some as it suggests a link between education level and coping strategies. While in situations involving overwhelming stressors, trauma, or experiences of maltreatment, neglect, or emotional invalidation during childhood, individuals may be more prone to relying on maladaptive coping strategies. These strategies, which offer momentary relief, often fail to address the underlying problems. As per the findings in the Cogent Psychology paper, someone exhibiting high scores in maladaptive coping might be described as resorting to denial, self-criticism, and passivity.

2.1.3.2 Coping Theory with Food Packaging Waste in Food Delivery Service

The Consumer Coping Theory presents a more inclusive framework for comprehending the varied and intricate ways in which consumers respond to the environmental consequences of their buying choices. In contrast to Consumer Dissonance Theory, which concentrates mainly on the psychological discord and unease post-purchase, Coping Theory considers a wider spectrum of emotional, cognitive, and behavioural reactions. This incorporates the approaches consumers take to alleviate, adjust to, or address the stress linked to their acknowledgment of the environmental effects of their purchases. Next, consumer coping theory recognises that consumers may experience different types of negative emotions after a purchase, such as guilt, anger, sadness, or anxiety, and that they may employ different coping strategies to deal with them, such as avoidance, rationalization, justification, or compensation.

Additionally, the integration of coping theory with food packaging waste in online food delivery services involves understanding how consumers cope with the environmental impact of excessive packaging in this context. Consumers may face ethical dilemmas or moral conflicts due to the environmental impact of plastic food packaging, and may need to cope with the psychological discomfort or distress that arises from their purchase.

2.2 Review of Variables

2.2.1 Self-Sufficient (IV1)

In more general terms, self-sufficient coping is a set of behavioural or psychological strategies to deal with problems by making use of personal assets. This involves making an effort to change the stressful situation's characteristics or an individual's feelings and ideas about it. Self-sufficient involves the process of revaluating a stressful situation in a way that emphasizes its positive aspects or potential outcomes (Cheshire et al., 2010). In essence, it entails finding something beneficial or advantageous in what may initially appear to be a negative or challenging event. By reframing the meaning of the situation, individuals are able to experience positive emotions or a sense of well-being despite the stressor. Instead of attempting to change the external circumstances, individuals employing self-sufficient aim to alter their perception of the situation in order to foster a more positive emotional state. Gunzerath, Connelly, Albert, and Knebel (2001) describe self-sufficient coping as an "optimal subjective outlook" that involves acknowledging the realities of a challenging situation while actively focusing on its positive aspects. By adopting this approach, individuals are able to maintain a sense of optimism and resilience in the face of adversity, ultimately promoting psychological well-being and adaptive coping.

Self-sufficient referred to as approach coping, encompass a variety of techniques such as preparation, action, acceptance of the circumstance, seeking out instrumental and emotional support, and identifying its positive characteristics. In self-sufficient coping, acceptance serves as an adaptive response to uncontrollable or unchangeable negative events, aiding in the preservation of an individual's psychological well-being and ability to take action. It entails confronting reality even when it contradicts one's expectations or desires, and being willing to navigate this reality nonetheless. As noted by Carver et al. (1993), individuals who practice acceptance strive to remain

engaged with their significant life goals, despite the challenges they may face (Carver et al., 1993, p. 387).

2.2.2 Avoidance Coping (IV2)

Avoidance coping, also referred to as avoidant coping, avoidance behaviors, or escape coping, is a coping mechanism characterized by altering one's behavior to evade confronting, experiencing, or addressing challenging thoughts, emotions, or tasks. Avoidance coping is a psychological mechanism where individuals attempt to evade or avoid confronting stressful thoughts, emotions, or situations. This can involve behaviors such as denial, distraction, or physically removing oneself from the source of stress. While avoidance coping may provide temporary relief, it often fails to address the underlying issues and can contribute to long-term difficulties in managing stress and emotions.

According to Carver et al. (1989), there are three parts of avoidance coping such as expressing and concentrating on emotions, behavioral disengagement, and mental disengagement. Emotional focus and venting entail lingering on distress without taking constructive action. Behavioral disengagement is the act of stopping stress management activities and allowing the stress to remain unresolved. One example of an avoidant coping activity is sleeping during stressful situations (Carver et al., 1989). By implementing a "out of sight, out of mind" strategy, mental disengagement entails forcing tension from awareness through a variety of actions.

The term "avoidance coping" refers to mental and physical strategies used to minimize, deny, or avoid directly facing unpleasant demands. Distress and depression are closely linked to it (Cronkite & Moos, 1995; Penley, Tomaka, & Wiebe, 2002). Reliance on avoidance coping is likely to increase a variety of stresses, even if its capacity to induce stress has not been thoroughly studied. For example, mental avoidance may contribute to the persistence and aggravation of prospective stressors such as health or financial issues. For example, when emotional release intensifies tensions in relationships at work or in the home, behavioral avoidance may be a proactive factor in the emergence of new stressors.

2.2.3 Socially Supported (IV3)

Social support coping refers to the use of social support networks, such as friends, family, or support groups, to help individuals manage stress or cope with difficult situations. Social support can involve seeking advice, emotional support, or practical assistance from others in times of need. Social support coping has been shown to have numerous benefits, including reducing feelings of isolation, increasing feelings of belongingness, and providing a sense of reassurance and validation. This support also can come in a number of forms, such as informational, socioemotional, and instrumental support (House, 1981; Turner, 1983). Instrumental aid is defined as actions or resources supplied by others to assist in carrying out regular role tasks. Expressing or demonstrating love, compassion, respect, empathy, and a sense of community are all included in socioemotional support. Informational support is the sharing of opinions or facts about current issues, along with suggestions, open criticism, and details that can help someone's situation become more manageable (House, 1981).

According to Cohen and Wills (1985), social support is viewed as either a resource that minimizes the effects of stress or as something that is immediately useful when it is unavailable. It has been discovered to influence health and healthcare outcomes, mitigate the effects of stress, and predict vulnerability to disease. Social support is described by House (1981) as an interpersonal exchange combining knowledge, appraisal, instrumental support, and emotional concern. The emphasis of this concept is on constructive exchanges or transactions that take place between people. Research shows that people who have a high level of support, especially when taking into account the quality of their support systems, have better psychological and physical health than people who have low levels of support (Cohen & Wills, 1985). Thoits (1986) suggested redefining social support as coping help in order to investigate additional mechanisms by which it functions. According to this perspective,

significant others assist people in managing a stressful situation, which has positive impacts on the link between stress and health.

2.2.4 Consumer Environmental Concern (DV)

The concept of environmental concern, as outlined by Hines et al. (1987), refers to an individual's overall attitude and level of worry regarding environmental issues. This concern has been identified as a significant predictor of environmentally conscious behavior across various studies. For example, individuals with a higher level of environmental concern are more likely to engage in activities such as recycling (Arbuthnot and Ligg, 1975; Kellgren and Wood, 1986; Simmons and Widmar, 1990) and purchasing products with environmental claims (Mainieri et al., 1997) compared to those with lower levels of concern.

Environmental concern is closely linked to an individual's fundamental beliefs and values, with research indicating a positive association with altruistic values like biospherism and a negative relationship with egoistic values (Schultz and Zelezny, 1998). Similarly, collectivism, which emphasizes the well-being of group members, is also positively correlated with environmental concerns.

The hierarchical model of value-attitude-behavior serves as a conceptual framework for understanding the relationship between environmental concern and behavior. However, the strength of this relationship has been debated, with some studies suggesting weaker associations than anticipated. Additional factors such as behavioral intentions and situational factors have been proposed to explain behavior, while motivational concepts like personal efficacy have also been examined in relation to environmental behavior (Kim & Choi, 2005).

Environmental concern is commonly viewed by researchers as a broad attitude that shapes the formation of more specific attitudes toward particular situations, as stated by Bamberg (2003). Sánchez and Lafuente (2010) propose a multidimensional understanding of environmental consciousness, which includes an affective dimension

(related to general beliefs and values), a dispositional dimension (pertaining to personal attitudes), and an active dimension (associated with pro-environmental behavior). In this framework, the affective dimension influences the dispositional dimension, which then impacts the active dimension. Essentially, environmental concern acts as a general attitude that likely influences attitudes toward specific domains, such as attitudes toward green products, and can be considered a core value within a value-attitude-behavior hierarchy. According to Bamberg (2003), environmental concern primarily affects specific environmental behaviors, like green purchase behavior, through the mediation of situation-specific attitudes, such as attitudes toward green packaging.

2.3 Conceptual Framework

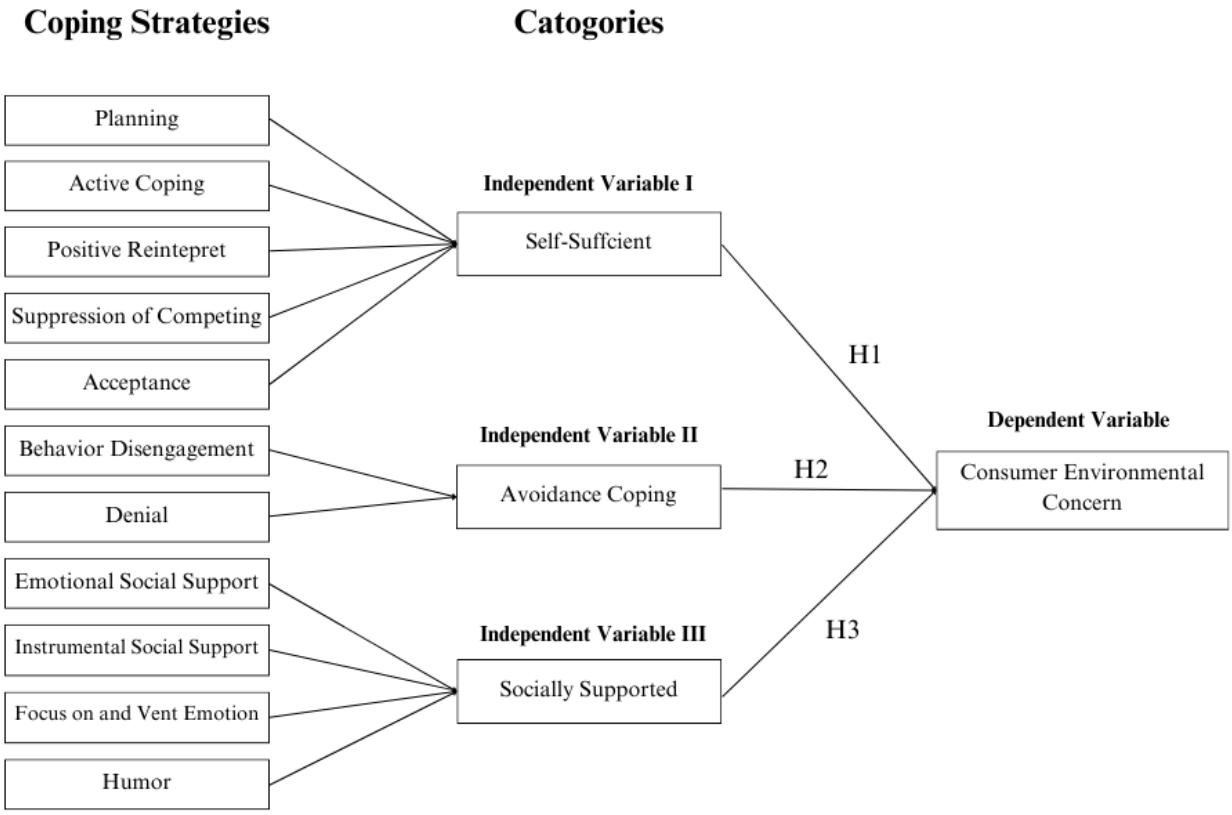


Figure 2.1: Proposed Conceptual Framework for Consumer's Coping Strategies toward Packaging Waste in Food Delivery Service

2.4 Hypothesis Development

2.4.1 Self-Sufficient and Consumer Environmental Concern

Individuals employing self-sufficient coping mechanisms often engage in meticulous planning to minimize their environmental impact. This may involve researching and selecting food delivery options that prioritize eco-friendly packaging materials, such as compostable or recyclable alternatives. Additionally, they may plan their meals strategically to reduce excess packaging and food waste, thereby minimizing their overall environmental footprint. According to Gelbrich (2010), active coping is a key aspect of self-sufficient coping strategies. Individuals take proactive steps to advocate for environmental sustainability within the online food delivery industry. This may include actively engaging with food delivery platforms and businesses to promote the adoption of sustainable packaging practices, such as offering incentives for using eco-friendly packaging or implementing recycling programs for packaging materials.

Self-sufficient coping shift the focus from expressing emotions to taking steps to solve the issue (Kross, Ayduk, and Mischel, 2005). Although individuals acknowledge that change may take time and effort, but they remain committed to making incremental progress towards reducing plastic waste and fostering a more sustainable food delivery system. Thus, consumers who adopt this coping strategy will acknowledge and accept the inherent challenges involved in promoting environmental sustainability within the context of online food delivery services and plastic packaging waste.

Therefore, we hypothesize that:

H1: There is a relationship between self-sufficient and consumer environmental concern.

2.4.2 Avoidance Coping and Consumer Environmental Concern

Avoidance coping entails customers downplaying and ignoring their response to packaging waste. With this strategy, people do not actively deal with or confront the pressures related to environmental issues arising from food delivery packaging waste. Consumers who employ avoidance strategies to cope may intentionally decide to ignore or retreat from the effects of packaging waste on the environment. According to Yuliya et al. (2012), individuals who utilize this strategy might disregard appropriate disposal procedures, which could lead to a shortage of involvement in recycling campaigns. As avoidance coping can manifest as deliberate distraction or diversion from environmental responsibility. When faced with information or discussions about plastic packaging waste in food delivery services, individuals may actively seek out distractions or engage in activities that divert their attention away from the issue to avoid feelings of discomfort or guilt associated. By focusing on unrelated activities, individuals can temporarily alleviate their feelings of cognitive dissonance or moral conflict, allowing them to maintain a sense of psychological equilibrium.

A psychological part of avoidance coping might involve people distancing themselves from the negative feelings connected to environmental issues. Due to their emotional distance, they are able to carry on with their behavior of ordering food on a regular basis without worrying about feeling guilty or anxious about increasing the waste of packaging. Brewer and Hewstone (2004) discovered that negative feelings could discourage consumers from disputing unsatisfactory service. In this situation, consumers may actively ignore or deny information regarding the environmental impact of plastic packaging, preferring not to engage with discussions or news highlighting these issues. By turning a blind eye to this information, individuals can maintain a sense of detachment from the consequences of their choices, allowing them to continue their consumption patterns without feelings of guilt or responsibility. Therefore, it is expected that a greater adoption of avoidance coping will be associated with higher levels of negative feelings.

Hence, this research proposed that:

H2: There is a relationship between avoidance coping and consumer environmental concern.

2.4.3 Socially Supported and Consumer Environmental Concern

Socially supported coping refers to the utilization of social support networks, such as friends, family, or online communities, to manage stress or cope with difficult situations. In the context of consumer environmental concern, individuals may seek advice, emotional support, or encouragement from their social circles when navigating decisions related to food delivery services and plastic packaging waste. House (1981) stated that consumers who are concerned about the environmental impact of excessive packaging in food delivery services may turn to their friends or family members for guidance on making more sustainable choices. They may engage in discussions about eco-friendly alternatives, share tips on reducing plastic waste, or seek recommendations for restaurants or delivery services that prioritize sustainable packaging practices.

Additionally, online communities and social media platforms play a significant role in facilitating discussions and raising awareness about environmental issues. Consumers can join online groups or forums dedicated to environmental sustainability, where they can exchange ideas, share experiences, and access resources related to reducing plastic waste in food delivery services. J. Lee and I. Han (2007) point out that decisions made before an order is placed can be helped and supported by the information that experienced users of the platform share. Moreover, social support can serve as a source of encouragement and validation for individuals striving to adopt more sustainable behaviors. By receiving positive reinforcement from their social networks, consumers may feel empowered to make environmentally conscious choices and take meaningful actions to reduce plastic packaging waste in food delivery services. Furthermore, consumers are more willing to interact with platforms when they believe they can benefit from it, as noted by M. Hajli and J. Sims (2018).

Thus, this research showed that:

H3: There is a relationship between socially supported and consumer environmental concern.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter includes the design of the study, the methodology employed, details on the population under consideration, the sampling process and the selected sample, the conducted pilot test, the methodology for data collection, the research instrument, ethical considerations, the instrument's validity and reliability, and the techniques employed for data analysis.

3.1 Research Design

The research design serves as the overarching structure that connects conceptual research inquiries with practical empirical investigations. It provides a clear roadmap for research procedures, as highlighted by Creswell (1994). As emphasized by Asenahabi (2019), an essential requirement for effective research is the use of an appropriate research design to ensure the valid attainment of research objectives prior to the commencement of data collection. In this study, quantitative and descriptive research methods were employed to examine consumer coping strategies regarding packaging waste in food delivery services.

3.1.1 Quantitative Research

Quantitative research involves the quantification and analysis of variables with the aim of generating results that either support or challenge a knowledge claim. This approach employs experiments and surveys as primary data collection instruments,

leading to the acquisition of statistical information (Williams, 2011). The essence of quantitative research lies in converting observed phenomena into numerical values for subsequent statistical analysis (Gelo et al., 2008). Its objectives include testing formulated hypotheses, establishing cause-and-effect relationships, and making predictions based on numerical data. The primary focus is often on determining a causal relationship between two or more variables, and statistical techniques are applied to assess the strength and significance of such relationships (Fraser Health Authority, 2011). In comparison to qualitative research, quantitative data collection leans towards a more objective examination of factual information.

3.1.2 Descriptive Research

Descriptive research aims to provide an accurate depiction of the characteristics of populations, situations, or phenomena through observation or survey questionnaires. It is particularly suitable when the research objectives involve identifying characteristics, frequencies, trends, and categories, especially in cases where there is limited knowledge about the research topic. Descriptive research primarily addresses the "what" rather than the "why" of the research topic (Siedlecki, 2020). Consequently, this study employs a descriptive research method to explore consumer coping strategies toward food packaging materials waste in online food delivery services. The primary focus is on understanding how consumers cope with food packaging waste.

3.2 Sampling Design

Sampling, as defined by Berndt, A. E. (2020), refers to the process of selecting a subgroup from a larger population. The significance of sampling lies in the challenges posed by collecting data from a large population within the constraints of time and cost. By targeting a specific population subset, researchers can overcome these challenges associated with resource scarcity and obtain quality data to generate valuable insights.

3.2.1 Target Population

According to Pandey and Pandey (2021), a population refers to the overarching group from which a sample is drawn to comprehend the entire set of observations. It is crucial for researchers to verify the eligibility of respondents to ensure the accuracy of data and to generate valid and reliable insights. In the context of this study, the goal is to understand consumer coping strategies toward packaging waste in the food delivery service. Therefore, the target population for this research comprises Malaysian consumers who have utilized online food delivery services within the last six months.

3.2.2 Sampling Frame and Location

A sample frame is used in this study as a method to define the population of particular interest due to resource limitations (Berndt, A. E., 2020). The sampling frame is restricted to individuals who have utilized online food delivery services within the last six months. Since data collection was conducted through an online survey using Google Forms, specific sampling locations were not chosen.

3.2.3 Sampling Technique

In conducting this research, a non-probability sampling technique is used for the distribution of the survey questionnaire. Non-probability sampling is characterized by an unknown probability of sample selection, introducing the possibility of selection bias in the study (Acharya et al., 2013). This approach encompasses non-random and subjective sampling methods, where the researcher's judgement or discretion plays a role in selecting the sampling elements (Kabir, 2016). Given that the target population comprises online food delivery users without demographic restrictions, a large pool of qualified respondents eliminates the necessity for a sampling frame, rendering the technique non-probabilistic.

Besides that, convenience sampling was selected as the method for data collection because it allows the researcher to choose a sample that is easily accessible. This

sampling approach has been widely used in various studies because it is low cost and convenience. Given the study's specific focus on understanding how consumers cope with packaging waste, only respondents who have used online food delivery services will be invited to participate in the questionnaire, ensuring relevance to the research objectives.

3.2.4 Sampling Size

Sample size refers to the quantity of individuals or observations chosen from a broader population for inclusion in a statistical sample (Lakens, D., 2022). The determination of sample size is typically guided by factors like the research question, desired level of precision and available resources. It is important to assess the informativeness of the data for inferential purposes, such as calculating effect size or testing hypotheses.

The minimum sample size for this study was determined using the G*Power 3.1 statistical software. The F test was selected to calculate the required sample size, with default values set at an effect size of 0.15, a significance level of 0.05, and a statistical power of 0.95. Utilizing the research framework with three predictors, the software computed a minimum sample size of 119. However, according to Kaur (2017), larger sample sizes are more representative and result in reduced sampling error. Therefore, this study aims to gather data from a total of 150 respondents.

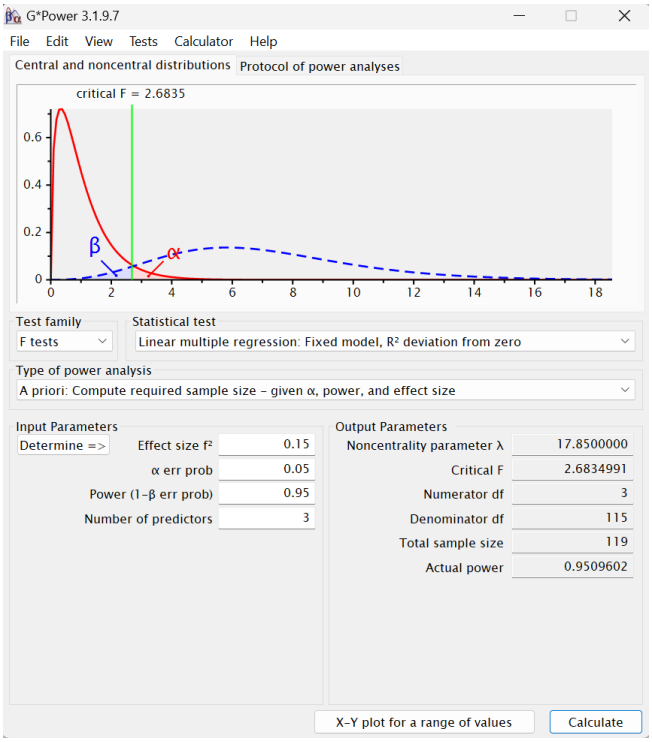


Figure 3. 1 G*Power Result

3.3 Data Collection Method

3.3.1 Primary Data

Primary data refers to data that is specifically tailored and freshly collected according to the researcher's needs (Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A., 2021). In descriptive research and studies, primary data is acquired either through direct communication with respondents or through observation (Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A., 2021). To gather data for this study, an online survey based on Google Forms is being conducted. The form has recorded 150 respondents who have used online food delivery services in the past 6 months.

3.4 Research Instrument

3.4.1 Questionnaire Design

This instrument of this research is online questionnaire distributed through Google Form. This questionnaire utilizes close-ended questions, which allow respondents to select from provided options (Kabir, 2016). Likert scale also used to measure the attitudes of respondent who agree or disagree with statements (Sullivan & Artino, 2013).

This questionnaire is structured into five sections. The cover page outlines the research questions, objectives, and privacy assurances for respondents. Section A focuses on gathering demographic information, including gender, monthly food delivery spending, and employment status. Sections B and C are designed to delve into consumers' experiences and perceptions regarding food delivery services, particularly focusing on identifying their pain points and attitudes towards this service. Sections D and E are the core of the questionnaire. Section D comprises 44 questions related to three independent variables: self-sufficient coping, avoidance coping, and socially supported coping. Section E consists of 5 questions measuring the dependent variable. Both Section D and Section E utilize a 5-point Likert scale for respondents to indicate their level of agreement or disagreement.

This structured questionnaire takes around one month (March 2024 to April 2024) for the entire data collection process. The form is distributed through social media such as Facebook, Instagram and Xiao Hong Shu.

3.4.2 Origin of Construct

The questions for the questionnaire were developed by reviewing relevant literature to ensure they accurately address the research objectives. This involved integrating ideas from previous studies into the context of the COPE inventory. The revised

questionnaire items, credited to the respective authors, are presented in the table below.

Variable	Source	Item	Statement
Self-Sufficient	Carver (2013)	SE1	I create a checklist for managing food packaging waste from online food delivery services.
		SE2	I focus on creating efficient methods for disposing of food packaging from my online food orders.
		SE3	I aim for environmental responsibility in managing online food packaging waste.
		SE4	I consciously prioritize handling packaging waste from online food delivery services.
		SE5	I accept food packaging waste as inevitable in online food delivery.
		SE6	I strategize to handle the increase in food packaging materials from my online food deliveries.
		SE7	I take extra steps to address issues with food packaging waste from my online orders.
		SE8	I seek a positive perspective on food packaging waste issues.
		SE9	I treat managing online food delivery packaging waste as a priority.
		SE10	I acknowledge that dealing with increased food packaging waste is a reality in today's world.
		SE11	I consider the best disposal methods for food packaging from online food ordering services.
		SE12	I immediately address issues related to food packaging waste from my online food orders.
		SE13	I look for positive aspects in managing food packaging waste from online orders.
		SE14	I ensure nothing interferes with managing food packaging waste from online delivery services.

		SE15	I acknowledge that managing food packaging waste is now a normal part of life.
		SE16	I carefully plan steps to minimize food packaging waste from online food ordering services.
		SE17	I methodically manage food packaging disposal from my online food orders.
		SE18	I learnt something from my experiences dealing with food packaging waste from online orders.
		SE19	I set aside other activities to focus on food packaging disposal from online orders.
		SE20	I adapt to the reality of food packaging waste from online food services.
Avoidance Coping	Carver (2013)	AC1	I admit my inability to handle food packaging waste from my online food delivery services.
		AC2	I tell myself that food packaging waste is a minor issue in the broader context of sustainability.
		AC3	I give up on effectively managing food packaging waste from my online food delivery services.
		AC4	I lack understanding of food packaging waste as a major environmental issue.
		AC5	I give up on finding sustainable solutions for online food delivery packaging waste.
		AC6	I imagine that food packaging waste is not problematic.
		AC7	I put in less effort in managing food packaging waste from online food delivery.
		AC8	I act as if food packaging waste has no impact on environmental sustainability.
Socially Supported	Carver (2013)	SS1	I share my concerns about food packaging waste from online food deliveries with someone.
		SS2	I seek advice on better managing food packaging waste from online food delivery.
		SS3	I express frustration dealing with online food

			delivery packaging waste.
		SS4	I use humor to deal with food packaging waste from online food delivery.
		SS5	I seek emotional support from friends or family regarding online food delivery packaging waste.
		SS6	I ask around about effective management of food packaging waste.
		SS7	I recognize upset feelings about online food delivery packaging waste.
		SS8	I joke about the challenges of food packaging waste from online food delivery.
		SS9	I receive sympathy and understanding from others about online food delivery packaging waste.
		SS10	I consult someone for practical solutions to online food delivery packaging waste.
		SS11	I vent my feelings about food packaging waste from online food delivery.
		SS12	I humorously comment on food packaging waste from online food delivery.
		SS13	I talk about my feelings regarding food packaging waste from online food delivery.
		SS14	I ask for advice from those who have faced similar food packaging waste challenges.
		SS15	I frequently express emotional distress about food packaging.
		SS16	I downplay the seriousness of food packaging waste from online food delivery.
Consumer Environmental Concern	Kim & Choi (2005)	EC1	I am deeply concerned about the environmental impact of excessive packaging waste from online food delivery.
		EC2	I believe online food delivery greatly contribute to environmental abuse through excessive packaging waste.

		EC3	When online food delivery disrupts nature with excessive packaging waste, I believe it leads to disastrous environmental consequences.
		EC4	I acknowledge that excessive packaging waste from online food delivery can upset the delicate balance of nature.
		EC5	I believe food delivery companies should prioritize harmony with nature by reducing excessive packaging waste for environmental sustainability and human survival.

Table 3. 1 Operational Construct

3.5 Scale Measurement

3.5.1 Nominal Scale

In Section A, nominal measurements are used. Nominal scale is utilized for classification purposes and involves descriptive characteristics. In this study, nominal scale categorizes respondents' personal information into distinct groups based on their gender.

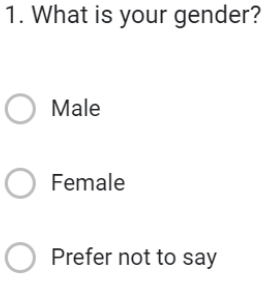


Figure 3.2 Example of Nominal Scale

3.5.2 Ordinal Scale

Sekaran and Bougie (2013) define ordinal scales as non-numerical measurement entities that are organized into a ranking sequence. While the order of values is important in ordinal scales, they do not precisely indicate the differences between each group. In this study, ordinal numbers were used to classify respondents into different spending categories on a single online food order.

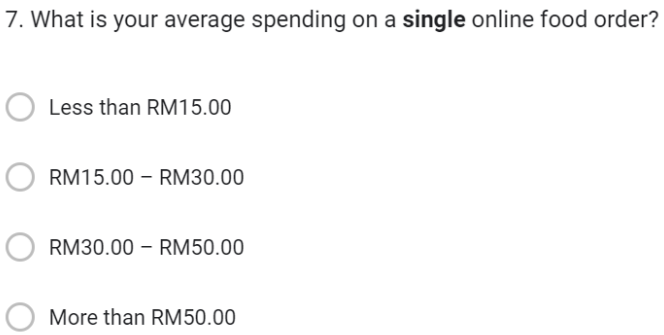


Figure 3.3 Example of Ordinal Scale

3.5.3 Likert Scale

The interval scale is characterized by fixed and equal intervals between figures such as 1 to 5, with 1 representing strongly disagree and 5 representing strongly agree (Dalati, 2018). In this study, a 5-point Likert scale was utilized to capture respondents' opinions on research-related statements. Both Section D and Section E of the questionnaire employed the interval scale. By using the 5-point Likert scale in these sections, respondents' attitudes were quantified, enabling measurement of their level of agreement or disagreement.

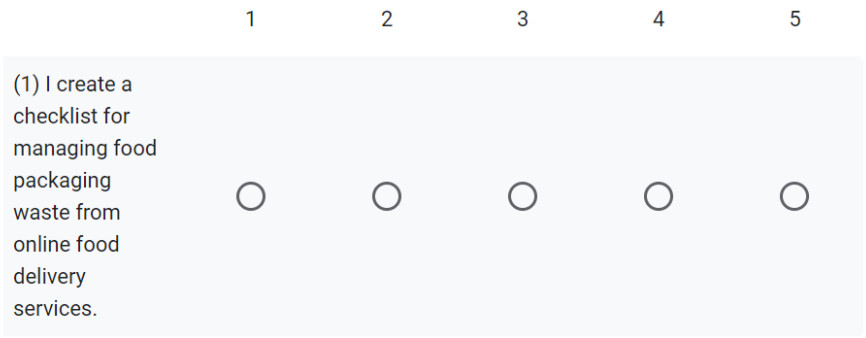


Figure 3.4 Example of Likert Scale

3.5.4 Pilot Test

A pilot test involves pretesting questionnaire questions to enhance the likelihood of the research's success. This step is conducted before the formal survey to ensure validity and reliability assessments (Van Teijlingen & Hundley, 2002). Pilot tests enable researchers to identify and rectify problematic or confusing questions. Browne's research (1995) suggests that a sample size of 30 is sufficient for conducting pilot tests. Hence, this research's pilot test was administered to friends through Google Forms, as they belong to the target population, facilitating quick and convenient data collection.

3.6 Proposed Data Analysis Tool

3.6.1 Descriptive Analysis

Descriptive analysis is the process of condensing, evaluating, interpreting, and displaying data utilizing visual aids such as tables, charts, or graphs to simplify intricate data into comprehensible insights (Bush, 2020). Its primary focus lies in examining frequency distribution, central tendency metrics like mean, median, and mode, as well as dispersion measures such as standard deviation, variance, and range (Simplilearn, 2023). In this research, descriptive analyses were employed to gauge the

frequency and proportion of demographic data, which were then illustrated through the use of tables and pie charts.

3.6.2 Reliability Test

The reliability test evaluates the consistency and validity of the data. In this study, the internal consistency and reliability of questionnaire responses were measured using Cronbach's Alpha, calculated with SPSS 26.0 software (Bujang et al., 2018). Typically, a Cronbach's Alpha value of at least 0.70 is considered acceptable. The test, conducted with a sample size of 33, revealed that all constructs surpassed this threshold. In the pilot test, self-sufficient and socially supported even exceeded 0.90, indicating exceptionally strong internal consistency. Avoidance coping and consumer environmental concern also exceeded 0.70. As a result, all variables are considered reliable.

Variable	Item	Cronbach's Alpha
Self-Sufficient	20	0.93
Avoidance Coping	8	0.74
Socially Supported	16	0.95
Consumer Environmental Concern	5	0.85

Table 3.2 Pilot Test Reliability Test

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.90$	Excellent
$0.80 \leq \alpha \leq 0.89$	Good
$0.70 \leq \alpha \leq 0.79$	Acceptable
$0.60 \leq \alpha \leq 0.69$	Questionable
$0.50 \leq \alpha \leq 0.59$	Poor
$\alpha \leq 0.50$	Unacceptable

Table 3.3 Cronbach's Alpha Rule of Thumb

3.6.3 Inferential Analysis

Inferential analysis extends conclusions beyond the specific dataset by making inferences and predictions about larger populations based on representative samples, and examining relationships between variables (Guetterman, 2019). This approach is necessary as it is impractical to collect data from entire populations. Thus, in this study, multiple linear regressions is employed as an inferential statistical method to investigate how three independent variables predict consumer environmental concern as the dependent variable.

3.6.3.1 Assumption Test

The basic assumptions of the multiple linear regression models include the absence of outliers and independence among independent variables (Uyanık & Güler, 2013). Furthermore, assumptions testing involve criteria such as normal distribution, linearity between independent and dependent variables, independent observations, and a continuous dependent variable (Guetterman, 2019). Meeting these assumptions is critical for validating outcomes and ensuring the accuracy of the model's predictions.

3.6.3.2 Multicollinearity Test

Multicollinearity arises when independent variables are not only significantly correlated with the dependent variable but also with each other, particularly in multiple regression analysis where the linear relationships between independent variables are assessed. The degree of multicollinearity is measured using the Variance Inflation Factor (VIF), where a VIF of 1 suggests no correlation, 1 to 5 indicates moderate correlation, and 5 to 10 implies high correlation. VIF values exceeding 10 indicate poor estimation of regression coefficients (Shrestha, 2020). High correlation can complicate the interpretation of results (Frost, 2023). Therefore, multicollinearity is considered acceptable when VIF is below 10. During the pilot test, all independent variables exhibited multicollinearity within an acceptable range.

Independent Variable	Statistics VIF
Self-Sufficient	2.597
Avoidance Coping	2.128
Socially Supported	3.096

Table 3.4 Pilot Test Multicollinearity Result

3.6.3.3 Multiple Linear Regression Analysis

Multiple linear regression analysis is a statistical method used to assess the connection between a dependent variable and several independent variables, predicting outcomes and determining if there is a cause-and-effect relationship (Uyanık & Güler, 2013). It examines whether the dependent variable is linearly associated with two or more independent variables. In this study, the relationship between self-sufficient, avoidance coping, socially supported, and consumer environmental concern purpose is investigated using multiple regression analysis.

Formula: $EC_i = \beta0 + \beta1SE + \beta2AC + \beta3SS + \epsilon_i$

EC_i = Environmental Concern

β0 = y Intercept

SE = Self-Sufficient

AC = Avoidance Coping

SS = Socially Supported

ϵ_i = Error or residual value

3.6.3.4 Coefficient of Correlation Analysis

Correlation Coefficient Analysis is used to explore potential relationships or associations between variables. The correlation coefficient indicates if values of two variables tend to systematically vary together, offering insights into the strength and direction of this relationship. The resulting correlation coefficient, known as the "r statistic," ranges from -1.0 to +1.0. A value of 0 for 'r' indicates no relationship between the two variables (Guetterman, 2019).

3.7 Data Collection Procedure

3.7.1 Data Checking

The researcher will assess all gathered questionnaires to verify their completeness. Any questionnaires with incorrect or ineligible responses will be invalidated. This proactive approach aims to identify errors promptly, providing sufficient time to obtain an adequate number of valid responses.

3.7.2 Data Editing

Researchers take immediate action to rectify errors, prioritizing data accuracy and reliability. This includes eliminating questionnaires containing missing, inconsistent, or duplicate entries. In this study, the use of Google Forms compelled respondents to answer every question, minimizing the possibility of missing data.

3.7.3 Data Coding

Each option will have a numerical code assigned to it to make the process of integrating collected data into SPSS software easier. For demographic questions with nominal and ordinal ratios, numerical values will be assigned to each category. Similarly, for the 5-point Likert scale question, “1” will represent “Strongly Disagree/I usually don’t do this at all,” “2” will denote “Disagree/I usually do this a little bit,” “3” is “Neutral/I usually do this a moderate amount”, “4” is “Agree/I usually do this a lot” and “5” represent “Strongly Agree/I always do this”.

3.7.4 Data Transcribing

At this point, SPSS will receive the encoded data from the Excel sheet and process it automatically to produce the analysis results.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter involves examining the gathered data to draw conclusions for the study. Initially, 162 questionnaires were received from respondents. However, after excluding 12 responses due to issues such as disagreement with acknowledgment of notice, central tendency error, acquiescence bias, and dissent bias, the remaining count of respondents was 150. Subsequently, data analysis and interpretation, comprising descriptive and inferential analysis, were performed utilizing SPSS version 26.0.

4.1 Descriptive Analysis

4.1.1 Frequency of Online Food Delivery Service Usage across Different Categories

For "Myself only (Personal meals)," the majority of respondents reported frequent usage, with 61.3% (92 individuals) indicating they order frequently, and 10% (15 individuals) reporting always ordering for personal meals. Additionally, 27.3% (41 individuals) stated they order regularly, while only 1.3% (2 individuals) replied occasionally. Regarding "Myself and family members (Family meals)," the data indicates a similar trend, with 56.7% (85 individuals) reporting always ordering for family meals, and 31.3% (47 individuals) stating they order frequently. Additionally, 8% (12 individuals) mentioned regular usage, while only 2.7% (4 individuals) replied occasionally. For "Family members only," respondents primarily reported frequent

usage, with 34% (52 individuals) stating they order frequently, and 28% (42 individuals) reporting always ordering for family members. Additionally, 34% (51 individuals) replied regularly, while 3.3% (5 individuals) replied occasionally. Lastly, for "Myself and Friends/Colleagues," the vast majority of respondents reported frequent usage, with 82.7% (124 individuals) indicating they order frequently, and 11.33% (17 individuals) reporting always ordering for friends/colleagues. Additionally, 5.3% (8 individuals) mentioned regular usage, while only 0.7% (1 individual) replied occasionally. As a result, the majority of respondents reported frequent ordering food online for myself and friends/ colleagues.

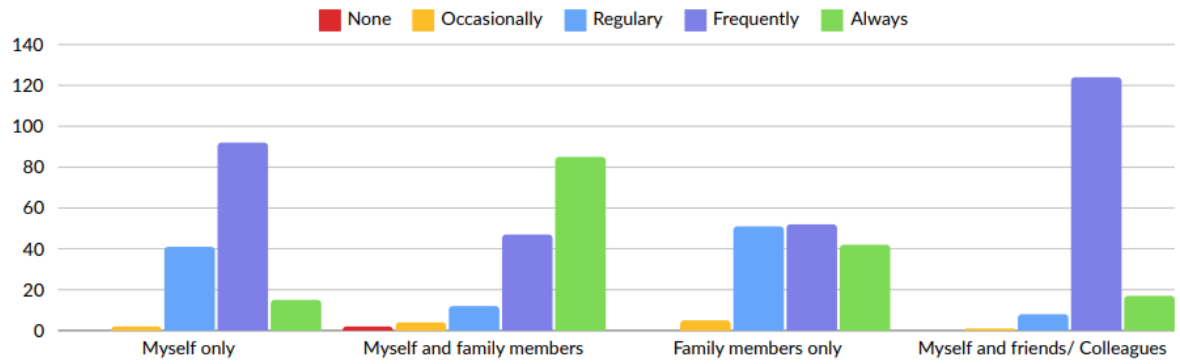


Figure 4.1 Descriptive Analysis for the Frequency of Online Food Delivery Service Usage across Different Categories

4.1.2 Types of Food Packaging Materials Use

The majority of respondents reported frequent or always encountering these materials, indicating their widespread usage in food packaging. Wooden chopsticks were frequently encountered by 86.7% (130 respondents) and always by 12.7% (19 respondents). Plastic containers were encountered frequently by 56.7% (85 respondents) and always by 43.3% (65 respondents). Beverage cups and caps were frequently encountered by 84% (126 respondents) and always by 12.7% (19 respondents). Paper packaging was frequently encountered by 59.3% (89 respondents) and always by 34% (51 respondents). Straws were encountered always by 61.33% (92 respondents) and frequently by 10.7% (16 respondents). Plastic bags were encountered always by 40.7% (61 respondents) and frequently by 31.3% (47

respondents). As a result, the majority of respondents reported frequent encountering wooden chopsticks for food packaging.

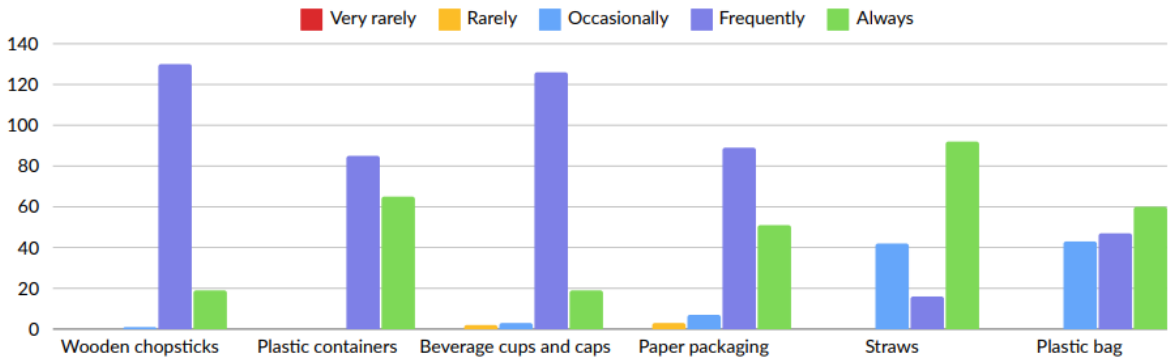


Figure 4.2 Descriptive Analysis for the Types of Food Packaging Materials Use

4.1.3 Practices for Disposing of Food Packaging

For "General Trash Disposal," 82.7% (124 respondents) reported frequent usage, and 17.3% (26 respondents) reported always disposing of packaging in the general trash. Regarding "Recycle bin Disposal," 38.7% (58 respondents) reported frequent usage, and 3.3% (5 respondents) reported always using designated recycling bins. For "Reuse or Repurpose," 30% (45 respondents) reported frequently engaging in this practice, and 31.3% (47 respondents) reported always doing so. Concerning "Sort and Classify," 10% (15 respondents) reported frequent sorting and taking recyclable materials to recycling centers, while 24.7% (37 respondents) reported always engaging in this practice. Lastly, for "Mixed of Disposal," 42% (63 respondents) reported frequent usage, and 50.7% (76 respondents) reported always employing a combination of methods, primarily disposing of packaging in trash bins. As a result, the majority of respondents reported frequent disposing of packaging in the general trash.

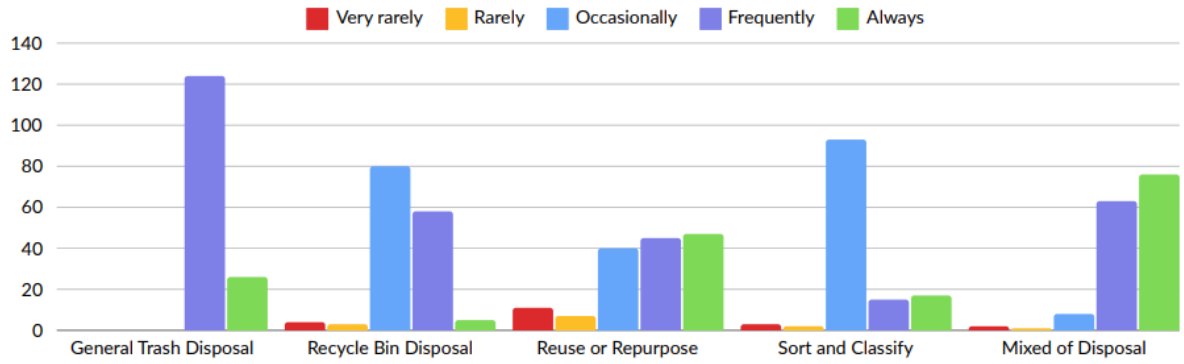


Figure 4.3 Descriptive Analysis for the Practices for Disposing of Food Packaging

4.1.4 Pain Point and the Usage of Online Food Delivery Service

Pain Point	Usage of Online Food Delivery Services				
	Daily	Weekly	Monthly	Less than once in month	**Total**
Not a pain point at all	0%	0%	1%	1%	**2%**
A minor inconvenience	23%	1%	25%	1%	**49%**
Moderately problematic	0%	29%	4%	3%	**37%**
Significantly bothersome	2%	3%	2%	1%	**9%**
A major pain point	0%	1%	1%	1%	**3%**
Total	**25%**	**34%**	**33%**	**8%**	**100%**

Table 4.1 Descriptive Analysis for Pain Point and the Frequency Usage of Online Food Delivery Services

The table provides a comprehensive overview of respondents' perceptions regarding the pain points associated with using online food delivery services across various usage frequencies. Among daily users, a notable proportion (23%) identifies the service as a minor inconvenience, while 2% find it significantly bothersome. For weekly users, the majority (29%) considers the service moderately problematic, with an additional 3% finding it significantly bothersome. Monthly users also express concerns, with 25% reporting minor inconveniences and 4% indicating moderate problems. Even among those using the service less than once a month, nearly half

(49%) perceive it as a minor inconvenience. These findings suggest that while online food delivery services may not be major pain points for the majority of users, there are prevalent issues that range from minor inconveniences to moderate problems.

4.1.5 Pain Point and Average spending on a single online food order

Pain Point	Average spending on a single online food order				
	Less than RM15.00	More than RM50.00	RM15.00 – RM30.00	RM30.00 – RM50.00	**Total**
Not a pain point at all	2%	0%	0%	0%	**2%**
A minor inconvenience	1%	22%	1%	25%	**50%**
Moderately problematic	6%	0%	31%	0%	**37%**
Significantly bothersome	3%	1%	4%	1%	**8%**
A major pain point	1%	0%	1%	1%	**3%**
Total	**13%**	**23%**	**38%**	**26%**	**100%**

Table 4.2 Descriptive Analysis for Pain Point and the Average spending on a single online food order

The table indicates a notable correlation between respondents' perceived pain points in disposing of packaging from online food delivery services and their average spending on a single order. Notably, as the spending amount increases, a greater percentage of respondents report facing difficulties in managing packaging waste. For example, while only 13% of respondents spending less than RM15.00 consider it a pain point, this figure increases to 23% for those spending between RM15.00 and RM30.00. Moreover, 38% of respondents spending between RM30.00 and RM50.00 report facing challenges in disposing of packaging. Similarly, 26% of respondents spending more than RM50.00 perceive it as a pain point. This data strongly suggests that higher spending on online food orders correlates with an increased perception of challenges in disposing of packaging materials.

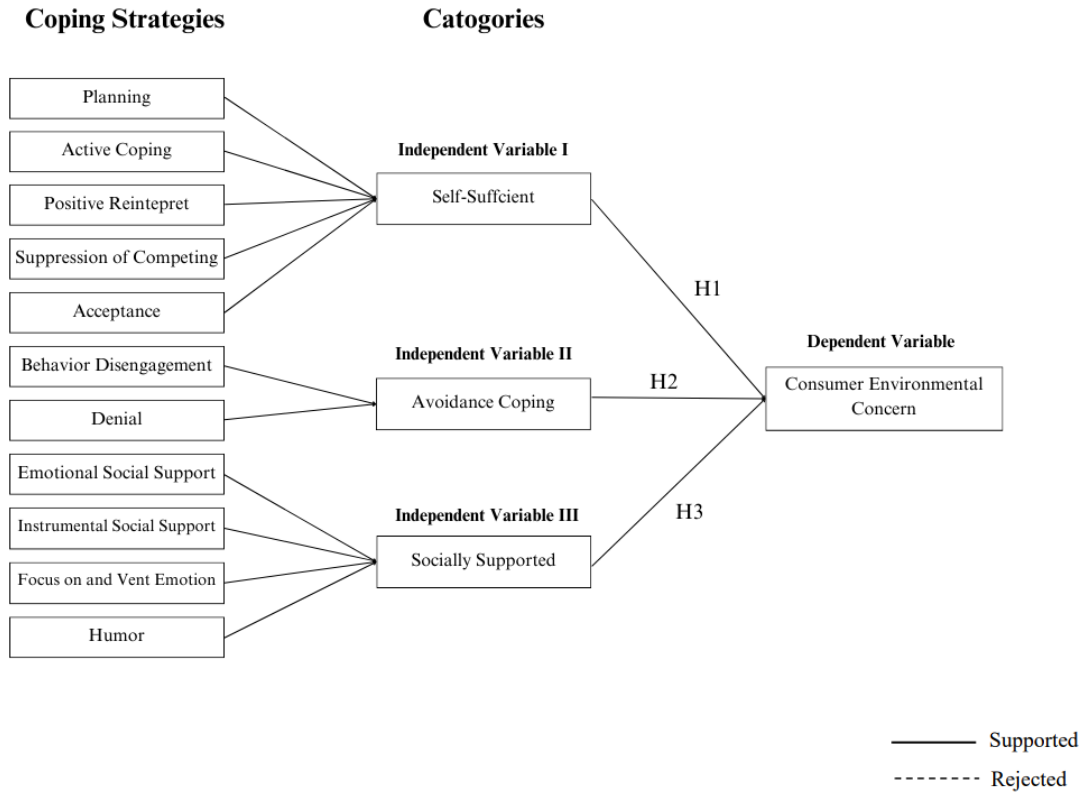
4.2 Reliability Test

Cronbach's alpha is utilized for assessing internal consistency to ensure the reliability of a questionnaire (Tavakol & Dennick, 2011). Table 4.2 presents the Cronbach's alpha values for all constructs, which self-sufficient is 0.89, socially supported is 0.87, and consumer environmental concern is 0.83. Avoidance coping with the highest alpha value at 0.90, slightly surpassing the 0.90 threshold, indicates redundancy (Ursachi et al., 2015). Typically, a Cronbach's Alpha value of at least 0.70 is considered acceptable. The result revealed that all constructs surpassed this threshold. So, all variables are considered reliable.

Variable	Item	Cronbach's Alpha	Reliability Test
Self-Sufficient	20	0.89	Good
Avoidance Coping	8	0.90	Excellent
Socially Supported	16	0.87	Good
Consumer Environmental Concern	5	0.83	Good

Table 4. 3 Cronbach's Alpha Reliability Test

4.3 Inferential Analysis



4.3.1 Assumption Test

Before conducting multiple linear regression analysis, it is necessary to satisfy several assumptions. These include the absence of outliers, the absence of multicollinearity problems, adherence to normal distribution, and the presence of a linear relationship, as outlined by Uyank & Güler (2012).

4.3.1.1 Mahalanobis Distance Test

Drumond et al. (2018) recommended employing Mahalanobis Distance to detect outliers or extreme values in multivariate data. This analysis identified 12 outliers. Consequently, after removing these outliers, the dataset was reduced to 150 valid responses for further analysis.

4.3.1.2 Multicollinearity Test

The multicollinearity test evaluates if independent variables in a multiple regression model are highly correlated using variance inflation factors (VIF) and tolerance values. Table 4.3 demonstrates that all predictors exhibit VIF values ranging from 1.065 to 1.369, with tolerance values exceeding 0.1. Since all VIF values are below 5, indicating moderate correlation, it suggests there are no multicollinearity concerns among the independent variables in this study.

Independent Variable	Tolerance	Variance Inflation Factors (VIF)
Self-Sufficient	0.730	1.369
Avoidance Coping	0.939	1.065
Socially Supported	0.770	1.298

Table 4. 4 Collinearity Statistics

4.3.1.3 Normality Test

The normality test involves evaluating skewness, kurtosis, and histogram charts (Uyanık & Güler, 2012). Typically, skewness values between -3 and +3, and kurtosis values within the range of -10 to +10 are considered acceptable (Brown, 2015). Self-sufficient demonstrates a highly negative skew of -2.759, indicating a heavily left-skewed distribution with a concentration of responses towards higher values. Avoidance coping also exhibits a negative skew, though less pronounced at -1.364, suggesting a distribution skewed towards lower values. Socially supported shows a nearly symmetric distribution with a skewness value close to zero (0.079), indicating a balanced spread of responses. Consumer environmental concern displays a slight negative skew of -0.356, suggesting a distribution slightly skewed towards higher values. Moreover, the kurtosis coefficient of this study falls within the range indicative of a normal distribution (-1.280 to 10.730). Figure 4.6 shows the histogram of residuals for consumer environmental concern indicates the distribution of the collected data is not normal.

Construct	Skewness	Kurtosis
Self-Sufficient	-2.759	10.730
Avoidance Coping	-1.364	0.362
Socially Supported	0.079	-1.280
Consumer Environmental Concern	-0.356	3.557

Table 4. 5 Skewness and Kurtosis

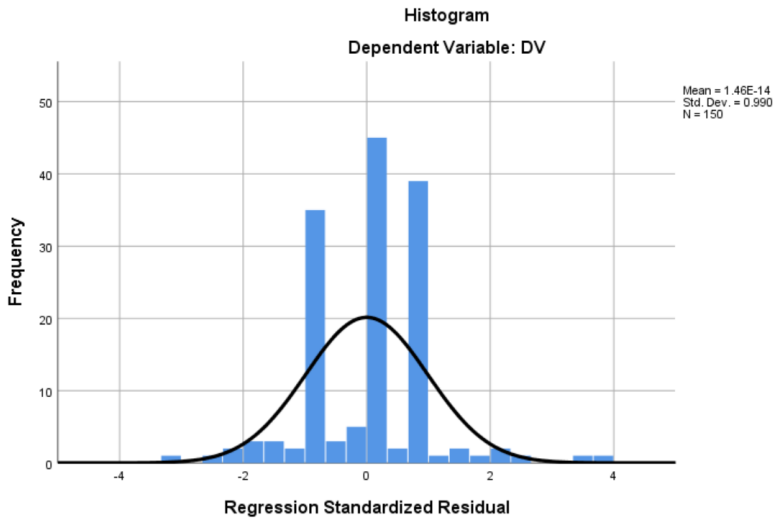


Figure 4. 4 Histogram of Dependent Variable

4.3.1.4 Linearity Test

The Residual Plot is utilized to affirm the linear association between the independent and dependent variables. In Figure 4.7, the residual plot indicates that the 'bad' regression model diverges from normality and exhibits a distinct, non-random pattern. This pattern implies that the linear model may not be appropriate, as it tends to over predict values within the middle range of the explanatory variable and under predict values at the extremes. This inconsistency suggests that the regression model fails to accurately represent the dataset.

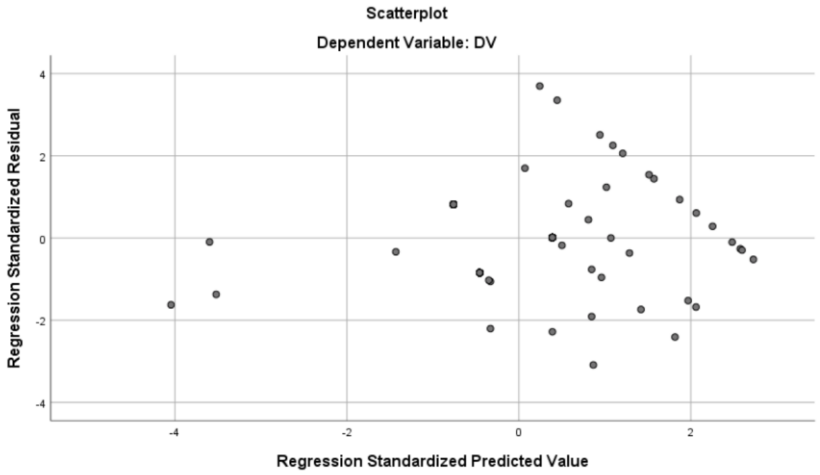


Figure 4. 5 Residual Plot

4.3.2 Pearson Correlation Coefficient Analysis

Table 4.5 displays correlation coefficients between independent and dependent variables. The positive correlations observed among all predictors indicate that increases in the independent variables correspond to increases in the dependent variable. Socially supported demonstrates the highest correlation with consumer environmental concern (r = 0.670), followed by self-sufficient (r = 0.514). Both self-sufficient and socially supported exhibit a noteworthy positive correlation with consumer environmental concern, with a significance level of 0.000. Conversely, avoidance coping demonstrates a negative correlation (r = -0.411), indicating that these variables move in opposite directions.

	EC	SE	AC	SS
EC Sig. (2–tailed)	1 0.000			
SE Sig. (2–tailed)	0.514** 0.000	1		
AC Sig. (2–tailed)	-0.411** 0.000	0.228** 0.000	1	
SS Sig. (2–tailed)	0.670** 0.000	0.471** 0.000	0.023**	1

Table 4. 6 Correlation Coefficient Results

4.3.3 Multiple Linear Regression Analysis

In the multiple regression analysis conducted for this study, Table 4.6 presents an adjusted R-squared value of 0.741, suggesting that the independent variables collectively account for 74.1% of the variability observed in consumer environmental concern. The ANOVA table statistics in Table 4.7 reveal an F-test value of 143.082, with a p-value less than 0.05, indicating a significant relationship between at least one independent variable and the dependent variable. Furthermore, Table 4.8 provides beta values, where AC is at -0.513, indicating a decrease in self-sufficiency is associated with an increase in environmental concern by 0.513 units, holding other variables constant. Conversely, SE is at 0.398 and SS is at 0.494, implying that an increase in the predictor variable is associated with a rise in the dependent variable. Notably, Table 4.8 highlights the significant influence of self-sufficiency, avoidance coping, and social support on consumers' environmental concern related to coping with packaging waste, as indicated by their p-values of 0.000, which are below the significance level of 0.05.

R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change	F Test	df1	df2	Sig. F Change
0.864	0.746	0.741	0.175	0.746	143.082	3	146	0.000

Table 4. 7 Model Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	13.084	3	4.361	143.082	0.000
Residual	4.450	136	0.030		
Total	17.535	149			

Table 4. 8 ANOVA

Model	Standard Error	Coefficient β	t	p-value	Decision
(Constant)	0.152		19.734	0.000	
SE→EC	0.042	0.398	8.166	0.000	Supported
AC→EC	0.019	-0.513	-11.920	0.000	Supported
SS→EC	0.017	0.494	10.395	0.000	Supported

Table 4. 9 Coefficient

4.4 Test of Significance

Hypothesis 1:

H0: Self-Sufficient has no significant relationship with consumer environmental concern.

H1: Self-Sufficient has significant relationship with consumer environmental concern.

Reject H0 if P < 0.05

Based on Table 4.8, H0 is rejected because the P-value of self-sufficient is 0.000 which is lower than 0.05. The research concludes that there is significant relationship between self-sufficient coping strategy and consumer environmental concern.

Hypothesis 2:

H0: Avoidance Coping has no significant relationship with consumer environmental concern.

H1: Avoidance Coping has significant relationship with consumer environmental concern.

Reject H0 if P < 0.05

Based on Table 4.8, H0 is rejected because the P-value of avoidance coping strategy is 0.000 which is lower than 0.05. The research concludes that there is significant relationship between avoidance coping strategy and consumer environmental concern.

Hypothesis 3:

H0: Socially Supported has no significant relationship with consumer environmental concern.

H1: Socially Supported has significant relationship with consumer environmental concern.

Reject H0 if P < 0.05

Based on Table 4.8, H0 is rejected because the P-value of self-sufficient is 0.000 which is lower than 0.05. The research concludes that there is significant relationship between socially supported coping strategy and consumer environmental concern.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter provides a comprehensive overview of the entire study, encapsulating the statistical findings and analyses from preceding chapters. It delves into the relationships among each construct, explores their implications, addresses the limitations encountered, and offers recommendations based on the conclusions. Through this discussion, the study's findings are summarized and brought to a conclusive closure.

5.1 Discussion on Major Findings

Hypothesis	Relationship	Coefficient / p-value	Result
H1	Self-Sufficient has significant relationship with consumer environmental concern	β = 0.398 p = 0.000	Supported
H2	Avoidance Coping has significant relationship with consumer environmental concern	β = -0.513 p = 0.000	Supported
H3	Socially Supported has significant relationship with consumer environmental concern	β = 0.494 p = 0.000	Supported

Table 5. 1 Hypothesis Testing Analysis

The results of the data analysis are shown in Table 5.1. The findings reveal that there is a significant relationship between self-sufficient, avoidance coping, and socially supported with the consumer environmental concern to cope with the packaging waste from online food delivery service.

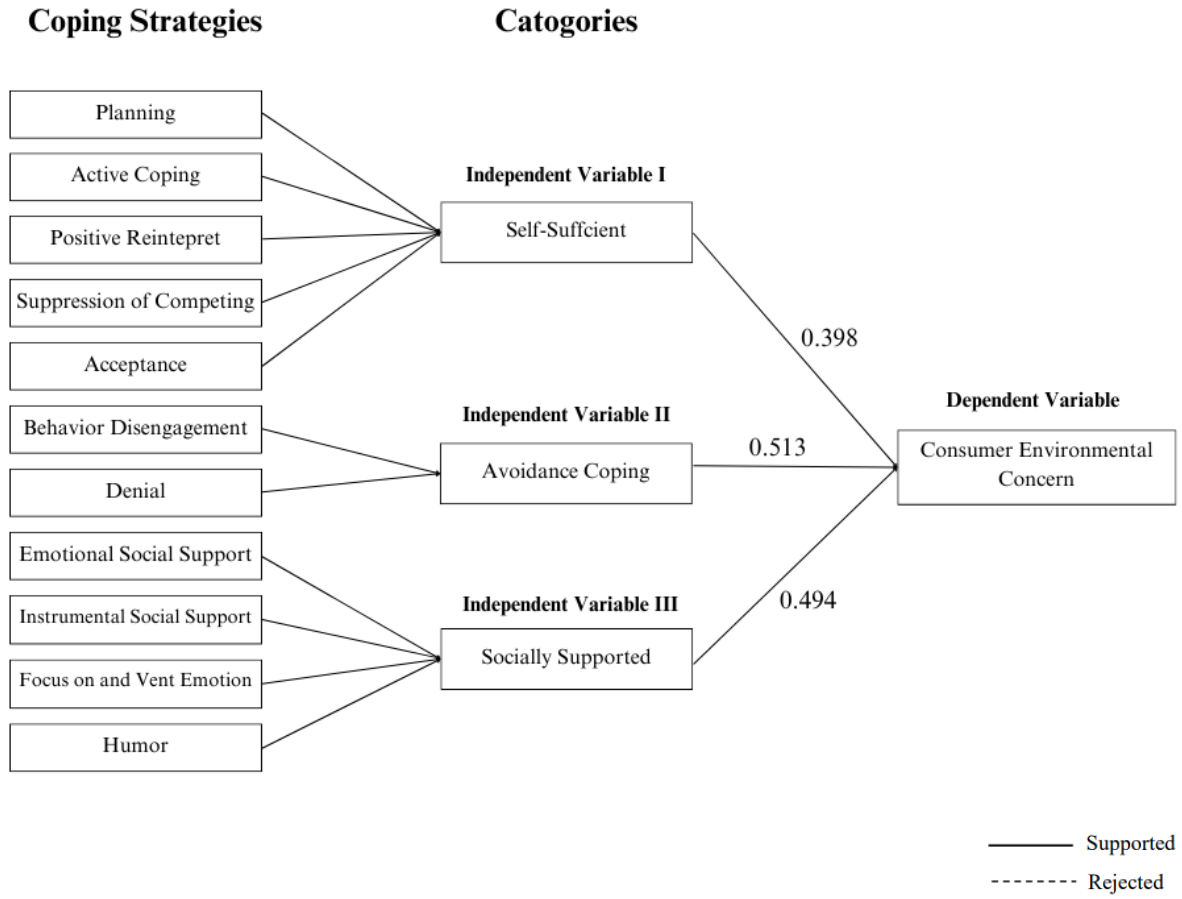


Figure 5. 1 Structural Equation Model Results

5.1.1 Relationship between Self-Sufficient and Consumer Environmental Concern

Research findings indicate a significant relationship between self-sufficient and consumer environmental concern ($\beta = 0.398$; $p = 0.000$), therefore supporting H1. This show that self-sufficient positively influences consumer environmental concern

to cope with packaging waste in food delivery services. Kross, Ayduk, and Mischel (2005) indicate that consumers who use this coping strategy are more likely to recognize and accept the difficulties associated with promoting environmental sustainability, particularly in the context of online food delivery services and plastic packaging waste. In other words, instead of simply reacting emotionally to environmental concerns, consumers who adopt self-sufficient coping mechanisms are more inclined to actively seek out practical solutions and take action to address the issue. Besides that, Orzan et.al (2018) investigates the role of consumer self-sufficiency and environmental concern in reducing packaging waste through sustainable shopping behaviors. This means that consumer with self-sufficient coping are more likely to engage in proactive actions that contribute to the reduction of packaging waste, such as choosing products with minimal or recyclable packaging, opting for reusable containers, or participating in recycling programs.

5.1.2 Relationship between Avoidance Coping and Consumer Environmental Concern

The study results show a significant relationship between avoidance coping and consumer environmental concern, supporting H2 ($\beta = -0.513$; $p = 0.000$). This implies that avoidance coping negatively influences consumer environmental concern regarding coping with packaging waste in food delivery services. In other words, individuals who employ avoidance coping are more inclined to overlook environmental issues, particularly those related to packaging waste in the context of food delivery services. Brewer and Hewstone (2004) discovered that when consumers experience negative emotions, they are less likely to raise concerns about issues. Similarly, in the context of environmental issues like packaging waste from food delivery service, consumers may actively ignore or deny related information to avoid feelings of discomfort. By distancing themselves from such information, consumer can continue their consumption behaviour without feeling guilty or responsible to the environment issues. Previous findings also suggest that information avoidance, denial, and disengagement behaviour, can contribute to lower levels of environmental concern and reduced engagement in pro-environmental behaviours. These findings show that individuals are inclined to show indifference towards environmental issues

and may engage in escapism through their consumption behaviours, which means they are more likely to ignore environmental problems and may seek temporary relief or distraction through their consumption choices (Yuliya et al., 2012).

5.1.3 Relationship between Socially Supported and Consumer Environmental Concern

The research findings reveal a significant relationship between socially supported and consumer environmental concern, hence H3 is supported ($\beta = 0.494$; $p = 0.000$). This suggests that social support positively influences consumer environmental concern, implying that individuals who perceive higher levels of social support are more likely to demonstrate greater environmental concern and a stronger commitment to sustainable lifestyles. House (1981) indicates that people who are concerned about the environmental impact of excessive packaging in food delivery services may seek guidance and emotional support from their friends or family members. They might discuss eco-friendly alternatives, share tips on reducing plastic waste, or ask for recommendations for restaurants or delivery services that prioritize sustainable packaging practices. Furthermore, previous findings emphasize humor as an adaptive coping strategy by easing perceived stress and fostering positive emotions when individuals face difficult situations. It offers a form of enjoyable escape, especially when facing unpredictable or overwhelming stressors like environmental issues such as plastic waste and associated containment measures. In such instances, humor can enhance the positive effects of dealing directly with problems and reduce the negative impact of avoidance coping strategies (Simione & Gnagnarella, 2023). Therefore, humor can serve as an effective strategy for promoting pro-environmental behaviors by enhancing engagement in recycling program and reducing psychological barriers to action.

5.2 Implication of Study

5.2.1 Practical Implications

This study offers valuable insights that can positively impact various stakeholders. For consumers, understanding their coping mechanisms provides an opportunity to make more informed decisions about their consumption habits. They can adopt strategies such as selecting restaurants with minimal packaging or reusing containers to reduce waste. Additionally, consumers can advocate for sustainable practices within the food delivery industry, influencing platforms to offer more environmentally friendly packaging options. Food delivery platforms can leverage this research to develop innovative packaging solutions that align with consumer preferences and sustainability goals. This may involve investing in compostable or reusable packaging materials, implementing waste reduction initiatives, or incentivizing customers to choose eco-friendly options. For businesses, study insights into consumer coping strategies present opportunities to enhance their environmental sustainability efforts while meeting consumer demands. Businesses can use research findings to inform their packaging decisions, opting for materials and designs that resonate with consumers' values and preferences for sustainability. By investing in eco-friendly packaging options, such as compostable or recyclable materials, businesses can demonstrate their commitment to environmental responsibility and differentiate themselves in the market. Environmental organizations can utilize research findings to tailor their awareness campaigns and educational efforts, fostering greater consumer awareness and engagement in sustainable practices. Furthermore, policymakers and government agencies can use this research to inform the development of evidence-based regulations and policies aimed at reducing packaging waste in the food delivery sector. By understanding consumer coping strategies, policymakers can design interventions that promote sustainable behaviors while supporting the growth of a circular economy. Overall, stakeholders can work together to create a more sustainable and environmentally friendly food delivery ecosystem by understanding consumer behaviors and preferences.

5.2.2 Theoretical Implication

This study used coping theory to examine how consumers cope with packaging waste in food delivery services. Besides, addressing a literature gap noted by Vidal-Ayuso (2023) on consumer post-purchase phase in relation to plastic waste disposal management, this study fill the gap by exploring consumer coping strategies toward food packaging materials in online food delivery services. It has contributed to a better understanding of how consumer behavior can evolve in response to the environmental impact of plastic waste. Essentially, coping theory has investigated how consumers mentally and emotionally cope with the environmental stress of excessive packaging. By exploring how consumers cope the environmental impact of plastic waste, this study sheds light on how consumer behaviors may evolve in response to sustainability concerns. This theoretical insight is valuable for businesses in the food delivery industry who aim to promote more sustainable practices. Understanding how consumers cope with packaging waste enable companies to tailor their strategies in order to encourage eco-friendly behaviors. Overall, this study not only expands our knowledge but also lays the foundation for future research on promoting sustainable behaviors among consumers.

5.3 Limitations of Study

This study faces several limitations that need consideration. One significant limitation in this study is the potential for sampling bias. This occurs when the sample of respondents in the study does not accurately represent the broader population of consumers who use food delivery services. This is because this study recruits respondents from Facebook and Xiao Hong Shu's users, so the findings may not be generalizable to other populations. This bias can skew the results and limit the applicability of the findings to the broader consumer base. Besides that, contextual factors such as cultural norms and socioeconomic conditions can significantly influence consumer coping strategies toward packaging waste. For example, consumers in areas with limited recycling facilities may have different coping strategies

compared to those in regions with robust recycling programs. Thus, failing to account for these contextual factors can limit the generalizability of the findings and overlook important determinants of coping behaviours. Another limitation is the reliance on self-reported data. It is because this study used questionnaire survey such as google form to gather information about consumer coping strategies. Thus, respondents may provide responses they believe are socially acceptable rather than reflecting their true behaviours or attitudes. This self-reported data can be prone to biases such as social desirability bias. Additionally, respondents may have difficulty accurately recalling their coping behaviours, leading to potential inaccuracies in the data collected.

5.4 Recommendation for Future Research

Future studies are recommended to utilize longitudinal research designs to monitor the evolution of coping strategies over time. By doing so, researchers can gain valuable insights into the long-term effectiveness and sustainability of various approaches. Additionally, future researcher can employ mixed-methods approaches, which integrate both qualitative and quantitative methodologies to yield a more comprehensive understanding of consumer behaviours and underlying motivations regarding packaging waste. These approaches can prioritize inclusivity by ensuring diverse representation across various demographic and geographic groups to capture a wide range of consumer's viewpoints. Furthermore, future research should consider the influence of contextual factors on consumer coping strategies. This could involve conducting comparative analyses across different environmental contexts to identify best practices and tailored interventions. Researchers should take steps to validate self-reported data obtained through questionnaire surveys to minimize biases and inaccuracies. This could involve cross-referencing survey responses with objective measures or conducting follow-up interviews to confirm the accuracy of reported coping behaviors. By addressing these recommendations, future research can overcome the limitations identified in the study and contribute to a more robust understanding of consumer coping strategies toward packaging waste in food delivery services.

5.5 Conclusion

In conclusion, this research is used coping theory to examine consumer coping strategies towards packaging waste in food delivery services. The findings show that self-sufficient, avoidance coping and socially supported significantly influence consumer environmental concern. Moreover, the findings suggested are aligned with the past literature reviewed in context of COPE inventory and thus able to form theoretical implications and practical implications. However, limitations have been identified in this study due to the research design. Therefore, recommendations are made for future research to address these limitations and improve the applicability of their findings.

REFERENCES

Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and How of it? Indian Journal of Medical Specialities, 4(2), 330–333. https://doi.org/10.1007/978-94-007-0753-5_2551

Akman, S. (2023, June 19). What is target population: Definition & examples. Forms.App. https://forms.app/en/blog/target-population

Aldwin CM, Yancura LA. Coping. Encyclopedia of Applied Psychology. 2004. p. 507–510. Theodoratou M, Gkintoni E, Farmakopoulou I. Executive Functions and Quality of Life in Neurodevelopmental Spectrum. An Outline. Technium Social Sciences Journal. 2023;39(1):430–439.

Asenahabi, B. M. (2019). Basics of Research Design: A Guide to selecting appropriate research design. International Journal of Contemporary Applied Researches, 6(5), 76–89. https://www.researchgate.net/publication/342354309_Basics_of_Research_Design_A_Guide_to_selecting_appropriate_research_design

Blalock, J. A., & Joiner, T. E. (2000). Interaction of cognitive avoidance coping and stress in predicting depression/anxiety. *Cognitive therapy and research*, *24*, 47-65.

Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. Guilford publications.

Bujang, M. A., Omar, E. D., & Baharum, N. A. (2018). A Review on Sample Size Determination for Cronbach's Alpha Test: A Simple Guide for Researchers. The Malaysian Journal of Medical Science, 25(6), 85–99. https://doi.org/10.21315/mjms2018.25.6.9

Bush, T. (2020, June 22). Descriptive analysis: How-To, Types, Examples. PESTLE Analysis. Retrieved September 13, 2023, from https://pestleanalysis.com/descriptive-analysis/

Carroll L. Problem-focused coping. Encyclopedia of Behavioral Medicine. 2013;1540–1.

Chai, L. T., & Yat, D. N. C. (2019). Online food delivery services: Making food delivery the new normal. Journal of Marketing advances and Practices, 1(1), 62-77.

Chung, T., Langenbucher, J., Labouvie, E., Pandina, R. J., & Moos, R. H. (2001). Changes in alcoholic patients' coping responses predict 12-month treatment outcomes. *Journal of consulting and clinical psychology*, *69*(1), 92.

Cooper, D. R., & Schindler, P. S. (2014). Business Research Methods (12th ed.).

Creswell, J. W. (1994). Research Design: Qualitative, quantitative, and mixed methods approaches. http://www.revistacomunicacion.org/pdf/n3/resenas/research_design_qualitative_quantitative_and_mixed_methods_approaches.pdf

Cronkite, R. C., Moos, R. H., Beckman, E. E., & Leber, W. R. (1995). Handbook of depression.

D.-H. Park, J. Lee, and I. Han, "The Effect of On-Line Consumer Reviews on Consumer Purchasing Intention: The Moderating Role of Involvement," Int. J. Electron. Commer., vol. 11, no. 4, pp. 125–148, Jul. 2007.

Dalati, S. (2018). Measurement and Measurement Scales. In Modernizing the Academic Teaching and Research Environment (pp. 79–96). https://doi.org/10.1007/978-3-319-74173-4_5

Dilkes-Hoffman, L.S., Pratt, S., Laycock, B., Ashworth, P., Lant, P.A., 2019 b b. Public attitudes towards plastics. Resour. Conserv. Recycl. 147, 227–235. https://doi.org/10.1016/j.resconrec.2019.05.005.

Fraser Health Authority. (2011). Quantitative Research Methods and Tools. PDF4Pro. https://pdf4pro.com/amp/view/quantitative-research-methods-and-toolsfraser-57617.html

Freire C, Ferradás Mdel, Regueiro B, et al. Coping strategies and self-efficacy in university students: A person-centered approach. Frontiers in Psychology. 2020;11.

Frost, J. (2023, January 29). Multicollinearity in Regression Analysis: Problems, detection, and solutions. Statistics By Jim. Retrieved September 14, 2023, from https://statisticsbyjim.com/regression/multicollinearity-in-regression-analysis/

Gelo, O., Braakmann, D., & Benetka, G. (2008). Quantitative and qualitative research: beyond the debate. Integrative Psychological and Behavioral Science, 42(3), 266–290. https://doi.org/10.1007/s12124-008-9078-3

Grab Malaysia. (2022). Malaysia Food and Delivery Trends Report 2022 | Grab MY. Grab. https://www.grab.com/my/merchant/food-and-grocery-trends-report-2022/

Guetterman, T. C. (2019). Basics of statistics for primary care research. Family Medicine and Community Health, 7(2), 1–7. https://doi.org/10.1136/fmch2018-000067

Insight, M. (2021, June 6). Food deliveries lead to more plastic waste. The Malaysian Insight. https://www.themalaysianinsight.com/s/319886

Israel, G. D. (1992, November). Determining Sample Size. Florida Cooperative Extension Service. https://www.academia.edu/21353552/Determining_Sample_Size_1

Joiner, T. E., & Coyne, J. C. (1999). *The interactional nature of depression: Advances in interpersonal approaches* (pp. xiv-423). American Psychological Association.

Kabir, S. M. S. (2016). BASIC GUIDELINES FOR RESEARCH An Introductory Approach for All Disciplines (1st ed.). Book Zone Publication. https://www.researchgate.net/publication/325846982_SAMPLE_AND_SAMPLING_DESIGNS

Kaur, S. (2017). Sample Size Determination (for Descriptive Studies). International Journal of Current Research, 9(3), 48365–48367. https://www.researchgate.net/publication/349862047_SAMPLE_SIZE_DETERMINATION

Lavu. (2023, October 29). The growth of online ordering and food delivery - LAVU. Lavu -. https://lavu.com/the-growth-of-online-ordering-and-food-delivery/#:~:text=About%2037%25%20of%20restaurants%20in,for%20both%20customers%20and%20restaurants.

Leoi, S. L. (2019, August 30). Malaysians generate 38,000 tonnes of waste every day. The Star. https://www.thestar.com.my/lifestyle/star2.com-video/2019/05/21/waste-environment-issue

Levchenko, O. G., Polukarov, Y. O., Zemlyanska, O. V., Prakhovnik, N. A., Kachynska, N. F., Kovtun, A. I., & Ashykmina, A. V. (2023, May). Advantages and disadvantages of using paper, biological and plastic packaging in the food industry. In *Proceedings of the V Corresponence International Scientific and Practical Conference Science of Post-industrial Society: Globalization and Transformation Processes*. International scientific journal «Grail of Science».

M. Hajli, "A research framework for social commerce adoption," Inf. Manag. Comput. Secur., vol. 21, no. 3, pp. 144–154, 2013.

Marchand, J. F., & Hock, E. (2003). Mothers' and fathers' depressive symptoms and conflict-resolution strategies in the marriage and children's externalizing and internalizing behaviors. *The Journal of Genetic Psychology*, *164*(2), 227-239.

Mishra, P., Pandey, C. M., Singh, U., & Gupta, A. (2018). Scales of Measurement and Presentation of Statistical Data. Annals of Cardiac Anaesthesia, 21(4), 419–422. https://doi.org/10.4103/aca.aca_131_18

N. Hajli and J. Sims. (2018), "Social commerce: The transfer of power from sellers to buyers," Technol. Forecast. Soc. Change, vol. 94, pp. 350–358, 2015.

Online, S. (2023, June 6). 20sen charge not deterring public from using plastic bags. The Star. https://www.thestar.com.my/news/nation/2023/06/06/20sen-charge-not-deterring-public-from-using-plastic-bags

Orzan, G.; Cruceru, A.F.; Bălăceanu, C.T.; Chivu, R.-G. Consumers' Behavior Concerning Sustainable Packaging: An Exploratory Study on Romanian Consumers. *Sustainability* **2018**, *10*, 1787. https://doi.org/10.3390/su10061787

Penland, E. A., Masten, W. G., Zelhart, P., Fournet, G. P., & Callahan, T. A. (2000). Possible selves, depression and coping skills in university students. *Personality and individual differences*, *29*(5), 963-969.

Penley, J. T. J. and Wiebe, J.(2002). The association of coping to physical and psychological health outcomes a meta-analytic review. *Journal of Behavioural Medicine. 25 (6)*, 551-563.

Plastic in our oceans is killing marine mammals – WWF-Australia | Plastic in our oceans is killing marine mammals | WWF Australia. (2023). WWF Australia. https://wwf.org.au/blogs/plastic-in-our-oceans-is-killing-marine-mammals/

Powers, D. V., Gallagher-Thompson, D., & Kraemer, H. C. (2002). Coping and depression in Alzheimer's caregivers: longitudinal evidence of stability. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *57*(3), P205-P211.

Ritchie, H., & Roser, M. (2018). Plastic pollution. *Our world in data*.

Rukmana, D. (2014). Sample Frame. In Encyclopedia of Quality of Life and Well-Being Research (pp. 5640–5641). https://doi.org/10.1007/978-94-007-0753-5_2551

Serbajadi. (2022, April 28). Plastic Waste Pollution In Malaysia. Best Gardening and Plant Supplies in Malaysia. https://serbajadi.com.my/blog/plastic-waste-pollution-in-malaysia/#:~:text=%E2%80%9CA%202019%20research%20report%20conducted,Vietnam%20in%20overall%20generated%20waste%E2%80%9D.

Shakil, Nurul & Azhar, Nur & Othman, Norashida. (2023). Solid Waste Management in Malaysia: An overview. Information Management and Business Review. 15. 86-93. 10.22610/imbr.v15i1(I)SI.3410.

Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. American Journal of Applied Mathematics and Statistics, 8(2), 39–42. https://doi.org/10.12691/ajams-8-2-1

Siedlecki, S. L. (2020). Understanding Descriptive Research Designs and Methods. Clinical Nurse Specialist, 34(1), 8–12. https://doi.org/10.1097/nur.0000000000000493

Simione, L., & Gnagnarella, C. (2023). Humor Coping Reduces the Positive Relationship between Avoidance Coping Strategies and Perceived Stress: A Moderation Analysis. *Behavioral sciences (Basel, Switzerland)*, *13*(2), 179. https://doi.org/10.3390/bs13020179

Statista. (2023). Online Food Delivery - Malaysia | Statista market forecast. https://www.statista.com/outlook/dmo/online-food-delivery/malaysia

Statista. (2023, June 9). Change of food delivery apps usage during COVID-19 pandemic in Malaysia 2023. https://www.statista.com/statistics/1143406/malaysia-food-delivery-apps-usage-during-covid-19/

Strizhakova, Yuliya & Tsarenko, Yelena & Ruth, Julie. (2012). "I'm Mad and I Can't Get That Service Failure Off My Mind" Coping and Rumination as Mediators of Anger Effects on Customer Intentions. Journal of Service Research. 15. 414-429. 10.1177/1094670512443999.

Suki, N. M. (2016). Consumer environmental concern and green product purchase in Malaysia: structural effects of consumption values. *Journal of Cleaner Production*, *132*, 204-214.

Sullivan, G. M., & Artino, A. R. (2013). Analyzing and Interpreting Data From LikertType Scales. Journal of Graduate Medical Education, 5(4), 541–542. https://doi.org/10.4300/jgme-5-4-18

T.-P. Liang, Y.-T. Ho, Y.-W. Li, and E. Turban, "What Drives Social Commerce: The Role of Social Support and Relationship Quality," Int. J. Electron. Commer., vol. 16, no. 2, pp. 69–90, 2011.

Thoits, P. A. (1986). Social support as coping assistance. *Journal of consulting and clinical psychology*, *54*(4), 416.

Ursachi, G., Horodnic, I. A., & Zaiţ, A. (2015). How Reliable are Measurement Scales? External Factors with Indirect Influence on Reliability Estimators. Procedia. Economics and Finance, 20, 679–686. https://doi.org/10.1016/s2212- 5671(15)00123-9

Uyanık, G. K., & Güler, N. (2013). A Study on Multiple Linear Regression Analysis. Procedia - Social and Behavioral Sciences, 106, 234–240. https://doi.org/10.1016/j.sbspro.2013.12.027

Van Teijlingen, E., & Hundley, V. (2002). The importance of pilot studies. Nursing Standard, 16(40), 33–36. https://doi.org/10.7748/ns2002.06.16.40.33.c3214

Wang, O. (2020, May). Consumer adoption of online-to-offline food delivery services: a conceptual model. In *Digital Marketing & eCommerce Conference* (pp. 99-105). Cham: Springer International Publishing.

Williams, C. S. (2011). Research Methods. Journal of Business & Economics Research (JBER), 5(3). https://doi.org/10.19030/jber.v5i3.2532

World Bank Group. (2021, August 11). ASEAN member states adopt regional action plan to tackle plastic pollution. World Bank. https://www.worldbank.org/en/news/press-release/2021/05/28/asean-member-states-adopt-regional-action-plan-to-tackle-plastic-pollution

Y.Badrum. (2021). Shaping a new norm for waste management. Thoughts BERNAMA. https://www.bernama.com/en/thoughts/news.php?id=1848164

Yeo. (2021). Annual plastic usage is getting worse – 148,000 tonnes for food packaging alone. Astro Awani. https://www.astroawani.com/berita-malaysia/annual-plastic-usage-getting-worse-148000-tonnes-food-packaging-alone-311794

Zeidner M, Endler NS. Handbook of coping: Theory, research, applications. New York etc. John Wiley & Sons; 1996.

Zimmer-Gembeck MJ, Skinner EA. The development of coping: Implications for psychopathology and resilience. Developmental Psychopathology. 2016;1–61.

APPENDICES

Pearson Correlation Coefficient Analysis

Correlations

		DV	IV1	IV2	IV3
DV	Pearson Correlation	1	.514**	-.411**	.670**
	Sig. (2-tailed)		.000	.000	.000
	N	150	150	150	150
IV1	Pearson Correlation	.514**	1	.228**	.471**
	Sig. (2-tailed)	.000		.005	.000
	N	150	150	150	150
IV2	Pearson Correlation	-.411**	.228**	1	.023
	Sig. (2-tailed)	.000	.005		.779
	N	150	150	150	150
IV3	Pearson Correlation	.670**	.471**	.023	1
	Sig. (2-tailed)	.000	.000	.779	
	N	150	150	150	150

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.864[a]	.746	.741	.17459	.746	143.082	3	146	.000

a. Predictors: (Constant), IV3, IV2, IV1

b. Dependent Variable: DV

Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.002	.152		19.734	.000
	IV1	.339	.042	.398	8.166	.000
	IV2	-.225	.019	-.513	-11.920	.000
	IV3	.173	.017	.494	10.395	.000

a. Dependent Variable: DV

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.084	3	4.361	143.082	.000[b]
	Residual	4.450	146	.030		
	Total	17.535	149			

a. Dependent Variable: DV

b. Predictors: (Constant), IV3, IV2, IV1

Correlations between variables

Correlations

		Planning	Activecoping	Postivereintepret	Suppressionofcompeting	Acceptance
Planning	Pearson Correlation	1	.840**	.804**	.547**	.757**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	150	150	150	150	150
Activecoping	Pearson Correlation	.840**	1	.955**	.601**	.448**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	150	150	150	150	150
Postivereintepret	Pearson Correlation	.804**	.955**	1	.587**	.457**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	150	150	150	150	150
Suppressionofcompeting	Pearson Correlation	.547**	.601**	.587**	1	.197*
	Sig. (2-tailed)	.000	.000	.000		.016
	N	150	150	150	150	150
Acceptance	Pearson Correlation	.757**	.448**	.457**	.197*	1
	Sig. (2-tailed)	.000	.000	.000	.016	
	N	150	150	150	150	150

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

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		Behaviordisengagement	Denial
Behaviordisengagement	Pearson Correlation	1	.857**
	Sig. (2-tailed)		.000
	N	150	150
Denial	Pearson Correlation	.857**	1
	Sig. (2-tailed)	.000	
	N	150	150

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

Correlations

		Emotionalsocialsupport	Instrumentsocialsupport	Focusonandventemotion	Humor
Emotionalsocialsupport	Pearson Correlation	1	.530**	.913**	.705**
	Sig. (2-tailed)		.000	.000	.000
	N	150	150	150	150
Instrumentsocialsupport	Pearson Correlation	.530**	1	.457**	.245**
	Sig. (2-tailed)	.000		.000	.003
	N	150	150	150	150
Focusonandventemotion	Pearson Correlation	.913**	.457**	1	.396**
	Sig. (2-tailed)	.000	.000		.000
	N	150	150	150	150
Humor	Pearson Correlation	.705**	.245**	.396**	1
	Sig. (2-tailed)	.000	.003	.000	
	N	150	150	150	150

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

ONLINE SURVEY QUESTIONNAIRE

CONSUMER'S COPING STRATEGIES TOWARD PACKAGING WASTE IN FOOD DELIVERY SERVICE

Dear respondents/ participants,

I am Tan Shin Rhu, a final year student from Universiti Tunku Abdul Rahman (UTAR) Sungai Long Campus, majoring in Bachelor of International Business (Hons). I am currently conducting a research in examining consumer's coping strategies toward packaging waste in food delivery service. I would like to invite you to be a part of the research for my Final Year Research Project. Completing this survey will only take 10 to 15 minutes of your time. This survey consists of four sections including Section A, Section B, Section C and Section D. Kindly answer ALL questions in ALL sections. Your responses are crucial to the success of this project, and rest assured that the collected data will be used for research purposes only.

If you have any questions regarding the survey or this research project, please feel free to contact me at tsr0129@1utar.my. Be assured that all information provided in this survey will be kept strictly confidential. Your participation is highly appreciated. Thank you for taking the time to complete this survey.

SECTION A: BASIC INFORMATION

1. Have you used any online food delivery service in the past 6 months?
    - YES
    - NO – Please stop answering further. Thank you

2. What is your gender?
    - Male
    - Female
    - Prefer not to say

3. What is your nationality?

- Malaysian
- Non Malaysian

4. Do you **LIVE or WORK in an area** where online food delivery services are **easily available**?

    - Yes
    - No
    - Not sure

5. How often do you use online food delivery services?

    - Daily
    - Weekly
    - Monthly
    - Less than once in a month

6. **On average**, how frequent did you used online food delivery **in a month**?

- 1 – 2 times

- 3 – 4 times
- 5 – 6 times
- More than 7 times

7. When you use online food delivery services, how frequently do you place orders for each of the following categories? Please select the appropriate frequency for each

Order categories	None	Occasionally	Regularly	Frequently	always
A. Myself only (Personal meals)					
B. Myself and family members (Family meals)					
C. Family members only					
D. Myself and Friends/Colleagues					

8. What is your average spending on a **single** online food order?

a. Less than RM15.00
b. RM15.00 – RM30.00
c. RM30.00 – RM50.00
d. More than RM50.00

9. What is your current type of employment?

a. Full-time employed.
b. Part-time employed.
c. Self-employed / Freelancer
d. Business owner / Entrepreneur
e. Contract worker / Temporary employee
f. Student (full-time or part-time)

g. Currently Unemployed
h. Homemaker
i. Retired
j. Other (Please specify): _____

10. How many people, including yourself, currently live in your household?

a. 1 (Living alone)
b. 2
c. 3
d. 4
e. 5
f. 6 or more

11. What is your current marital status?

a. Single
b. Married
c. Others

SECTION B: PAIN POINT

Definition:

"PAIN POINT" refers to a specific problem or issue that a customer experiences with online food ordering. For example, "Late delivery" could be a "pain point" for a customers.

1. Please rate the frequency with which you encounter the following types of food packaging materials when using online food delivery services.

	Very Rarely	Rarely	Occasionally	Frequently	Always
Wooden chopsticks					
Plastic Containers (all types of plastic boxes, bowls, or trays used for food packaging).					
Beverage Cups and Caps (Covers all materials used for drinks, including cups, lids, and caps).					
Paper Packaging (paper bags, wraps, and cardboard containers).					
Straws (plastic and paper straws).					
Plastic Bag (Used for carrying and consolidating the entire order)					

2. Please indicate how frequently you use the following practices to dispose of food packaging after a meal.

	Very Rarely	Rarely	Occasionally	Frequently	Always
a. I dispose of it in the general trash. (General Trash Disposal)					
b. I dispose of recyclable packaging in designated recycling bins (R**ecycle bin** Disposal)					
c. I reuse or find new uses for packaging materials instead of disposing of them (Reuse or Repurpose)					
d. I sort recyclable materials and take them to a recycling center (Sort and classify)					
e. I use a combination of methods **but mostly disposal them to trash bins** (Mixed of Disposal)					

3. To what extent has dealing with the disposal of food packaging materials from online food delivery becomes a 'pain point' for you? Please select the option that best describes your experience:

- Not a pain point at all
- A minor inconvenience
- Moderately problematic
- Significantly bothersome
- A major pain point

4. Please rate the challenges you face when disposing of food packaging materials from online food orders.

	Not a challenge at all	Slight challenge	Moderate challenge	Significant challenge	Very challenging
Difficulty in disposal					
Environmental Concern					
Limited recycling options					
Amount of packaging waste					
Uncertainty about recycling/ compositing					

SECTION C: FOOD PACKAGING MATERIAL UNDESTANDING

Please indicate the extent to which you agree or disagree with the following statement.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Choose the number (1 through 5) that best represents their agreement or disagreement with the statement, with 1 being "Strongly Disagree" and 5 being "Strongly Agree."

How strongly do you agree with the following statement	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. The packaging materials generated from online food orders can have a serious impact on the environment					
2. Online food ordering services use too much plastic for food packaging					
3. I believe that my buying decisions can influence food delivery companies to adopt more environmentally friendly food packaging options					
4. It would take substantial effort on my part, as a consumer, to reduce the use of environmentally unfriendly packaging in food delivery services.					
5. Plastic packaging material is both practical and useful for online food delivery services					

SECTION D: DEALING WITH FOOD PACKAGING MATERIALS FROM ONLINE FOOD DELIVERY SERVICES

This section explores how you handle the issues associated with disposing of food packaging from online food delivery services. Everyone copes differently, and this questionnaire seeks to understand your personal methods. You're asked to indicate the frequency with which you engage in each behaviour listed below. Please use the following scale:

1. I usually don't do this at all.
2. I usually do this a little bit.
3. I usually do this a moderate amount.
4. I usually do this a lot.
5. I always do this.

Choose the option that most accurately reflects your experience.

(1) I create a checklist for managing food packaging waste from online food delivery services. SE1

(2) I focus on creating efficient methods for disposing of food packaging from my online food orders.

(3) I aim for environmental responsibility in managing online food packaging waste.

(4) I consciously prioritize handling packaging waste from online food delivery services.

(5) I accept food packaging waste as inevitable in online food delivery.

(7) I admit my inability to handle food packaging waste from my online food delivery services.

(8) I tell myself that food packaging waste is a minor issue in the broader context of sustainability.

(9) I share my concerns about food packaging waste from online food deliveries with someone.

(10) I seek advice on better managing food packaging waste from online food delivery.

(11) I express frustration dealing with online food delivery packaging waste.

(12) I use humor to deal with food packaging waste from online food delivery.

(13) I strategize to handle the increase in food packaging materials from my online food deliveries.

(14) I take extra steps to address issues with food packaging waste from my online orders.

(15) I seek a positive perspective on food packaging waste issues.

(16) I treat managing online food delivery packaging waste as a priority.

(17) I acknowledge that dealing with increased food packaging waste is a reality in today's world.

(19) I give up on effectively managing food packaging waste from my online food delivery services.

(20) I lack understanding of food packaging waste as a major environmental issue.

(21) I seek emotional support from friends or family regarding online food delivery packaging waste.

(22) I ask around about effective management of food packaging waste.

(23) I recognize upset feelings about online food delivery packaging waste.

(24) I joke about the challenges of food packaging waste from online food delivery.

(25) I consider the best disposal methods for food packaging from online food ordering services.

(26) I immediately address issues related to food packaging waste from my online food orders.

(27) I look for positive aspects in managing food packaging waste from online orders.

(28) I ensure nothing interferes with managing food packaging waste from online delivery services.

(29) I acknowledge that managing food packaging waste is now a normal part of life.

(31) I give up on finding sustainable solutions for online food delivery packaging waste.

(32) I imagine that food packaging waste is not problematic.

(33) I receive sympathy and understanding from others about online food delivery packaging waste.

(34) I consult someone for practical solutions to online food delivery packaging waste.

(35) I vent my feelings about food packaging waste from online food delivery.

(36) I humorously comment on food packaging waste from online food delivery.

(37) I carefully plan steps to minimize food packaging waste from online food ordering services.

(38) I methodically manage food packaging disposal from my online food orders.

(39) I learnt something from my experiences dealing with food packaging waste from online orders.

(40) I set aside other activities to focus on food packaging disposal from online orders.

(42) I adapt to the reality of food packaging waste from online food services.

(43) I put in less effort in managing food packaging waste from online food delivery.

(44) I act as if food packaging waste has no impact on environmental sustainability.

(45) I talk about my feelings regarding food packaging waste from online food delivery.

(46) I ask for advice from those who have faced similar food packaging waste challenges.

(47) I frequently express emotional distress about food packaging.

(48) I downplay the seriousness of food packaging waste from online food delivery.

SECTION E: PACKAGING WASTE FROM ONLINE FOOD DELIVERY SERVICES AND ENVIRONMENTAL CONCERNS

Please indicate the extent to which you agree or disagree with the following statement.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Choose the number (1 through 5) that best represents their agreement or disagreement with the statement, with 1 being "Strongly Disagree" and 5 being "Strongly Agree."

(1) I am deeply concerned about the environmental impact of excessive packaging waste from online food delivery.

(2) I believe online food delivery greatly contribute to environmental abuse through excessive packaging waste.

(3) When online food delivery disrupts nature with excessive packaging waste, I believe it leads to disastrous environmental consequences.

(4) I acknowledge that excessive packaging waste from online food delivery can upset the delicate balance of nature.

(5) I believe food delivery companies should prioritize harmony with nature by reducing excessive packaging waste for environmental sustainability and human survival.