

**FACTORS THAT INFLUENCE CONSUMER'S STANCE  
TOWARDS SUSTAINABILITY GREEN PACKAGING IN  
KOTA BHARU, KELANTAN**

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Factors That Influence Consumer's Stance Towards  
Sustainability Green Packaging in Kota Bharu, Kelantan

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## ABSTRACT

The goal of sustainable development is to address the societal issues of resource efficiency, raw resources, climate action, and the environment. The promotion of green packaging, or the use of environmentally friendly materials and packaging designs, is thus a crucial strategy. Due to the growing acceptance of environmental protection on a global scale and the idea of sustainable development, eco-friendliness has turned into a fashion statement. In this sense, the logistics sector has begun to pay more attention to green packaging. Thus, Malaysians' awareness of the concept of green packaging is still far from being satisfactory. The aim of the research is to investigate the factors that most influence consumers stance towards sustainability green packaging in Kota Bharu. Besides that, the result of this research could be to determine the level of awareness towards sustainability green packaging. The methodology used to collect using a quantitative research methodology and 348 participants took part in the study was conducted via questionnaire survey through Google form and face to face form. The target population for this survey will be people in Kota Bharu. Last but not least, the results of this study will be helpful for both businesses and marketers in figuring out how to make their green packaging more appealing to consumers.

Keywords: Green Packaging, Sustainability, Consumer Behavior, Green Logistics

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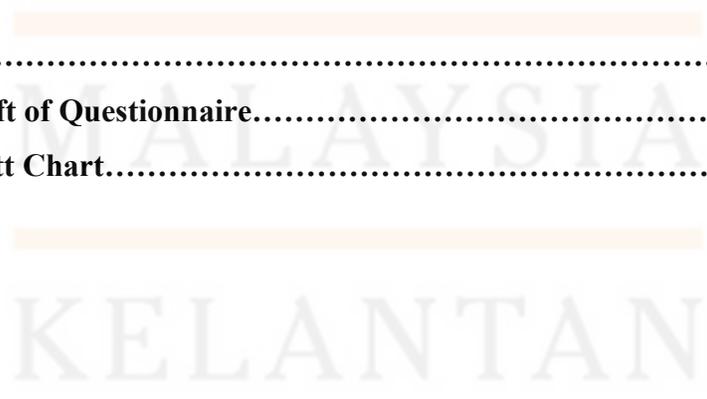
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## TABLE OF CONTENT

<b>ABSTRACT.....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>CHAPTER 1: INTRODUCTION.....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Background of the study .....	2
1.3 Problem Statement .....	3
1.4 Research Question .....	5
1.5 Research Objectives .....	6
1.6 Scope of the Study .....	6
1.7 Significance of Study .....	7
1.8 Definition of Term .....	7
1.9 Organization of the Proposal .....	9
1.10 Chapter Summary.....	9
<b>CHAPTER 2: LITERATURE REVIEW .....</b>	<b>10</b>
2.1 Introduction .....	10
2.2 The Evolution of Sustainability Green Packaging in ASIAN .....	10
2.3 Previous Studies .....	13
2.3.1 Packaging capabilities towards sustainability green packaging .....	13
2.3.2 Environmental capabilities towards sustainability green packaging.....	17
2.3.3 Sustainability green packaging capabilities towards sustainability green.....	19
packaging	
2.3.4 Price capabilities towards sustainability green packaging .....	23
2.3.5 Quality capabilities towards sustainability green packaging .....	26
2.3.6 Safety capabilities towards sustainability green packaging .....	29
2.3.7 Durability capabilities towards sustainability green packaging .....	31
2.3.8 Knowledge capabilities towards sustainability green packaging .....	32

2.4	Hypotheses Development .....	35
2.4.1	Price on hypothesis development towards sustainability green packaging.....	35
2.4.2	Quality on hypothesis development towards sustainability green packaging.....	35
2.4.3	Safety on hypothesis development towards sustainability green packaging.....	36
2.4.4	Durability on hypothesis development towards sustainability green packaging...	36
2.4.5	Knowledge on hypothesis development towards sustainability green packaging.	36
2.5	Theory and Related Framework.....	37
2.6	Conceptual Framework.....	39
2.7	Chapter Summary.....	39
<b>CHAPTER 3: RESEARCH METHODS.....</b>		<b>40</b>
3.1	Introduction.....	40
3.2	Research Design.....	40
3.3	Data Collection Methods.....	41
3.4	Study Population.....	43
3.5	Sample size.....	43
3.6	Sampling Techniques .....	44
3.6.1	The convenience sampling.....	45
3.6.2	Unit of Analysis.....	46
3.7	Research Instrument Development.....	46
3.7.1	Questionnaire.....	47
3.7.2	Questionnaire Design.....	47
3.7.3	Likert Scale.....	47
3.8	Measurement of the Variables.....	48
3.8.1	Nominal Scale.....	48
3.8.2	Interval Scale.....	49
3.9	Procedure for Data Analysis.....	49
3.9.1	Pilot Test.....	49
3.9.2	Descriptive Analysis.....	49
3.9.3	Regression Anlysis.....	50
3.9.4	Pearson Analysis.....	50

3.10	Chapter Summary.....	51
<b>CHAPTER 4: DATA ANALYSIS AND FINDINGS.....</b>		<b>52</b>
4.1	Introduction.....	52
4.2	Preliminary Analysis.....	52
4.3	Demographic Profile of Respondents.....	53
4.4	Descriptive Analysis.....	59
4.5	Reliability Test.....	65
4.6	Normality Test.....	66
4.7	Hypotheses Testing.....	66
4.8	Chapter Summary.....	71
<b>CHAPTER 5: DISCUSSION AND CONCLUSION.....</b>		<b>73</b>
5.1	Introduction.....	73
5.2	Key Findings.....	73
5.3	Discussion Hypothesis.....	73
5.4	Implications of the Study.....	76
5.5	Limitations of the Study.....	76
	5.5.1 Respondents Participation.....	76
	5.5.2 Time Constraint.....	77
5.6	Recommendations/ Suggestion for Future Research.....	77
5.7	Overall Conclusion of the Study.....	77
<b>REFERENCES.....</b>		<b>ix</b>
<b>APPENDIX A – Draft of Questionnaire.....</b>		<b>xv</b>
<b>APPENDIX B - Gantt Chart.....</b>		<b>ix</b>



**FIGURES**

Figure 2.1 Theory of Planned Behaviour..... 38

Figure 2.2 Conceptual Framework..... 39

**TABLES**

Table 3.1 Determine Sample Size of a Known Population..... 44

Table 4.1 Reliability Analysis of Pilot Test..... 52

Table 4.2 Respondent’s Gender..... 53

Table 4.3 Respondent’s Race..... 54

Table 4.4 Respondent’s Age Group..... 55

Table 4.5 Table of Academic qualification..... 55

Table 4.6 Monthly Income..... 56

Table 4.7 Level of awareness about sustainability Green Packaging..... 57

Table 4.8 Consumer attitudes about green packaging..... 58

Table 4.9 Descriptive Statistic for Price..... 59

Table 4.10 Descriptive Statistic for Knowledge..... 60

Table 4.11 Descriptive Statistic for Quality..... 61

Table 4.12 Descriptive Statistic for Safety..... 62

Table 4.13 Descriptive Statistic for Durability..... 63

Table 4.14 descriptive Statistic for Consumers’ stances towards sustainability..... 64  
green packaging

Table 4.15 Reliability Analysis for all Variables..... 65

Table 4.16	Output of Normality Test.....	66
Table 4.17	Output Correlation of price.....	67
Table 4.18	Output Correlation of quality.....	68
Table 4.19	Output Correlation of safety.....	69
Table 4.20	Output Correlation of durability.....	70
Table 4.21	Output Correlation of knowledge.....	71
Table 5.1	Discussion hypothesis.....	74



## LIST OF ABBREVIATION

1. (UMK) - Universiti Malaysia Kelantan
2. (TPB) - Theory of Planned Behavior
3. (FAMA) - Federal Agriculture Marketing Authority



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## ABSTRACT

The goal of sustainable development is to address the societal issues of resource efficiency, raw resources, climate action, and the environment. The promotion of green packaging, or the use of environmentally friendly materials and packaging designs, is thus a crucial strategy. Due to the growing acceptance of environmental protection on a global scale and the idea of sustainable development, eco-friendliness has turned into a fashion statement. In this sense, the logistics sector has begun to pay more attention to green packaging. Thus, Malaysians' awareness of the concept of green packaging is still far from being satisfactory. The aim of the research is to investigate the factors that most influence consumers stance towards sustainability green packaging in Kota Bharu. Besides that, the result of this research could be to determine the level of awareness towards sustainability green packaging. The methodology used to collect using a quantitative research methodology and 348 participants took part in the study was conducted via questionnaire survey through Google form and face to face form. The target population for this survey will be people in Kota Bharu. Last but not least, the findings from this study will be useful not only to the companies but also to marketers to identify ways to improve their green packaging to attract consumers.

Keywords: Green packaging; sustainability; consumer behavior; green logistics

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

The goal of green logistics is to use cutting-edge logistics technology in the planning and execution of transit, storage, packaging, handling, processing, and distribution in order to lessen environmental pollution and resource consumption. In the process of economic management, sometimes referred to as environmental logistics, there is an effective and efficient flow of goods connecting the primary green supply and the primary green demand to overcome the constraints of location and time and green service activities. The six components of a green logistics system are: green packing, green distribution processing, green distribution system loading and unloading, green transportation, and green storage and safekeeping. According to Koenig-Lewis (2014), the non-ecofriendly packaging materials are mostly to blame for the current environmental damages. Consumer waste from product packaging wreaks havoc on the environment's ability to sustain itself. Early knowledge is crucial for managing hazardous and compostable trash, such as plastic packaging. To reduce the impact of packaging on the environment, there have been numerous efforts for encouraging consumers to use less plastic packaging. Understanding the elements that affect consumers' purchase intentions for eco-friendly packaging will be crucial for the government and businesses trying to change consumers' attitudes and behaviour. According to Molina-Besch, 2016), green packaging has three primary characteristics: it uses less packaging that takes a long time to degrade, it uses packaging that uses less energy, and it uses packaging that is beneficial to the environment.

Referring to Molina-Besch (2016), green packaging has three primary characteristics: it uses less packaging that takes a long time to degrade, it uses packaging that uses less energy, and it uses packaging that is beneficial to the environment. Green packaging is frequently used to show the company's dedication to environmental sustainability and boost brand recognition. For instance, one of Starbucks' green business practises to demonstrate its dedication to environmental sustainability is adopting eco-friendly paper and plastic packaging (Jeong, 2014). Walmart uses the 4Rs (reduce, reuse, recycle, and rethink) strategy to reduce packaging waste, while McDonalds

has launched a campaign to promote the use of biodegradable paper for food packaging. As shown in a study by Steenis (2017), consumers are appreciative of the environmentally friendly packaging. The most crucial characteristics of items that influence consumers' assessments and preferences are its green packaging. Simmonds and Spence (2017) have found that packaging can influence consumers' views and purchasing patterns in addition to acting as a protective for the primary product. The current empirical phenomena demonstrates that the topic of green packaging is crucial for both scholars and businesses. Many national businesses and governments have focused on enhancing environmentally friendly packaging, such as by decreasing or eliminating plastic waste and adopting recyclable packaging in its place.

## **1.2 Background of Study**

In the past ten years, green packaging has been a popular topic for both consumers and retailers. It also aligns with rising consumer awareness of environmental sustainability. In addition to protecting the core product, packaging is supposed to be environmentally friendly to prevent environmental issues as a result of the waste from packaging. The commercial sector must take into account green packaging as one of the firm's competitive strategies. In terms of one of Emerging markets must participate in the discussion of the issue, both for green products and green packaged products.

Green packaging also known as 'eco-green packaging', 'eco-friendly packaging', 'sustainable packaging' or 'recyclable packaging' uses ecological materials for packaging purposes, while always bearing in mind that products must be effective and safe for human health and the environment (Wandosell, 2021). Green packaging materials are the recycled materials causing the minimum of burden to the environment and maximum coefficient of utilization in the whole process of the life cycle (Zhang and Zhao, Z. (2012). In addition, numerous publications analyse green packaging issues from the viewpoint of companies. They cover a wide range of dimensions, including the ways in which technological, organisational and human capabilities contribute to the implementation of eco-design innovation in packaging, and its benefits in terms of brand innovation and environmental protection (Wandosell, 2021).

Green packaging material is the core of green packagings, which not only reduce and eliminate the environment pollution, alleviate the pressure on the ecological environment, but also conserve or replace some of the expensive or lack resources in order to reuse waste resources (Zhang and Zhao, (2012). From the perspective of the consumer, this study is an early effort to examine green packaging as a consumer demand. A comprehensive literature review found that previous studies mainly focus on the benefits and trends of green product packaging.

Thus, a new trend of fusing green and packaging is being launched in Malaysia as part of a continuous attempt to lead the society toward green consumption and to save the environment. Paper bags are a concern to the environment since they are not thought of as an environmentally friendly way to protect and conserve the environment. The adoption of green products has increased as consumer awareness of health and environmental issues has grown. Young people as well as adults can purchase products with green packaging.

This study aims to investigate the factors that most influence consumer's stance towards sustainability green packaging. The findings of this study should consider by how to determine the level of awareness towards sustainability green packaging.

### **1.3 Research Problem**

The problem to be research of the study proposal is to create and analyse a concept that develops relationships between Factors that influence Consumer's stance Towards Sustainability Green Packaging in Kota Bharu, Kelantan. As it was being a related to consumer's stance towards green packaging according to current issue of environment pollution which give more negative impact. Due to the huge amount of energy needed to produce traditional packaging materials like plastic, paper, and cardboard, the green packaging are the uses eco-friendly techniques. Green packaging method is being a new concept that is quickly becoming trendy its being a good techniques or steps which is being important to overcome environmental issue as well. This was stated in (Lawson 2017).

Currently environmental issue is being the massive problem occurs all over the world which lead us to faced so many destructions. The environmental problems like ozone depletion

and global warming are now being seen as global issues which is being the concern that expressed by The IPCC (2007). Abdullah (2018) reported that according to a survey published in Science Magazine, Malaysia was placed eighth among the top 20 countries for plastic pollution, and that between 0.14 and 0.37 million tonnes of plastic trash produced in 2010 may have been dumped into the oceans. Animals both on land and in the ocean are now threatened by the plastic packaging that is dumped into storm drains and carried into the seas (Abdullah, 2018; Zakaria, 2018)

In addition, The Malaysian government has been making efforts to lessen the amount of plastic garbage generated there. For instance, Loga Bala Mohan (2016), a former deputy minister for the federal territories, declared that businesses that violate the ban on the use of plastic and polystyrene will face fines of up to RM2,000. "RM2,000 fine for violating the ban,".beginning in September 2017. In Tesco Where a plastic bag is used, the British supermarket business has also taken action to limit in waste. Reusable bags will receive a cash rebate of RM0.20 for each bag that is purchased for RM0.50 (Reuters, 2018). However, the majority of these programmes only addressed polystyrene and plastic bags. instead of the actual product packing. The failure to consider product packaging has led to the environmental issue is the same, and it.

Secondly, customer worried about quality based of green packaging which led to have issue to accept or buy product. Consumer always needed a quality-based packaging product to be used which is stated according to (Huang, 2017) the plastic used in green packaging needs to be of high quality, free of radiation and harmful substances while still being reasonably priced according to quality as well. After considering price and environmental concerns, quality is the third most important factor affecting customers' purchase intentions. So, to avoid this issue to occur the green packaging should be made more quality based formed.

Besides, safety should be considered since the material properties used in packages and how they interact with the product itself might have an effect on customers' safety. ( Jerzyk, 2016). The importance of consumer health safety cannot be oversimplified. Are the materials used to process the packaging of goods safe, especially food packaging that is often used by consumers. There are various types of materials needed during product packaging processing. Using foodstuff as an illustration, (Nakazato 2017) provide evidence that microorganisms and fungus may pollute

nutrition of the food, leading to illness. It is suggested that the product life evaluation of all components be used to determine the environmental effect and cost of packaging (Jedlika, 2019).

This emphasizes the importance of manufacturing as well as the product life cycle. (Wandosell, Parra-Meroño 2021)

Furthermore, single-use packaging, which is a versatile material, was being implemented as an option in contrast materials, particularly for the use in food packaging, due to its technical features such as high strength, resistance, and guarding ability; however, as of today, this practise has become a burden for living beings as a result of their unorganised consumption of the material and improper backlash of it by nature. Nonetheless, this green packaging is less durable than standard plastic since, for example, biodegradable plastic cannot survive temperatures over 85 degrees Celsius, making it unsuitable for use on food products or items with extreme temps (Dey, Dhupal 2021).

Due to the limitations of existing research on this issue, there is a need to investigate the factors that most influence consumer's stance towards sustainability green packaging. This is the fact that only few studies have been conducted on the relationship between the price towards sustainability green packaging. The discussion of the research gaps above will encompass the justification and rationale for this study, in addition to the research objective.

#### **1.4 Research Question**

This study attempts to address the following questions.

1. What are the factors that most influence Consumer's stance towards Sustainability Green Packaging in Kota Bharu?
2. Is there any significant relationship sustainability green packaging towards price?
3. Is there any significant relationship sustainability green packaging towards quality?
4. Is there any significant relationship sustainability green packaging towards safety?
5. Is there any significant relationship sustainability green packaging towards durability?
6. Is there any significant relationship sustainability green packaging towards knowledge?

## 1.5 Research Objective

The objectives of the study are:

1. To investigate the factors that most influence Consumer's stance towards Sustainability Green Packaging.
2. To examine the relationship sustainability green packaging towards price.
3. To examine the relationship sustainability green packaging towards quality.
4. To examine the relationship sustainability green packaging towards safety.
5. To examine the relationship sustainability green packaging towards durability.
6. To examine the relationship sustainability green packaging towards knowledge

## 1.6 Scope of the Study

The major organisation in charge of providing a "eco-label" authorisation service scheme in accordance with environmental criteria, including non-toxic plastic packaging material, is the Standards and Industrial Research Institute of Malaysia (SIRIM), which supports green packaging initiatives. In addition, the Department and the Federal Agriculture Marketing Authority (FAMA) are authorised to issue the eco-labelling programme, which is mostly for agricultural products (Chen and Chai, 2010). With an appealing eco-label, people are becoming more aware of green packaging (Mishra and Sharma, 2010). Some of the factors that influence consumers' attitudes toward sustainable green packaging is based on the findings of van Birgelen. (2009), consumers' willingness to trade off one product attribute eco-friendly packaging for other attributes, excluding taste and price, depends on their level of environmental awareness and their attitude toward the environment. This is particularly true for beverage consumers. This research concentrates on the factors that influence consumers' attitudes toward sustainable green packaging in Kota Bharu. The emphasis of this study is placed on addressing the Consumer's stance towards Sustainability Green Packaging in Kota Bharu from perspective of the price, quality, safety, durability, and knowledge, which get to be the norm for green packaging users.

## **1.7 Significance of the study**

This study can provide the better understanding of the factors that influence consumer's stance towards sustainability green packaging. Besides, this study gives benefits to the future researcher as they can use this research as a reference and guidelines especially in studying factor that lead to the intention of sustainability of green packaging. Moreover, this study can help to give a good result about what the determination that influences consumers towards sustainability of green packaging. It can help the community to learn and understand the importance of using green packaging. Lastly is about how to make consumer satisfied with the use of green packaging.

## **1.8 Definition of term**

### **1.8.1 Sustainability Green Packaging**

Sustainable packaging is often considered as or taken not as sustainably sourced materials that can be made into compostable or recyclable materials. Green packaging or also well-known as 'environmentally friendly packaging', 'sustainable packaging' and 'ecological packaging'. The green packaging has the purpose of the packaging material products that are based on ecological materials to ensure that it safe for both human health and the environment. (Wandosell, ParraMeroño 2021). Green packaging describes as environmentally friendly packaging that is completely made up of natural plants that can reuse and liable to degradation and nurture sustainable development that does not harm in its entire lifecycle of use to human, animals and environment. (Zhang, and Zhao, 2012). Green packaging is suitable packaging that can be recycle, reuse, and does not cause any pollution to environment and living things.

### **1.8.2 Price**

Price is defined as initiating value for a product in economic and finance. (Carlson, 2020). Simply can be known as the company makes decision to give value for a product or service that needed to be paid a customer in order to purchase it. Price can be referred as an exchange value paper for product or service offered, which works as bartering system. (Claessens, 2022). It is one of the easiest marketing element with simplest to imitate.

### **1.8.3 Quality**

According to marketers' view, quality of a product can be referred as an element that designed for the product to meet customer satisfactory and needs. (Gordon 2022). The quality also performs to solve problem or the needs of a customer, which gives a value for the given product. The quality can be defined as coherence to standards of a customer or free from deficiencies. (Akrani, 2013). We can conclude that product quality is fitness for the purpose of a product being purchased.

### **1.8.4 Safety**

Safety of a product can be described as policies designated to ensure customer protection from any risk that might happen in using of a product. (Hussen, 2017). Product safety comes from different perspective of handling or using a product to be safe or unsafe in manufacturing, distributing and sale of products. (Fischhoff, 1998). There are many of laws to ensure consumers' safety in using a product, this is because there are plenty of products contains elements that harmful and unsafe for humans.

### **1.8.5 Durability**

Durability defined as the resistance of degradation on the product caused by physical, chemical or biologically. (Antonio, B. Pinho & Andrade, 2018). Thus, durability is whether the product can withstand and remain to original posture even when pressure applied. Durability can also refer as capability to be remain functional in the surrounding environment with or without damage to the product.

### **1.8.6 Knowledge**

Knowledge can be interpreted as a collection of skills, experience and appropriate information which brings a new structure of knowledge and experience. (Mohajan, 2016). It is also one of the vital elements among land, capital and labour. Knowledge is also known as certainty or

situation of something similarly experienced before. (Nonaka et al., 1995). Knowledge is conception of applying what we have experienced before with confidence of tackling it.

### **1.9 Organization of the Proposal**

The proposal is divided into three chapters which is introduction of the study, the review of the literature of previous studies, and the research methodology section. In the first chapter, the study is focus on the introduction and follows by the background of the study, the statement of problems, research question, research objective, the study of significance, scope and limitations of the research study, definitions of the operational terms, the organization of the proposal, and lastly focus on the summary of this chapter one.

Furthermore, the second chapter study will concentrate on a look at previous studies and research using the conceptual framework and underlying theory. Moreover, this study has three key hypotheses connected to the variables of this study, which are responsiveness, communication, convenience, reliability, and product quality, to determine how these characteristics affect the sustainability of green packaging.

The third chapter focuses on the part of research methodology, which includes the methodologies and procedures mentioned in the introduction. Furthermore, as a summary for this chapter, research design, study of data collection methods, sampling procedures, sample size, target population, research tools, variable measurement, data analysis procedure, and conclusion.

### **1.10 Chapter Summary**

In short summary on this chapter, will come up with an overview in this research from background of the study of the factors that influence customer's stance towards sustainability green packaging in Kota Bharu, Kelantan. Researcher also has been discussing the problem statement, research question, research objective, scope of the study, significance of the study and the definition of terms in this entire chapter thoroughly. The next chapter will elaborate more about literature review on the green packaging.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

A literature review is conducted to see what other studies have done in this research area. In Each study has a unique research framework. So, by comparing and evaluating the previous studies, this study has identified small increases in term of sustainability of green packaging by filling the gap in research on the consumers' stance towards green packaging by looking into price factor, quality factor, safety factor, durability factor and knowledge factor among the people at Kota Bahru, Kelantan.

This chapter will provide a more detailed explanation of the studies on the factors that influence consumers' stance towards sustainability green packaging. On other hand this study also focus on the relationship between factors and sustainability green packaging. Due to current high world issue, which is environment issue that occur by the waste disposal that give more negative effect on the environment. Especially it happens due to the harmful human activities by throwing packaging such plastics in rivers, lakes and streets that cause more negative pollution so according to this nowadays consumers are increasingly move towards purchasing green packaging product as its safe packaging for people and also for the environment. The green packaging market in China expanded rapidly over the past few years and is one of the most important markets for the green packaging business sector. Malaysia has also shown an increasing trend for the current year in the developing trend of green packaging as its stated in the Records of Green Packaging sector by Product, Terminal, and Geography: Analysis and Forecast 2021 to 2025.

**The literature being divided into subheadings as follows:**

#### 2.2 The evolution of Sustainability Green Packaging in ASIAN

Concern in global environmental conservation has increased recently. In this regard, using green packaging is essential for reducing waste and pollution's negative effects and improving

sustainable development. Currently, evolution of sustainability packaging having a good growth trend in globalization as a lot of countries focus on green packaging that help reduce energy use and the damaging effects that packaging has on the environment. Especially the Asian countries shown having strong sustainability concerns as we refer to (Srebny 2021), the authors highlighted that based on the Asian countries consumers in China, India, Indonesia and Malaysia have the maximum range of awareness about problems with sustainable packaging and are most willing to pay more for "green" packaging and he found that, the consumers in Asian countries are more concerned about air and water pollution than waste production, which is more of a priority in other surveyed countries. Moreover, the countries such China, Indonesia and Malaysia being one of the top Asian countries that having high concerns towards sustainable packaging and introduces more unique ways to increasing the development of green packaging which is safe for people and also environment.

Based on the three specific top Asian countries that we mention, China is leading Asian country which have largest global market and remains to lead global packaging growth. China focus in develop packaging into green packaging which lead to reduce the negative impact to environment. According to (CGTN 2021 ), as China works to reduce its carbon footprint, the industries that produces the paper-based cardboard boxes that have been used for generations is having difficulties. So, the companies at China introduce an innovated eco-friendly packaging which is named as ZerOBox and In China, efforts to encourage the use of eco-friendly packaging have increased. As Earlier this year, the china set a target of using 7 million reusable containers by 2022 and make sure that at least 85% of the products are wrapped just once. On other hand, refer to (Yan, Wu et al. 2018) in china introduce green express packaging instance use the express packaging which led to generated a large resource waste and badly harmed our environment. This green express packaging is Starch-based degradable packaging materials, which are mostly created by using starch in natural photosynthesis which can be packaged using plastic bags and tape. As Starch does not harm the environment or pollute the soil, air, or water. The main uses for starchdegradable packaging materials nowadays are in the packaging of daily necessities including food, medicine, and everyday items. This also will be one of the important key objectives of China for development of green packaging in future.

Moreover over, Indonesia also one of the good trends Asian countries which led to have more development towards green packaging. As Indonesia take over many steps to improve and overcome the environment issue due to using of an eco-friendly packaging. Refer to (PU 2019), the Indonesia government conduct The "Plastic Bag Diet" trial programme. The scheme mandated that retailers were required to pay a minimum Rp 200 plastic fee, since was only in effect for a limited time duration instead of less than one year. Main goal for this campaign is to increase public awareness of the harm that plastic waste causes to the environment. On other hand, in Indonesia introduce unique green packaging idea in Skincare items with beneficial which named as Beausta. According to the manager of skin care beausta stated as Beausta's packaging is environmentally sustainable since it can be recycled. As "When there is only a small portion of the product remaining, you may cut off the edge of the package and squeeze out the product to the last drop,"As this also can mention as environmentally friendly because there is no waste produced from cosmetic products.it is also useful for active women who frequently travel for work and went out to any place as the package doesn't take up much space in handbag and skincare product is considerably more hygienic because there is no need to transfer the products into smaller containers when packing. This eco-friendly packaging method will be more effective in Indonesia in future (Ceremonial 2022). Additionally, refer to (Gonzalez 2020) in Indonesia government take a step to maintain a strong development of sustainability packaging which led to have safe environment. As per that, one of high position of Indonesia who the industry player is launched PRAISE which is stance for Recycling and Packaging Association of Indonesia Sustainable Situation is a non-profit company formed by certain important company of Indonesia which CocaCola, Indofood sukses Makmur, Tetra pak, Nestle, Unilever Indonesia Foundation, Tirta investama and the goal of this PRAISE was develop as well as maintain the sustainable environment besides reduce converting leftover plastic containers into valuable resources which benefit to Indonesia's economy, society, and environment in 2030. This this following development keep Indonesia as a good growth trend Asian country towards sustainability green packaging.

Apart from that, another Asian country Malaysia is a strong country who newly move towards green packaging. Consumers in Malaysia will have a fresh, distinctive option with the idea of green packaging. Malaysia has already utilized sustainable packaging considering the fact

that it is a new concept, which has helped the country expand quickly. According (Rajadurai et al., 2018) to the Malaysian government also uses a comprehensive strategy called AFFIRM to gain support from stakeholders as the employees, customers, and government in order to achieve Malaysia's environmental protection. On the hand, Malaysia government take serious about the environment issue and introduce newer programme which help reduce the negative impact on environment, able to increase the market size globally and also make consumers to get awareness about the importance of green packaging. As per that, Malaysia's major initiative the roadmap towards zero single use plastics, 2018-2030 was established with the target of creating a clean, healthy environmental by 2030. The government is trying to address plastic pollution systematically and sustainably, taking into account the needs of the general population, industrial preparedness, and sustainability (Organization 2022). As additional point, in Malaysia focus the importance of green packaging through the education programme by a unique term which help the people and students to gain a clear knowledge about the important of green packaging. As we refer to (WHERE2LIFESTYLEMAGAZINE 2022), in support of their green strategy and as part of their promotion for green beauty, Garnier Malaysia launched a national school education program. This programme is a component of Garnier Malaysia's aim to educating and inspiring the future generation of Green Heroes. The Green Beauty can be called as the global effort of Garnier for an all-encompassing approach to sustainability and with these commitments in place, Garnier will significantly minimize its total environmental impact by 2025. As a goal of development of sustainability packaging in future, Malaysia Garnier set a goal as by 2025 sustainability targets include for the use of raw plastic in the manufacture of all products and for altering packaging to make all materials reusable, recyclable, or compostable. At last, as per discussion according to three top Asian countries shown above all the countries obtain many pros and having a huge development towards sustainability green packaging.

## **2.3 Previous Studies on related capabilities towards sustainability green packaging**

### **2.3.1 Packaging capabilities towards sustainability green packaging**

Despite the fact that conventional packaging played a vital role in the beginning evolution of food distribution systems, although it has since been superseded and is still sufficient given how

complicated modern society has become. As the response to consumer demands for lightly processed foods with reduced preservatives, increased legal requirements, marketplace globalization, attention for food safety, and the current risk of food bioterrorism, new packaging with enhanced functionality is constantly looked for. How can an established, and occasionally taken-for-granted, technology's current capabilities be improved? It probably necessitates reconsidering and changing the current worldview (Kuhn 2016). Active packaging and intelligent packaging were developed by "thinking beyond the box."

A food product's expiration date is significantly affected by the structure and design of the packaging. Utilizing packaging materials and technology, the right choice of product quality and freshness are preserved during transportation and storage. Assets that have Food packaging has historically included the use of glass, paper, plastic, foils and metals which including foils and laminates, aluminium, tin-free steel and tinplate. Additionally, more rigid and flexible shapes of polymers have been introduced (Vidales Giovannetti, 2015). Modern food packaging usually blends a variety of materials to benefit from the aesthetic or functional properties of each material.

The packaging is a product's identification and frequently the only exposure consumers have to a product before making a purchase. Therefore, innovative or creative packaging can boost sales in a market that is competitive. The product's packaging may be designed to enhance its image and/or distinguish it from the competitors. On recipes, for instance, larger labelling might be used. Packaging also provides information to the consumer. For instance, the labelling on product packaging complies with legal requirements regarding the product's identification, dietary content, ingredient list, net weight, and manufacturer information. Additionally, the container transmits significant information about the product, such as the price, brand name, and cooking instructions. These changes could have an impact on how garbage is managed and disposed of (Marsh & Bugusu 2007).

Packaging is one of the major components in promoting a product from a marketing standpoint. At the point of sale, it could have an impact on the choice of a customer. It also functions as a channel of communication between a product's image and the history of the organisation (Eltayeb and Zailani 2019). Customers may locate, compare, and choose their preferred products in the current digital and quick-moving period thanks to "self-service" (Ahmad

et al., 2012). So, it's safe to say that packing matters, especially from the standpoint of a purchase. In their study, Morel and Kwakye (2012) mention that packaging can have an effect long after the sale.

Since their purchasing practises directly contribute to a number of environmental challenges, more consumers are now giving their purchasing habits more thought. The terms "sustainable packaging," "ecological packaging," and "environmentally friendly packaging" have become very popular internationally. The main objectives of the introduction of green packaging are to protect both humans and the environment. The qualities of the food product determine which polymers are utilised in the food packaging sector. The final characteristics for a packaging material can also be impacted by manufacturing, handling, and package engineering procedures, notably in terms of barrier properties. The degree of crystallinity, crystalline/amorphous phase ratio, type of polymer, heating and mechanical production both prior and after food contact, and chemical molecule contained in the polymer are all closely connected to the inner the polymer's structure.

As packaging begins to fulfil a role similar to other marketing communications elements as its importance for communication and branding expands as well as its use as a medium for communication. One explanation for this is because buyers might not give brands much thought until they go into a store to make a purchase. How likely a consumer is to make a purchase depends on the likelihood that a product will live up to their usage expectations. They didn't even pay much attention to the products when they entered the store, so their decision to buy was solely on what was spoken to them after they made the purchase. The package becomes a key component in the consumer decision-making process since it interacts with customers while they are actively making decisions in the store. Many food product marketing strategies' success hinges on how well consumers understand the ambiguous nature of the goods as they are conveyed through the packaging.

The fact that the package is now an essential component of the product is what gives packaging its true value. Consumers do not distinguish between the product, the package, and the equity, despite business operations that do so. They are one. The package is the means by which the goods is delivered, and it is very helpful in the sale of the good (Richmond, 2014). Here are

some simple actions a consumer-packaged goods (CPG) company may take to ensure that its packaging not only satisfies minimal requirements but also takes into account new needs (Ahmed, A., Ahmed, N., & Salman, A., 2015).

If packaging plays a significant role in a company's marketing strategy, there should be a flow of packaging concepts and ideas in development. Furthermore, many companies lack a similar organisational framework. As a result, they are involved in a "vicious cycle" that worsens as they try to reduce expenses and grow alongside their suppliers. When a company is in a "vicious cycle," productivity is its only concern and there is little to no demand for new packaging. There is ongoing margin erosion. However, brand managers have the power to break this cycle. Packaging can be included in design briefs and early customer comprehension decisions.

There hasn't been much research on how a product's packaging impacts consumers' perceptions of it or how they conceptualise it. This is a result of studies historically concentrating on placement via passing words disseminated through the media, ignoring that enduring character of the tangible codes transmitted by packaging. It is vital to intensify efforts to generate effective distinction, according to Underwood (2003), given the market's multitude of brands and the broad selection that customers discover at the point of purchase. Because of this, point-of-sale advertising and messaging are progressively replacing mass media interaction.

From a managerial perspective, market research that the organisation organisation does and the position that the corporation wants the product to maintain on the market as will influence the structure and graphical design of the packaging as well as the appropriate size of the pack to maintain on the market in order for packaging to effectively develop its functions. (Ivanez Gimeno, 2000). Therefore, it is apparent that packaging has an impact on both strategic choices for positioning and the marketing mix.. But the question is: what does "packing" mean exactly? The object it come into straight connection with the product is typically known as the packaging, and its purpose is to keep, protect, identify, and preserve the product while also making it simpler to handle and sell (Vidales Giovannetti, 1995). In 1995, Vidales Giovannetti identified three different types of packaging. A key packaging item that directly touches the product is a bottle of perfume. A secondary package that protects, identifies, and shares information about the product's characteristics with the primary packages is placed inside one or more primary packages. Usually,

it is thrown away after being used or consumed as a product. Following the prior Third-party packaging, which includes the cardboard box carrying the perfume container, would serve as an example of this. Its main functions are product protection across the supply chain and distribution, unification, and combination of the two preceding ones. This cardboard box holds the various bottles.

According to research by Olsen, Scholderer, Brunso, and Verbeke, shape and colour are investigated in this study as the key visual features, while flavour, convenience, and freshness (statements/shelf life) information are employed as the primary informative attributes (2007). to assess the relative significance. By identifying these qualities, the industry may be able to create a fresh cod package that closely satisfies consumers' needs and expectations (Deliza & MacFie, 1996). This will increase product satisfaction and choice among Norwegian customers.

### **2.3.2 Environmental capabilities towards sustainability green packaging**

Packaging materials has advanced significantly over the past few decades as a result of rising environmental awareness and the desire for high-quality, safe food. The function of packaging materials in the overall sustainability of food operations is debatable: research showing of packaging benefits in terms of the potential to reduce food waste clashes with the widespread perception that packaging has significant negative environmental effects (Licciardello 2017). One of the biggest environmental effects on food consumption is packaging, according to critics. There is no denying that packaging has an impact on the manufacture, use, and disposal of materials, but other factors should be taken into account for a fair evaluation of packing's environmental impact.

The freshness of a food items is significantly impact by the shape and layout of the package. The product's quality and effectiveness are protected throughout distribution and storage by using the correct packaging materials and technology. Some of the raw material that have typically been used in food packaging include glass, paper, metals, paperboards, and plastics. Additionally, a wide range of polymers in the inflexible and elastic forms has been introduced. Food packaging nowadays commonly uses different materials to benefit from each material's aesthetic or useful properties. The environmental impact of packaging may change as research to enhance food packaging proceeds (Marsh and Bugusu 2007).

Plastics are the most commonly used material for packaging because they have so many benefits, including being inexpensive and lightweight, highly versatile, flexible, transparent, heat sealable, and having good mechanical and barrier capabilities. Plastics' end of life causes environmental concerns in particular because they cannot degrade and are challenging to recycle (Sorrentino, Gorrasi et al. 2007). The most environmentally friendly method for handling plastic garbage is mechanical recycling, which is followed by disposal and incineration. Recycling is not always an option for food packaging, though.

There are several ways that packing has an impact on the environment from a logistical standpoint. It has an impact on logistics effectiveness due to the fact that it makes items heavier during handling and shipment. Package has an impact on the environment both directly and indirectly through the number, weight, and qualities of the packaging. (Georgakoudis, Tipi et al. 2018). Since this packaging is so adaptable, environmental sustainability is crucial when it comes to it. However, it is common for different groups within the packaging industry to view the concept of sustainability in different ways. Consumers prioritise environmental sustainability, which has a significant impact on their purchasing decisions. At this point, however, active citizen involvement in a variety of environmental activities is crucial because it guarantees that informed individuals will look for and discover opportunities to facilitate sustainability.

The only type of garbage with an unending cycle in the circular economy is glass waste. Metal, paper, and plastics aren't part of the cycle as effectively as they are in the absence of that. Because of this, some waste from these resources may still develop even under the circular economy concept. When compared to the linear economic approach, this circumstance is too low and manageable. While the circular economy incorporates wastes produced by consumption into the manufacturing process, the linear economy often processes the process with the use of raw materials in the production phases, and following environmental pollution, these wastes are disposed of without being thoroughly analysed (Michelini, Moraes et al. 2017).

Plastic trash incineration causes a number of issues, many of which are attributable to petroleum-derived polymers. Carbon dioxide is produced in large quantities when synthetic polymers are burned, contributing to global warming. As a result, it is the perfect time to develop new packaging materials. Thus, during the Second World War, the industrial revolution saw the

introduction of production technology for food packaging, and as a result, aluminium cans and petroleum-based plastic are examples of developed packaging in today's society (Gupta, Guha et al. 2022).

Solid municipal waste, which includes low-density plastic, is typically disposed of in landfills or dumped on the ground, which contaminates the soil and the surrounding ecosystem. Therefore, new sustainable packaging is continually being developed and alternate methods for lowering the risks connected with the disposal of plastic trash are being examined. Recycling, composting, and eradicating plastic trash through bioreactor landfilling can all help to solve this issue (Rydz, Musiol et al. 2018).

### **2.3.3 Sustainability green packaging capabilities towards sustainability green packaging**

Sustainability Green Packaging utilises resources and manufacturing methods to cut down on energy use and the damaging effects that packaging has on the environment. Biodegradable and recyclable materials are frequently used in green packaging solutions in place of conventional materials like plastic and Styrofoam. Furthermore, green manufacturing techniques take measures to cut their energy usage and the amount of greenhouse gases they produce (Reclamation 2019). Besides, in the view of Sinnappan and Abd Rahman (2011); Rezai et al. (2013), green packaging is considered any package that consumes minimal material during manufacturing, which is built from resources that are secure and ecological over its whole life cycle. It is recyclable or reusable and can meet market criteria for both performance and affordability. Based on our current term, as it is a new sustainability idea which is considered a new market trend, it also has a positive effect on people. According to individuals Kong et al., (2014) it not only gives a positive impact on the people but also gives a good impact on the atmosphere which create us have a better future as well. Moreover, this sustainability green packaging ensures the safest usage for our environment, and daily usage of things, products, and others.

Based on another researcher, green packaging is a form of a package that helps to have a very less negative impact on the environment and living things because it is mainly made from environmentally friendly materials. Specifically, when it comes to biodegradable plastics, they are said to have a limitless lifespan which is referred to as the eco-design or cradle-to-cradle design as

well. Based on the two founding members of Giraffe consultancy management and a senior environmental consultant with Envirospine, “Mark Hilton, Robert Holdway, and David Walker” stated the Eco-design objective is to limit lifespan effects overall while sustaining performance and financial value. According to Holdway, Walker, and Hilton, (2002), Eco-design packaging consists of various components like lean management, deduction of waste, reuse, and recycling.

Furthermore, green packaging is usually a term to coordinate all the elements of green product in terms of features as it hardly distinguishes from the green product given the fact that it takes a more systematic approach. Based on the previous point, it means the green products are elements that contribute to the green packaging. Besides this, among research in green marketing, the green packaging will mainly be highlighted in the marketing field. Based on the use of green packaging, sometimes we are able to find hostile term according to customer’s posture. As an example, when Sony started to pack their television in reusable packing materials, customers thought that the packed things already have been used. Due to that, the producers should ensure that their processes and consumers are connected or well-known with their green marketing strategy as well (Holdway, Walker, & Hilton, 2002).

Some of the green packaging sector industrial leaders need to clarify for the package provider as what will being sustainable implies. There has already been discussion about how important it is to attract to consumers, but there is still another reason why manufacturers should be concerned about developing environmentally friendly packaging because it helps to make their bank accounts more profitable as well. According to Kassaye & Verma (1992), reducing the number of packaging materials used benefits both of the environment and the cost of raw resources. Reducing packaging can help businesses sector save on shipping cost too. Generally, being sustainable may help businesses save money, and possibly the goal to be sustainable in order to have a benefit term for future generations should be reasonable cause for package producers as well.

Moreover, as the statement by Molina-Besch (2016), the term green packaging has three benefit keys which are making use of less energy-intensive packaging, making it easier to decompose the packaging, which is hard to decompose, and more uses of environmentally

beneficial packaging as well. The green packaging problem is normally raised to highlight the businesses' anxiety to have environmental development towards sustainability and boost brand identicalness as stated by Byrne (2017). Moreover, according to Jeong et al., (2014), as a fact, Starbucks used green technology to express their commitment to environmental sustainability through the use of environmentally friendly paper and plastic packaging. Besides that, McDonald's also was following a similar step by doing a campaign about the good effects of the usage of ecofriendly paper for food packaging as well.

According to strong economic growth, awareness of green technologies among peoples has been slowly rising over the past 20 years. People are nowadays starting to see how environmental changes affect their lives and are adopting action to prevent them. Green marketing is formed as a response to consumer demands and effort to mention their concerns about the situation of the world's environment and way of life as well (Pettie, 1992). Marketing and consumer incentives are viewed negatively by this new marketing strategy or method as unsustainable development. However, there are a few elements that are able lead it to having a successful marketing of sustainability of green packaging as by the branding and labelling which is a primary step to help reduce the negative impact on the environment.

According to Groh et al., (2019), green packaging has successfully gained attention towards it because it is more sustainable and eco-friendlier. Based on the strong demand for green packaging it expected to lead to more development in the market in the coming years through the correct Government enforcement of laws and regulations. Besides, there have been several methods carried out that use bioplastics as a raw material to reduce waste and pollution. So, there is no need for petroleum or oil products for packaging in future as it completely moves to fully biodegradable, which can lower the negative impact on the environment and its carbon footprint, as well (Guillard et al., 2018).

Referring to the statement of Steenis et al. (2017), it is proved that consumers nowadays like and agree towards ecologically friendly packaging also mentioned as green packaging. Green packaging now will be the most important feature that influences consumers' perceptions and preferences for a product or things (Rokka & Uusitalo, 2008). By the statement of Simmonds and Spence (2017), packaging can influence the consumers' stance and purchasing habits and it is also

protective of the main product. Moreover, the current research shows the importance of the issue of green packaging products for business industries (Prakash & Pathak, 2017). Besides this, many national organizations and governments have been concentrating on improving environmentally friendly packaging, as a way of decreasing or eliminating plastic waste and utilising recyclable packaging in that place.

Furthermore, the Standard and Industrial Research Institute of Malaysia SIRIM mounts green packaging developments by being a leading organisation liable for profiting from "eco-label" authorization benevolence performance in line with environmental requirements, including nontoxic plastic material for packaging. Apart from that, The Federal Agriculture Marketing Authority (FAMA) and the Department are also given permission to issue mostly agricultural products focused eco-labelling programme which is stated by the Olsen 2014; Chen and Chai, (2010). Customers' awareness of green packaging is able to increase by having an appealing and more informative eco-label as well as stated by Mishra and Sharma (2010).

According to Abd Rahim et al., (2012), The Environment Quality Act of 1974 which had been implemented in Malaysia is one of the first countries to take environmental issues seriously and move forward step to overcome it. Furthermore, there are few ministries under Department of Energy, Department of Green Technology, and Department of Water that are main organisations in responsible to encourage knowledge of awareness among Malaysian people. In order to increase public understanding of the advantages of green packaging, there will be a marketing programme which included an effort of it with the government's full support and commitment (Draskovic et al., 2009). Additionally, according to the statement of Rashid (2009) and Zhang and Zhao (2012), a good significant campaign has been launched by Malaysia's corporate community which helps promote environmentally friendly living terms and promote a way to decrease the use of plastic bags as well. As an example, all the hypermarkets weekly will implement "No Plastic Bag Day" and the government encourages people to bring their own reusable bags when purchasing.

At last, in order to increase public awareness and commitment to the Malaysian government's green programme, private organisations such as Sime Darby's plant tree program, Digi mangrove saving project, and canon goes green have sported their full support towards the campaign (Barbara, 2012). Moreover, as a step to encourage producing more biodegradable

packaging Malaysian sector such as the Biogreen Bags Sdn. Bhd. and the Return2green Sdn. Bhd is also donating to the objective of booting environmental awareness, preservation, and also environmental maintenance. According to this, several goals are to focus on environmental concerns which are moving towards the important terms of reducing costs, considering an economic viewpoint, and improving corporate and brand reputation.

#### **2.3.4 Price capabilities towards sustainability green packaging**

Consumers buy products with green packaging for a variety of reasons, according to earlier surveys. Numerous studies find that consumers choose these products for a variety of reasons, including their willingness to pay extra and personal preferences and environmental concerns (Prakash, Choudhary et al. 2019). Despite the fact that a sizable portion of consumers are willing to pay more for products with green packaging, another customer group indicates that the price influences their decision to buy (Sodhi and Singh, 2017). The analysis of the significance of egoistic and altruistic values in consumers' purchase intentions for items with green packaging has gained more attention as a result of this dispute (Prakash, Choudhary et al. 2019). This is the instance of the study described in (Mai 2014), in which the authors analyse consumer feedback. Independent of gender and age, they come to the conclusion that despite the claim of "recyclable packaging" is a significant influence in the desire to pay more, half of the respondents claimed that they are not prepared to pay more. Another study examines the opinions of 268 Romanian consumers regarding green packaging and finds that, despite the majority of them agreeing with the necessity of packaging for environmental protection, low consumer budget was a significant factor in their refusal to pay more for products in green packaging (Orzan, Cruceru et al. 2018). According to a study conducted on a sizable group of consumers in China, the value of the packages, the quality of the green packaging, and the environment all affect consumers' ability to purchase more for products that come in green packaging (Hao, Liu et al. 2019). In (Singh and Pandey 2018), the opinions of 343 Indian respondents revealed that a variety of factors, including practical, economic, symbolic, biosphere, altruistic, and epistemic values, influence customers' willingness to pay extra for green packaging. Finally, several scholars have examined the customer perspective of the introduction of eco-friendly products, eco-bags, and recyclable packaging in Brazilian supermarkets.

In the other hand, sometimes it costs more to buy environmentally friendly products than other alternatives. (Laroche et al., 2001; Peattie, 2001) Green consumers have been found to be prepared to pay more for environmentally friendly items, which presents a significant potential for businesses and governments wanting to modify their policies. As a result, companies that include "eco-friendly" as well as "environmentally friendly" as part of their marketing strategy might capitalise on the rising amount of consumers that choose and are willing and able to pay for ecofriendly items.

Moreover, because less polluting items are more expensive to create, a high price of a green product is a sign of good environmental performance (Mahenc, 2008). Contrarily, a study by D'Souza et al. (2006) found that customers' perceptions of green products are often adversely correlated with their intention to buy them if they are more expensive and of worse quality than traditional items. According to Kim & Damhorst (1998), environmentally conscious consumers are individuals who are willing to spend more for eco-friendly goods. According to Nyborg, et al. (2006), consumers and social actors are more likely to purchase green items if they believe they are environmentally conscious consumers and social activists. Individual environmental behaviour may result from a sense of responsibility for the environment (Stern, 2000).

Aside from that, The green packaging product is considered a costly thing in the marketplace because to its environmentally, high quality, safety and more detrimental to the ecosystem standard (Jaafar, 2012; Sharaf 2015; Nguyen and Gizaw, 2014). The key component driving up the price is a lack of need caused by a packaging are increase of price due to green packaging. According to Ksenia (2013), consumer decisions on green efforts are heavily influenced by financial factors. Rokka and Uusitalo (2008) observe that individuals with higher wealth preferred purchasing eco-friendly items because of security concerns. Munnukka (2008) provides evidence to support this claim, showing that consumers with higher incomes are more willing and courageous to alter their opinions on green products. This element will also have an impact on consumers' intentions to buy environmentally friendly goods that use recyclable packaging. Karbala, Wandebori, and Agyeman (2012) and (2014) stressed that pricing has a significant influence on consumers' purchase intentions for goods with green packaging. (Rashid 2019) claims that despite this, due to the country's growing pollution levels, Malaysians are progressively moving their buying pattern and intents toward items with green packaging.

Furthermore, Van Birgelen et al. investigation came to the conclusion that customer environmental consciousness and attitude were associated to eco-friendly buying and disposal decisions. It was mentioned that consumers give green packaging important consideration when making purchases. This is largely attributable to the added benefits that green packaging's traits provide. The theory behind value-based pricing contends that rising perceived value incentivizes consumers to spend a high price (Nagle 2006).

Nevertheless, one of the most widely researched criteria that causes consumers to be able to spend money is quality (Maguire 2004; Rao and Bergen 2005). Material quality is the primary aspect that contributes the greatest effective feature. The ability to improve the ecosystem, people, and livestock might affect a buyer's ability to spend extra (Shang 2010; Chuang 2014; Dharmadhikari, 2012). Recyclability, biodegradability, and reclaimability are additional environmentally advantageous traits that influence a consumer's perception (Zhang and Zhao, 2012).

Lastly, a number of consumers are unwilling to pay for eco-friendly packaging because, according to earlier studies, they believe it to be more expensive (Magnier and Crie, 2015 ). Similarly, Martinho et al. (2015) discovered that one of the most crucial factors in consumers' decision-making is price. Consumers in South Africa, however, appeared to take a longer view of things as they thought reusable eco-friendly packaging will result in cost savings (Scott and VigarEllis, 2014). For long-term environmental benefits, the majority of research participants were not willing to pay more or invest in eco-friendly packaging. Only a small percentage of respondents indicated that they would be prepared to pay more for INs that were packaged sustainably, but many made it clear that they would only do so if the product's or package's selling points satisfied them. Similar findings were made by Krystallis and Chryssohoidis (2005), who stated that buyers will not pay a premium price until they are completely convinced that the product meets the market attractiveness requirements at the point of purchase. The product's or the package's market appeal qualities thus appear to be the most crucial factors in many Vietnamese customers' purchasing decisions.

### 2.3.5 Quality capabilities towards sustainability green packaging

Companies are being forced to prioritise product quality as a strategic concern for the 1980s and beyond due to increased worldwide competition and rising customer expectations. As a result, quality improvement is picking up steam in organisations like Westinghouse, Polaroid, Motorola, Ford, Hewlett-Packard, Northrup, and Honeywell. These businesses' acts are regularly reported on. Has the quality of American goods improved greatly as a result of these efforts? The solution is still a mystery. There have been some notable successes, but quality improvement has not yet been broadly or consistently improved. Studies indicate that American business has yet to regain its former reputation for quality, largely because companies don't completely grasp the notion of product quality and how it affects profitability and competitiveness.

The concept of quality is complicated. Quality may be used to assess a product or service, to put it simply. Different industries value different qualities. Performance, durability, aesthetics, comfort, safety, finish, speed, competence of maintenance, and value are only a few examples of what could be included in the perceived quality of a airline sector. The ease of check-in, clean of the cabin, quick departure and arrival, security, ease of check-out, comfortable seats, foodstuff, and the attitude of the flight attendants are all examples of airline excellence. Businesses may have different qualities. There could be a difference in perceived quality between K Mart and Lord and Taylor. Mercedes may have different quality requirements than Volkswagen. Quality is built on target markets and consumer requirements. Products and services are both examples of quality qualities. Quality enhancement as a tactical tool to boost output and revenue was the sixth-ranked initiative. The firms surveyed did not place quality improvement as highly as other programmes, despite the fact that scholars and practising managers had given it more attention.

Even in established and declining businesses, high quality promotes profitability. When a market reaches its maturity, the typical strategy is to gather such enterprises for money, use the money to diversify into businesses with the potential for development, and divest the company of unwanted ones. In the United States, these alternatives have recently gained such popularity that mature industries are typically left out of debates on efficiency and quality improvement. However, in established businesses, using product quality as a competitive strategy generates above-average returns.

By recognising the effects of poor quality, it is possible to examine the impact of good quality. The total price paid to uphold quality standards is known as the cost of quality. during production and the extra expenses related to liability and warranty claims for faulty items. Reduced scrap, rework, and additional labour; decreased work-in-process, material handling, inventory and capital equipment; increased use of product equipment; and less warranty and claims liability are all ways that quality lowers costs. Sadly, businesses rarely determine the true cost of poor quality, but those that do discover that the findings are surprising. Doing operations well the first time cuts costs and boosts productivity in a variety of ways. Reducing defects or mistakes lowers labour or machine hours. Cutting back on scrap and waste lowers material costs. Less warranty claims mean less materials and labour are needed to fix damaged goods. Labor costs fall when service costs are reduced. By releasing proper design and development requirements the first time, productivity is boosted. Being a low-cost manufacturer allows an organisation to take use of its cost advantage to increase profit, lower prices, or do both.

Achievement depends on having clear performance quality criteria. A limited number of characteristics can properly characterise a product's quality because quality is a complex term. It could refer to qualities that differ from company to company, such as performance, features, and dependability. Based on the requirements of its customers, each company must develop its own set of quality standards. From product design and marketing through manufacturing, customer service, and procurement, quality should always come first. Without reliable and routine quality measurements, quality improvement is challenging to achieve. To make sure that quality criteria are met, performance is measured. Corrective action can be made as needed thanks to ongoing measurement and monitoring of real satisfaction with quality.

Quality must be determined from the viewpoint of the client. Contrary to the propensity to see quality simply from the perspective of management, it is necessary to compare the firm's goods and services to those provided by rival businesses. Simply put, this means that management must take into account customers' opinions of quality and that they define it. Customer requirements are difficult to discover, and the process must be ongoing. Companies with a reputation for highquality goods or services use every technique at their disposal, including focus groups, consumer surveys, customer comments, and regular customer interactions.

Many people find it challenging to respond to this. "I can't define quality, but I know it when I see it," is a popular reply. However, the lack of a definition of excellence does not exclude interest in and strong opinions about the idea. As a result, there are many different ways to define and approach quality. For instance, "fitness for use" [Juran, J. M.: 1974] and "conformance to requirements". have been used to define quality. These definitions, however, are inadequate since a business that develops a product and manufactures it in accordance with the design requirements does not necessarily generate a product that consumers would consider to be of high quality. Only if a product meets the needs of the consumer will it be considered high quality.

Client happiness and fostering customer loyalty can both start with high-quality products. According to Johnson and Ettl (2001), Product performance is what determines a product's quality, which is further subdivided into factors like customisation, defect-free status, and consistency in meeting customer demands. The product packaging, design, features, guarantees, etc. were all included in the product quality dimension (Abdul Muhmin, 2002). High product quality could increase consumer acceptance of the product and satisfy retailers and wholesalers (Schellhase 2000). Customer loyalty, customer satisfaction, and repurchase intentions were all directly impacted by product quality (Mittal and Walfried, 1998). In additionally, a number of research provide a solid empirical fact for the idea that product quality was an important factor that had a positive impact on total consumer satisfaction. As stated by these, maintaining high product quality will result in customer satisfaction and increased customer loyalty.

Companies need to understand that the idea of quality via inspection is outdated. The manufacturing industry and quality-control inspectors cannot bear the entire burden of accountability for quality. Quality improvement is a system that connects all functional departments, to put it another way. Product quality should be determined by the complete productflow process, including customer expectations, product design and engineering, purchasing of raw materials and components, designing the production process, manufacturing operations, and sales and service. Each functional region ought to deliver error-free work to the following user. The individual employees should bear far more of the burden for quality.

### 2.3.6 Safety capabilities towards sustainability green packaging

For safety, the idea of food safety as the main factor in sustainable packaging choices must rationally circulate thru an organisation from the top to bottom, with operational processes, product design, advertising, ecologic, social, and organisational governance (ESG), corporate social responsibility (CSR), and sustainability as the decision makers vertical groups.

Furthermore, Green packaging built of biodegradable composite materials is gaining popularity across a variety of fields owing to its particular benefits over existing petrochemicalbased plastics (Youssef, Assem et al. 2019). They are 100% biodegradable as well as entirely degradable to carbon dioxide, water, and humus. These properties may enable their use in a range of applications, including intelligent nano-food packaging (Youssef and El-Sayed 2018), biomembranes for waste water treatment, medication delivery, and recycling. As a result, the major purpose of packaging is to improve food quality and safety while increasing shelf life. As a result, eco-friendly/sustainable packaging is a company-wide strategy that integrates procedures and materials that are safe for both humans and the environment.

In the other hand, the resulting organic by products typically improve people's lives while also being safe for the environment. In addition, the term "Green" has spread and evolved beyond only a logo or label to generally refer to composite materials, goods, and technologies that have less of an impact on the environment and on human life due to safety requirements (Riaz and Ashraf 2012). Therefore, composite materials that include renewable and biodegradable components are regarded as being toxicity-free. Therefore, in order to preserve and shield food from impurities and the rot brought on by bacteria, green packaging materials play a crucial role in extending its shelf life. Additionally, it has potential uses in a variety of areas related to the food chain and drinks, such as food processing, safety rules, quality control, and storage during transportation (Neethirajan and Jayas 2011).

Furthermore, food and human safety, nutritional content, appetite and flavor attraction, and food reducing waste are non-negotiable incentives for primary packaging design, in the moment the products leaves the manufacturer until the customer prepares and consumes it. Work on food safety may be impacted by many of the trends and goals of sustainable packaging. For instance, novel materials, particularly those that are compostable, could lack the necessary barrier qualities

to keep food safe. The packaging design team of a corporation, and more crucially the marketing team, must be aware of the necessity of properly testing these materials for adequate barrier protection very early in the assessment process.

Besides, consumers appear to favor packaging sustainability indications generally (Popovic 2019; Herbes 2018; Magnier and Schoormans, 2017; Rebollar 2017; Magnier 2016). Recent research by Steenis (2017) and Magnieret (2016) Donato et al. (2021) observed that the use of environmentally friendly product packaging improves opinions of quality of food and flavour, and Earlier studies has shown that sustainability indicators influence how consumers recognize the quality and safety of food, independent of what the environmentally details given via the labeling pertains to the actual product (foodrelated label) or its packaging (packaging label). Lastly, according to Shang and Feng. Modern packaging equipment is crucial for guaranteeing food safety, raising the level of sanitation for packaged foods, and monitoring food safety. One reason is that most food packaging currently used in our nation's food businesses is manually operated, which contributes to pollution. Another reason is that some businesses use packaging machinery with poor quality and functionality to reduce production costs, which could eventually result in food safety issues (Shang and Feng 2012). By using racking machines, stowing machines, sealing machines, and other packaging technology during the food packing process, food contamination brought on by direct contact between food and people can be prevented. Food safety concerns are related to packaging materials, methods of packing, processes of packaging, and equipment utilised in packaging. The creation and promotion of such food packaging equipment that complies with sanitary and safety standards should be given high priority. It is important to make efforts to advance the science and technology of packaging equipment so that food packaging equipment can keep up with the rapidly expanding market economy of our nation and the steadily rising standard of living. Food is seriously contaminated as a result of secondary pollution from packaging equipment. Thus, one of the crucial steps that can be taken to preserve food safety and hygiene is to prevent machinery from becoming dirty. One of the main causes of China's food processing industry's high failure rate is that some food manufacturing equipment does not meet the standards for food safety (Ouyang 2014).

### 2.3.7 Durability capabilities towards sustainability green packaging

Designing for durability has become important to end-of-life actors, suppliers, service providers, and designers. These days, it is crucial to create items for innovative business models focused on licensing and servitization techniques. Durability also makes it possible to apply circularity tactics, such as reuse, repair, refurbishment, and remanufacture, to extend the lifespan of products (Mesa, Gonzalez-Quiroga et al. 2022). Cordella identified two aspects that affect a product's durability of goods: first, the reliability, or the likelihood that it will perform as intended without any problems, and second, the repair procedures, or putting the product back in working order (Cordella, Alfieri et al. 2021).

Food packaging contributes to the preservation or enhancement of food safety and quality by avoiding product degradation, conserving the good effects of processing, prolonging shelf life, and increasing shelf life. In doing so, packaging offers defence against three main categories of outside factors: chemical, biological, and physical (Marsh and Bugusu 2007). Chemical defence reduces compositional alterations brought on by external factors such exposure to oxygen, humidity, or light. Chemical barriers can be produced by a variety of packing materials. Few packages are made entirely of glass or metal due to the addition of closure devices that make it easier to fill and empty them. Glass and metals offer a virtually total barrier to chemicals and other environmental agents. Materials that permit only very low degrees of permeability may be used in closure devices.

Disease and spoilage are prevented through biological protection, which increases the resistance to germs, insects, rats, and other animals. Additionally, biological barriers keep the senescence-controlling conditions in place. Such barriers work through a variety of ways, such as restricting access to the content, stopping the spread of odours, and preserving the atmosphere inside the package.

Food is physically protected against mechanical harm with padding against shock and vibration experienced during distribution. Physical barriers are frequently used as cargo containers and as protection for fragile items like eggs and fresh fruits because they withstand collisions, abrasions, and crushing damage. They are typically made from paperboard and flexible materials. Additionally, proper physical packing shields customers from a variety of risks.

### 2.3.8 Knowledge capabilities towards sustainability green packaging

Knowledge is described as a consumer's ability to learn more about the info given and how much a consumer learns about the specifics of a product. (Karbala and Wandabori, 2012). Knowledge is the term that included the analysis of the choice, organisation, and value comparison elements related to the product as well. As a tool for forming good or negative opinions about any products or commodities, knowledge can also be used to explain the review stage of a product from various consumer stances. Among the key elements or case of knowledge is consumer stance which is an important key that helps consumers to decide about their purchasing terms as well.

According to (Munnukka, 2008), normally the consumers' buying expectations for product quality and pricing will depend on their level of knowledge. According to the consumer, they express that the products in green packaging have a good quality impression (Daugbjerg and Sonderskov, 2015). As a fact, more the information a customer knows, the more positive attitudes regarding the green packing products so there will also be an increase in their desire for buy green package items more.

Furthermore, as we receive more information there will be an increase in terms of knowledge to us and it could influence our purchasing decisions as well. It depends on how information is conveyed and how people perceive it (Nelson & Barbara, 2006). The consumer should always be alert and know well about the information of each and everything that happens around them. On a related statement by the researcher, knowledge of green packaging is connected to the understanding of it which may be obtained from how information about it is perceived. Green materials, waste management, and the life cycle of the packaging are all elements of understanding about green packaging.

Knowledge towards sustainability of green packaging according to consumer's stance are important to the development of healthy environment and lifestyle activities to us. Due to that, the consumer should focus to gain knowledge of the environment which leads us towards green packaging so that the consumers are able to manage it without any shortfall. Statement of Metcalfe (1986) can be referred for further details. According to him, knowledge is classified into two parts; the first is objective knowledge and another want is subjective knowledge. Consumers' actual knowledge is considered objective knowledge and subjective knowledge is their perception of

consumers' level of how much they know in memories and solving problems. Furthermore, we can classify subjective knowledge in terms of environmental understanding of green packaging, which includes believing in the benefits of utilising green packaging as a way to overcome the environmental issue (Mishra et al., 2017). Based on research, a conclusion is made that consumer behaviour and attitudes are elements that depend on subjective knowledge (Kim & Han, 2010; Yadav & Pathak, 2016). Based on another researcher Su et al. (2020), who did research on businesses using green food packaging, Vietnamese behaviour is influenced by its attitudes as it relates to subjective knowledge of green packaging. As an additional point, knowledge has an important role in developing positive perceptions about green packaging (Singh & Pandey, 2018).

Moreover, according to Martinho et. al (2015), as a fact, green consumers showed high environmental awareness and potential to utilize green packaging when compared with standard consumers. Consumers would have a strong belief in the benefits of using green packaging if they had high knowledge about green packaging with correct information (Mishra et al, 2017). However, based on Su et al (2020) research shows that the element behaviour is not directly related to the understanding of green packaging. As a supporting point, the importance of knowledge in influencing green buying was mentioned in research on Malaysian customers, but the attitude was unaffected (Aman et al., 2012). Due to this, there is a need to have more studies to examine the importance of customer stance towards knowledge on green packaging as well.

According to Kaufmann et al., (2012) a general understanding of the aspects, ethics, and connections between the natural world and its highly important natural environment has been defined as environmental knowledge. Nowadays most of the consumers do not understand how important it is to have proper environmental knowledge in order to maintain a healthy environment as well. The consumer should be more active towards gathering more knowledge which will help them to have a healthy life. Furthermore, the elements such as education and personal education are a good point to have a better understanding of the basic environmental influences which is included in environmental knowledge (D'Souza et al, 2006). As an additional point, based on the knowledge of the environment the consumer should be aware on it. As we refer to statements of Hirschman (1980) and Machaud and Llerena (2011), they have observed that more consumers focus and purchase green packaging products when they have a better environmental understanding. A consumer has to consider on the environmental awareness knowledge, which can be explained as

the recognition of the impact that humans have on nature and the guidance of social awareness to prevent harmful effects. In fact, a sustainable consciousness is necessary to be able to make more decisions regarding the protection and maintenance of the natural environment as the need of sustaining for the future (Carrete et al., 2012, 472).

Additionally, regarding the fact of having a better knowledge of the environment and utilizing of green packaging the consumer who has normal or good ecological understanding and conscious in regarding green packaging will be able to express their perceptions toward maintaining ecosystems and there will also be a high-rate purchase of green packaging items (Kim, 2011). Furthermore, according to the statement by Gan et al., (2008) even there is a fact that consumer attitudes toward a green lifestyle and a higher possibility to utilise eco-friendly products are greatly influenced by green issues but on other hand according to Agyeman (2014), he stated as the environmental concerns are not always connected to the purchasing behaviour or taken into consideration throughout the decision-making process of the consumer as well. The point of view expresses the consumer's perception of certain product attributes in either good or negative terms are being a key factor in the part of consumer's decision to make their purchase (Kotler, 2005, 274275; Jobber, 2007,136;). At last, according to Kataria et al, (2013), the elements such as ecological knowledge, awareness, consciousness, worries and beliefs have an influence on environmental attitude which may transform into a strategy for carrying out an activity and it's also explained how you want to react in a certain situation accordingly as well (Kaufmann et al, 2012).

Lastly, in another study regarding the knowledge about environmentally friendly packaging products, there will be a healthy connection between customer awareness and product packaging knowledge in consumers using eco-friendly packaging. According to the current situation, it shows that knowledge is a key element to be considered in the way to raise customer awareness. Due to that, the consumers won't do anything to harm the environment since they are aware of eco-friendly products and the consumer will be more knowledgeable of and supportive of the use of a product with eco-friendly packaging which helps maintain a healthy lifestyle. According to Kumar, P. K., & Anand, B. (2013), poor customer perception and lack of interest in green products may be overcome by educating consumers and developing better products. According to (Kimaryo, 2011), in order to raise awareness, we should communicate more

information to consumers, and encourage the development of habits and it should be a good step to let all schools to provide a better knowledge and understanding of environmental education to all students. Additionally, there is a curriculum for schools which includes environmental education, but it is still not carried out so effectively. All the authorities responsible should implement more activities or steps for all the people especially the students to gain knowledge about the concern about the environment and implement using green packaging to have a healthy life now and in future ahead.

## **2.4 Hypotheses development**

Based on the review of literature, five hypotheses were stem out from the proposed research framework. The hypotheses were developed based on the empirical studies that have been conducted.

### **2.4.1 Price on hypothesis development towards sustainability green packaging**

Price has a big impact on customers' purchasing inclinations. According to Mun (2014), Karatu (2015), and Kong (2014), there is a link among product quality and the price. The increase cost of the items will usually result in decreased customer choice. Consumer want to acquire things at the lowest feasible price, like a price reduction. The biggest factor of consumer buying willingness for items in green packaging is price (Agyeman 2014; Chen and Chai 2010; Kong 2014). Therefore, the following prediction will be hypothesized:

**H1:** There is a positive relationship between price and sustainability green packaging in Kota Bharu, Kelantan.

### **2.4.2 Quality on hypothesis development towards sustainability green packaging**

Chiao and Bei (2001) are stated that, "consider product quality and price as the foundation to build consumer satisfaction," and according to ahmad and khan (2012), "product quality is critical determinant of consumer satisfaction," Consumer pleasure is influenced by the quality and pricing preferences of the customer. Furthermore, it came to the conclusion that price can be a tool

for boosting revenue and customer satisfaction. Customer value is another aspect that influences customer satisfaction. Therefore, the following prediction will be hypothesized:

**H2:** There is a positive relationship between quality and sustainability green packaging in Kota Bharu, Kelantan.

#### **2.4.3 Safety on hypothesis development towards sustainability green packaging**

Previous studies analyzing the relationship between safety and green packaging have produced various results. Therefore, the following prediction will be hypothesized:

**H3:** There is a positive relationship between safety and sustainability green packaging in Kota Bharu, Kelantan.

#### **2.4.4 Durability on hypothesis development towards sustainability green packaging**

Durability also allows for the employment of circularity strategies such as reuse, repair, refurbishing, and remanufacture to extend product lifespan (Mes, Gonzalez-Quiroga et al. 2022). Cordella recognised two factors that influence a product's durability of goods: first, dependability, or the possibility that it would operate as intended with no difficulties, and second, repair processes, or restoring the product to working order. (Cordella, Alfieri et al. 2021). Therefore, the following prediction will be hypothesized:

**H4:** There is a positive relationship between durability and sustainability green packaging in Kota Bharu, Kelantan.

#### **2.4.5 Knowledge on hypothesis development towards sustainability green packaging**

Referring to Alavi and Leidner (2001) knowledge is " a justified personal belief that increases an individual's capacity to take effective action.". Furthermore, Sharratt and Usoro (2003) stated knowledge is closely related to how a person absorbs information, which can gain from how a person analyses information accurately. Knowledge of green packaging, adapted for the context of this study, is connected to understanding green packaging, which could be obtained

through the analysis of information as well. Therefore, the following prediction will be hypothesized:

**H5:** There is a positive relationship between knowledge and sustainability green packaging in Kota Bharu, Kelantan.

## 2.5 Theory and related framework

The literature review served as the basis with this study, which utilized a model based on the theory of planned behaviour (TPB) as the underlying theory in order to determine the factors that influence consumers' stance toward sustainable green packaging from the perspective of Kota Bharu, Kelantan. Ajzen came up with the idea for the TBP concept (1991). The TPB model has proved helpful in forecasting consumer behavior as well as actions in a broad variety of green and top player categories, such as energy saving items (Ha and Janda, 2012), green packaging (Chan and Lau, 2008), and organic products (Ha and Janda, 2012). (Zagata, 2012). Motivations about the amount of effort that individuals are able or preparing to put forth in order to carry out a behaviour are what regulate the motivational elements that impact that behaviour. According to Ajzen (1991), the strength of an individual's desire to engage in a certain behaviour predicts the degree to which that behaviour will actually be carried out.

TPB help to investigate impact of individual variables, social environment, and nonvolitional factors on intend" (Han et al., 2010). Perceived Behavioral Control (PBC) should have no effect on the actual intent connection if the conduct is fully voluntary; alternatively, it regulates the relationship if the behaviour isn't really fully voluntary (Armitage and Conner, 2001). TPB, in specifically, enhances the reliability of the consumer attitude model for green items (Jebarajakirthy and Lobo, 2014). By evaluating each component at similar degrees of detail, the methodological approach the possible link with both purpose and its drivers. TPB has been used as a conceptual framework to describe organic produce selection (Dean et al., 2012; Paul and Rana, 2012). The TPB model was already verified in previous research examining recycling practises (Davis et al., 2009; Davis, Phillips, Read, and Iida, 2006; Oreg and Katz-Gerro, 2006) and green purchasing intentions (Davis, Phillips, Read, and Iida, 2006). (Chen and Tung, 2014; Zhou et al., 2013; Chen and Peng, 2012; Han et al., 2011; Barber et al., 2010; Han et al., 2009; Mostafa, 2007;

Tarkiainen and Sundqvist, 2005). TPB, as proposed, takes three predictors of intents into account: perceived behavioural control, attitude toward conduct and social norm

In this research, many theoretically linkages were developed and experimentally confirmed to describe the impact of product development, awareness about green packaging, price, and quality on customer preference to buy propensity of green packaged items. Other research employing the theoretical framework validated all assumptions stated in this research. The research's findings suggest that product development, understanding of green packaging, price, and quality have a positive and substantial effect on Malaysian consumers' stance for green packaged items. Furthermore, evidence supporting the usage of the TPB was included in this research, which presented the existence of a link between users' intentions and participating in particular behaviours to be done (Ajzen, 1991). Thus, recognising customers' worries, true intents, and demands will boost consumers' attempts to live a healthier approach in the coming decades. The study's results will be valuable not only to corporations, as well as marketers in identifying methods to enhance their green packaging in order to entice customers to purchase their goods. Aside from giving some solid theoretical underpinnings for businesses or organization to understand better customers' demands and concerns, this study might also build the foundation for subsequent studies who want to perform in-depth selection studies.

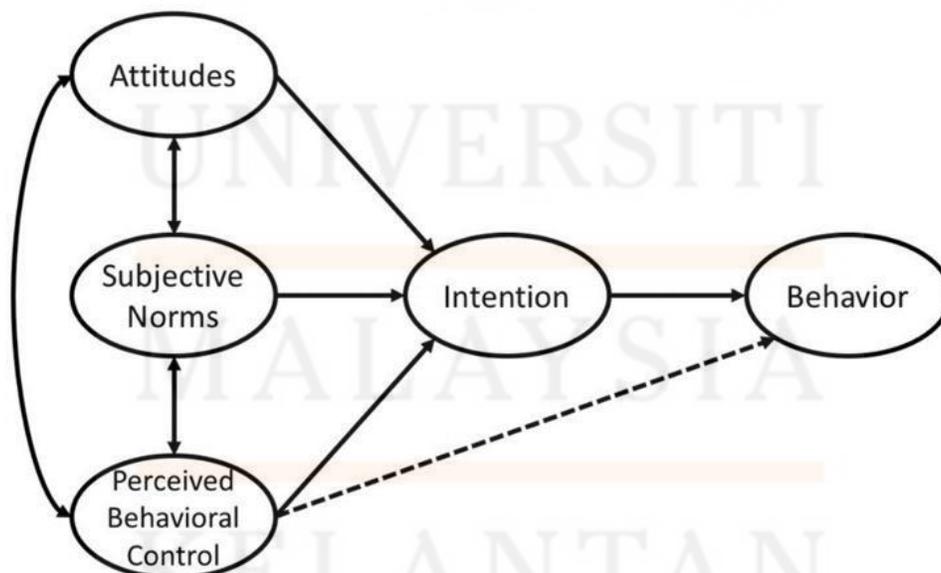


Figure 2.1: Theory of Planned Behavior

## 2.6 Conceptual Framework

In the research conducted by Chan (2001), a conceptualised model was used to evaluate the effect of a variety of socioeconomic and behavioral elements on the environmentally conscious purchasing behaviour of Chinese consumers. D'Souza et al. (2006) constructed up a different conceptual framework that consisted of seven factors and studied the effect of price and quality as the criterion for green buying perception among users in Australia. According to the findings of a research conducted by Abdul (2009), a person's "green product purchase decision" may be described as people's choice for preference items that include eco-friendly attributes over other typical goods when it comes to their buying concerns. Other than that, Chen and Chang (2012) defined the term "green purchasing intention" as the desire of a buyer to purchase an item according to his or her own environmental demands. Therefore, for context in this research, the green purchase intention was conceptualised as a specific factor and evaluated by 5 components, classified as awareness on green packaged products, price in terms value for money, durability, safety to use it, and quality of the packaging. This is in with the results of Abdul (2009).

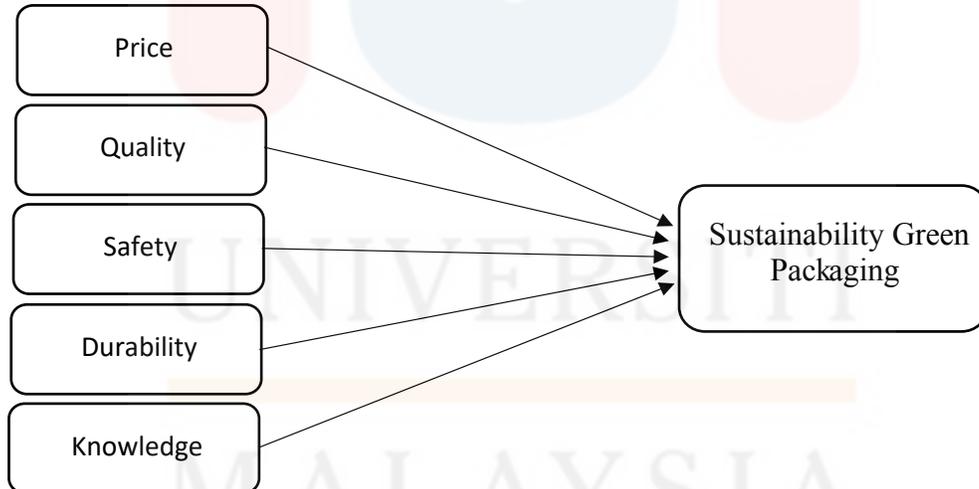


Figure 2.2: Conceptual Framework

## 2.7 Chapter summary

In summary, based on frameworks and models that have been discussed, the researcher will combine the idea into a framework. At last, the objective of the literature review of this study for the part of hypotheses will examine in chapter 3 which is the part of research methodology.

## CHAPTER 3

### RESEARCH METHODS

#### 3.1 Introduction

This chapter provides the research methods for the study as the title suggests, a component of a research study known as a research methodology integrates the research model and research hypotheses that are produced by the empirical findings of the investigation. As a result, the emphasis in this section was on defining the study's methodology, which covers the procedures for data collecting and analysis that were utilized to produce the findings that were published in the following chapter, such as the outcome data analysis. (Kumar et al., 2013). The methodology of this proposal and the research framework can both be discussed in this chapter. The research design, sample design, research instrument, data collection method, and data analysis method that will be employed in this study are all covered in this chapter. Survey testing and response have both been done using the quantitative research approach. The precise target group, sample size, sampling technique, and questionnaire formulation will all be covered in detail in this chapter.

#### 3.2 Research Design

Research design is an element of the system which developed to approach and help overcome research challenges. The “procedures for collecting, analyzing, interpreting, and reporting data in research studies” are good as a study plan (Williams, 2007). Research design being the core element in the study of research process to achieve aim of the investigation. Basically, in quantitative research, there will be an involved term which is gathering raw data, doing analysis, and gathering data in figures of numbers followed by us able to collect all the information in approach form of a sample survey which helps us for the research issue as we can collect a big amount of data in a short timing as quickly in this term.

Moreover, pursuant to Sileyew (2019), researchers follow the research design so that they can reach their research objectives and test the hypotheses developed during investigations because the research design acts as a study plan that describes procedures for it. In this study, the term

research design used descriptive analysis and regression analysis. As first descriptive analysis is a term for the use of information about the attributes of the variables in a situation with the aim to identify and get understanding detail about the current societal issue as well. (Sekaran, 2013) Reversion analysis is one of the ways as is used when customizing and dissecting several diverse variables part of our study where have a relationship between one or more points of independent variables and dependent variable, and it's a quantitative approach that is accustomed to interrogating as the nature of the relation between one or more point of independent variables and dependent variable (Dudovskiy 2011) so here in our study, we used this both analysis to determine the factors that affect customer's stance towards sustainability Green Packaging in Kota Bharu, Kelantan. As the descriptive analysis was used to show all numerical data to analyze the survey results and combined regression analysis was used for determining the instruction and power of the association betwixt the different variables of the study as well.

### **3.3 Data Collection Methods**

Quantitative research is the technique used in this study to collect and analyze numerical data (Kumar et al., 2013). Quantitative study where the research is intended to take the role of an impartial observer. The selection of a sample that is representative of the population is the goal of quantitative research. It will be used to identify patterns and averages, develop projections, assess causality, and extrapolate the findings to broader groups. To gather the information and data that affects the variables in this study, the researcher will utilize this quantitative method to analyze the feedback from the respondents by distributing the questionnaires online and physical form. The survey questionnaire method was chosen due to the benefits it offers, including the respondents' flexibility over time, low cost, fewer geographical restrictions, the lack of interviewer bias, and the secrecy of response (Hair, Bush, & Ortinau, 2014). In order to establish and support the conclusion, the statistical analysis of the data is then centered on the hypotheses. A methodology for gathering information from all necessary sources is a data collection approach. To test the hypothesis, find the answers to the research topic, and then assess the findings. The two categories of data gathering techniques are primary data collection techniques and secondary data collection techniques. In this examination, the study may make use of both primary and secondary data

collection techniques. This study used a quantitative approach to determine consumer awareness of and preferences for eco-friendly packaging. A structured questionnaire was used in the study's survey methodology.

### **3.3.1 Primary data collection method**

A collection of questionnaires are distributed to respondents using physical forms and google forms in order to collect data from them. Primary data, which has not previously been used, is gathered from first-hand experience. The information acquired via primary data gathering techniques is highly precise and specific to the goal of the research. This indicates that this particular sort of data was obtained from the data source (Van Khuc & Tran). The most common quantitative data gathering procedures are based on statistical and analysis approaches, such as mean, closed-ended questions, correlation and regression methods, mode and median questionnaires, and others. Additionally, the approach to quantitative approaches is quite consistent, making it simple to compare the results. For the sustainability green packaging in this study, the researcher adopts a quantitative data collection method.

In Kota Bharu, Kelantan, a survey was undertaken to gather information about the variables influencing consumers' attitudes toward sustainable green packaging. Additionally, these polls can collect demographic information like age, gender, income, or occupation (Houston 2022). In addition, we will ask respondents to a closed-ended survey question in which we provide a proposition and ask if they strongly agree, agree, disagree, or disagree strongly. Online and offline survey responses are both acceptable.

### **3.3.2 Secondary data collection method**

Additionally, this research uses secondary data from previous researcher journals, newspapers, books, and online sources as a reference for this research issue. Furthermore, the reliability and validities of the test results depend on the application of the right set of criteria to classify the secondary data that will be used in the research. These standards include the credentials of the author, the credibility of the source, the coherence of discussions, the breadth of the analysis,

and the extent to which the book contributes to the advancement of the research field (Sileyew, 2019). Data from secondary sources of information could be more accurate than data from main sources. In order to get additional knowledge for their research, earlier researchers frequently employed the secondary method of library study, which includes periodicals, newspapers, documents, literature reviews of prior studies, journals, statistical analysis, and other materials. The questionnaire was created using research articles from earlier studies.

### **3.4 Study Population**

Target population is a group of individuals that identify as the unit for the findings of research to meet the researcher objective (Thomas & Harden, 2008). Thus, the population for this research would be the consumer of product packaging in Kota Bharu, Kelantan. Therefore, the range of age for this population that suitable to conduct this survey is between 20 to 60 years old. The range of age are categorized into 4 group which are 20-25, 26-30, 31-35 and 36 and above in this study when used to collect data from respondents. The population in Kota Bharu area is 1,552,450 people and it is one of the capitals of Kelantan, Malaysia. Kota Bharu, Kelantan area is quite famous because it has a high population and its position in an urban area in Kelantan. There are many retail, food and beverage industries as well as residents who often use this packaging product. Therefore, it makes it easier for the researcher to conduct research questionnaire because there are many target respondents in the area.

### **3.5 Sample size**

Consequently, the sample size is adequate to accurately reflect the population (Bowen, 2009). Researchers are able to produce conclusions about the population of interest through research. Due to the ambiguity and influence of the sample selection process, the researcher has chosen a sample size of 348 respondents Krejcie and Morgan's (1970) methodology in order to obtain reliable results. Consumer at Pengkalan Chepa, Kota Bharu Mall, and Aeon Mall Kota Bharu were included in the survey. Consumers were questioned about their knowledge of green packaging and preferences for packaged goods with green packaging.

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Table 3.1: Determine Sample Size of a Known Population

### 3.6 Sampling Techniques

The sampling technique is the method of analyzing a population through information gathering and data analysis. The data's basis is where the sample space is the largest. A study was a selection term of things, individuals, either object chosen from a sizable population for quantification. As to assure that the rulings from the exploration sample can be useful to the population as an undivided, the sample should be delegated to the population (Hospital 2006). Sampling is the method of choosing a sample from a big population or an individual for a particular development of the studies and research. Sampling delivers more accurate results since it is carried out by competent investigators, and it is also a brilliant way when there is a large population because it offers to save time and money and produces results more quickly because the sample size is less than the complete population (Bhardwaj 2019).

Moreover, in the sampling technique, there is a phase of probabilistic sampling. Probabilistic sampling is a sampling strategy in which it is unlikely to compute the probability that

every particular member will be chosen for a sample. Due to its excellent time and cost efficiency, it is Beneficial when in accordance with the probability sample and it's accessible to apply besides may be used in situations when probability sampling is not possible. As attested by (Yin, 2003), probabilistic sampling is typically similar to scenario study research design and qualitative research. Considering this, the inquiries will often concentrate on slight samples and will be used to investigate a real-world issue other than draw statistical inferences regarding the whole population. There is no necessity that the cases or participants in a sample be random or representative, but it must be a reasonable explanation for why some people or cases are involved but not others.

In this study, we will use the non-probability method along with the convenience sampling technique in this study to collect data from the people at Kota Bharu, Kelantan. This study requires a sample size of 200 respondents which can be more easily obtained by using a convenience sampling approach due to a large number of participants. It is also one of the more commonly used sampling techniques.

### **3.6.1 The convenience sampling**

The convenience sampling involves selecting respondents which are often and easily affordable. Convenience sampling is typically the selected sampling strategy method betwixt students because it is more a simple choice and affordable when compared to other sample methods (Ackoff, 1953). Alternately, many research difficulties can be solved through the application of convenience sampling as it's plain to target known family, people, or friends if they are included in the sample as well. As we mentioned above in this study our size of the sample will be 200 respondents and it will be easy if we used this strategy will make it easier for the researcher to quickly reach this sample size as well. We select this sampling since we have a finite amount of time to collect more data; consequently, it is a simpler method because the target population is indeed a very convenient method of generating a sample. Additionally, the method is not random because respondents are chosen because they just so occur to be right time in the right place. The samples are likewise simple to access, measure and cooperate.

### 3.6.2 Unit of Analysis

A unit of analysis is the element or subject that you want to discuss our study's important part. According to their preferences and awareness of sustainable green packaging, the inhabitants of Kota Bharu, Kelantan, were chosen as the sample population, and the researcher preferred the urban Kota Bharu zones in Kelantan as the sampling unit for this study. It is also the main subject or topic on which the researcher intends to make a point in this study.

### 3.7 Research Instrument Development

Research instruments, such as scales and questionnaires, are measurement tools created to collect data from respondents in favour of surveys. This tool is crucial since it makes it possible for the researcher to gather information more quickly and efficiently. In this study, the researcher must select questionnaires as part of the measurement techniques to gather data in the most effective manner possible. Additionally, surveys will be given out to participants, with the researcher focusing on customers in the Kota Bharu region based on their outward appearances and online platforms, also known as virtually, by constructing the surveys in Google Form.

Additionally, this strategy can be carried out successfully online because it is one of the simplest and quickest ways to contact responders and can save time and money. The researcher will next use a Google form to create the questionnaire and then send the necessary information to the intended respondents using social media platforms like WhatsApp. Even though it is simpler to distribute the form over social media, the researchers still meet with respondents in person to collect feedback from customers who fall into various demographic categories. This is done in order to provide Kota Bharu consumers with a diversity of outcomes rather than just those that cater to a select group of technology users. On the other hand, it will assist respondents who have trouble comprehending the research's questions and objectives. The researcher chose questions with a likert scale from one sort of closed-ended questionnaire for this investigation. The questionnaire will be broken down into three main sections and contain a total of 49 questions.

The demographic questions in section A inquire about the respondent's gender, age, race, educational background, and monthly income. Two questions in Section B ask about customer

awareness of and attitudes toward green packaging. Finally, Section C has 42 questions, of which 7 will be used to analyse a dependent variable related to customers' attitudes about sustainable packaging and the other 35 will be used to examine independent variables. The five independent factors are price, quality, safety, durability and knowledge.

### **3.7.1 Questionnaire**

The researcher will design and produce questionnaires as one of the instruments to conduct the survey. As a result, this is one of the approaches that the majority of researchers will employ to conduct their survey and gather data via questionnaires. It is among the simplest and most practical ways to distribute surveys online in order to increase the number of responders. As a result, the respondents will submit virtual feedback to the researcher via the link to the Google form that the researcher will send.

The questionnaire is divided into three sections: Section A, which covers the respondents' demographics; Section B, which deals with the respondents' awareness and attitudes on green packaging; and Section C, which is the dependent variable. Sustainability and green packaging are the dependent variables in Section C of this section. Each of the seven questions in the independent variable component must be completed by the respondent.

### **3.7.2 Questionnaire Design**

The questionnaires for this study were designed to contain quantitative information. In this study, open-ended questionnaires and Likert scales with questions ranging from 1 to 5 were employed as the main data collection tools. The questionnaire was created based on prior study findings, which have an impact on how consumers feel about sustainability green packaging in Kota Bharu, Kelantan through pricing, quality, safety, durability, and knowledge.

### **3.7.3 Likert Scale**

The Likert scale appears to be a particular kind of rating scale that is employed to gauge an individual's opinions and impressions. Users can express how strongly they agree or disagree

with a particular topic using a five- to seven-point scale. Additionally, other factors like concurrence, relevance, and possibility can be evaluated using the Likert scale. To assess the respondents' level of agreement and disagreement with the statement in this study, the researcher will use a Likert scale for agreement. For instance, this researcher will use a five-point Likert scale from 1 to 5 to collect information from respondents. The questionnaire will therefore the following numerical scale: 1 for Strongly Disagree, 2 for Disagree, 3 for Uncertainty, 4 for Agree, and 5 for Strongly Agree. In this survey, the researcher will solely concentrate on the opinions of consumers in the Kota Bharu area regarding the sustainability of green packaging, and a Likert scale has been utilised as an assessment rating scale to analyse the study.

### **3.8 Measurement of the Variables**

The level of measurement is crucial when measuring variables. More advanced statistical tools may be used to analyse a variable whose measurement is more accurate (Kumar et al., 2013). We select the questionnaire since it is the least expensive and most efficient approach for gathering information. As a result, the questionnaire distribution process is random, the data gathered was also important given the study-related issue, and employing the questionnaire allows for the quick receipt of comments. There will be 260 responders to the set of surveys, and the questionnaire will be divided into two main sections.

#### **3.8.1 Nominal Scale**

With the help of a nominal scale, this research study can classify the participants into several categories or classes. Simply put, the categories are there to make it simpler for responders to select a response from the many groups. Using SPSS software, the nominal scale offers practitioners a few quick, normative techniques to evaluate the data (Sekaran & Bougie, 2016). The demographic respondent using the nominal scale is asked in Section A of the questionnaire about their gender, age, race, educational background, and monthly income.

### **3.8.2 Interval Scale**

The primary measurement scale in this work is the interval scale, which enables us to execute mathematical operations on the gathered data (Sekaran & Bougie, 2016). The Likert scale, which allowed respondents to rank items on a range from 1 to 5, was used in sections B and C of the questionnaire. According to the researcher, the Likert scale might have as many different ranges of values. As a result, our group decided to limit the range to a 5-level Likert scale in order to better understand how customer preferences for sustainable green packaging relate to one another. As a result, it is simple to comprehend the scale and less onerous for the respondent to complete the questionnaire.

## **3.9 Procedure of Data Analysis**

### **3.9.1 Pilot Test**

A pilot test is a pre-test conducted on 30 respondents to determine the questionnaire's reliability and face validity (Lew & Atan, 2021). Pilot test is used to get an estimate of the reliability value of the item / construct and provide an opportunity to find out which items are still problematic. This means that the pilot test needs to be done more than once if there is a problem with many items that require repetition. For the pilot test, thirty (30) sets of questionnaires will be distributed to the intended respondents. Following data collection, the data will be included in the Statistical Package for the Social Sciences (SPSS) software and will be tested for reliability. Finally, if any problems are discovered, the questionnaire survey will be readjusted based on the result of the pilot test and distribution for the main study.

### **3.9.2 Descriptive Analysis**

The Statistical Package for the Social Sciences (SPSS) will be used to analyse data in percentages and frequency using descriptive statistics like mean, mode, and median. For demographic parameters like gender, age, and even education, percentages and frequencies are routinely utilised in data analysis chapters. The researcher will utilise descriptive analysis to gather data from the respondents in section A of the questionnaire. The researcher will request

demographic details. In order to accomplish the research purpose, the researcher will benefit from the respondents' responses to the descriptive statistic.

### 3.9.3 Regression Analysis

A collection of statistical techniques known as regression analysis is used to estimate the associations between a dependent variable and one or more independent variables. It can be used to simulate the long-term link between variables and gauge how strongly the relationships between them are related.

There are various types of regression analysis, including linear, multiple linear, and nonlinear. Simple linear and multiple linear models are the most prevalent types. For more complex data sets where the connection between the dependent and independent variables is nonlinear, nonlinear regression analysis is frequently used. There are many uses for regression analysis across many fields, including finance. Simple linear regression is a model that assesses the relationship between a dependent variable and an independent variable.

### 3.9.4 Pearson Analysis

Pearson's Correlation is used to determine the relationship in linear regression or between two continuous variables (Pallant, 2020).

Pearson correlation coefficient can be strong/weak positive or strong/weak negative. The negative value of the correlation test indicates a negative relationship, whereas the positive value indicates the opposite.

Furthermore, there are different levels of how strong the correlation may be, where a value between -1 and 1 indicates how strong or weak the relationship is, with 1 being the most correlated and -1 being the opposite. (Taylor, 1997). P-values are frequently used in hypothesis tests to determine whether the null hypothesis is rejected or not. Pearson's correlation coefficient is as follows:  $H_0=0$  vs.  $H_1 \neq 0$ , where is the correlation coefficient between two variables. A low p-value indicates that the null hypothesis is incorrect. You can conclude that the correlation coefficient is

greater than zero and that there is a linear relationship. If the p-value is less than 0.05, the null hypothesis is usually rejected. (Minitab Express Support, 2022).

### 3.10 Chapter Summary

In a nutshell, the chapter has covered and spell out all the methods of studying and the outcome of the topic explored by the researchers. This chapter has analyzed what are the techniques or procedures that will be used, and how to implement the methods, and elaborate on why the researcher selected the stated techniques and methods beyond. After all, in this chapter, the researchers supply a statement of the review's methodological methodology, and the studies could possess a better outcome of the variables from the details that will be accumulated and collected. The questionnaire is designed using primary and secondary data from other studies and other sources. The questionnaire design is built using secondary data gleaned from another investigation.

## CHAPTER 4

### DATA ANALYSIS AND FINDINGS

#### 4.1 Introduction

The researcher presents the results obtained from the data analysis in this chapter. This chapter included reliability analysis, demographic characteristics of respondents, descriptive analysis, Pearson's correlation coefficients analysis and multiple linear regression analysis. The results of the research data were obtained from respondents. In this study, after the data have been collected, IBM SPSS Statistics was used to analysis the data.

#### 4.2 Preliminary Analysis

Prior to distributing the questionnaire to the intended respondents, the pilot test must be carried out. According to Jack & Clarke, 1998, a survey must be utilised to assess the validity and reliability of the questionnaire before moving on to a sample population. The reliability score of the survey shouldn't be lower than 0.6 because anything below that is considered to have poor reliability. The closer the value is to 1, the more reliable the item's internal consistency is. For the study's target demographic, which consists of residents of Kelantan, we had conducted a pilot test and given out 30 sets of sample questionnaire surveys to participants from this community.

Table 4.1: Reliability Analysis of Pilot Test

Variable	Number of Items	Cronbach's Alpha Coefficient ( $\alpha$ )	Internal Consistency
Sustainability Green Packaging	7	0.822	Good
Price	7	0.913	Excellent
Knowledge	7	0.927	Excellent
Quality	7	0.952	Excellent
Durability	7	0.920	Excellent
Safety	7	0.876	Good

Based on the Table 4.1 above, the study's 30 questionnaires' pilot test data, which was obtained, was used to determine the data analysis reliability for both dependent and independent variables. A value between 0 and 1 is given to Cronbach's Alpha in the reliability test, with a value closer to 1 indicating an even more accurate scale for variables. Researchers will be more confident in the survey's conduct and more certain that the data or information on outcomes and observations is appropriate to interpret the closer exact a set of scales remains.

According to the Rules of Thumb about Cronbach's Alpha Coefficient size, the sustainability of green packaging as dependent variables is 0.822, which is good. The following independent variables include Price (0.913), Knowledge (0.913), Quality (0.952), Durability (0.923) that are in excellent values and Safety (0.876) which is good. This shows that all independent variables, all of which have values more than 0.7, have very good results for every attribute. This survey is trustworthy enough to be used in this investigation. As a consequence, the questionnaire has been accepted and the reliability has shown that the respondents understood the questions in the questionnaire.

### 4.3 Demographic Profile Of Respondents

The data above, showed the demographic profile of the respondents consists of the part of Gender, Race, Age, Academic qualification, monthly income, Level of awareness about sustainability Green Packaging and Consumer attitudes about green packaging

#### 4.3.1 Gender

Table 4.2: Respondent's Gender

<b>GENDER</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	97	25.3	25.3	25.2
Female	287	74.7	74.7	100.0
Total	384	100.0	100.0	

Based on the table 4.2, shown as 287 (74.7%) of respondent are females and the remaining 97(25.3%) are males. So as a result, the females respondent are higher than males influence towards sustainability green packaging in khota bharu, Kelantan.

#### 4.3.2 Race

Table 4.3: Respondent's Race

RACE				
	Frequency	Percent	Valid Percent	Cumulative Percent
Malay	169	44.0	44.0	44.0
Chinese	42	10.9	10.9	54.9
Indian	171	44.5	44.5	99.5
Others	2	.5	.5	100.0
Total	384	100.0	100.0	

The table 4.3 it shown the number of respondent base on race category. Based on the race part, the Indian's ethnic hold higher number of respondents with 44.5% 171 respondents. Moreover, the second highest ethnic is malay with 44.0% (169 respondents) and follow by Chinese ethnic with is 10.9% (42 respondents). At last, the others with 5% (2 respondents). So according to this survey 44.5% (171 respondents) as the more Indian ethnic influence towards sustainability green packaging in khota bharu, Kelantan.

MALAYSIA  
KELANTAN

### 4.3.3 Number of respondents based on Age groups

Table 4.4: Respondent's Age Group

AGE				
	Frequency	Percent	Valid Percent	Cumulative Percent
20-25 Years Old	212	55.2	55.2	55.2
26-30 Years Old	80	20.8	20.8	76.1
31 –35 Years Old	50	13.0	13.0	89.1
36 Years Old And Above	42	10.9	10.9	100.0
Total	384	100.0	100.0	

Table 4.4 shows the number of respondents which classified based on age group in survey of this research. The lowest age and hold highest number respondents are the age group of 20-25 years old with 212 respondents (55.2%). Next will the age group of 26-30 years old who respond to this survey with 80 respondents (20.8%). Furthermore, the age group of 31-35 years old respond to this survey with 50 respondents (13%) and followed by the age group of 36 years old and above who respond to this survey with 42 respondents (10.9%). As a result, the age group of 20-25 years is highest in term of influence towards sustainability green packaging in Kota Bharu, Kelantan.

### 4.3.4 Academic Qualification

Table 4.5: Academic qualification

Academic Qualification				
	Frequency	Percent	Valid Percent	Cumulative Percent
SPM	71	18.5	18.5	18.5
STPM/DIPLOMA	117	30.5	30.5	49.0
DEGREE	157	40.9	40.9	89.8
MASTER	29	7.6	7.6	97.4
PHD	10	2.6	2.6	100.0
Total	384	100.0	100.0	

Table 4.5 interprets the result about the level academic qualification of the respondents of this survey. The highest number respondents hold by the level academic qualification of DEGREE with 157 respondents (40.9%). Next will be the STPM/ DIPLOMA holders with 117 respondents (30.5%). Furthermore, the SPM academic qualification which consist of 71 respondents (18.5) followed by, the master holders with 29 respondents (7.6%) and the lowest academic qualification who respond to this survey is PHD holders with 10 respondents (2.6%).

#### 4.3.5 Monthly income of Respondents

Table 4.6: Monthly Income

Monthly Income				
	Frequency	Percent	Valid Percent	Cumulative Percent
Below RM 1,000	111	28.9	28.9	28.9
RM 1,000-RM 1,999	96	25.0	25.0	53.9
RM 2,000-RM 2,999	91	23.7	23.7	77.6
RM 3,000-RM 3,999	33	8.6	8.6	86.2
RM 4,000 and above	23	6.0	6.0	92.2
OTHERS	30	7.8	7.8	100.0
Total	384	100.0	100.0	

The table 4.6 shows the number of respondents based on the monthly income status group. As per that, in the monthly income group, the highest number of respondents are from income range of below RM1,000 with 111 respondents (28.9%). Next is the respondents from the income range of RM1000- RM1999 with 96 respondents (25.0%). Furthermore, the respondent from the income range of RM 2000- RM 2999 with 91 respondents (23.7%) followed by the respondent from income range of RM 3000- RM 3999 with 33 respondents (8.6%) then followed by the respondent from the income range more than RM4000 with 23 respondent (6.0%) and the least consists of respondent from income range of others with 30 respondents (7.8%).

#### 4.3.6 Level of awareness about sustainability Green Packaging

Table 4.7: Level of awareness about sustainability Green Packaging

Level of awareness about sustainability Green Packaging				
	Frequency	Percent	Valid Percent	Cumulative Percent
I completely know about it	177	46.1	46.1	46.1
I know a bit	198	51.6	51.6	97.7
I do not know anything	9	2.3	2.3	100.0
Total	384	100.0	100.0	

The table 4.7 interprets the result of Level of awareness about sustainability Green Packaging among the consumers at kota bahru Kelantan. Based on this data, the highest of people respond that I completely know about it with 177 respondents (46.1%). Next, few people respond I know abit with 198 respondent (51.6%) and the least of people respond I do not know anything with 9 respondents (2.3%). As a result, for the Level of awareness about sustainability Green Packaging, the highest people respond I completely know about it and least people respond I do not know anything.

### 4.3.7 Consumer attitudes about green packaging

Table 4.8: Consumer attitudes about green packaging

<b>Consumer attitudes about green packaging</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
I like to purchase green products which store in the eco-friendly method as it made effortless to recycle or compost.	133	34.6	34.6	34.6
I'm aware that eco-packaged products are available at Market	123	32.0	32.0	66.7
I'm able to fee extra to purchase green packaging which help to protect the surrounding	128	33.3	33.3	100.0
Total	384	100.0	100.0	

The table 4.8 interprets the result of Consumer attitudes about green packaging among the consumers at khota bahru Kelantan. Based on this data, the highest of people respond that I like to purchase green products which store in the eco-friendly method as it made effortless to recycle or compost about it with 134 respondents (34.8%). Next, few people respond I'm able to fee extra to purchase green packaging which help to protect the surrounding with 128 respondents (33.2%) and least of people respond I'm aware that eco-packaged products are available at Market with 123 respondent (31.9%). As a result, for Consumer attitudes about green packaging the highest people respond I like to purchase green products which store in the eco-friendly method as it made effortless to recycle or compost. and least people respond I'm aware that eco-packaged products are available at Market.

## 4.4 Descriptive Analysis

### 4.4.1 Descriptive statistic for Price

Table 4.9 below show the mean and standard deviation for Price. Based on that, the highest mean is number 1 which is 4.40 with the variable of, I'm eager to choose sustainability green packaging if the cost remains as same as ordinary packaging and number 7 which is 4.40 with the variable of, I'm eager to change the brand choice to buy from companies that care the environment. Most of the respondents well agreed with these 2 variables. Moreover, the lowest mean value is on number 5 which is 4.29 as the variable stated as I'm eager to spend more money on sustainability green packaged products even if they are costly compared to environmentally unfriendly. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.9 Descriptive Statistic for Price

<b>Descriptive Statistics</b>		
	<b>Mean</b>	<b>Std. Deviation</b>
1. I'm eager to choose sustainability green packaging if the cost remains as same as ordinary packaging.	4.40	.708
2. I'm eager to spend more money on sustainability green packaging.	4.30	.783
3. I'm eager to spend more money to demonstrate my concern for the environment.	4.39	.742
4. I'm eager to select sustainability green packaging if can be affordable.	4.46	.692
5. I'm eager to spend more money on sustainability green packaged products even if they are costly compared to environmentally unfriendly.	4.29	.851
6. I'm eager to stop buying from companies that disrespect environment even it cost lower that green packaging.	4.37	.729
7. I'm eager to change the brand choice to buy from companies that care the environment.	4.40	.765
Valid N (Listwise)	384	

#### 4.4.2 Descriptive statistic for Knowledge

Table 4.10 below show the mean and standard deviation for Knowledge. Based on that, the highest mean is number 6 which is 4.58 as the variable stated that, I derive that supporting environment protection makes me special. Most of the respondents well agreed with this variable as well. Followed by that, the lowest mean value is on number 2 which is 4.41 as the variable stated as, I derive that sustainability of green packaging helps to enhance environmental responsibility. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.10 Descriptive Statistic for Knowledge

<b>Descriptive Statistics</b>		
	<b>Mean</b>	<b>Std. Deviation</b>
1. I derive that sustainability of green packaging steers to green consumerism	4.52	.747
2. I derive that sustainability of green packaging helps to enhance environmental responsibility.	4.41	.713
3. I derive that sustainability of green packaging contributes to the well-being of society.	4.53	.704
4. I derive that sustainability of green packaging maintains the planet from pollutants	4.54	.669
5. I derive that information about sustainability green packaging.	4.57	.726
6. I derive that supporting environment protection makes me special.	4.58	.653
7. I derive that my action on sustainability of green packaging makes a difference.	4.49	.666
Valid N (Listwise)	384	

#### 4.4.3 Descriptive statistic for Quality

Table 4.11 below show the mean and standard deviation for Quality. Based on that, the highest mean is number 7 which is 4.49 as the variable stated that, I understand that sustainability green packaging biodegradable. Most of the respondents well agreed with this variable as well. Followed by that, the lowest mean value is on number 4 which is 3.50 as the variable stated as I understand that sustainability green packaging quite limited quality. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.11 Descriptive Statistic for Quality

<b>Descriptive Statistics</b>		
	<b>Mean</b>	<b>Std. Deviation</b>
1. I understand that sustainability green packaging maintains the ingredient of the products.	4.22	.676
2. I understand that sustainability green packaging prevent the products from any damage.	4.30	.680
3. I understand that sustainability green packaging more durable compared to traditional packaging.	4.38	.727
4. I understand that sustainability green packaging quite limited quality.	3.50	1.396
5. I understand that sustainability green packaging safe to use.	4.44	.695
6. I understand that sustainability green packaging easy disposal.	4.42	.707
7. I understand that sustainability green packaging biodegradable.	4.49	.674
Valid N (Listwise)	384	

#### 4.4.4 Descriptive statistic for Durability

Table 4.12 below show the mean and standard deviation for Durability. Based on that, the highest mean is number 7 which is 4.45 as the variable stated that, . I will consider green packaging as easier to open as well as disclosure. Most of the respondents well agreed with this variable as well. Followed by that, the lowest mean value is on number 1 which is 4.09 as the variable stated as I will consider that sustainability green packaging will not be replaced or repaired. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.12 Descriptive Statistic for Durability

<b>Descriptive Statistics</b>		
	<b>Mean</b>	<b>Std. Deviation</b>
1. I will consider that sustainability green packaging will not be replaced or repaired.	4.09	1.111
2. I will consider sustainability green packaging is needed for the production and replacement of material.	4.30	.728
3. I will consider it encourages the surroundings by preventing reducing waste, resources, and the surrounding effects of replacement and repair.	4.37	.715
4. I will consider that sustainability green products are durable and reusable.	4.39	.729
5. I will consider contamination since eco-friendly packaging can easily breakdown.	4.09	1.011
6. I will consider green packaging as better protection for food quality.	4.39	.714
7. I will consider green packaging as easier to open as well as disclosure.	4.45	.710
Valid N (Listwise)	384	

#### 4.4.5 Descriptive statistic for Safety

Table 4.13 below show the mean and standard deviation for Durability. Based on that, the highest mean is number 2 which is 4.52 as the variable stated that, I ensure it reduces the harmful impact of packaging on the environment. And number 3 which 4.52 as the variable stated that, I ensure it is safe due to including biodegradable and recyclable materials in green packaging. Most of the respondents well agreed with these 2 variables as well. Followed by that, the lowest mean value is on number 5 which is 3.88 as the variable stated that I ensure that sustainability green packaging is harmful to the environment. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.13 Descriptive Statistic for Safety

<b>Descriptive Statistics</b>		
	<b>Mean</b>	<b>Std. Deviation</b>
1. I ensure it does not use any kind of material which is harmful to environment.	4.48	.697
2. I ensure it reduces the harmful impact of packaging on the environment.	4.52	.670
3. I ensure it is safe due to including biodegradable and recyclable materials in green packaging.	4.52	.662
4. I ensure it is made from materials that are healthy.	4.55	.644
5. I ensure that sustainability green packaging is harmful to the environment.	3.88	1.359
6. I ensure green packaging has better hygienic design.	4.40	.758
7. I ensure green packaging has greater packaging-handling range.	4.45	.717
Valid N (Listwise)	384	

#### 4.4.6 Descriptive statistic for Consumers’ stances towards sustainability green packaging

Table 4.14 below show the mean and standard deviation for Consumers’ stances towards sustainability green packaging. Based on that, the highest mean is number 6 which is 4.60 as the variable stated that, I wish for sustainability green package since It will give us a cleaner and safer ocean and environment. Most of the respondents well agreed with this variable as well. Followed by that, the lowest mean value is on number 1 which is 4.45 as the variable stated that, I wish for sustainability green package since I notice that current environment is getting bad. According to this table, the standard deviation for this category shows the value was more reliable because of it less than 1.

Table 4.14: Descriptive Statistic for Consumers’ stances towards sustainability green packaging

Descriptive Statistics		
	Mean	Std. Deviation
1. I wish for sustainability green package since I notice that current environment is getting bad.	4.45	.777
2. I wish for sustainability green package since It is an eco-friendly method.	4.55	.703
3. I wish for sustainability green package since It will be simpler to recycle.	4.58	.693
4. I wish for sustainability green package since It encourages high environmental protection.	4.57	.693
5. I wish for sustainability green package since I desire to perceive a setup of a less waste environment.	4.57	.708
6. I wish for sustainability green package since It will give us a cleaner and safer ocean and environment.	4.60	.704
7. I wish for sustainability green package since It helps to reduce the usage of natural resources.	4.58	.670
Valid N (Listwise)	384	

#### 4.5 Reliability Test

The measurement's dependability determines how objective (error-free) it will be, ensuring proper measurement throughout time and across many instrument factors (Putra, Riesmiyatiningdyah, & Sulistyowati, 2021). The reliability test has been applied to this study to make sure that all the questions are pertinent and free from bias.

Table 4.15: Reliability Analysis for all Variables

Variable	Number of Items	Cronbach's Alpha	Internal Consistency
Sustainability Green Packaging	7	0.942	Excellent
Price	7	0.914	Excellent
Knowledge	7	0.923	Excellent
Quality	7	0.841	Good
Durability	7	0.822	Good
Safety	7	0.721	Acceptable

Based on the Table 4.16 above, The Alpha Cronbach for the variable of Sustainability Green Packaging is highest with the score of 0.942, followed by Knowledge and Price which are 0.923 and 0.914 respectively. All three highest scores are recorded as excellent internal consistency. Next variables are Quality and Durability with the scores 0.841 and 0.822 respectively are considered good internal consistency. Lastly, the variable Safety has achieved the score of 0.721 which can be acceptable. Since all Cronbach's Alpha values were over 0.7, the reliability and validity test results were generally regarded as having strong accuracy and precision for all independent and dependent variables. Table 4.15 results indicate that if the Cronbach's Alpha value is greater than 0.70, the variables' strength is good (Kumar et al., 2013).

#### 4.6 Normality Test

The normality test was an alternative tool for evaluating normality in graphs (Elliot & Woodward, 2007). The sample data that was taken from a normal distribution was typically defined using a normality test. The Shapiro-Wilk test and the Kolmogorov-Smirnov test are two examples of normality tests created by the SPSS software. If the value of the variable is less than 0.05 (0.05), the research was concluded that the variable was not regularly distributed.

Table 4.16: Output of Normality Test

Variable	Kolmogorov-Smirnova		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
Sustainability Green Packaging	0.233	0.000	0.747	0.000
Price	0.152	0.000	0.875	0.000
Knowledge	0.196	0.000	0.818	0.000
Quality	0.157	0.000	0.910	0.000
Durability	0.122	0.000	0.923	0.000
Safety	0.122	0.000	0.929	0.000

Based on the table above, following the normality test, outliers were found in the data. The significance value, or p value, for each independent variable is 0.000, which is less than 0.05 ( $p < 0.05$ ). The table above showed the significant value result for the Kolmogorov-Smirnov test, which was a p-value less than 0.05 for all the variables. As a result, it was clear that the data were abnormal.

#### 4.7 Hypothesis Testing

Pearson's correlation analysis is the test statistics assesses the statistical association of relationship between two variables. This analysis's goal is to assess whether there is a correlation between the independent variable (price, quality, safety, durability, and knowledge) and the dependent variable (sustainability green packaging in Kota Bharu, Kelantan).

**4.7.1 Price**

H<sub>0</sub>: there is no relationship between price and sustainability green packaging in Kota Bharu, Kelantan.

H<sub>1</sub>: there is relationship between price and sustainability green packaging in Kota Bharu, Kelantan.

Table 4.17: Output Correlation of price

correlation		IV 1	DV
IV 1	Pearson Correlation	1	.760
	Sig. (2-tailed)		.000
	N	384	384
DV	Pearson Correlation	.760	1
	Sig. (2-tailed)	.000	
	N	384	384
** correlation is significant at the 0.01 level (2-tailed)			

Table 4.17 shows the interpret data of relationship between price and sustainability green packaging in Kota Bharu, Kelantan. According to the result of the Pearson’s Correlation researchers rejected the null hypothesis (H<sub>0</sub>) for hypothesis one (H<sub>1</sub>) because with the result 0.760 with the significant value  $p > 0.01$ , it shows there is positive relationship between price and sustainability green packaging in Kota Bharu, Kelantan. From the result, H<sub>0</sub> is rejected because the p-value is 0.00 which is value is less than 0.01 and it show there no significant relationship between the both independent and dependent variables. Therefore, the null hypothesis is rejected and H<sub>1</sub> is accepted.

### 4.7.2 Quality

H<sub>0</sub>: there is no relationship between quality and sustainability green packaging in Kota Bharu, Kelantan.

H<sub>2</sub>: there is relationship between quality and sustainability green packaging in Kota Bharu, Kelantan.

Table 4.18: Output Correlation of quality

Correlation		IV 2	DV
IV 2	Pearson Correlation	1	.823
	Sig. (2-tailed)		.000
	N	384	384
DV	Pearson Correlation	.823	1
	Sig. (2-tailed)	.000	
	N	384	384
** correlation is significant at the 0.01 level (2-tailed)			

Table 4.18 shows the interpret data of relationship between quality and sustainability green packaging in Kota Bharu, Kelantan. According to the result of the Pearson's Correlation researchers rejected the null hypothesis (H<sub>0</sub>) for hypothesis two (H<sub>2</sub>) because with the result 0.823 with the significant value  $p > 0.01$ , it shows there is positive relationship between quality and sustainability green packaging in Kota Bharu, Kelantan. From the result, H<sub>0</sub> is rejected because the p-value is 0.00 which is value is less than 0.01 and it show there no significant relationship between the both independent and dependent variables. Therefore, the null hypothesis is rejected and H<sub>2</sub> is accepted.

### 4.7.3 Safety

H<sub>0</sub>: there is no relationship between safety and sustainability green packaging in Kota Bharu, Kelantan.

H<sub>3</sub>: there is relationship between safety and sustainability green packaging in Kota Bharu, Kelantan.

Table 4.19: Output Correlation of safety

correlation		IV 3	DV
IV 3	Pearson Correlation	1	.649
	Sig. (2-tailed)		.000
	N	384	384
DV	Pearson Correlation	.649	1
	Sig. (2-tailed)	.000	
	N	384	384
** correlation is significant at the 0.01 level (2-tailed)			

Table 4.19 shows the interpret data of relationship between safety and sustainability green packaging in Kota Bharu, Kelantan. According to the result of the Pearson's Correlation researchers rejected the null hypothesis (H<sub>0</sub>) for hypothesis three (H<sub>3</sub>) because with the result 0.649 with the significant value  $p > 0.01$ , it shows there is positive relationship between safety and sustainability green packaging in Kota Bharu, Kelantan. From the result, H<sub>0</sub> is rejected because the p-value is 0.00 which is value is less than 0.01 and it show there no significant relationship between the both independent and dependent variables. Therefore, the null hypothesis is rejected and H<sub>3</sub> is accepted.

#### 4.7.4 Durability

H<sub>0</sub>: there is no relationship between durability and sustainability green packaging in Kota Bharu, Kelantan.

H<sub>4</sub>: there is relationship between durability and sustainability green packaging in Kota Bharu, Kelantan.

Table 4.20: Output Correlation of durability

correlation		IV 4	DV
IV 4	Pearson Correlation	1	.607
	Sig. (2-tailed)		.000
	N	384	384
DV	Pearson Correlation	.607	1
	Sig. (2-tailed)	.000	
	N	384	384
** correlation is significant at the 0.01 level (2-tailed)			

Table 4.20 shows the interpret data of relationship between durability and sustainability green packaging in Kota Bharu, Kelantan. According to the result of the Pearson's Correlation researchers rejected the null hypothesis (H<sub>0</sub>) for hypothesis four (H<sub>4</sub>) because with the result 0.607 with the significant value  $p > 0.01$ , it shows there is positive relationship between durability and sustainability green packaging in Kota Bharu, Kelantan. From the result, H<sub>0</sub> is rejected because the p-value is 0.00 which is value is less than 0.01 and it show there no significant relationship between the both independent and dependent variables. Therefore, the null hypothesis is rejected and H<sub>4</sub> is accepted.

#### 4.7.5 Knowledge

H<sub>0</sub>: there is no relationship between knowledge and sustainability green packaging in Kota Bharu, Kelantan.

H<sub>5</sub>: there is relationship between knowledge sustainability green packaging in Kota Bharu, Kelantan.

Table 4.21: Output Correlation of knowledge

correlation		IV 5	DV
IV 5	Pearson Correlation	1	.663
	Sig. (2-tailed)		.000
	N	384	384
DV	Pearson Correlation	.663	1
	Sig. (2-tailed)	.000	
	N	384	384
** correlation is significant at the 0.01 level (2-tailed)			

Table 4.21 shows the interpret data of relationship knowledge between and sustainability green packaging in Kota Bharu, Kelantan. According to the result of the Pearson's Correlation researchers rejected the null hypothesis (H<sub>0</sub>) for hypothesis one (H<sub>5</sub>) because with the result 0.663 with the significant value  $p > 0.01$ , it shows there is positive relationship between knowledge and sustainability green packaging in Kota Bharu, Kelantan. From the result, H<sub>0</sub> is rejected because the p-value is 0.00 which is value is less than 0.01 and it show there no significant relationship between the both independent and dependent variables. Therefore, the null hypothesis is rejected and H<sub>5</sub> is accepted.

#### 4.8 Chapter Summary

This chapter has a discussion of the study's findings. It will detail how the data is gathered and how to achieve the best results. The sample data from the survey were examined in this chapter using the Social Science Statistical Package (SPSS). First, Cronbach's Alpha Rules of Thumb were used as the foundation for reliability test research. Data collection analysis was used to assess the demographics of the respondents, and the results were then fully summarised in a descriptive analysis. Check the data's dependability to ensure its accuracy. We used the Pearson's Correlation Coefficient to examine whether there was a relationship between the dependent variable and the independent variables.

## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Introduction

This chapter is mainly discussed the conclusion of the key finding of this research. Additionally, it will highlight how this research contributes to the body of knowledge, as well as its implications and the suggestions / recommendations for further study as well. At last, this chapter also discusses the analysis about the limitations study of this research.

#### 5.2 Key Findings

The whole review is thoroughly discussed in this chapter. It enables the researcher to obtain more information and evaluate the findings in view of all available information. In addition, researchers were able to assess their ability to meet the objectives of the study. The purpose of this study was to examine the relationship quality, safety, durability, and knowledge toward sustainable green packaging in Kota Bharu, Kelantan. The questionnaire was distributed online to collect all the data needed for this study. The goal of this study was to investigate the factors that most influence Consumer's stance towards Sustainability Green Packaging in Kota Bharu, Kelantan. In this study, the researcher used an online Google form to collect primary data from 384 respondents.

#### 5.3 Discussion Hypothesis

A hypothesis is an assumption that is made based on some evidence. This is the initial point of any investigation that translates the research questions into predictions. It includes components like variables, population, and the relation between the variables. In this study, the researchers will discuss five hypotheses such as the positive relationship between price, quality, safety, durability, knowledge and sustainability green packaging in Kota Bharu Kelantan.

Table 5.1: Discussion hypothesis

Hypothesis	Results	Conclusion
<b>H1:</b> There is a positive relationship between price and sustainability green packaging in Kota Bharu, Kelantan.	R=0.760 P=0.000 Positive Correlation	Accepted
<b>H2:</b> There is a positive relationship between quality and sustainability green packaging in Kota Bharu, Kelantan.	R=0.823 P=0.000 Positive Correlation	Accepted
<b>H3:</b> There is a positive relationship between safety and sustainability green packaging in Kota Bharu, Kelantan.	R=0.649 P=0.000 Positive Correlation	Accepted
<b>H4:</b> There is a positive relationship between durability and sustainability green packaging in Kota Bharu, Kelantan.	R=0.607 P=0.000 Positive Correlation	Accepted
<b>H5:</b> There is a positive relationship between knowledge and sustainability green packaging in Kota Bharu, Kelantan.	R=0.663 P=0.000 Positive Correlation	Accepted

In this research, researcher has examined that there relationship between price, quality, safety, durability, knowledge and sustainability green packaging in Kota Bharu Kelantan area. Table 5.1 shows hypothesis testing, for this research was **hypothesis 1** has the signification value between price and consumers towards sustainability green packaging is 0.00 which is less than 0.01 means that the independent variable has a strong positive relationship with dependent variable. It also consists that the relationship between the independent variable (responsiveness) and sustainability green packaging since the correlation coefficient value for responsiveness is 0.823. Thus, the relationship between price and sustainability green packaging shown that hypothesis was supported and accepted.

Secondly, researcher has examined the relationship between quality and sustainability green packaging. The table shows hypothesis testing for this research for **hypothesis 2** was showed

the significance value between quality and sustainability green packaging is 0.00 which is less than 0.01 means that the independent variable has a strong positive relationship with dependent variable. It also consists that the relationship between the independent variable (quality) and sustainability green packaging since the correlation coefficient value for communication is 0.823. Thus, the relationship between quality and sustainability green packaging in Kota Bharu, Kelantan shown that hypothesis was supported and accepted.

Besides that, hypothesis testing has been interpret data of **hypothesis 3** the significant value between safety and sustainability green packaging is 0.00 which is less than 0.01 means it has strong positive relationship between independent(safety) and dependent variables (sustainability green packaging) consist of 0.649 the correlation coefficient value. The relationship between safety on consumer's stance towards sustainability green packaging shown that hypothesis was supported and accepted.

Moreover, researcher examine the relationship between durability and sustainability green packaging. The hypothesis testing for this research was **hypothesis 4** showed the significance value between durability and sustainability green packaging is 0.00 which is less than 0.01 means that the independent variable has a strong positive relationship with dependent variable. It also consists that the relationship between the independent variable (durability) and dependent variables (sustainability green packaging) since the correlation coefficient value for communication is 0.607. Thus, the relationship between shown that hypothesis between durability on consumer's stance towards sustainability green packaging was supported and accepted.

Lastly for discussion of hypothesis is researcher examine the relationship between knowledge and sustainability green packaging in Kota Bharu, Kelantan. The table 4.21 hypothesis testing for this research **hypothesis 5** was showed the significance value between knowledge and sustainability green packaging is 0.00 which is less than 0.01 means that the independent variable has a strong positive relationship with dependent variable. It also consists that the relationship between the independent variable (knowledge) and dependent (sustainability green packaging) since the correlation coefficient value for communication is 0.663. Thus, the relationship between knowledge on consumer's stance towards sustainability green packaging shown that hypothesis was supported and accepted. The regression analysis indicates that the price, quality, safety, durability, knowledge and sustainability green packaging in Kota Bharu Kelantan have a significant positive

effect on consumer perspective satisfaction. These results are consistent with studies showing that the factor reliability of customer satisfaction towards sustainability green packaging has a high significant impact on their satisfaction.

## **5.4 Implications of the Study**

In this study, there are 5 factors that influenced consumer's stance towards sustainability green packaging which is Price, Knowledge, Quality, Durability and Safety. The data collected in this study are very useful and valuable as we know how and what are the improvement happen to society and technologies by using sustainability green packaging items as well. In this study researcher stated the level of consumer stance towards sustainability green packaging at Kota Bharu, Kelantan.

According to this study, we identified that the factors in this survey that today encourage consumers to prefer towards sustainability green packaging which have healthy developed on environment and also society as well. Due to the current environment issue, this healthy green packaging method help to a safe and healthy environment and lifestyle to people.

Moreover, the researcher conducted the research survey in December 2022 to January 2023 with the samples from consumers at Kota Bharu, Kelantan. The total of the respondent of this research is 384 and the respondents are different from the aspect of the background which is student, private sector and public sectors as well.

## **5.5 Limitations of the Study**

### **5.5.1 Respondents Participation**

There were limitations in respondents' participation to carry out this study, as the researcher's needed response with completed questionnaires. This is because the respondents were hardly able to allocate time to complete this survey. This has resulted in few questions unanswered by the respondents and the researchers had to fill up those empty spaces. Some respondents were really being in rush that had to complete the survey without being determined and answer according to their personal opinion.

### **5.5.2 Time Constraint**

The researchers had little time to complete this research by doing fact-finding and collecting data in just 4 months. The limited time had given a little pressure for the researchers to find respondents as many as possible according to the sample size to get accurate data. Indeed, the researchers had struggle to complete this research in this little time given.

### **5.6 Recommendations/Suggestion for the Future Research**

The largest difficulty for researchers is getting accurate data collecting due to time constraints. To assess the validity of the link between the dependent variable and the independent variables, both replies are assessed using the questionnaire method. From this point on, no scanning of biased replies or consistently using the same scale for each question was done because it might take some time to filter through all of these errors. The amount of time needed to filter the actual data and only look at the perfect random scale that has been addressed may be extended in future research.

Last but not least, a lot of data collection tools can be the focus of future study. By using both quantitative approaches, such as a questionnaire, and qualitative ones, such as an interview, the researcher can obtain the strongest and best results. This is so that the respondents can participate in the questions that are asked and the researcher can gain insight into the needs of the respondents. So during data collecting, complete and accurate information may be totaled.

### **5.7 Overall Conclusion of the Study**

As conclude, research study aimed to to investigate the factors that most influence Consumer's stance towards Sustainability Green Packaging in Kota Bharu, Kelantan. All previous research studies in Chapters 1–3 were mostly concerned with determining to examine the relationship quality, safety, durability, and knowledge toward sustainable green packaging in Kota Bharu, Kelantan.

This research concludes the key findings, discussions, implications, limitations and recommendations set out in Chapters 4 and 5. The Pearson Correlation Analysis showed that all

variables, including price (IV 1), quality (IV 2), safety (IV 3), durability (IV 4) and knowledge (IV 5) had a strong positive relationship on sustainability green packaging in kota bharu, Kelantan (DV).

Furthermore, all data collection was collected through an online questionnaire and the data was analysed by using SPSS software based on descriptive analysis, reliability analysis, Pearson's Correlation Coefficient analysis. As a result, the relationship between the independent variable and the dependent variable was positively associated with the very strong relationship.

This research concludes the key findings, discussions, implications, limitations and recommendations set out in Chapters 4 and 5. The Pearson Correlation Analysis showed that all variables, including Price, quality, safety, durability and knowledge had a significant positive relationship on sustainability green packaging in kota bharu, Kelantan.

Finally, the researcher discussed about some of the research's limitations as well as some suggestions for making it better in the future. An overview of this research study is intended as a final statement for this research.

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## APPENDIX A: Draft of Questionnaire

### Section A: Demographic Profile

Please tick (/) at the suitable answer

#### 1. Gender/ *Jantina*:

Male/ *Lelaki*

Female/ *Perempuan*

#### 2. Age/ *Umur*

20 -25 years old/ *20-25 tahun*

26 -30 years old/ *26-30 tahun*

31 -35 years old/ *31-35 tahun*

36 years old and above/  
*36 tahun dan keatas*

#### 3. Race/ *Bangsa*

Malay/ *Melayu*

Chinese/ *Cina*

Indian/ *India*

Others/ *Lain-Lain*:

#### 4. Academic Qualification

SPM

STPM/ Diploma

Undergraduate (Degree)

Others/ *Lain-lain*:

#### 5. Monthly Income/ *Pendapatan Bulanan*

Below RM 1,000/ *Bawah RM 1,000*

RM 1,000-RM 1,999

RM 2,000-RM 2,999

RM 3,000-RM 3,999

RM 4,000 and above/  
*RM 4,000 dan keatas*

6. Level of awareness about sustainability Green Packaging

I completely know about it

I know a bit

I do not know anything

7. Consumer attitudes about green packaging

	Yes	No
I like to purchase green products which store in the eco-friendly method as it made effortless to recycle or compost.	<input type="checkbox"/>	<input type="checkbox"/>
I'm aware that eco-packaged products are available at Market	<input type="checkbox"/>	<input type="checkbox"/>
I'm able to fee extra to purchase green packaging which help to protect the surrounding	<input type="checkbox"/>	<input type="checkbox"/>



The following questions are to identify the relationship of the factors that influence consumer's stance towards sustainability green packaging in Kota Bharu, Kelantan. As for the questions of scale provided below. You can tick (/) your honest and sincere answers in the scale from 1 to 5.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Uncertainty
- 4 = Agree
- 5 = Strongly Agree

Consumers' stances towards sustainability green packaging:

I wish for sustainability green package since

No.	Question/ Soalan	1	2	3	4	5
1.	I notice that current environment is getting bad.					
2.	It is an eco-friendly method.					
3.	It will be simpler to recycle.					
4.	It encourages high environmental protection.					
5.	I desire to perceive a setup of a less waste environment.					
6.	It will give us a cleaner and safer ocean and environment.					
7.	It helps to reduce the usage of natural resources.					

Price

I'm eager to

No.	Question/ Soalan	1	2	3	4	5
1.	choose sustainability green packaging if the cost remains as same as ordinary packaging.					
2.	spend more money on sustainability green packaging.					
3.	spend more money to demonstrate my concern for the environment.					
4.	select sustainability green packaging if can be affordable.					
5.	spend more money on sustainability green packaged products even if they are costly compared to environmentally unfriendly.					
6.	stop buying from companies that disrespect environment even it cost lower that green packaging.					
7.	change the brand choice to buy from companies that care the environment.					

Knowledge

I derive that

No.	Question/ Soalan	1	2	3	4	5
1.	sustainability of green packaging steers to green consumerism					
2.	sustainability of green packaging helps to enhance environmental responsibility.					
3.	sustainability of green packaging contributes to the well-being of society.					
4.	sustainability of green packaging maintains the planet from pollutants					
5.	information about sustainability green packaging.					
6.	supporting environment protection makes me special.					
7.	my action on sustainability of green packaging makes a difference.					

Quality

I understand that sustainability green packaging

No.	Question/ Soalan	1	2	3	4	5
1.	maintains the ingredient of the products.					
2.	prevent the products from any damage.					
3.	more durable compared to traditional packaging.					
4.	quite limited quality.					
5.	safe to use.					
6.	easy disposal.					
7.	biodegradable.					

## Durability

I will consider

No.	Question/ Soalan	1	2	3	4	5
1.	that sustainability green packaging will not be replaced or repaired.					
2.	sustainability green packaging is needed for the production and replacement of material.					
3.	it encourages the surroundings by preventing reducing waste, resources, and the surrounding effects of replacement and repair.					
4.	that sustainability green products are durable and reusable.					
5.	contamination since eco-friendly packaging can easily breakdown.					
6.	green packaging as better protection for food quality.					
7.	green packaging as easier to open as well as disclosure.					

## Safety

I ensure

No.	Question/ Soalan	1	2	3	4	5
1.	it does not use any kind of material which is harmful to environment.					
2.	it reduces the harmful impact of packaging on the environment.					
3.	it is safe due to including biodegradable and recyclable materials in green packaging.					
4.	it is made from materials that are healthy.					
5.	that sustainability green packaging is harmful to the environment.					
6.	green packaging has better hygienic design.					
7.	green packaging has greater packaging-handling range.					

**APPENDIX B: Gantt Chart**

WEEK TASK	MAR WEEK 1	MAR WEEK 2	APR WEEK 3	APR WEEK 4	APR WEEK 5	APR WEEK 6	MAY WEEK 7	MAY WEEK 8	MAY WEEK 9	JUNE WEEK 10	JUNE WEEK 11	JUNE WEEK 12	JUNE WEEK 13	JULY WEEK 14	JULY WEEK 15
PPTA Briefing with coordinator (DR KASMARUDDIN CHE HUSSIN)															
Decide group members respectively															
Topic choosing and discussion															
Each group getting their supervisor respectively															
Short meeting with Supervisor about criteria require to choose topic															
Some title discuss and suggest by all group members															
Meeting with supervisor & topic for research confirmed															
Workshop for Modul Database Searching & Reference Manager Endnote X9 (Facilitator: En. Pahmi Bin Abdullah)															
Discussion of Chapter 1															

Chapter 1																				
Chapter 1 editing & checking																				
Chapter 2																				
Chapter 2 editing & Checking																				
Chapter 3																				
Chapter 3 editing & Checking																				
Discussion about questions to the research																				
Draft questionnaire																				
Meeting with Supervisor & checking																				
Preparation for video presentation PPTA 1 (research proposal)																				
Formatting Questionnaire & Reference																				
Meeting with Supervisor for research proposal correction																				
Liase with Examinar and Supervisor about presentation																				
Create youtube platform for share link of video presentation PPTA 1																				
Submitted group video presentation for PPTA 1																				

Questionnaire start to distribute															
Submission PPTA 1 (research proposal)															
Collect data respondents															
SPSS information															
Formatting data collected															
Chapter 4															
Chapter 4 editing & checking															
Chapter 4 completed															
Chapter 5															
Chapter 5 editing & checking															
Research paper, full report editing & compile															
E-poster explanation & preparation															
Submission e-poster & video															
Submission empirical paper & full report															