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**Bachelor Thesis**

*The effect of social media (Paid,  
Earned, Owned) on consumer green  
purchase behaviour in Chinese market*

*A Quantitative Research*



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## **Abstract**

### Background

As people become more aware of environmental protection, green purchasing has gradually become a trend among consumers. Social media, as an emerging marketing approach, has also started to gain more and more companies' attention and application. Therefore, this study will explore the relationship between different types of social media and green purchasing behaviour.

### Purpose

The aim of this paper is to explain how social media marketing (Owned Media, Earned Media and Paid Media) affects consumer' green purchasing behaviour in Chinese market.

### Methodology

This study is based on positivism, and the researchers conducted the study through a quantitative research approach by developing a quantifiable online questionnaire and placing it on different social media platforms. The respondents of this study were in the age range of 18 to 39 years old, and they were highly followers of social media. Finally the researchers collected 264 effective questionnaires and entered them into SPSS and analyzed the data through descriptive and multiple regression analyses, KMO tests and Cronbach's Alphas.

### Findings

The different types of social media marketing (Owned Media, Earned Media, and Paid Media) have a positive impact on Chinese consumers' green purchasing behaviour.

**Keywords:** Social Media Marketing; Owned Media; Earned Media; Paid Media; Green Purchasing Behaviour



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# 1 Introduction

## 1.1 Background

As human society has developed and progressed, environmental issues have become increasingly prominent. Climate change, biodiversity loss, and pollution are the three main crises facing the planet, and unsustainable consumption patterns are partially to blame. According to the Sustainable Development Goals of the United Nations, green purchasing is a behaviour that contributes to resource conservation (United Nations, 2022). Thus, ecological purchasing practices are crucial for consumers worldwide. China has one of the world's greatest populations and consumer markets. Based on per capita consumption, China's CO<sub>2</sub> emissions reached 7,04 tones in 2020 (Our World Data, 2020). With rapid economic growth and industrial development, China's consumption has entered a phase of refining and transformation, and individuals' purchasing power has increased substantially (Wang, 2019). On the one hand, this transformation and upgrading will encourage companies to pay more attention to product quality and environmental protection, as well as promote the development of environmental industries and a shift in consumers' environmental consciousness and purchasing behaviour. As the economy grows, however, consumers may pursue excessive consumption. The upgrading and transformation of consumption will increase the pressure on resources and the environment (Sharma et al., 2018). At the same time, businesses may pursue high growth rates while disregarding environmental costs. Against this backdrop, green purchasing behaviour receives increased attention in business sectors. Green purchase behaviour refers to the purchase of environmentally friendly or sustainable products that are recyclable and benefit the environment without causing damage to the environment and society (Jaiswal and Kant, 2018).

Currently, marketers are more likely to advertise and publicize their products via social media. Social media marketing has become an integral part of consumers' daily existence, and more and more time is being spent on these platforms (Stephen, 2016). In China, the most prominent social media platforms for marketing are TikTok



(Douyin) and Microblog, where marketers can promote products via posts, videos, and livestreams. Chinese consumers are now the world's largest mobile Internet users, and social media has become an important channel for them to obtain information, engage in social interactions, and make purchases (Gitnux, 2023). Marketers will undoubtedly utilize social media to promote their products and services. Diverse industries are actively incorporating green elements into their products and services in order to satisfy the demands of this emerging consumer group (Kumar and Pandey, 2023). To provide consumers with more information and options, several advertising and media companies promote green purchasing and environmentally favorable topics. Consequently, social media can be used to promote green product information, disseminate environmental knowledge, and publish green advertising campaigns (Ktisti et al., 2022). On the one hand, the manner in which information is disseminated on social media and the interaction between users on the platforms are altering the purchasing habits of consumers. In contrast, after the COVID-19 pandemic, consumers are more concerned about making sustainable purchases. Consequently, social media, a relatively new marketing channel, is becoming an indispensable tool for marketers to promote their products and services.

## 1.2 Problem Discussion

Social media marketing is an emerging marketing strategy that has become one of the most significant factors influencing consumer purchasing behaviour. Especially in the sphere of green purchasing behaviour, the importance of social media marketing is growing. Environmentally responsible purchasing is a global phenomenon, particularly in emerging economies such as China, where environmental protection has become an essential indicator of national development (Grumbine, 2014). China has a great number of populations, so it is important to encourage green purchase behaviour among them. According to a survey, 34% of Chinese consumers indicate that a company's environmental practices will influence their purchasing decisions, and more than 50% of consumers have little faith in the green of Chinese companies (Atwal, 2021). It suggests that the environment is likely the least important factor for Chinese consumers when making purchases, and that they have little faith in the green





products and services of Chinese companies. However, the function of social media marketing in promoting environment friendly purchasing practices is of great interest.

Rahbar and Wahid (2011) demonstrate that consumers' trust in environment friendly brands and products will enhance their intention to purchase the products, while their perception of green products will have a substantial impact on their actual purchase behaviour. In other words, green marketing can increase consumers' confidence in green products, making them more likely to purchase them. Social media platforms have provided businesses with new marketing and consumer engagement opportunities. Companies and brands are increasingly opting to promote their products and services on social media platforms and employing social media marketing strategies to influence consumers' purchasing decisions. Green marketing is gaining popularity as businesses recognize that consumers are placing a greater emphasis on environmental considerations when purchasing goods. Sun et al. (2022) note that green marketing on social media can motivate consumers to make environmentally responsible purchases. Unquestionably, social media is a powerful instrument for businesses to market their products and encourage green purchasing behaviour among consumers.

Social media marketing can positively influence the green purchasing behaviour of consumers. The scope of the discussion on green purchase behaviour is wide, so it is necessary to limit this research so that it does not extend to something that are not supposed to be (Charviandi, 2023). Social media platforms have provided businesses with new marketing and consumer engagement opportunities. Thus, the scope of this study concentrates on the relationship between social media marketing and green purchasing behaviour.

## 1.3 Purpose

The aim of this paper is to explain how social media marketing (Owned Media, Earned Media and Paid Media) affects consumer' green purchasing behaviour in Chinese market.



## **2 Literature Review**

### **2.1 The definition of Social Media Marketing**

With the development of today's Internet, social media can also be understood as a set of Internet-based applications. Kaplan and Haenlein defined social media as applied media based on Web 2.0 technologies and ideologies, built on the Internet, that allow for the creation and exchange of user-generated content (Kaplan and Haenlein, 2010). Verma et al. (2012) defines social media marketing as the use of social media technology to easily communicate with consumers by offering lower costs, building personal relationships and promoting products. Social media marketing is the process of building communication between an individual, organization or brand its audience in an intentional way through the use of social media platforms and technology to achieve business objectives or enhance brand reputation (Tuten, 2021). Jara et al. (2014) define social media marketing as a new generation of marketing tools, and social media as a participatory platform for users to create, share, discuss and evaluate freely. Through social media marketing, companies can better understand the needs and opinions of consumers. Other scholars have added to the definition the types of social media, which include Paid Media, Earned Media and Owned Media (Tuten, 2021; Stephen and Galak, 2012; Lovett and Satelin, 2016). Although existing academic research does not agree on the definition of social media, all define it in terms of technology, functions and types of social media. In terms of technology, social media is an application platform based on Web 2.0 technology. In terms of functions, users can create original content on social media platforms and share, discuss and comment on the platforms; in terms of types, social media types include owned, earned and paid media. In summary, this study argues that social media is an online media platform based on Web 2.0 technology. This study argues that social media is an online media platform based on Web 2.0 technology, which allows users to communicate with other users and express their views, ideas and opinions.

#### **2.1.1 Owned Media**



Owned media describes social media postings about a brand that are created by the business and published on the social media channels that the business controls (Stephen and Galak, 2012; Lovett and Staelin, 2016). Media products under the direct control of the company do not require the purchase of media advertising and are designed to achieve the main objective of brand management, i.e. to differentiate themselves from their competitors (Baetzgen and Tropp, 2015). There is a positive correlation between Owned Media and purchase behaviour, meaning that the more exposure a brand has on its own social media channels, the more likely consumers are to purchase that brand. This is because Owned Media increases brand awareness and raises consumers' knowledge and understanding of the brand, which in turn increases their trust and goodwill towards the brand and promotes their purchase behaviour (Xie and Lee, 2015). Owned social media (OSM), created by brands themselves, has a positive impact on brand purchasing. This is because multiple sources of information are useful to consumers in their decision making when researching brands (Thornhill et.al, 2017).

### **2.1.1.1 Corporate Blog**

Corporate blogs are a major form of owned media. Brands can create their own blogs to share valuable information, expertise, industry trends and more (Tuten, 2021). It is a novel type of blog that has just lately been investigated by communication professionals (Cho and Huh, 2010). Ahuja and Medury (2010) define corporate blogging as a tool used to interact with consumers. Corporate blogs can bring environmental value to their readers. The environmental value includes the entertainment of the content and the interaction between readers and bloggers and editors (Koenig and Schlaegel, 2014). Meanwhile, corporate blogs provide a more timely organizational perspective than other traditional communication channels and can help companies build trust and value relationships with consumers. Corporate blogs can influence consumer behaviour by interacting with consumers to shape their perceptions and attitudes, for example by facilitating their purchasing decisions (Ahuja and Medury, 2010).



## **2.1.2 Earned Media**

Earned media defines social media postings about brands that are not produced by the company directly but rather by consumer or influencer (Mattke et al., 2019; Stephen and Galak, 2012). Influencers are individuals or organizations with a certain number of followers on social media platforms who post content to influence the buying behaviour of others (De Veirman et.al, 2017). Earned media activity can be produced through marketing efforts, although marketers do not actively create the activity (Stephen and Galak, 2012). Lovett and Satelin (2016) argue that Earned Media (word-of-mouth marketing, social media communications, etc.) plays an important role in increasing brand appeal and enhancing consumer enjoyment, which further influences consumer purchase behaviour. Earned media is important for building brand awareness, reputation and credibility. Brands should focus on creating high-quality content, engaging with consumers, and building relationships with influencers to increase the chances of earned media coverage (Stephen and Galak, 2012). Earned media can be used to capture the attention of consumers through word-of-mouth marketing and online social interaction, which can further influence consumer purchasing behaviour (Stephen and Galak, 2012). According to Xie and Lee's (2015) study, consumers believed earned media to be more reliable and that it may eventually reach high involvement consumers who could be interested in buying the product.

### **2.1.2.1 Social Media Usage-User-generated content**

According to research, more than half of consumers use social media to search for information and make purchasing decisions based on the information they receive (Froehlich, 2009). User-generated content (UGC) is often a form of usage on social media. Social media user-generated content, which can be defined as text, images, audio and video messages posted by consumers on online platforms, has become a dominant factor influencing consumer purchase behaviour (Susarla et al., 2012). In addition to accessing relevant information on social media, consumers can use social media to express their opinions, ideas and experiences, seek advice and information, and interact with others about brands (Lu and Miller, 2019). Social media can



facilitate communication and interaction between consumers, thus enhancing their awareness of and interest in products and brands, with the impact that these interactions have a direct impact on consumers' purchasing decisions (Wang et al., 2012). In Ismail's (2017) research on the usage of social media, its research found that social media relies on its users' use of information as well as expression in their social networks, harnessing the power of computers, mobile devices and the internet to facilitate rapid communication and interaction with other users. At the same time, social media has become a highly influential tool in shaping consumer behaviour, seamlessly integrating into people's daily lives and fundamentally changing the way consumers and marketers interact and engage with each other. The usage of social media has become an efficient communication and distribution channel and a powerful means of influencing consumer behaviour (Laroche et al., 2013). However, it has also been shown that social media can lead to consumer dissatisfaction with a company's products or services, which can lead to the spread of potentially negative messages in cyberspace and increase the perceived risk to consumers (Kaplan and Haenlein, 2010). When studying social media usage, searching and sharing information, it was found that information on social media helped to increase consumption of the target product. consumers' individual characteristics and psychological drivers play an important role in consumers' willingness to share, and social media communication has a significant impact on consumers' attitudes, purchase intentions, brand loyalty and consumer trust (Dwivedi et al., 2021).

### **2.1.2.2 E-WOM (E-Word-of-mouth)**

Any good or negative statement made by potential, actual, or past consumers about a product or a company that is available to large groups of individuals and institutions over the Internet is referred to as E-WOM (Sa'ait et al., 2016). And E-word-of-mouth marketing is exactly what companies do to get more Earned media results by guiding and facilitating consumers to comment and share positively about their products or services on social media (Stephen and Galak, 2012). Word-of-mouth marketing can influence consumers' purchasing decisions and brand image, and consumers' purchasing behaviour is influenced by a number of factors, including word-of-mouth marketing. Therefore, studying consumer purchase behaviour can help to understand



the effectiveness and impact of word-of-mouth marketing (Wang, 2015). Companies can begin EWOM by increasing brand engagement; however, because it has a big impact on brand content sharing, it is critical to keep an active check on social media activities and user behaviours (Haikel-Elsabeh et al., 2018). In Earned social media (ESM), WOM is positively correlated with brand purchase. Consumers see positive comments about a brand from other consumers on social media, and these comments increase trust and goodwill towards the brand, thus promoting brand purchase (Thornhill et al., 2017).

## **2.1.3 Paid Media**

Paid Media is a company or brand related media campaign generated by the company or its agents (Stephen and Galak, 2012). These include different types of advertising on social media, while Paid Media is a media campaign generated directly by the company. Paid media refers to advertising on media platforms through the purchase of advertising space or paid promotion in order to convey the message of a product or service to consumers. Paid Media allows participants to publish sponsored posts and advertisements, these require payment and can be targeted to selected users' news feeds (Kruschinski et al., 2022). This approach can help companies gain more exposure in a short period of time and increase brand awareness and recognition of their products or services (Stephen and Galak, 2012). At the same time, Paid media can also pinpoint the target audience and deliver messages to them that match their interests, needs and behavioural characteristics, thus increasing their purchase behaviour for the product or service (Stephen and Galak, 2012).

### **2.1.3.1 Advertising on Paid Media**

Advertising is a marketing activity created by a company to promote a product or service, in the form of a display in the media, to attract the attention of potential consumers and prompt them to buy the product or service. Paid advertising is a form of advertising that is paid for directly or indirectly by a company and usually appears in the top, bottom or left-hand position on a website, search engine or social media site (Aslam and Karjaluo, 2017). Paid Media Advertising is a paid media buy for



the distribution of advertising content designed to persuade consumers to make a cognitive, emotional or behavioural change (Kerr and Richards, 2020). Paid media is important in social media and advertising in social media will have an impact on consumers' purchasing decisions (Ertemel and Ammoura, 2016). In social media marketing, social media platforms charge companies that participate in paid marketing a fee so that companies that participate in paid marketing can target their advertisement precisely to potential consumers and avoid causing dissatisfaction to those who are not potential consumers. In social media, paid advertising is a more flexible sharing tool that not only helps companies to segment and find more appropriate consumers, but also brings coexistence benefits to the media platform (Prasad et al., 2003).

## **2.2 Green Purchase Behaviour**

Consumer purchase behaviour refers to the purchasing habits of ultimate consumers, or individuals and households who purchase products and services for their own use. The consumer market is made up of all of these final consumers (Armstrong et al., 2019). Green purchasing behaviour can be defined as a complicated form of ethical decision-making and is regarded as a type of socially responsible behaviour (Joshi and Rahman, 2015). When a green purchase decision is made, the end result has the potential to contribute to more or less sustainable consumption patterns (Akehurst et al., 2012). When studying the factors influencing green purchasing behaviour, Kumar and Ghodeswar (2015) concluded that consumers are becoming increasingly environmentally conscious through a survey and study of a sample of green purchasing behaviour in several countries and cities. The study specifically investigated how consumers make optimal choices of green products and sought to understand the determinants of consumer behaviour in the research.

### **2.2.1 Green Product**

Due to the destruction of natural resources, people are aware of environmental issues and the need for people to protect the environment. People realize that supporting green purchase behaviour can reduce the pollution of the environment, so the demand



for green products is gradually increasing (Kumar and Ghodeswar, 2015). Green products are products that are designed, produced, used and disposed of in a way that minimizes negative impacts on the environment and human health, while increasing resource efficiency and sustainability (Sdrolia and Zarotiadis, 2018). Green product also known as sustainable products, encompass a range of offerings that benefit society and the environment and incorporate elements such as the utilization of recycled materials, energy-efficient lighting, and environmentally friendly attributes (Joshi and Rahman, 2015). Organic food and organic products are also considered to be green products, which contribute to the health of the consumers themselves. (Nuttavuthisit and Thøgersen, 2015). Thus green products are considered to be good for the environment and good for human health. Consumers are able to reduce the negative impact on the environment by purchasing green products (Bhardwaj et al., 2020).

## **2.3 Summary of the literature review**

As a new marketing channel, social media is increasingly being used by companies to promote and advertise green products. However, most of the previous literature has not considered the differences between different types of social media, and research on the impact of different types of social media on consumers' green purchasing behaviour is still relatively limited. In particular, relatively little research has been conducted on the Chinese market, which is one of the largest green consumer markets in the world, but there are some gaps in research. Although some studies have focused on green purchasing behaviour, most of them are based on cases and data from Western countries and lack an in-depth understanding of the Chinese market. This study therefore explores the impact of three types of social media (Owned Media, Earned Media and Paid Media) on Chinese consumers' green purchasing behaviour, filling a research gap in this area and providing a new perspective on Chinese consumers' green purchasing behaviour.





## **3 Conceptual framework**

### **3.1 Owned Media (H1)**

Corporate blogs are a form of owned media, where companies publish their own information through a blogging platform. Blogs are a tool to encourage consumers to adopt new habits, lifestyles or practices. Companies can use their own blogs to expand the market for their products. Blogs play an important role in spreading the word about green purchase behaviour (Biswas, 2016). The social media factor - blogs - was found to have a positive impact on consumers' green choice behaviour (Biswas, 2016). It follows that blogs encourage and update consumers to explore new activities or habits, and many companies are offering products to popular blogs in the hope of enhancing users' positive understanding of such products, for example: Some popular green blogs that promote purchase behaviour and lifestyles. Therefore in this research, the researchers set Hypothesis 1:

*H1: Owned Media has a positive effect on consumers' green purchase behaviour.*

### **3.2 Earned Media (H2)**

Previous literature has discussed the impact of Earned Media on consumers' green purchase behaviour. Based on the review of articles discussed previously, it is clear that earned media consists of both social media usage and electronic word-of-mouth marketing. On the one hand, several studies have shown a significant positive correlation between social media usage and green purchase behaviour. Companies should consider investing more resources in social media to increase social media engagement and awareness of green products, as social media users are more likely to have higher green purchase intentions and generate corresponding purchase behaviours (Bedard and Tolmie, 2018). Biswas (2016) also explored the impact of social media usage on green consumer behaviour, and it argued that social media can be an effective tool for promoting green products. Using questionnaires and data analysis, the article concludes that social media factors have a positive impact on



green purchase behaviour and highlights the importance of consumers taking environmental responsibility on social media (Biswas, 2016). Social media information will actively encourage green purchasing behaviour and lifestyle (Xie and Madni, 2023). Social media can be an effective platform to promote green consumption. By sharing consumers' experiences with green products, it can increase other consumers' willingness to engage in green consumption. Also, social media has an impact on young people's purchasing decisions, so it is necessary to study how social media affects their green consumption behaviour (Xie and Madni, 2023). On the other hand, when discussed from an EWOM perspective: Mustikasari points out that E-WOM as a marketing communication strategy can have a positive impact on green purchase interest and green purchase behaviour, especially among the younger age groups who are more likely to be attracted and adapted (Mustikasari, 2023). Consumers will be influenced by positive e-WOM and might be convinced to make a purchase because the e-WOM is an honest, unpaid review from previous consumers. Because of this, potential buyers believe it to be more trustworthy and reputable than the actual product or service marketing (Sa'ait et.al, 2016). consumers are more willing to read reviews on social media before purchasing a product or service. Positive social media word of mouth has a significant impact on consumer purchasing behaviour. EWOM communication has evolved into an important platform for consumer feedback, and since the advent of the internet, access to information has been simple and widespread (Mudussar et al., 2022). Therefore in this research, the researchers set Hypothesis 2:

*H2: Earned Media has a positive effect on consumers' green purchase behaviour.*

### **3.3 Paid Media (H3)**

Companies choose paid media to gain wider audience exposure and effective advertising. Paid Advertising is an important factor in influencing consumer purchasing decisions. It contributes to translating consumers' impressions of green products into purchases (Maheshwari and Malhotra, 2011). Consumers are more likely to buy products when they are aware of their green attributes from green advertisements (Hartmann and Apaolaza-Ibañez, 2011). Paid advertising can be

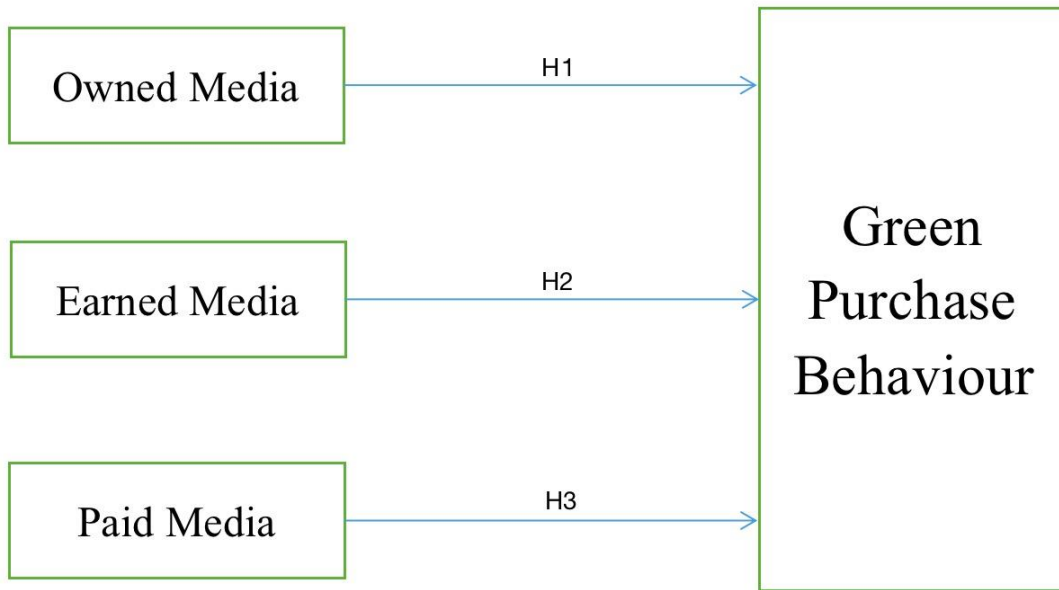


used to promote various types of products or services, including green products or environmental initiatives. Enterprises can place green advertisements through Paid Media to expand the exposure and influence of green images, attract more potential consumers, and thus increase consumer green purchasing behaviour. Previous research has shown that the purpose of green advertising is to encourage consumers to purchase products with green labels to influence their purchasing behaviour and make them aware of the positive impact of purchasing behaviour on themselves and the environment (Rahbar and Abdul Wahid, 2011). Green and Peloza argue that advertising has an impact on green buying behaviour, and in particular the impact of appeals in advertising on the way and content of environmentally friendly purchases. Advertising should develop different advertising strategies depending on the context in which it is executed in order to better promote environmentally friendly consumer behaviour (Green and Peloza, 2014). Tariq's (2014) quantitative study concluded that there is a significant positive relationship between green advertising and green purchasing behaviour. Environmentally conscious consumers are willing to buy green products to satisfy their needs if the company adopts green marketing and advertising strategies. (Tariq , 2014). Therefore in this research, the researchers set Hypothesis 3:

***H3: Paid Media has a positive effect on consumers' green purchase behaviour.***

## **3.4 Proposed Model and Hypotheses Development**

Through social media marketing, this study investigates consumer green purchasing behaviour in the Chinese market. This study examined the green purchasing habits of Chinese consumers using a questionnaire-based methodology, revealing the effects of each of the three main types of social media marketing: owned, earned, and paid. For this study, the researchers created a proposed model to explain how the independent variables, Owned media, Earned Meida and Paid media marketing affect the dependent variable, consumer green buying behaviour in the Chinese market. There by, the proposed model assumes (Owned, Earned, and Paid) media marketing, which influences consumer green purchase behaviour.



*Table 3.4 : Proposed Research model (Made by Chen and Mao, 2023)*

## 4 Methodology

The focus of Chapter 4 is on methodology. The following sections show the research philosophy, research methods and operationalization. In addition, the research design is presented, the which explains the quantitative descriptive research methods. This is followed by a description of the overall target population, sample selection, sample frame, sample size and sample error. Next, the data collection methods and analysis are discussed, as well as the qualitative aspects of the study (reliability, validity). Finally, the possible ethical and societal aspects of the article are discussed.

### 4.1 Research content

This study aims to examine the impact of different types of social media marketing (Owned Media, Earned Media and Paid Media) on consumers' green purchasing behaviour in the Chinese market. The Chinese market is an interesting subject for study. Firstly, China's economic growth has led to an increasing concern for the environment (Yang et al., 2022). In addition, China is one of the largest social media



markets in the world and different types of social media marketing are already widely used in the Chinese market (Thomala, 2022). This makes the Chinese market a good study to examine the impact of different types of social media marketing on consumers' green purchasing behaviour and consumers' attitudes towards different types of social media marketing in the Chinese market.

## **4.2 Research Philosophy**

Positivism is a philosophical system based on observable reality and real data experience as the basis of science. Focusing on discovering observable and measurable facts or laws and finding causal relationships between them to create law-like generalizations (Alharahsheh and Pius, 2020). Thus positivism is widely used to describe social sciences and quantitative research, which is philosophically based on positivism and adheres to a positivist perspective that emphasizes the objectivity and operationalization of its research process (Hasan, 2014; Bell et al., 2019). In today's context, positivism is defined as a research paradigm based on an objectivist epistemological perspective whose data reliability supports researchers in making scientific hypotheses (Pham, 2018).

### **4.2.1 Justification for Research Philosophy**

The research philosophy adopted for this study is positivism. This research philosophy is appropriate for this study as it aims to examine the relationship between different types of social media marketing (Owned Media, Earned Media and Paid Media) and consumer green purchasing behaviour, which can be measured and observed through empirical evidence. The positivist research philosophy emphasizes the use of empirical evidence to understand social phenomena (Saunders et al., 2012). This study aims to use survey instruments to collect data on consumers' social media usage, exposure to different types of social media marketing and green purchasing behaviour. The data collected will provide empirical evidence to support the research hypothesis. At the same time, the positivist research philosophy emphasises the objectivity of research. The researcher aims to remain impartial and avoid subjective



bias in the research process (Hasan, 2014). In this study, objectivity is crucial as the research aims to investigate the impact of different types of social media marketing on consumers' green purchasing behaviour without any preconceived notions. Finally, Generalizability has become an important criterion for assessing the rigor of quantitative research under the positivist paradigm (Bell et al., 2019). The findings of this study can be generalized to other contexts and provide insights into the impact of social media marketing on consumer purchase behaviour.

## **4.3 Research approach**

The deductive approach is a research strategy that takes a theoretical model as a starting point, often drawing on the academic literature, and aims to design a research program that tests that theory (Saunders et al., 2012). Researchers usually build on known domains and theories to derive a hypothesis that needs to be subjected to experiential review. This approach to research usually entails translating the concepts in the hypothesis into researchable entities, thereby specifying how to collect the data relevant to them. Researchers need to skillfully extrapolate one or more hypotheses and translate them into operationalized terms (Bell et al., 2019). This study aims to contribute to the understanding of the impact of different types of social media marketing on consumers' green purchase behaviour. By adopting a deductive research approach and testing specific hypotheses derived from existing theories and previous research, the study can provide valuable insights into the specific effects of each type of social media marketing on green purchase behaviour. Thus, the deductive approach was adopted in this study.

### **4.3.1 Quantitative approach**

Quantitative research is a research method that enables quantitative representation of data in the form of statistical analysis, with the advantages of a wide range of investigations, rapid access to findings and replicable manipulations, and is commonly used in social and natural sciences (Bell et al., 2019). Quantitative research identifies social patterns by measuring social facts to determine the causal



relationships and interactions of the objects under study. Quantitative research emphasizes standardized research procedures and predesign, describing things or phenomena through numbers or measurements, using data to demonstrate deductive processes between theory and research, and using statistical analysis to draw conclusions from the data collected (Bell et al., 2019).

Before conducting this study, the researchers read a large number of scientific articles and found that not many researchers have studied the impact of social media on consumers' green purchasing behaviour in the Chinese market in previous studies. Therefore, this study will make a hypothetical model by means of quantitative research, assuming that social media marketing (owned, earned, and paid) has a positive impact on the green purchasing behaviour of consumers in the Chinese market, and the scale questionnaire will be collected and analyzed to verify the reasonableness of the model constructed by the researchers to draw conclusions to fill the gap.

## 4.4 Operationalization

Concept	Subconcept	Item	Question	Reference
Owned Media	Corporate Blog	Reliable information	Q6: Corporate blogs can provide me with more reliable information about green products.	Tuten, (2021)
		Practical advice	Q7: Corporate blogs can show me practical green living tips.	Cho and Huh, (2010)
		Environmental values	Q8: Corporate blogs can convey to me the company's environmental values.	Ahuja and Medury, (2010)
Earned Media	Usage of Social Media	Follow	Q9: I follow information about green products when I use social media.	Lu and Miller, (2019)



				Wang et al., (2012)
				Dwivedi et al., (2021)
	EWOM	Sharing	Q10: I will understand the environmental significance of green products by following the word-of-mouth sharing among consumers.	Stephen and Galak, (2012)
		Trust	Q11: Word-of-mouth sharing among consumers can increase my trust in green products.	Haikel-Elsabeh et al., (2018) Thornhill et al., (2017)
Paid Meida	Adverting on Social Media	Advertisement acceptance	Q12: I have a positive attitude toward advertising on social media.	Stephen and Galak, (2012)
		Interest level	Q13: Advertisements in social media can stimulate my interest.	Kerr and Richards, (2020)
		Messaging	Q14: I can get effective information through advertisements in social media.	Ertemel and Ammoura, (2016) Prasad et al., (2003)
Green Purchasing Behaviour	Green Product	Environmental Friendly	Q15: I will buy environmentally friendly products whenever possible.	Armstrong et al., (2019)
		Recyclable materials	Q16: I will buy products made from recyclable materials whenever possible.	Joshi and Rahman, (2015)





		Organic	Q17: I will buy organic food or products whenever possible.	Sdrolia and Zarotiadis, (2018)  Nuttavuthisit and Thøgersen, (2015)
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## 4.5 Sampling

### 4.5.1 Population and Sample

In sampling, Population refers to the entire group of individuals, objects, or entities that share a common characteristic or attribute of interest to the researcher and from which a sample is selected (Bell et al., 2019). The relationship between population and sample is that the sample is a subset of the population (Bell et al., 2019). The sample is selected in such a way that it represents the characteristics of the population. (Bell et al., 2019). By studying the sample, researchers can make inferences about the population with a certain degree of confidence.

### 4.5.2 Targeted Population

The first step in the sampling procedure is to define the target population precisely (Taherdoost, 2020). The study targets Chinese consumers who use social media. According to Thomala, the number of active social media users in China will be around 983 million in 2021 (Thomala, 2023).

### 4.5.3 Study Sample Selection

Given the large number of social media users in China, multiple demographic options



existed for this study. Therefore, the researchers carefully delineated the target population to effectively determine an appropriate and manageable sample size for the study. Nearly 76% of social media users in China are under the age of 40 (Gong and Verbood, 2020).

Therefore, the focus of this study was determined to be the adults between the ages of 18 and 39, as these individuals are highly followed on social media and have a high sample specificity. Therefore, the researchers will post a questionnaire on commonly used social media platforms in China (e.g., WeChat, Weibo, QQ) and invite consumers between the ages of 18 and 39 in the survey. This will help us reach consumers who are already exposed to marketing campaigns on social media.

## 4.5.4 Sample Technique

Sampling can be used to draw conclusions about a population or to make generalizations about current theories. In essence, this is determined by the sample technique used (Taherdoost, 2020). Sample Technique refers to a method or strategy used to identify a sample so that the sample is representative of the total or target group (Saunders et.al, 2012). There are two types of sampling techniques: probability sampling and non-probability sampling (Bell et al., 2019). A probability sample is one that was chosen at random so that each unit in the population has a known chance of being chosen. When this approach of population selection is used, it is generally thought that a representative sample is more likely to be obtained (Bell et al., 2019). In comparison, a non-probability sample is one that was not chosen using a random selection process. This means that some units in the population are more likely to be chosen than others (Bell et al., 2019). A non-probability sampling method will be used for this study. The reason for this is that firstly it is not possible to obtain a complete list of the target population. Secondly, non-probability sampling can also be used to study specific groups of people, which in this study need to meet the characteristics: Adults between the ages of 18 and below 40. These groups may not be adequately represented in a probability sample (Saunders et.al, 2012). This study used a convenience sampling method. Because a convenience sample is one that is simply available to the researcher by virtue of its accessibility (Bell et al., 2019). Non-probability convenience sampling is usually less time-consuming and costly because



the sample is selected based on the convenience and availability of the investigator, rather than requiring a more complex randomization process (Saunders et al., 2012).

#### **4.5.5 Sample Size**

Sample size is a factor in research design, and the importance of sample size lies in the ability to influence the validity and reliability of data analysis and research results (Burmeister and Aitken 2012). In this study, the researchers refer to Burmeister and Aitken (2012), where Green's (1991) multiple regression sample size calculation method can be used when conducting multiple regression analysis with the formula  $N \geq 50 + 8p$ , where  $p$  is the predictor (number of independent variables) and  $N$  is the total number of samples. In this study, there are three independent variables involved in the researchers' hypothesis (owned media, earned media, and paid media). Referring to this formula, this study requires at least  $N \geq 50 + 8 * 3$  sample sizes, which is greater than or equal to 74 sample sizes. Also Bell et al. (2019) stated that the larger the sample size of the study, the more representative the findings will be. Therefore, in this study, the researchers will collect data from more than 200 samples as much as possible to prove the accuracy of the study.

#### **4.6 Questionnaire design**

In accordance with the study design, the study was divided into three parts, which can be found in the Appendix for review. In the first part, the researcher provided respondents with a short research statement to introduce participants to the purpose of this study. The research statement also allows the researcher to clearly understand the importance and significance of the study. In the second part, the researcher asked some relevant questions about the respondents' background, such as basic information about gender, age, education level etc. The research statement also allows the researcher to clearly understand the importance and significance of the study. In the second part, the researcher asked some relevant questions about the respondents' background, such as basic information about gender, age, education level etc. In addition, researchers will also ask respondents for basic information about the amount



of time they spend using social media each day. For the follow-up survey, the researchers briefly explained the changes in question format used to measure the relationship between the three independent variables and one dependent variable. In addition, the researchers aimed to gain insight into the association of these independent variables with green purchasing behaviour by exploring respondents' attitudes, feelings and impressions of owned, earned and paid media. Rating questions are often used to collect opinion data and their most frequent use is the Likert-type rating (Saunders et.al, 2012). To this end, the researchers used a Likert scale approach for the study. The Likert scale is a psychometric instrument used to quantify subjective characteristics such as people's attitudes, perceptions and opinions (Joshi et al., 2015). It is a set of statements (items) on which participants are asked to indicate their level of agreement (from strongly disagree to strongly agree) with a given statement (item) on a scale (Joshi et.al, 2015). The article will be studied using a Likert scale of five, which typically indicates the extent to which a respondent agrees with an opinion or statement using five equally spaced options. These five options are usually: "strongly agree", "agree", "neutral", "disagree", and "Strongly disagree". Each of these options is given a score of 1-5 to measure the extent to which the respondent has an attitude or opinion on an issue. Generally, a higher score indicates that the respondent agrees more with an opinion or statement, while a lower score indicates that the respondent disagrees more (Saunders et.al, 2012). These scales can be used in the researcher's own research, and their use as a measure of what the researcher is interested in. The scales are designed for groups of respondents with certain relevant characteristics (Saunders et.al, 2012). Finally, the article will use the statistical tools SPSS and regression to analyze the data collected in this study in order to test the hypothesis model in this study.

## **4.7 Data Collection Method**

To answer the purpose of this study, we used primary data. Primary data is information collected directly from the users of a product or service (Saunders et.al, 2012). First-hand information provides the insight that professionals rely on and even confirms their conclusions in more detailed investigations. Primary data was collected through a cross-sectional sample survey, which was conducted using a self-



administered questionnaire. The questionnaire was used to collect data on attitudes to explain the impact of different types of social media marketing on Chinese consumers' green purchasing behaviour. The researchers developed three hypotheses from the theoretical framework showing the link between paid social media marketing, earned social media marketing, owned social media marketing and consumer green purchasing behaviour. This study will use a closed-ended questionnaire for data collection; the closed-ended question design enhances the comparability of answers, which is easier to show the relationship between variables, and is easier to answer (Bell et al., 2019).

## 4.7.1 Pretesting

Pretesting exists in the development phase of the questionnaire. Before establishing the formal questionnaire, pretesting can identify possible problems in questionnaire implementation in advance and adjust and modify the questionnaire questions, thus avoiding errors in the formal survey. In the selection of pretesters, researchers should select people who are similar to the expected respondents to participate in the pretest, but those who participate in the pretest will not be included in the sample selection of the formal questionnaire by the researchers. Also researchers can test the potential validity, reasonableness and credibility of the questionnaire through the data collected from the pretest questionnaire (Bell et al., 2019).

In this study, the researchers selected 20 respondents from the age group of 18-39 years with different gender, education, and income to participate in the test by non-probability sampling. When completing the questionnaire, respondents indicated that they understood each question clearly and responded to it, thus demonstrating that the researcher designed each question in a clear and logical manner. At the same time, some respondents pointed out that if they could clearly see the meaning of each concept when filling out the questionnaire, it might allow them to make more accurate judgments. Therefore, the authors designed the formal questionnaire with a brief overview of owned media marketing, earned media marketing and paid media marketing so that the respondents could understand each question more clearly and answer it accurately.



## **4.8 Data Analysis Method**

This study will use IBM-SPSS for data analysis. SPSS is widely used in the field of market research and is a quantitative data analysis software. It can be used for various data analysis methods such as hypothesis testing, descriptive statistics, and regression analysis. Through SPSS, researchers can import, clean and analyze relevant data and present the results using various charts and tables (Bell et al., 2019).

In this study, researchers will analyze data from the questionnaire using descriptive statistics, multiple regression analysis.

### **4.8.1 Descriptive analysis**

Descriptive analysis is a process of identifying, summarizing, and presenting data in a meaningful way, using statistical techniques and tools. It aims to provide a concise and accurate picture of a dataset by highlighting the key features and patterns that exist within it (Gravetter et al., 2020).

The first step in descriptive analysis is to collect and organize the data, using methods such as surveys, experiments, or observations (Kemp et al., 2018). Once the data is collected, it is cleaned and prepared for analysis, which involves identifying missing values, outliers, and other anomalies that may affect the accuracy of the results. Descriptive statistics, such as mean, median, pattern, and standard deviation are then calculated to summarize the data and provide a baseline understanding of its distribution and variability. Visualizations, such as histograms, scatterplots, and box plots, can also be used to display the data in a clear and concise manner, Promote further analysis and interpretation (Field, 2013).

### **4.8.2 Multiple regression analysis**

Multiple regression analysis is a statistical technique used for investigating the association between a response variable and two or more explanatory variables. This technique facilitates the identification of the magnitude and direction of the



connection between variables, and the ability to predict the possible future values of dependent variables based on independent variables. However, multiple regression analysis requires consideration of potential issues such as multicollinearity, outliers, and significant observations. This statistical tool is commonly employed in social sciences, economics, and business for analyzing complicated data sets. It is widely used in finance, economy, and social sciences to explain the variance of a dependent variable concerning one or more independent variables (Hair et al., 2018).

## 4.9 Validity and Reliability

### 4.9.1 Validity

Validity refers to whether a measurement instrument actually measures the variable it is intended to measure and whether it has accurate, comprehensive, and consistent measurement effects (Bell et al., 2019; Saunders et al., 2012). Common validity tests include content validity, face validity, construct validity, and criterion validity (Nikolopoulou, 2022). In this study, the researchers will complete the validity test through KMO test and Bartlett's test of spherical significance (Sig.).

The KMO test measures the sampling adequacy of each variable in the model and the model as a whole, and the KMO value varies between 0 and 1. When the KMO is less than 0.5, it proves that the data sample is not suitable for data analysis. When the KMO is less than 0.6, it is an indication of inadequate sampling and needs to be remedied by sampling. When KMO is within the range of 0.6-0.69, the sampled data is proved to be mediocre, but can be studied. When the KMO is in the range of 0.7-0.79, the sample size meets the criteria and the variables in the sample are correlated. Bartlett's spherical significance test is used to test the correlation between variables in the correlation array, i.e., to test whether the variables are independent of each other. Usually, when the KMO value is greater than 0.7 and the significance value is less than 0.05, the scale has good structural validity and can be analyzed further (Shrestha, 2021).



## **4.9.2 Reliability**

In quantitative research, the rigor of study quality is determined by assessing the validity and reliability of the instruments or tests used in the study (Heale and Twycross, 2015). Reliability is quite important in the field of social sciences and physical sciences and is related to the consistency of measurements. Reliability is the degree to which a particular research method or instrument can produce consistent results from one test to the next (Bell et al., 2019). In reliability testing, there is a key concept called Cronbach's alpha. When researchers use Likert scales, it is necessary to calculate the Cronbach's alpha coefficient, which indicates the internal consistency and reliability of the scale used. Cronbach's alpha is a reliable coefficient that measures the internal consistency of items in a scale, and its value usually ranges from 0 to 1, with higher values implying higher internal consistency. George and Malley (2003) pointed out empirically that when alpha is less than 0.5, the data is not acceptable, when alpha is equal to or greater than 0.7, the data is considered valid, and when alpha is higher than 0.9, the data is considered excellent (Bell et al., 2019; Gliem and Gliem, 2003). Therefore, in this study, when alpha is equal to or greater than 0.7 will be considered valid by the researcher.

## **4.10 Ethics Issues**

In quantitative research, researchers may need to use different research methods from different perspectives to collect the required information, a process that may involve human interaction. Therefore, ethical issues deserve the attention of researchers before conducting survey work, and only when ethical issues are fully considered will the data collected by researchers be credible and reliable enough to conduct meaningful analysis (Bell et al., 2019; Saunders et al., 2012). In this study, the researchers will collect data and analyze them through an anonymous closed-ended questionnaire. Prior to administering the questionnaire, the researchers noted several possible ethical issues.

① Are the respondents fully informed about the researcher's survey? Are respondents' privacy protected?

To ensure the reliability of the raw data, any research should be conducted with the





full knowledge and voluntariness of the respondents, and researchers should make respondents fully aware of their rights and obligations (Bell et al., 2019; Saunders et al., 2012). Also, an important ethical consideration is the protective nature of the researcher with respect to the privacy of the respondents; researchers need to protect the respondent's response data and maintain the respondent's anonymity (Fox et al., 2003). Therefore, in this study, the researcher created a completely anonymous questionnaire, indicated the identity of the researcher, two marketing students, in the preamble section of the questionnaire, and promised the respondents that the purpose of this anonymous questionnaire was for undergraduate thesis research only and that the researcher would not divulge the raw data from the survey. The researcher also included an email address in the preamble section, so that if the respondents had any questions about the questionnaire, they could send an email to the researcher at any time and the researcher would reply to the respondents and answer their questions at the first time.

② Are respondents clear about the researcher's topic?

In research surveys, researchers usually need to collect a large sample of data to explain the proposed conjectures and hypotheses, and if the respondents are not aware of the researcher's topic, it may result in a casual and perfunctory attitude in filling out the data, thus leading to a lack of authenticity of the data, which will have a significant impact on the researcher's credibility and reliability analysis (Bell et al., 2019. Saunders et al. 2012). Therefore, in this study, the researcher provided a clear written explanation of each concept presented. Respondents can clearly see the explanation of the concepts made by the researchers on owned media marketing, earned media marketing, and paid media marketing in the questionnaire, which allows respondents to better understand the questions produced by the researchers and thus make clear choices and provide meaningful data.

## 4.11 Societal Issues

Societal issues are those that are complex, undefined and difficult to analyse, often involving multiple intellectual and emotional aspects (DeTombe, 2001). At the same time, social issues may include environmental problems, health problems, economic problems, social injustice and so on. Dealing with these issues requires the knowledge



and intervention of researchers (DeTombe, 2001). In this study, the generation, distribution, and use of knowledge become an important social issue when it comes to green consumption. As environmental pollution and resource shortages increase, there is a growing concern for environmental protection and sustainable development. However, it is a challenging task for the average consumer to determine whether a product or service is truly green and to choose a reliable brand for green consumption. Therefore, society needs more knowledge and information on green consumption, and this knowledge and information need to be disseminated and distributed effectively. Social media marketing provides a broader platform for knowledge generation. Through social media platforms, brands can communicate information about their green products to a wider range of consumers. consumers can learn more about green purchasing by visiting a brand's social media pages or searching for relevant topics. Secondly, social media marketing offers a faster way to distribute knowledge. Brands can use social media platforms to post news and information about green buying, as well as share data and examples about their green products with consumers. At the same time, consumers can also share information and experiences about green buying with other consumers on social media platforms to better understand and analyze the risks and opportunities of green buying. Finally, social media marketing brings a more concrete effect to the use of knowledge. Through social media platforms, brands can gain a more accurate understanding of consumer's attitudes and behaviour towards their green products. consumers can also use social media platforms to give feedback to brands on their experiences and feelings about using green products. This feedback not only helps brands to improve their green product design and marketing strategies but also motivates more consumers to take green purchasing actions. It is in this context that researchers need to examine this topic in greater depth in order to better address this important social issue. Therefore, in presenting the findings and discussion in this paper, the research will explore and analyse how the findings have implications for consumers, businesses and policy makers.

## 5 Result



## 5.1 Demographic Characteristics

A total of 282 electronic questionnaires were received. Missing values and questionnaires with the same answers were discarded by the researcher. The final response rate was 93.91% (264/282), resulting in 264 valid questionnaires. The demographic features of the 264 questionnaire respondents are shown in Table 5.1. In describing the basic information about the interviewer is that the variables they measure are all sub-typed variables.

Among the 264 respondents in the valid sample, 50.4% were male and 49.6% were female, which is consistent. More than half of the respondents were between the ages of 18-24 (50.8%), indicating that the majority of respondents were between the ages of 18-24. 36.7% were between the ages of 25-32 and the last 12.5% were between the ages of 33-39. At the same time, more than 70% of the respondents had a bachelor's degree and 20.1% had a master's degree. In addition, the largest number of respondents (31.8%) had an average monthly income of more than 10,000 RMB. More than 75% of respondents spend more than two hours a day on social media and almost 30% (27.7%) spend more than four hours on active social media.

<i>Variable</i>	<i>Frequency</i>	<i>Percentage(%)</i>	<i>Mode</i>
<i>Gender</i>	<i>Male</i>	133	50.4
	<i>Female</i>	131	49.6
<i>Age</i>	<i>18-24 years old</i>	134	50.8
	<i>25-32 years old</i>	97	36.7
	<i>33-39 years old</i>	33	12.5
<i>Education</i>	<i>High School</i>	22	8.3



<i>level</i>	<i>degree or below</i>			<i>degree</i>
	<i>Bachelor degree</i>	189	71.6	
	<i>Master degree or above</i>	53	20.1	
	<i>&lt;3000 RMB</i>	62	23.5	
	<i>3000 to 5000 RMB</i>	38	14.4	
<i>Average monthly income</i>	<i>5001 to 7500 RMB</i>	24	9.1	<i>&gt;10,000 RMB</i>
	<i>7,501 to 10,000 RMB</i>	56	21.2	
	<i>&gt;10,000 RMB</i>	84	31.8	
	<i>Less than 1 hour</i>	8	3.0	
<i>Time spent using social media per day</i>	<i>1 hour to less than 2 hours</i>	47	17.8	
	<i>2 hours to less than 3 hours</i>	78	29.5	<i>2 hours to less than 3 hours</i>
	<i>3 hours to 4 hours</i>	58	22.0	
	<i>More than 4 hours</i>	73	27.7	

*Table 5.1 Questionnaire demographic summary*



## 5.2 Proposed Research Model Description

The sections that follow examine the outcomes of the components in the proposed study model. To explain the constructs, the researchers used mean measurements as well as the Likert scale distribution.

### 5.2.1 Owned media

The owned media consists of three items. Table 5.2.1 shows the standard deviation, variance and mean of each item, as well as the overall construct - the owned media. As can be seen from the graph, the mean value of owned media is approximately 3.54, with a standard deviation of 0.75342 and a variance of 0.568. This can be interpreted as the average consumer attitude towards owned media remaining at a neutral to agreeable level, while the standard deviation of around 0.75 indicates a small dispersion in the sample.

<i>Items(question)</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Variance</i>
<i>Q6:Corporate blogs can provide me with more reliable information about green products.</i>	3.49	.863	.745
<i>Q7:Corporate blogs can show me practical green living tips.</i>	3.61	.839	.704
<i>Q8:Corporate blogs can convey me the company's environmental values.</i>	3.53	.840	.706
<b><i>Construct: Owned Media(N=264)</i></b>	3.5429	.75342	.568

***Table 5.2.1 Statistical description of owned media***



### 5.2.2 Earned Media

Earned Media is made up of three items. Table 5.2.2 shows the standard deviation, variance and mean of each item, as well as the overall construct - Earned Media. As can be seen from the graph, the mean for earned media is approximately 3.62, with a standard deviation of 0.79582 and a variance of 0.633. This can be interpreted to mean that consumers' attitudes towards the earned media remain neutral to agreeable on average, while a standard deviation of around 0.8 indicates a low level of dispersion in the sample.

<i>Items(question)</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Variance</i>
<i>Q9:I follow information about green products when I use social media.</i>	3.53	.947	.897
<i>Q10:I will understand the environmental significance of green products by following the word-of-mouth sharing among consumers.</i>	3.68	.896	.803
<i>Q11: Word-of-mouth sharing among consumers can increase my trust in green products.</i>	3.66	.922	.850
<b><i>Construct: Earned Media(N=264)</i></b>	3.6212	.79582	.633

***Table 5.2.2 Statistical description of Earned Media***

### 5.2.3 Paid Media

Paid Media is an independent variable made up of three elements that were studied using the total mean, standard deviation, and variance values. According to the descriptive table 5.2.3 below, the table shows that participants' attitudes towards this construct were above average (3 points) with an overall mean and standard deviation value of 3.4495 and 0.81129 for the overall mean and standard deviation respectively.



<i>Items(question)</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Variance</i>
<i>Q12:I have a positive attitude toward advertising on social media.</i>	3.48	.902	.813
<i>Q13:Advertisements in social media can stimulate my interest.</i>	3.42	.919	.845
<i>Q14:I can get effective information through advertisements in social media.</i>	3.45	.934	.872
<b><i>Construct:Paid Media(N=264)</i></b>	3.4495	.81129	.658

**Table 5.2.3 Statistical description of Paid Media**

## 5.2.4 Green purchase Behaviour

In the construct, green purchasing behaviour is the dependent variable and it consists of three items. According to Table 5.2.4, its overall mean and standard deviation are 3.6376 and 0.81000 respectively. this implies that consumers as a whole have high attitudes towards green purchasing and overall show that they would be active, proactive in green purchasing and have a corresponding need for green purchasing.

<i>Items(question)</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Variance</i>
<i>Q15:I will buy environmentally friendly products whenever possible.</i>	3.69	.851	.724
<i>Q16:I will buy products made from recyclable materials whenever possible.</i>	3.58	.972	.944
<i>Q17:I will buy organic food or products whenever possible.</i>	3.64	.928	.861
<b><i>Construct: Green purchase Behaviour(N=264)</i></b>	3.6376	.81000	.656

**Table 5.2.4 Statistical description of green purchase behaviour**

## 5.3 P-P plot



A P-P plot (Probability-Probability Plot) is a statistical chart used to assess the distribution of data. It checks whether the data conforms to a particular theoretical distribution (e.g. normal) by comparing the cumulative probability of the sample observations (empirical distribution function) with the cumulative probability of the theoretical distribution (Hair et al., 2018). In a P-P diagram, if the distribution of sample points is closely distributed along the linear trend of the theoretical distribution, then the data can be considered to be a better fit to that theoretical distribution. The P-P diagram can therefore help researchers to assess the distribution of the data for further statistical analysis and inference (Hair et al., 2018). This study will use P-P plots as a way to test whether they conform to a normal distribution.

The P-P diagram of each variable will be displayed in the appendix. From the pictures in the appendix, it can be seen that the P-P diagram data of the four variables, Owned Media, Earned Media, Paid Media and green purchase behaviour, are approximately distributed in a straight line. At the same time, from the downward trend diagram, it can be seen that the data are evenly distributed on both sides, indicating that the data are normal distribution.

## **5.4 Reliability testing and Validity testing**

Reliability and validity were assessed as the collected data were further analyzed. The researchers examined the reliability and validity of the three independent variables and one dependent variable described in the previous sections. In terms of reliability, Cronbach's alpha was used to analyze the internal consistency of the items used in this study in the research model. In terms of validity, the researchers examined the KMO values and Bartlett's spherical test of significance (Sig.) to determine if the data collected fit the constructs in the study model.

### **5.4.1 Reliability testing**





	<i>Variable(s)</i>	<i>Cronbach's Alpha</i>	<i>No.Item</i>
<b>Variable group 1</b>	<b>Owned Media</b>	<b>0.867</b>	<b>3</b>
<b>Variable group 2</b>	<b>Earned Media</b>	<b>0.829</b>	<b>3</b>
<b>Variable group 3</b>	<b>Paid Media</b>	<b>0.859</b>	<b>3</b>
<b>Variable group 4</b>	<b>Green purchase Behavior</b>	<b>0.857</b>	<b>3</b>

*Table 5.4.1 Reliability Statistics table*

In this study, Cronbach's  $\alpha$  coefficient was used to test the reliability of the scales. The results of the Cronbach's Alpha test are shown in Figure 5.3.1. When Cronbach's  $\alpha$  coefficient is greater than 0.8, the scale is highly reliable. In this study, SPSS 26.0 was used to test the reliability of the questionnaire and it was determined that Cronbach's alpha for each variable was above 0.8.

## 5.4.2 Validity testing

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<i>Variable</i>	<i>Measurement questions</i>	<i>KMO</i>	<i>Approximate cardinality</i>	<i>Degree of freedom</i>	<i>Significance</i>
<i>Owned Media</i>	<i>Q6,Q7,Q8</i>	<i>0.735</i>	<i>382.754</i>	<i>3</i>	<i>0.000</i>
<i>Earned Media</i>	<i>Q9,Q10,Q11</i>	<i>0.651</i>	<i>393.028</i>	<i>3</i>	<i>0.000</i>

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<b>Paid Media</b>	<i>Q12,Q13,Q14</i>	<i>0.717</i>	<i>374.873</i>	<i>3</i>	<i>0.000</i>
<b>Green purchase Behaviour</b>	<i>Q15,Q16,Q17</i>	<i>0.723</i>	<i>369.201</i>	<i>3</i>	<i>0.000</i>

**Table 5.4.2** *Validity Statistics table*

This paper analyses the validity of the questionnaire in terms of content validity, which is to check how well the instrument matches the content to be measured. In this study, KMO and Bartlett's tests were conducted using SPSS 26.0 software and a KMO > 0.7 indicates that the questionnaire has good content validity. The KMO values for each variable are shown in the table below, except for Earned media which has a KMO value of 0.651 but still remains above 0.6, which is acceptable, and all other variables have a KMO value greater than 0.7, so this indicates that the questionnaire has good content validity.

## 5.5 Linear Regression for Hypothesis Testing

In order to provide a valid test of the hypotheses proposed by the researchers, the article will conduct a multiple regression analysis to test the three hypotheses proposed by the researchers. Namely, the strength of the relationship between the independent variables (Owned media, Paid Media, Earned Media) and Chinese consumers' green purchasing behaviour will be analyzed. The specific results are shown in Table 5.5.1 and Table 5.5.2.

Variable	Exp.sign	M1	M2	M3	M4 (All model)
Constant		1.186*** (3.840)	1.016*** (3.416)	1.819*** (5.662)	0.483* (1.657)
Gender (X <sub>1</sub> )		0.066	0.088	0.059	0.070



		(0.814)	(1.131)	(0.663)	(0.961)
Age (X <sub>2</sub> )		0.102	0.064	0.002	0.062
		(1.548)	(1.009)	(0.028)	(1.044)
Education (X <sub>3</sub> )		-0.017	0.039	0.049	0.043
		(-0.209)	(0.497)	(0.555)	(0.583)
Monthly income (X <sub>4</sub> )		-0.024	-0.031	-0.055	-0.028
		(-0.759)	(-1.042)	(-1.623)	(-1.014)
Time spent using social media per day (X <sub>5</sub> )		-0.039	-0.021	-0.017	-0.028
		(-1.147)	(-0.645)	(-0.455)	(-0.915)
Owned media (X <sub>6</sub> )	+	0.688***			0.266***
		(13.144)			(3.731)
Earned media (X <sub>7</sub> )	+		0.684***		0.394***
			(14.488)		(5.918)
Paid media (X <sub>8</sub> )	+			0.539***	0.197***
				(10.281)	(3.692)
R <sup>2</sup>		0.409	0.456	0.300	0.526
Adjusted R <sup>2</sup>		0.395	0.443	0.283	0.511
Std.Error of the Estimate		0.62991	0.60435	0.68567	0.56622
F		29.647	35.908	18.337	35.402
df		6	6	6	8

S.E (Standard error) is presented within parenthesis for each of the independent variables, following below the B value.

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

**Table 5.5.1 Linear Regression analysis Statistics table 1**



Variable	Exp.sign	M1	M2	M3	M4 (All model)
Constant		NA	NA	NA	NA
Gender (X <sub>1</sub> )		0.041 (0.814)	0.055 (1.131)	0.036 (0.663)	0.043 (0.961)
Age (X <sub>2</sub> )		0.088 (1.548)	0.055 (1.009)	0.002 (0.028)	0.054 (1.044)
Education (X <sub>3</sub> )		-0.011 (-0.209)	0.025 (0.497)	0.032 (0.555)	0.028 (0.583)
Monthly Income (X <sub>4</sub> )		-0.046 (-0.759)	-0.061 (-1.042)	-0.107 (-1.623)	-0.056 (-1.014)
Time spent using social media per day (X <sub>5</sub> )		-0.056 (-1.147)	-0.030 (-0.645)	-0.024 (-0.455)	-0.040 (-0.915)
Owned media (X <sub>6</sub> )	+	0.640*** (13.144)			0.247*** (3.731)
Earned media (X <sub>7</sub> )	+		0.672*** (14.488)		0.387*** (5.918)
Paid media (X <sub>8</sub> )	+			0.540*** (10.281)	0.197*** (3.692)
R <sup>2</sup>		0.409	0.456	0.300	0.526
Adjusted R <sup>2</sup>		0.395	0.443	0.283	0.511
F		29.647	35.908	18.337	35.402
df		6	6	6	8

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001  
(Table following below the Beta value.)

**Table 5.5.2 Linear Regression analysis Statistics table 2**

Based on the results of the above table, the following conclusions are drawn.



In this study, after controlling for gender, age, education, monthly income and time spent using social media, owned media, earned media and paid media were brought into the regression equation as independent variables and Green purchasing behaviour as the dependent variable to construct a multiple linear regression model. The regression results are shown below:

$$y = 0.483 + 0.070X_1 + 0.062X_2 + 0.043X_3 - 0.028X_4 - 0.028X_5 + 0.266X_6 + 0.394X_7 + 0.197X_8$$

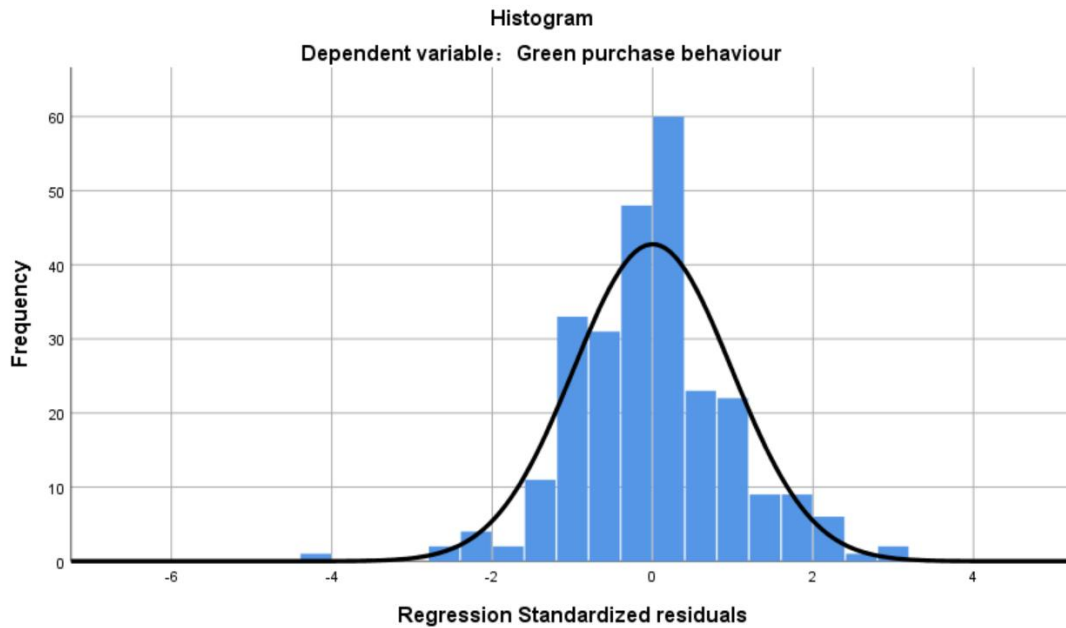
As can be seen from the results in the table above, the Adjusted  $R^2 = 0.511$ ,  $F=35.402$  implies a model fit of 51.1%. That is, a better fit indicates that the model has a relatively good fit as well as significance.

① Owned Media significantly and positively influences consumers' green purchasing behaviour,  $p\text{-value}<0.001, B=0.266>0$ , an increase of 1 point in consumers' attitude towards owned media is followed by an increase of 0.266 points in consumers' green purchasing behaviour.

② Earned Media significantly and positively influenced consumers' green purchasing behaviour,  $p\text{-value}<0.001, B=0.394>0$ . A 1-point increase in consumers' attitude towards earned media was associated with a 0.394-point increase in consumers' green purchasing behaviour.

③ Paid Media significantly and positively influenced consumers' green purchasing behaviour,  $P\text{-value}<0.001, B=0.197>0$ . A 1-point increase in consumers' attitude towards paid media was associated with a 0.197-point increase in consumers' green purchasing behaviour.

Finally, the VIF values of each variable were less than 5, so there was no multicollinearity between the variables and the hypothesis was verified. As can be seen from Appendix 3.3.4 All Model, the residuals of the regression model basically obey a normal distribution, i.e. the results of the regression model are stable and reliable.



*Figure 5.5.3 Regression Standardized residual plots - SPSS import*

## 6 Discussion

### 6.1 Hypothesis 1

As shown through Table 5.5.1 and Table 5.5.2, "\*\*\*\*" indicates a p-value of less than 0.01, which implies that the independent variable is statistically significant in its prediction of the dependent variable. Therefore, the independent variable of owned media can significantly influence consumers' green purchasing behaviour. Also, in model 1, the adjusted R-squared value is 0.395. It indicates that owned media as an independent variable can explain about 39.5% of consumers' green purchasing behaviour. In model 4, the B-value = 0.266 and Beta = 0.247 for owned media are both greater than 0. The results show that owned media has a positive impact on consumers' green purchasing behaviour, therefore, the researchers accepted Hypothesis 1. These basic results are consistent with research showing that corporate blogs in owned media have a positive impact on consumers' green purchase behaviour (Biswas, 2016). Owned media can be used to project the image of a company or brand, including its values regarding the environment (Koenig and Schlaegel, 2014). On the one hand, by showing a company's environmental initiatives, owned media can



enhance consumers' trust in that brand (Xie and Lee, 2015). This positive brand trust can lead to consumers being more inclined to buy green products from the brand. On the other hand, owned media can be used to deliver relevant information with reliability (Thornhill et al., 2017). By providing detailed and accurate information about green products, owned media can help consumers understand the benefits of green products, their environmental impact and the benefits of buying green products. This information can stimulate their interest in and demand for green purchases.

## 6.2 Hypothesis 2

As indicated in Table 5.5.1 and Table 5.5.2, the symbol "\*\*\*" indicates a p-value less than 0.01, indicating that the variable that is independent is statistically significant in predicting the dependent variable. As a result, the independent variable of earned media has the potential to greatly affect customers' green purchasing behaviour. In addition, the adjusted R-squared value in Model 1 is 0.443. This means that earned media, as an independent variable, explains 44.3% of green purchasing behaviour among consumers. Earned media has a B-value of 0.394 and a Beta of 0.387 in model 4, both of which are larger than 0. Because the data show that earned media has a positive impact on customers' green purchasing behaviour, the researcher supports hypothesis 2. Our findings on earned media agree with those reported by Stephen and Galak, who who concluded that earned media can have a positive impact on consumer purchasing behaviour (Stephen and Galak, 2012). Earned media influences green purchasing behaviour primarily through consumer word-of-mouth communication (Mustikasari, 2023). When consumers have positive experiences and reviews of a brand or product, they will often recommend it to others through word-of-mouth and social media sharing. These social media messages spread to their social circles, stimulating interest and demand for green purchases from others (Xie and Madni, 2023).

## 6.3 Hypothesis 3

As shown in Table 5.5.1 and Table 5.5.2, the symbol "\*\*\*" indicates that the p-value



is less than 0.01, indicating that the independent variable is statistically significant in predicting the dependent variable. Thus the independent variable of paid media has the potential to significantly influence customers' green purchasing behaviour. Furthermore, the adjusted R-squared value in model 1 was 0.283. This means that paid media, as an independent variable, explains 28.3% of consumers' green purchasing behaviour. In model 4, the B-value for paid is 0.197 and the Beta value is also 0.197, both of which are greater than 0. The results discussed above show that paid media has a positive impact on customers' green purchasing behaviour, so the researcher supports hypothesis 3. The findings are in accord with recent studies indicating that paid advertising has a positive impact on green buying behaviour (Tariq, 2014; Green and Peloza, 2014; Maheshwari and Malhotra, 2011). A possible explanation for this might be that paid media advertising can provide information and awareness to consumers about green products. Advertisements can introduce the features and environmental benefits of green products and help consumers to understand and appreciate the importance and benefits of green purchasing. Through advertising, consumers are able to be exposed to more information about green products, thus changing their perceptions of green purchasing (Kerr and Richards, 2020). At the same time, paid media advertisements can be used to get the attention of consumers through engaging content (Aslam and Karjaluoto, 2017). When advertisements strike an emotional chord with consumers, they are likely to be interested in and demand the green products promoted in the advertisements (Kerr and Richards, 2020). The content of an advertisement plays an important role in capturing the attention and positive emotions of consumers, thus prompting them to consider purchasing a green product.

## 6.4 Compared with three Hypothesis

In this study, researchers present the first comparison of the degree of influence of three different types of social media on consumer green purchasing behaviour in the Chinese market. The earned media has the greatest effect on consumer green purchasing behaviour at significance level  $P$  are less than 0.01 because it has the largest Beta value (Beta=0.387) and the higher the Beta value, the higher the importance of the independent variable in explaining the variance of the dependent





variable. Compared to the first two media types, paid media has the least effect on consumers' green purchasing behaviour (Beta=0.197). The Beta value of owned media is 0.247, which is between earned media and paid media. The reasons for this may be due to ① Trust in word-of-mouth communication: Earned media is spontaneously generated by real consumers through social media sharing, online reviews and word-of-mouth communication (Thornhill et al., 2017). These sources of information are more trusted by consumers because they perceive them as coming from people who have actual experiences rather than self-promotion by advertisers. As a result, consumers are more likely to trust green product recommendations in Earned media and are thus more likely to engage in green purchasing behaviour. ②In Chinese culture, the relationship is a close and universal interpersonal relationship, and social and interpersonal relationships have a significant impact on consumer decisions (Lin et al., 2018). Earned media often enables word-of-mouth communication through channels such as social media to stimulate interest and behaviour in green purchasing among consumers in social circles. In contrast, owned media may be relatively less influential in this regard, as its focus is more on promoting the company and brand (Stephen and Galak, 2012; Lovett and Staelin, 2016). ③Earned media can have a broader reach through user-generated content and social interactions, creating positive communication of green purchasing behaviour (Wang et al., 2012). In contrast, paid media is more of a one-way communication, unable to stimulate and guide social interactions among users, and therefore has relatively little impact on green purchasing behaviour. It also confirms the idea that earned media has greater credibility than paid advertising (O'Neil and Eisenmann, 2017).

The current study can provide a comprehensive comparison of the impact of earned, owned and paid media on green purchasing behaviour. Through quantitative research methods, it is possible to quantify the extent to which different media forms influence consumers' green purchasing behaviour and to determine their relative importance to each other. Such research can fill the gap of previous studies that focused on only one of these media forms or were unable to directly compare their impact. Second, research on the Chinese market can take into account the unique social, cultural, and market environment in China, filling the limitations of related research in a global context. The Chinese market has its own unique consumer behaviour, media market



landscape, and studying the impact of these media forms on green purchasing behaviour can provide more specific, targeted insights. Overall, the hypothesis results served to clarify information about the Chinese green purchase market and consumer behaviour, allowing the model constructed following the literature study to be enhanced. The better research model outlines the discussion's findings.

<b>Hypotheses</b>	<b>Status</b>
H1: Owned Media has a positive effect on consumers' green purchase behaviour.	<i>Accepted</i>
H2: Earned Media has a positive effect on consumers' green purchase behaviour.	<i>Accepted</i>
H3: Paid Media has a positive effect on consumers' green purchase behaviour.	<i>Accepted</i>

***Table 6.4 Status of hypotheses***

A summary related to the results of hypotheses is presented in the following table, table 6.4.



## **7 Conclusion**

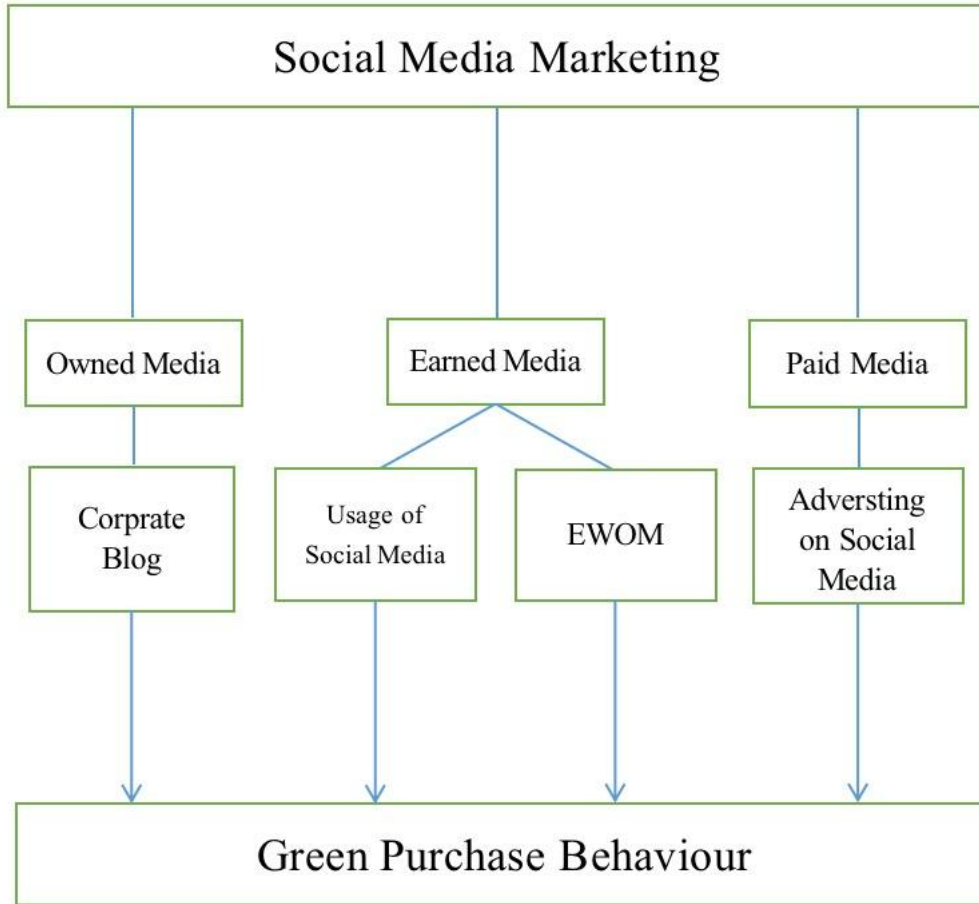
According to the findings of this paper, the different types of social media marketing (Owned Media, Earned Media, and Paid Media) have a positive impact on Chinese consumers' green purchasing behaviour. However, of the three types, Earned Media is considered to have the greatest impact. Through the data analysis and statistical results of the quantitative study, the researchers can conclude the following: Firstly, Paid Media (Paid Media) has a role in influencing Chinese consumers' green purchasing behaviour. Paid media marketing in the form of paid advertising, promotions, and sponsorships can increase the level of interest in green products and brands, thus making them more inclined to make green purchases. Secondly, Owned Media also has a positive impact on Chinese consumers' green purchasing behaviour. Through owned and managed media platforms, such as corporate blogs, corporate blogs can communicate green values, and provide relevant information and effective advice to attract consumers' attention and recognition, thereby influencing them to make green purchasing decisions. Most importantly, Earned Media was found to be the most influential in influencing Chinese consumers' green purchasing behaviour. Earned media mainly takes the form of word-of-mouth communication from consumers, social media reviews, ratings, and shares. Consumers tend to trust the real-life experiences and opinions of other consumers, so they are more likely to trust the green purchasing information they receive through earned media and are therefore more likely to make a green purchase. In summary, whether it is Paid Media, Owned Media, or Earned Media, they all play a positive role in Chinese consumers' green purchasing behaviour. Therefore, when developing a social media marketing strategy, companies should pay attention to and actively use these three different types of media to promote their own business. These findings provide important references and guidance for companies to target Chinese consumers' green purchasing behaviour in social media marketing, helping them to better utilize the different social media types to influence consumers' purchasing decisions and promote the development of green purchase.



## **8 Contribution**

### **8.1 Theoretical contribution**

For the study of this paper, the theories related to green purchasing behaviour can be enriched when the influence of media on consumers' green purchasing behaviour is studied again. Understanding the influencing factors of different types of media on green purchasing behaviour can help construct a more comprehensive and accurate theoretical framework of green purchasing behaviour and provide corresponding theoretical guidance. As shown in Figure 8.1, the researchers recreated the research model based on the results of the previous analysis and the hypothesis testing of the proposed research model. In this model, the association between the three main media marketing strategies (Owned Media, Earned Media, and Paid Media) and green customer purchase behaviour was established. The first is owned media, which in this research model is mainly used to influence green purchasing behaviour through corporate blogs, which can be an effective platform for communicating green products. By publishing information about the reliability of green products through blogs to enhance consumers' understanding of green products, it can directly cause changes in their purchasing behaviour. Among the earned media, the use of social media and electronic word-of-mouth marketing work together to promote green purchasing behaviour. Consumers actively follow green-related topics, while their role as purveyors of information, through word-of-mouth marketing, conveys a positive purchasing experience that further enhances understanding of green products and promotes their purchasing behaviour. Finally, there is paid media, which primarily promotes green topics through paid advertising to attract consumer interest and deliver effective messages to engage consumers in green purchasing.



*Table 8.1 Final research model (Made by Chen and Mao, 2023)*

## 8.2 Practical contribution

The findings of this study contribute to the understanding of what type of social media marketing strategies have an impact on consumers' green purchasing behaviour. The first is that it can provide relevant recommendations for companies and marketers. The first is consumer behaviour prediction: by quantitatively studying the impact of media on green purchasing behaviour, it is possible to predict changes in consumers' purchasing behaviour in the face of different types of media. This helps companies and marketers better understand consumers' preferences and needs, so that they can develop precise marketing strategies to improve the attractiveness and market competitiveness of their products. Second, studying the actual impact of different media on green purchasing behaviour can provide guidance for companies to optimize their marketing strategies. For example, based on the research results, companies can



select appropriate media platforms for advertising to increase the awareness and recognition of green products among target consumers. In addition, the study can reveal the different effects of media communication methods and content on consumer behaviour, and customize more effective marketing messages and promotion strategies for companies. Finally, studying the actual impact of media on green purchasing behaviour can also provide an important reference basis for governments and policy makers. Based on the understanding of consumer behaviour, the government can formulate relevant environmental policies and regulations to promote green purchasing behaviour. Meanwhile, organizations can use social media to release relevant environmental protection information and interactive activities to attract more people to pay attention to environmental protection issues.

## 9 Limitation of the research

This study has the potential to add to existing research on social media marketing in the Chinese green purchase market, including paid social media, earned social media, and owned social media. In this study, although a more rigorous sample selection and data processing methodology was used, there are still some research limitations that need to be accounted for. Firstly, the sample is drawn from consumers within China, and the representativeness of the sample is somewhat limited due to differences in culture, social environment, and other factors. Therefore, the findings of the study need to be used with caution when generalizing to other countries or regions. Secondly, this study used convenience sampling among non-probability sampling methods, and as the sample was selected based on the convenience of the researcher, the sample may not be representative of the overall population or the true situation in the study area. This can lead to limited generalizability of the results as the sample may not be representative enough to accurately reflect the characteristics and relationships of the population as a whole. Finally, this study was conducted on consumers' green purchasing behaviour, and although the results can reflect the impact of marketing on consumer behaviour, they still do not clarify the impact of marketing on the environment and society. In future research, the impact of marketing on the environment and society can be further explored to gain a more comprehensive



understanding of the role of marketing activities.

## **10 Suggestions for Future Research**

This study has quantitatively explained the impact of different types of social media marketing on consumers' green purchasing behaviour, and the findings of this study can provide a reference for companies when formulating their social media marketing strategies. However, there are some limitations and shortcomings in this study, as well as some directions for further expansion and in-depth research. Firstly, this study used a questionnaire method to collect data, which has the potential for self-reporting bias, while the sample may also have selectivity bias. In order to explore the impact of different types of social media marketing on consumers' green purchasing behaviour in a more scientific and accurate manner, future research could try to adopt an experimental approach to collect data more objectively through experimental manipulation. Secondly, in the process of the study, considering factors such as space and time constraints, this study only explored the three main types of social media marketing, namely paid media, owned media and earned media, while other types of social media marketing, such as mutual communication and relationship marketing, have not been investigated in depth. Future research could attempt to explore the impact of other types of social media marketing on green purchasing behaviour. In addition, future research could try to explore the impact of factors such as social environment and industrial policies on green purchasing behaviour from a more macro perspective. Through a variety of research methods, the understanding of green purchasing behaviour can be further increased and the practice of sustainable purchasing promoted. Finally, this study only explores the impact of different types of social media marketing on green purchasing behaviour from the perspective of consumers, but not from the perspective of companies. Future research could consider the impact and implications of different types of social media marketing on the development of green marketing strategies from the perspective of companies. At the same time, the impact of consumers' green purchasing behaviour on corporate strategy and social sustainability could be explored. In summary, this study has explored the impact of different types of social media marketing on consumers' green purchasing behaviour, and there are many directions that can be expanded and studied



in depth. Future research can further explore issues related to this area on the basis of a more scientific and objective approach, providing more useful references for the sustainable development of enterprises and society.





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## Appendix

**1.1 Chinese questionnaire** (In order to get more accurate answers on Chinese social media, the researchers prepared a questionnaire in Chinese. The questions in the English and Chinese questionnaires are identical and are only presented in different languages.)

### 解释社会化媒体营销对消费者绿色购买行为的影响

亲爱的先生/女士。

您好！我们是林奈大学市场营销专业的两名学生！我们是林奈大学市场营销专业的两名学生。这是一个基于小组的本科生设计的学术调查，以解释社会媒体营销对消费者的绿色购买行为的影响。感谢你在繁忙的工作中完成这项调查。

您将完成一个匿名的在线调查，完成时间不超过5分钟。我们将收集至少200份问卷，因此您的参与将为本研究的实证分析做出重要贡献。请按照你的想法填写调查表，没有正确或错误的答案，谢谢你的合作 此外，所有的调查信息将只用于研究目的，您提供的任何信息都将被严格保密，请您不必担心！

如果您对问卷调查有任何疑问，欢迎您联系我们的邮箱，我们会在第一时间回复您的信息，解决您的疑惑。

最后，感谢您为这项研究做出的努力。谢谢您！

研究人员：陈子雄，1572151287@qq.com；毛一迪，478965630@qq.com  
2023年5月

受访者基础信息

\*1. 您的性别





## 受访者基础信息

### \*1. 您的性别

<input type="radio"/> 男性
<input type="radio"/> 女性

### \*2. 您的年龄

<input type="radio"/> 18~24岁
<input type="radio"/> 25~32岁
<input type="radio"/> 33~39岁

### \*3. 您的学历

<input type="radio"/> 高中及以下学历
<input type="radio"/> 本科学历
<input type="radio"/> 硕士及以上学历



### \*4. 您的平均月收入

### \*4. 您的平均月收入

<input type="radio"/> <3000人民币
<input type="radio"/> 3000~5000人民币
<input type="radio"/> 5001~7500人民币
<input type="radio"/> 7501~10000人民币
<input type="radio"/> >10000人民币

### \*5. 您每天使用社交媒体的时间

<input type="radio"/> 小于1小时
<input type="radio"/> 1小时~小于2小时
<input type="radio"/> 2小时~小于3小时
<input type="radio"/> 3小时~4小时
<input type="radio"/> 大于4小时



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## 自有媒体营销

自有媒体是指由企业创建并发布在企业控制的社交媒体渠道上的关于品牌的社交媒体帖子。

\*6. 企业博客可以为我提供更多关于绿色产品的可靠信息。

强烈不同意 强烈同意

\*7. 企业博客可以向我展示实用的绿色生活技巧。

强烈不同意 强烈同意

\*8. 企业博客可以向我传达公司的环境价值观。

强烈不同意 强烈同意

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## 赢得媒体营销

赢得媒体定义了关于品牌的社会媒体发布，这些发布并非由公司直接制作，而是由消费者或影响者制作。

## 社交媒体使用

\*9. 当我使用社交媒体时，我会关注有关绿色产品的信息。

强烈不同意 强烈同意

## 电子口碑营销

\*10. 我可以通过消费者之间的口碑分享来了解绿色产品的环保意义。

强烈不同意 强烈同意

\*11. 消费者之间的口碑分享可以增加我对绿色产品的信任。

强烈不同意 强烈同意





### 付费媒体营销

付费媒体是指由公司或其代理人产生的与公司或品牌相关的媒体活动。

\*12. 我对社交媒体上的广告持积极态度。

强烈不同意 强烈同意

\*13. 社交媒体上的广告可以激发我的兴趣。

强烈不同意 强烈同意

\*14. 我可以通过社交媒体上的广告获得有效信息。

强烈不同意 强烈同意

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### 绿色购买行为

绿色购买行为可以被定义为一种复杂的道德决策形式，并被认为是一种对社会负责的行为。

\*15. 只要有可能，我就会购买环境友好型产品。

强烈不同意 强烈同意

\*16. 只要有可能，我就会购买由可回收材料制成的产品。

强烈不同意 强烈同意

\*17. 只要有可能，我就会购买有机食品或产品。

强烈不同意 强烈同意

提交





## 1.2 English Questionnaire

**Explain the effect of social media marketing on consumers's green purchasing behaviour**

Dear Sir/Madam.

Hello! We are two students from the Marketing program at Linnæus University. This is a group-based undergraduate design-based academic survey to explain the effect of social media marketing on consumer's green purchasing behaviour. Thank you for completing this survey out of your busy schedule.

You will be completing an anonymous online survey that will take no more than 5 minutes to complete. We will collect at least 200 questionnaires, so your participation will make an important contribution to the empirical analysis of this study. Please fill out the survey as you see fit, there are no right or wrong answers, thank you for your cooperation! In addition, all survey information will be used for research purposes only, and any information you provide will be kept strictly confidential, so please do not worry!

If you have any questions about the questionnaire, we welcome you to contact our email, we will reply to your information and solve your doubts at the first time.

Finally, thank you for making an effort for this study. Thank you!

Researchers: Chen Zixiong, 1572151287@qq.com; Mao Yidi, 478965630@qq.com  
May 2023



General Questions

\*1. What is your gender?

<input type="radio"/> Male
<input type="radio"/> Female

\*2. What is your age?

<input type="radio"/> 18~24 years old
<input type="radio"/> 25~32 years old
<input type="radio"/> 33~39 years old

\*3. What is your degree?

<input type="radio"/> High School or below
<input type="radio"/> Bachelor degree
<input type="radio"/> Master degree or above



\*4. What is your average monthly income?





\*4. What is your average monthly income?

<input type="radio"/> <3000 RMB
<input type="radio"/> 3000~5000 RMB
<input type="radio"/> 5001~7500 RMB
<input type="radio"/> 7501~10000 RMB
<input type="radio"/> >10000 RMB

\*5. How much time do you spend on social media each day?

<input type="radio"/> Less than 1hour
<input type="radio"/> 1hour ~ less than 2hours
<input type="radio"/> 2hours ~ less than 3hours
<input type="radio"/> 3hours ~ 4hours
<input type="radio"/> More than 4hours

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Owned media marketing  
(Owned media describes social media postings about a brand that are created by the business and published on the social media channels that the business controls.)

\*6. Corporate blogs can provide me with more reliable information about green products.

Strongly disagree                      Strongly agree

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

\*7. Corporate blogs can show me practical green living tips.

Strongly disagree                      Strongly agree

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

\*8. Corporate blogs can convey to me the company's environmental values.

Strongly disagree                      Strongly agree

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

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Earned media marketing  
(Earned media defines social media postings about brands that are not produced by the company directly but rather by consumer or influencer.)

## Usage of Social Media

\*9. I follow information about green products when I use social media.

Strongly disagree                      Strongly agree

---

## EWOM

\*10. I will understand the environmental significance of green products by following the word-of-mouth sharing among consumers.

Strongly disagree                      Strongly agree

---

\*11. Word-of-mouth sharing among consumers can increase my trust in green products.

Strongly disagree                      Strongly agree

---

Paid media marketing  
(Paid Media is a company or brand related media campaign generated by the company or its agents.)

\*12. I have a positive attitude toward advertising on social media.

Strongly disagree                      Strongly agree

---

\*13. Advertisements in social media can stimulate my interest.

Strongly disagree                      Strongly agree

---

\*14. I can get effective information through advertisements in social media.

Strongly disagree                      Strongly agree

---

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Green purchase behaviour  
(Green purchasing behaviour can be defined as a complicated form of ethical decision-making and is regarded as a type of socially responsible behaviour.)

\*15. I will buy environmentally friendly products whenever possible.

Strongly disagree                      Strongly agree

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\*16. I will buy products made from recyclable materials whenever possible.

Strongly disagree                      Strongly agree

---

\*17. I will buy organic food or products whenever possible.

Strongly disagree                      Strongly agree

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提交



## 1.3 Descriptive Table

### 1.3.1 Gender

		1. Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	133	50.4	50.4	50.4
	2	131	49.6	49.6	100.0
	Total	264	100.0	100.0	

### 1.3.2 Age

		2. Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	134	50.8	50.8	50.8
	2	97	36.7	36.7	87.5
	3	33	12.5	12.5	100.0
	Total	264	100.0	100.0	

### 1.3.3 Education

		3. Education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	8.3	8.3	8.3
	2	189	71.6	71.6	79.9
	3	53	20.1	20.1	100.0
	Total	264	100.0	100.0	

### 1.3.4 Monthly Income

		4. Monthly Income			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	62	23.5	23.5	23.5
	2	38	14.4	14.4	37.9
	3	24	9.1	9.1	47.0
	4	56	21.2	21.2	68.2
	5	84	31.8	31.8	100.0
	Total	264	100.0	100.0	



### 1.3.5 Time spent using social media per day

#### 5. Time spent using social media per day

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	3.0	3.0	3.0
	2	47	17.8	17.8	20.8
	3	78	29.5	29.5	50.4
	4	58	22.0	22.0	72.3
	5	73	27.7	27.7	100.0
	Total	264	100.0	100.0	

### 1.4 Proposed research model description

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Q6	264	1	5	3.49	.863	.745
Q7	264	1	5	3.61	.839	.704
Q8	264	1	5	3.53	.840	.706
Q9	264	1	5	3.53	.947	.897
Q10	264	1	5	3.68	.896	.803
Q11	264	1	5	3.66	.922	.850
Q12	264	1	5	3.48	.902	.813
Q13	264	1	5	3.42	.919	.845
Q14	264	1	5	3.45	.934	.872
Q15	264	1	5	3.69	.851	.724
Q16	264	1	5	3.58	.972	.944
Q17	264	1	5	3.64	.928	.861
Valid N (listwise)	264					

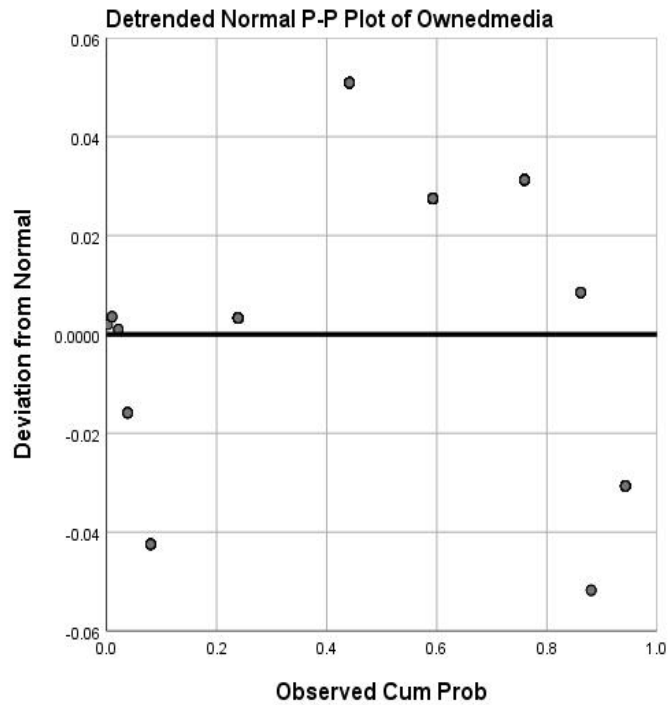
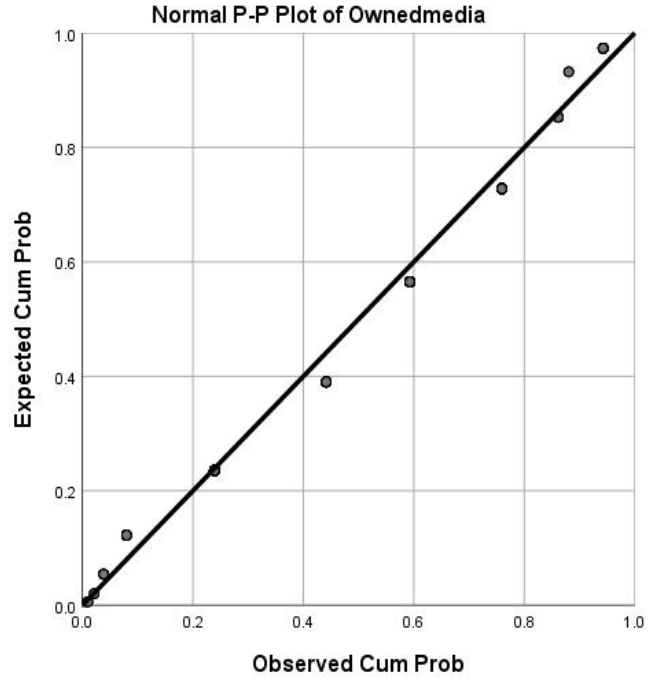
#### Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Owned media	264	3.5429	.75342	.568
Earned media	264	3.6212	.79582	.633
Paid media	264	3.4495	.81129	.658
Green Purchase Behaviour	264	3.6376	.81000	.656
Valid N (listwise)	264			



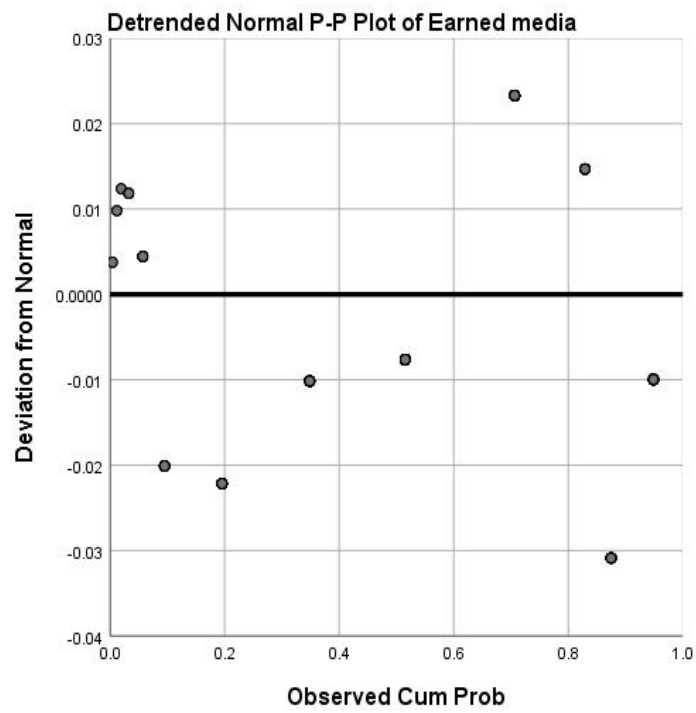
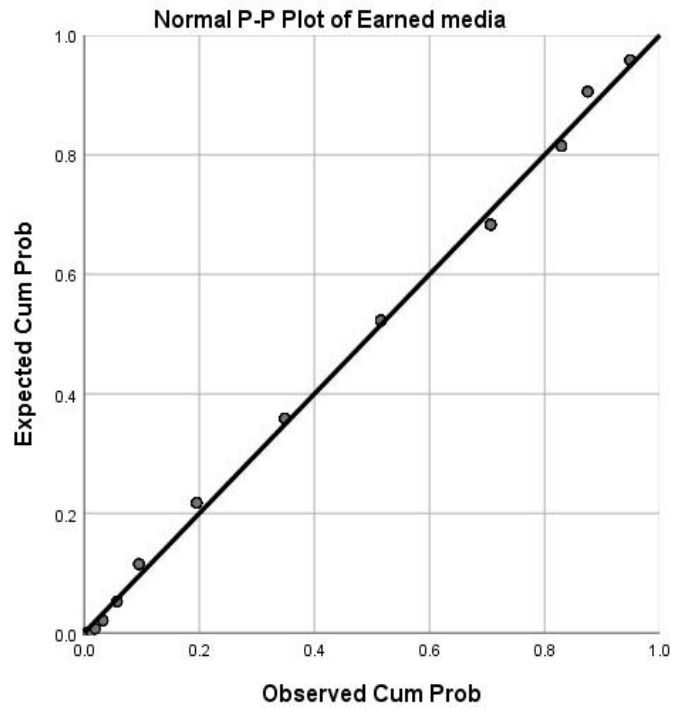
## 2.1 P-P square

### 2.1.1 Owned Media



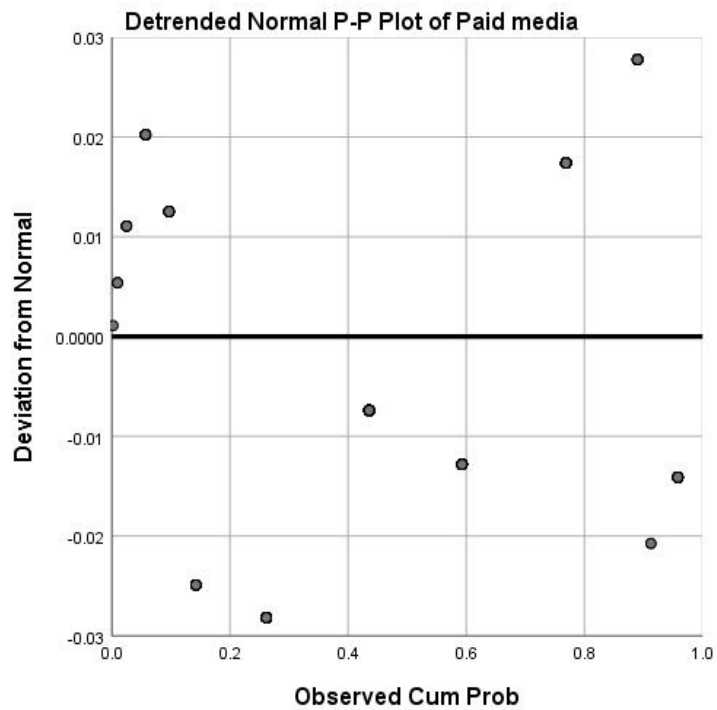
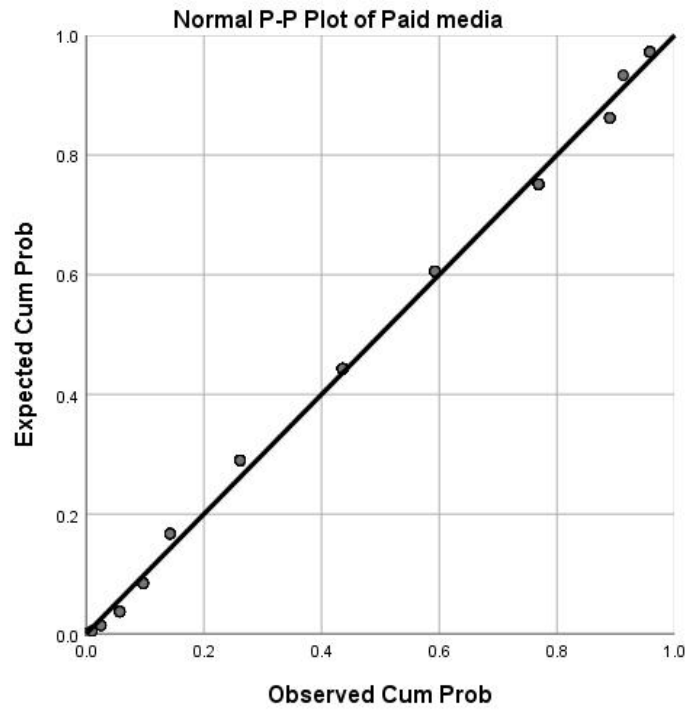


## 2.1.2 Earned Media





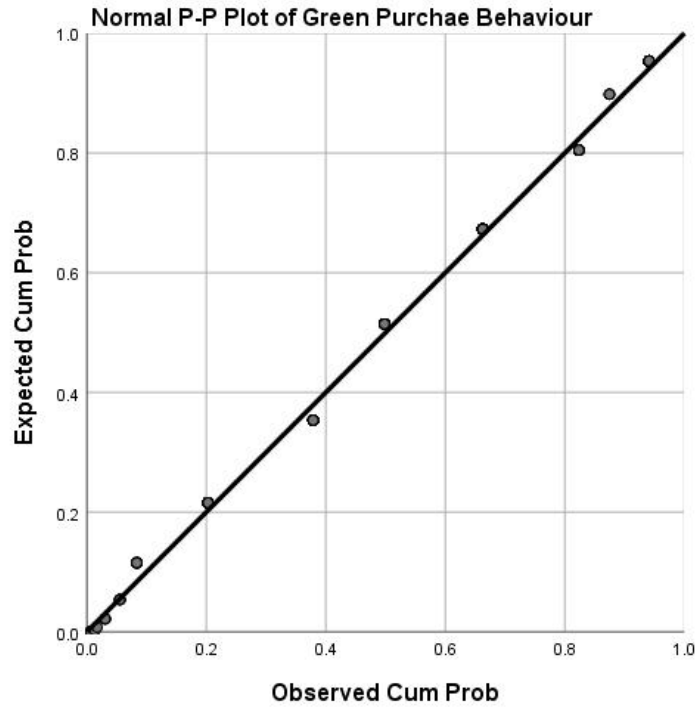
### 2.1.3 Paid Media







### 2.1.4 Green purchase Behaviour





### 3.1 Cronbach's Alpha Test in the construct

#### 3.1.1 Owned Media

##### Reliability Statistics

Cronbach's Alpha	N of Items
.867	3

#### 3.1.2 Earned Media

##### Reliability Statistics

Cronbach's Alpha	N of Items
.829	3

#### 3.1.3 Paid Media

##### Reliability Statistics

Cronbach's Alpha	N of Items
.859	3

#### 3.1.4 Green purchase Behaviour

##### Reliability Statistics

Cronbach's Alpha	N of Items
.857	3



## 3.2 Validity test- KMO And Bartlett's test

### 3.2.1 Owned Media

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.735
Bartlett's Test of Sphericity	Approx. Chi-Square	382.754
	df	3
	Sig.	.000

### 3.2.2 Earned Media

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.651
Bartlett's Test of Sphericity	Approx. Chi-Square	393.028
	df	3
	Sig.	.000

### 3.2.3 Paid Media

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.717
Bartlett's Test of Sphericity	Approx. Chi-Square	374.873
	df	3
	Sig.	.000

### 3.2.4 Green purchase Behaviour

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.723
Bartlett's Test of Sphericity	Approx. Chi-Square	369.201
	df	3
	Sig.	.000



### 3.3 Linear regression for testing hypotheses

#### 3.3.1 Owned Media Model (M1)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.108 <sup>a</sup>	.012	-.007	.81299
2	.640 <sup>b</sup>	.409	.395	.62991

a. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Owned media

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.028	5	.406	.614	.689 <sup>b</sup>
	Residual	170.527	258	.661		
	Total	172.555	263			
2	Regression	70.582	6	11.764	29.647	.000 <sup>c</sup>
	Residual	101.973	257	.397		
	Total	172.555	263			

a. Dependent Variable: Green Purchase Behaviour

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

c. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Owned media



**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.740	.310		12.064	.000
	1. Gender	.084	.105	.052	.800	.424
	2. Age	.045	.085	.038	.523	.601
	3. Education	-.028	.105	-.018	-.264	.792
	4. Monthly Income	-.057	.040	-.111	-1.423	.156
	5. Time spent using social media per day	-.016	.044	-.023	-.369	.712
2	(Constant)	1.186	.309		3.840	.000
	1. Gender	.066	.081	.041	.814	.416
	2. Age	.102	.066	.088	1.548	.123
	3. Education	-.017	.081	-.011	-.209	.834
	4. Monthly Income	-.024	.031	-.046	-.759	.448
	5. Time spent using social media per day	-.039	.034	-.056	-1.147	.253
	Ownedmedia	.688	.052	.640	13.144	.000

a. Dependent Variable: Green Purchase Behaviour

### 3.3.2 Earned Media Model (M2)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.108 <sup>a</sup>	.012	-.007	.81299
2	.675 <sup>b</sup>	.456	.443	.60435

a. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Earned media



**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.028	5	.406	.614	.689 <sup>b</sup>
	Residual	170.527	258	.661		
	Total	172.555	263			
2	Regression	78.689	6	13.115	35.908	.000 <sup>c</sup>
	Residual	93.866	257	.365		
	Total	172.555	263			

a. Dependent Variable: Green purchase Behaviour

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

c. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Earned media

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.740	.310		12.064	.000
	1. Gender	.084	.105	.052	.800	.424
	2. Age	.045	.085	.038	.523	.601
	3. Education	-.028	.105	-.018	-.264	.792
	4. Monthly Income	-.057	.040	-.111	-1.423	.156
	5. Time spent using social media per day	-.016	.044	-.023	-.369	.712
2	(Constant)	1.016	.297		3.416	.001
	1. Gender	.088	.078	.055	1.131	.259
	2. Age	.064	.063	.055	1.009	.314
	3. Education	.039	.078	.025	.497	.620
	4. Monthly Income	-.031	.030	-.061	-1.042	.299
	5. Time spent using social media per day	-.021	.032	-.030	-.645	.520
	Earned media	.684	.047	.672	14.488	.000

a. Dependent Variable: Green Purchase Behaviour



### 3.3.3 Paid Media Model (M3)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.108 <sup>a</sup>	.012	-.007	.81299
2	.548 <sup>b</sup>	.300	.283	.68567

a. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Paid media

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.028	5	.406	.614	.689 <sup>b</sup>
	Residual	170.527	258	.661		
	Total	172.555	263			
2	Regression	51.727	6	8.621	18.337	.000 <sup>c</sup>
	Residual	120.828	257	.470		
	Total	172.555	263			

a. Dependent Variable: Green Purchase Behaviour

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

c. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Paid media



**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.740	.310		12.064	.000
	1. Gender	.084	.105	.052	.800	.424
	2. Age	.045	.085	.038	.523	.601
	3. Education	-.028	.105	-.018	-.264	.792
	4. Monthly Income	-.057	.040	-.111	-1.423	.156
	5. Time spent using social media per day	-.016	.044	-.023	-.369	.712
2	(Constant)	1.819	.321		5.662	.000
	1. Gender	.059	.088	.036	.663	.508
	2. Age	.002	.072	.002	.028	.978
	3. Education	.049	.089	.032	.555	.579
	4. Monthly Income	-.055	.034	-.107	-1.623	.106
	5. Time spent using social media per day	-.017	.037	-.024	-.455	.649
	Paidmedia	.539	.052	.540	10.281	.000

a. Dependent Variable: Green Purchase Behaviour

### 3.3.4 All Model (M4)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.108 <sup>a</sup>	.012	-.007	.81299
2	.725 <sup>b</sup>	.526	.511	.56622

a. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Paid media, Earned media, Owned media





**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.028	5	.406	.614	.689 <sup>b</sup>
	Residual	170.527	258	.661		
	Total	172.555	263			
2	Regression	90.801	8	11.350	35.402	.000 <sup>c</sup>
	Residual	81.754	255	.321		
	Total	172.555	263			

a. Dependent Variable: Green Purchase Behaviour

b. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income

c. Predictors: (Constant), 5. Time spent using social media per day, 3. Education, 1. Gender, 2. Age, 4. Monthly Income, Paid media, Earned media, Owned media

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.483	.292		1.657	.099		
	1. Gender	.070	.073	.043	.961	.337	.909	1.100
	2. Age	.062	.060	.054	1.044	.298	.699	1.430
	3. Education	.043	.074	.028	.583	.560	.830	1.205
	4. Monthly Income	-.028	.028	-.056	-1.014	.312	.619	1.615
	5. Time spent using social media per day	-.028	.030	-.040	-.915	.361	.976	1.024
	Owned media	.266	.071	.247	3.731	.000	.423	2.362
	Earned media	.394	.067	.387	5.918	.000	.435	2.300
	Paid media	.197	.053	.197	3.692	.000	.650	1.539

a. Dependent Variable: Green Purchase Behaviour