GREEN BUILDINGS MARKETING AND PURCHASE INTENTION OF MALAYSIAN CONSUMERS: EXAMINING THE MODERATING EFFECT OF GREEN MARKETING: GREEN WORD-OF-MOUTH

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Abstract

As recognised, green building development is one of the solutions to mitigate the negative impacts of climate change and global warming. However, the green building development is still in the initial stage in Malaysia and is not widely accepted by its consumers. While environmental characteristics, location and public transportation system are generally considered important for property value, several studies revealed that these factors alone do not significantly influence the purchase decision of green buildings. To effectively promote green building adoption, it is crucial to understand the factors that both hinder and encourage the purchase of green buildings. Therefore, this study aims to examine the moderating effect of green marketing (green word-of-mouth) on the relationship between independent variables (environmental characteristics, location and public transportation system) and the dependent variable (purchase intention of Malaysian consumers). The study adopted the extended Theory of Planned Behaviour, incorporating EGB, LGB, PTS and GWOM, to get better predictability of the results. Quantitative approach was used in this study, together with a non-probability convenience sampling method. To test the hypotheses in this study, data were collected from 387 respondents in Malaysia in 2023, using questionnaires divided into the demographic profile of respondents and the variables. Data analysis method includes descriptive analysis (respondents' profiles), reliability analysis (the internal consistency of the variables) and hierarchical multiple regression analysis (moderating effect of GWOM). The findings show that GWOM had a significant moderating effect on the relationship between LGB and PTS, and the purchase intention of Malaysian consumers, while EGB did not moderate. The managerial implications of this study suggest that developers, marketers and managers can consider green marketing (GWOM) in promoting green buildings among consumers, as this tool is the cheapest

among other marketing strategies, and it provides a buying experience that the peers could share with potential buyers. Marketers and managers can benefit from the results of this research to achieve better green marketing results with massive green building consumption. When green buildings become the norm in society, they will not only sustain the domestic real estate industry but also help mitigate the negative impacts of climate change and global warming.

Keywords: *Climate Change, Global Warming, Environmental Characteristics, Location, Public Transportation System, Green Marketing, Green Word-of-Mouth, Purchase Intention*

1.0 INTRODUCTION

1.1 Background of the Study

Climate change and global warming are indeed critical issues with far-reaching consequences for both humans and wildlife, triggering the need for awareness regarding the depletion of natural resources and resulting in human activities such as mass production and consumption (Bhutto et al., 2019). The United Nations' Intergovernmental Panel on Climate Change (2021) stressed that it raised alarm bells over irreversible climate change caused by humans in the latest report. The Earth could warm by 1.5 °C above pre-industrial temperatures within the next two decades, according to the United Nations' Intergovernmental Panel on Climate Change (2021), which raises the threat of a dangerous tipping point in global warming.

Malaysia accounted for 0.64% of global greenhouse gas emissions, equivalent to 9.1 billion metric tonnes, in 2021, the latest year with complete emissions data (Emission Index, 2024). In 2021, Malaysia was reportedly the world's 28th largest producer of greenhouse gas emissions, while the largest emitters in the same period were China, the United States, India, Russia, and Brazil. Literature studies often highlight that a significant portion of energy consumption in buildings, exceeding 50%, is dedicated to maintaining occupants' thermal comfort, primarily through air conditioning and refrigeration (Hassan et al., 2014). This is particularly true in regions with hot and humid climates, where cooling systems are heavily relied upon, like in Malaysia (Solli et al., 2024).

The buildings and construction sector accounted for 36% of final energy use and 39% of energy and process-related carbon dioxide (CO2) emissions in 2018, 11% of which resulted from manufacturing building materials and products such as steel, cement and glass (International Energy Agency, 2022). The buildings and construction sector is by far the largest emitter of greenhouse gases, accounting for a staggering 37% of global carbon emissions (United Nations Environment Programme, 2023).

In recent years, green building practices have received tremendous global attention for their ability to protect the environment and foster sustainable development, and Malaysia, one of the fastest-growing countries, is enthusiastically embracing the green building movement (Zakaria et al., 2024). However, throughout the construction period and building occupation cycle of green buildings, many issues occurred that contributed to the deterioration of the performance of the building itself.

1.2 Statement of Problem

An abundance of resources and energy is consumed as the construction sector expands, contributing to several environmental problems, including the greenhouse effect and weather (Huang & Nuangjamnong, 2022). Buildings account for 40% of all energy usage and 30% of all greenhouse gas emissions in developing countries (Geng et al., 2019). The built environment currently plays a key role in the broader discussions about environmental preservation, as its development and operation require a great deal of energy and emit substantial carbon (Huang & Nuangjamnong, 2022). In light of the negative impacts of the construction industry, the world has started to recognise the importance of sustainable development to continually meet demand in the building and construction sector while also protecting the environment (Masyhur et al., 2024). Looking at the greenhouse gas percentage contributed by commercial and residential sectors, green buildings could be one of the solutions to mitigate the negative impacts of climate change and global warming.

Despite research indicating that purchasers and real estate investors tend to buy green residential properties that benefit the environment (Kim et al., 2020), the number of green buildings in Malaysia remains comparatively low relative to the total number of buildings in the country (Ha et al., 2023). Comparatively, research also shows that the development and implementation of green buildings in Malaysia is still lagging behind that in regions like Europe, North America, and East Asia (Ha et al., 2023), even though green buildings can save between 25% and 50% of energy, 10% to 40% of water consumption, and reduce maintenance costs by roughly 12% (Malaysian Investment Development Authority, 2023). Some findings highlighted that the increased costs associated with green initiatives may deter developers, clients, or end-users from participating in green building projects (Jaffar et al., 2022).

From a purchase perspective, customers are often unwilling to pay the additional expenses involved, which may discourage them and lead to hesitation in pursuing green initiatives for future projects (Jaffar et al., 2022). Thus, further investigation is necessary to explore the factors that influence the slow development and implementation of green buildings in Malaysia, particularly from the perspective of Malaysian consumers' purchase intentions.

According to Abdullah et al. (2023), several market hurdles hinder the growth of green buildings in Malaysia (Kamranfar et al., 2022), including a lack of awareness and understanding, high initial costs, limited financing options, regulatory barriers, and low market demand (Addy et al., 2021). Another study found that the high prices of green buildings are a significant factor affecting the implementation of these buildings in Malaysia, including the purchase of green buildings (Zakaria et al., 2024). This research highlights the need for better operational efficiency, financial management and expertise for the green building implementation.

Despite many studies having revealed that price, design features, environmental characteristics, locational attributes, and public transportation system had direct significant relationship with the

purchase intention of both green and conventional properties, there is limited research using green word-of-mouth (GWOM) as a moderator on the relationship between these predictors and Malaysian consumers' purchase intention. The previous study by Liao et al. (2020) found that GWOM had a significant moderating influence on green purchase intention (Liao et al., 2020). Nevertheless, this area of study focused on the relationship between green customer value, attitudes towards green products, and green purchase intention, rather than the purchase intention of green buildings among Malaysian consumers. Furthermore, GWOM was not included in previous studies conducted by Ridzuan et al. (2022) and Yue et al. (2020). Instead, perceived policy effectiveness and price sensitivity were their moderating variables, as presented in the literature matrix in Table 1.1.

Table 1.1: Recent Literature Matrix for Moderating Effect

Authors	Thesis/Journal Title	Dependent Variable	Independent Variables	Other Variables (Moderating/Mediating)	Country / Industry	Theoretical Framework	Methodology
Ridzuan et al. (2022)	Capturing the Low-Cost Housing Residents' Sustainable Practices in Urban Area: The Moderating Effect of Perceived Policy Effectiveness	Recycling Intentions of Household Wastes	-Attitude -Subjective Norms -Perceived Behavioural Control -Moral Norms	Perceived Policy Effectiveness	Malaysia / Low-Cost Housing	Theory of Planned Behaviour	-Mixed Method (Qualitative and Quantitative) -Cross-sectional survey -Sample size: 125
Liao et al. (2020)	Examining the Moderating Effects of Green Marketing and Green Psychological Benefits on Customers' Green Attitude, Value and Purchase Intention	Green Purchase Intention	-Green customer value -Attitude towards green product	-Green marketing including (a) environmental advertising and (b) GWOM, -Green psychological benefits of (a) warm glow, (b) self-expressive benefit, and (c) nature experience	Cambodia / Green products	Signalling Theory and Attitude-Behaviour-Context (ABC) Theory	-Quantitative Method -Purposive sampling -Questionnaire Survey (online & offline) -Sample size: 319
Yue et al. (2020)	Impact of Consumer Environmental Responsibility on Green Consumption Behaviour in China: The Role of Environmental Concern and Price Sensitivity	Green Consumption Intention	-Environmental responsibility -Environmental concern	Price sensitivity	China / Green products	Theory of Planned Behaviour	-Quantitative Method -Random sampling -Questionnaire Survey (online) -Sample size: 680

Hence, studies specifically examining the moderating effects of green marketing on the relationship between environmental characteristics, location, public transportation system, and purchase intention for green buildings are limited in the existing literature. While there is research on GWOM's influence on purchase intention in general, and some on specific aspects like environmental knowledge or trust, the comprehensive interplay of all these factors with GWOM as a moderator is an area that needs more investigation.

Therefore, this research aims to investigate the role of GWOM in the relationship between independent (green buildings' environmental characteristics, location, and public transportation system) and dependent variable (purchase intention of Malaysian consumers). By examining how the moderator influences the strength or direction of the relationship between the independent and dependent variables, the research will provide insights into the conditions under which this relationship holds. Specifically, the findings would show how GWOM affects the strength or direction of the relationship between these independent variables and the dependent variable.

1.3 Research Objectives
From the background and problem statement, there are three research objectives to be achieved through this study:

RO1   To examine the moderating effect of GWOM on the relationship between the environmental characteristics of green buildings and the purchase intention of Malaysian consumers.

RO2   To determine whether GWOM moderates the relationship between the location of green buildings and the purchase intention of Malaysian consumers.

RO3   To analyse the moderating effect of Green Word of Mouth (GWOM) on the relationship between the public transportation system and the purchase intention of Malaysian consumers.

1.4 Significance of the Study
Practically, this research provides valuable insights for developers, marketers and property agents by helping them understand customer perceptions of green buildings and develop detailed customer profiles based on purchasing behaviour. It can inform marketing strategies and product development by highlighting the factors that influence consumers' decisions to buy or not buy green properties. The data and information collected during the interviews, questionnaires, and surveys will be helpful for sales and marketing purposes. The collected data serves as a database containing potential customers. By using this information, developers can make their products and services more customer-centric, thus increasing customer satisfaction. The core findings in this study regarding the GWOM as the moderator between the factors and the purchase intention would be beneficial to all the stakeholders, such as consumers, real estate players and policymakers.

Academically, this research extends the existing Theory of Planned Behaviour model by integrating green building environmental characteristics, location and public transportation system, and GWOM as a moderator, providing a comprehensive and dynamic theoretical framework for adapting green building purchase intention.

The findings also suggest that policymakers review relevant policies and update the guidelines periodically to support green buildings. Policymakers are advised to revise public transportation policy by prioritising road infrastructure improvements before enhancing the public transportation system itself. This approach involves first constructing new roads and upgrading existing ones to improve traffic flow, followed by improvements to bus routes, bus stops, and overall public transport services. This can further enhance the purchase of green buildings among Malaysian consumers.

2.0 LITERATURE REVIEW

2.1 Purchase Intention

In the Theory of Planned Behaviour (TPB), purchase intention is defined as a consumer's readiness and willingness to buy a specific product or service (Ajzen,1991). It is a crucial concept as it acts as a strong predictor of actual purchasing behaviour. The TPB posits that purchase intention is shaped by three key factors: attitude toward the behaviour, subjective norms, and perceived behavioural control. Purchase intention is a state that exists between a consumer and a seller when the customer is ready to enter into a transaction with the seller (Tilahun et al., 2023).

It consists of consumers' attitudes towards specific products and brands, as well as external factors (Lin & Shen, 2023). This intention is influenced by various elements, including environmental concerns, perceived value, and social influences (Maduku, 2024). Factors that drive purchase intention, commonly identified by these studies, include the latent constructs in the TPB model and observable characteristics such as knowledge and benefits of green buildings, environmental concerns, personal and moral norms, and government incentives (Ho et al., 2024). Zhao and Chen (2021) found that a higher perceived value, across various research contexts, tends to lead to more favourable purchase decisions. This suggests that when consumers believe a product or service offers good value, they are more likely to buy it.

According to Wang et al. (2019), green knowledge is one of the factors that is affecting the consumers' purchase intention towards green products which consumers with higher green knowledge tends to have the intention to buy green products. Martins et al. (2019) have demonstrated that an increase in purchase intention correlates with a higher likelihood of purchasing, indicating that if consumers possess a positive purchase intention, then positive engagement will encourage that purchase. Therefore, a comprehensive understanding of the factors affecting consumers' purchase intentions will help stimulate their purchasing behaviour (Lin & Shen, 2023). Meanwhile, purchase intention depends on external environmental factors and consumer behaviours.

2.2 Independent Variables That Affect the Purchase Intention of Green Buildings

2.2.1 Environmental Characteristics of Green Buildings

Environmental characteristics of a neighbourhood encompass both natural and human-made elements that shape the living experience. These include factors like air and water quality, green spaces, noise levels, housing quality, access to amenities, and community cohesion. Environmental characteristics are physical conditions in which people live, and these include all natural elements like air quality, climate, and green spaces (Omar, 2024). On the other hand, the built environment is defined as all man-made structures where people live, work, and interact with other individuals. Somewhere in between these two concepts, neighbourhood characteristics represent the very specific local attributes of both natural and man-made characteristics, and these include safety, social cohesion, and access to several amenities like parks, libraries, schools and others. Essentially, the combination of both physical and social elements within a specific area, like a green building, influences residents' well-being and quality of life.

According to the study by Mang et al. (2020), housing environment is vital to many homebuyers so that they can have a peaceful life and mind living in areas which are free from noise, traffic and pollution. Their study also recognised the importance of the environment, especially when it is linked to house purchase decisions. It was found that the environment has a significant positive relationship with house purchase intention. In general, house buyers in Kota Kinabalu are concerned about environmental issues, especially towards noise, air pollution and traffic issues. From another perspective, environmental concern can be an important factor influencing the green consumption behaviour of individuals (Ren & Wang, 2021).

2.2.2 Location of Green Buildings

According to the United States Environmental Protection Agency (2022), location is a crucial component of green building practice, as how people and goods get to and from the site. Locational attributes, referring to the physical location of a property and its surrounding area, significantly influence a buyer's purchase intention (Ho et al., 2019). A location-efficient site is well-connected to the larger region and close to amenities such as employment centres, shops, restaurants, schools, and services. Location attributes are highly related to the area or place where the housing is located, whether an urban area or a rural area (Norhayati et al., 2021). The location of green buildings is defined as the place or position where the green buildings are.

Location of green buildings is one of the most significant factors affecting a home's value (Elizabeth, 2020). Consumers also relate location to the convenience that they are going to lodge after owning the properties. The location of properties is often grouped into city, suburb, rural, and outskirt (Chuweni et al, 2022). According to new research, strategic location and good environmental quality are the most significant factors that influence occupants to occupy the green-certified residential building in Johor Bahru (Azis et al., 2021).

2.2.3 Public Transportation System

According to the Conserve Energy Future (2020), a public transportation system is a form of travel offered locally that enables more people to travel together along designated routes. Public transportation consists of a variety of modes such as taxis, buses, commuter trains, light rail transits (LRT), monorails, mass rapid transit (MRT), cable cars, vanpool services, ferries or water taxis, and paratransit services for senior citizens and people with disabilities. This also includes high-speed rails, airlines, and coaches dominate public transportation between cities.

Malaysia is one of the emerging countries that currently contributes to the high number of urban congestion and traffic issues, especially in urban areas (Arip et al., 2022). Hashim et al. (2019) have indicated that the quality of Malaysia's public transportation system is beyond the standard in terms of facilities and services. Many aspects do not satisfy the users. Therefore, according to the Ministry of Transport Malaysia. (2019), endeavours have been made towards improving the public transportation system in Malaysia through the National Transport Policy (2019-2030), where they have identified the public transportation hub as one of the most important initiatives by strengthening the infrastructure, services, network, safety, integration, and connectivity through its thrust two and three. By reducing the reliance on private cars and decreasing carbon emissions from transportation, public transportation priority can serve as a key driver for sustainable urban development (Cheng et al., 2023) and facilitate the development of green buildings.

The traditional measure of housing affordability generally focuses on housing cost alone, while ignoring the transportation cost,

which incurs a relatively high proportion of income (Norhayati et al., 2021). Therefore, combining housing and transportation costs provides a more comprehensive view of affordability than considering housing costs alone, especially in areas with varying transportation options.

Several European studies highlight the critical role of including transportation costs when assessing housing affordability, arguing that a more accurate picture emerges when considering the total cost of living in a specific location, not just housing expenses (Afiqah et al., 2021). Rational homebuyers would only consider a home location where the distance of travelling to and from is short and easily accessible, so that they can save on the transport expenditure and time.

An efficient public transportation system and well-located green buildings can significantly contribute to reducing greenhouse gas emissions, combating global warming, and mitigating air and noise pollution. By popularising public transportation, cities can reduce the number of vehicles on the road, leading to lower emissions and less congestion. Green buildings, with their focus on energy efficiency and sustainable materials, further minimise the environmental impact of construction and operation.

2.3 Green Marketing

Green marketing is the process of promoting products or services based on their environmental benefits (Susan, 2020), and this marketing tool consists of environmental advertising and green word-of-mouth (Liao et al., 2020). Genoveva and Levina (2019) stated that green marketing is a business-oriented approach to environmental sustainability, encompassing green environments, green products, green brands, green packaging, green advertising, green pricing, and green places. These products or services are designed to be environmentally friendly in themselves or produced in an environmentally responsible manner. Green building is one of the green products that this study is going to investigate. Krisdayanti and Widodo (2022) state that green marketing has a vital role in influencing purchase intention. Companies that implement the concept of green marketing will undoubtedly be more sought after and favoured by consumers, especially consumers who are selective in purchasing green products (Ambarita et al., 2023). Green marketing, which promotes products by using environmental claims, has become a significant area of research (Matthes, 2019). In the context of green marketing, environmental advertisings addressing environmental concerns are always very powerful to facilitate green purchasing (Kasliwal et al., 2019), while green word-of-mouth may serve as an important moderator that, when interacting with customer value and attitude, can significantly accelerate green purchase intention (Liao et al., 2020).

2.3.1 Green Word-of-Mouth

Green word-of-mouth (GWOM) is a green marketing strategy, distinct from environmental advertising. It leverages informal communication among consumers to promote eco-friendly products and practices. While environmental advertising relies on paid media, GWOM utilises the power of recommendations and peer-to-peer sharing to build trust and influence purchasing decisions. Kotler and Keller (2021) contended that word-of-mouth (WOM) is a vital marketing device that quickly transmits information about a brand among customers at a very minimal cost. Therefore, green word-of-mouth (GWOM) can be redefined as a marketing activity that happens when green consumers share a company's green products or services with their friends, family,

and close acquaintances. Some organisations apply some of the most common green marketing strategies and implement search to increase green word of mouth (Amoako et al., 2020), using other variables such as green perceived value, green trust, and green satisfaction (Ahmad & Zhang, 2020). Jaini et al. (2019) explained that electronic GWOM plays a vital role as a moderator of the link between personal norm and green purchase intention. The study by Liao et al. (2020) demonstrated that GWOM had a significant moderating influence on the relationship between consumers' attitudes towards green products and green customer value, and green purchase intention. The more positive information customers gain about the product from peers, the more likely they are to make a better product choice. When customers are unsure about green products, they are more likely to trust and purchase those with excellent GWOM (Guerreiro & Pacheco, 2021).

Nonetheless, there is a lack of empirical studies on the moderating effect of green word-of-mouth on the relationship between environmental characteristics, location and public transportation system and purchase intention of Malaysian consumers. Therefore, the hypotheses are derived as follows:

H1   There is a moderating effect of GWOM on the relationship between environmental characteristics of green buildings and the purchase intention of Malaysian consumers.

H2   There is a moderating effect of GWOM on the relationship between the location of green buildings and the purchase intention of Malaysian consumers.

H3   There is a moderating effect of GWOM on the relationship between the public transportation system and the purchase intention of Malaysian consumers.

2.4   Underlying Theory
2.4.1 The Extended Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) was developed to predict human behaviour in various fields, and this theory is a rational choice model where intention is the only psychological antecedent of behaviour (Ajzen, 1991). Original direct predictors of the TPB towards behavioural intentions are attitude, subjective norm, and perceived behavioural control. The TPB has been widely utilised to examine green consumer purchase intentions and behaviours (Kashi, 2019; Suryanda et al., 2021; Zhuang et al., 2021).

By using the TPB, researchers can identify the key factors that drive green building purchase intention, allowing them to develop targeted interventions and strategies to promote green housing. Moreover, the TPB helps understand how these factors impact intention to purchase environmentally friendly products or services.

Furthermore, according to Zhuang et al. (2021), previous literature has expanded the TPB model when investigating consumers' green purchase intention by introducing new variables based on the original ones. The adjustment and extension of the TPB application have been observed in earlier studies by Hassan et al. (2021), which incorporated factors influencing housing purchase decisions, such as demographic, financial, location, dwelling characteristics, neighbourhood, infrastructure facilities, environment, developer service quality, and superstitious beliefs. This aligns with the TPB, which allows for modifications by incorporating additional indicators and adjusting the pathways in the model, assuming that the modified version could significantly explain the variation in

behavioural intention and actual behaviour in the traditional TPB model (Ajzen, 1991). Therefore, the factors (environmental characteristics, location and public transportation system) as well as the moderating variable (GWOM) are added to the original TPB framework to fortify this study.

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Conceptual Framework

The conceptual framework in this study is based on the extended TPB model, comprising three main variables, namely independent variables, a moderator and the dependent variable, as depicted in Figure 3.1 below. The independent variables include Environmental Characteristics, Location and Public Transportation. The relationships between these predictors and Purchase Intention of Malaysian Consumers are moderated by GWOM, as hypothesised in H1, H2 and H3, respectively.
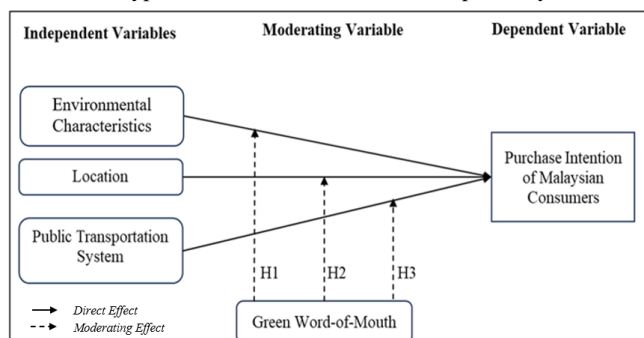

Figure 3.1: Conceptual Framework

3.2 Research Design

This study employs a quantitative research methodology to explore how green marketing (GWOM) can moderate the relationship between green buildings' environmental characteristics, location and public transportation system, and purchase intention of Malaysian consumers. Quantitative research methodology focuses on measuring and testing numerical data (Mexon & Kumar, 2020) and helps in testing the causal relationships between variables, making predictions, and generalising results to wider populations (Paperpal, 2023). A convenience sampling method (non-probability sampling technique) is adopted for this study to collect data from 387 respondents throughout Malaysia, as the data collection time frame is short, which is three months only, particularly for research requiring in-depth analysis or longitudinal studies. This technique targets those participants who are accessible (Golzar et al., 2022).

Four types of scales are applied in these questions in the questionnaires for the survey. In this study, the nominal scale is applied to the demographic profiles such as "gender", "race", "religion", "marital status", "educational level", "occupation" and "living state in Malaysia", while the ratio scale is used to rate "age", and "monthly household income" and "number of family members" is labelled in category scale. Third, a dichotomous scale is used to measure the attitude of respondents towards certain questions, which they agree upon with the discrete answers "Yes or No" (Taherdoost, 2022a). Lastly, a 7-point Likert scale is applied in the variable's measurement. The scales used are "1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 = Strongly Agree".

In this study, there are five main constructs, namely Environmental Characteristics (EGB) (9 items), Location of Green Buildings (LGB) (6 items), Public Transportation System (PTS) (5 items),

Purchase Intention of Malaysian Consumers (PI) (10 items), and Green Word-of-Mouth (GWOM) (5 items). Accordingly, the operationalisation of these variables is organised through generating multiple scale items to measure these variables in quantitative terms, and most of the scale items were cited from previous studies (Chuweni et al., 2022; Mang et al., 2020; Ren & Wang, 2023; Paul et al., 2019; Ho et al., 2019; Hafiszah & Shazwan, 2020; Hassan et al., 2021; Norhayati et al., 2021; Abdullah et al., 2023; Wijayaningtyas et al., 2019; Tan et al., 2024; Mayumi et al., 2022).

3.3 Study Population and Sample Size

The target population of this study consists of all individuals in Malaysia, regardless of Malaysian citizens or permanent residents who live in any of the fourteen states or territories in Malaysia, which has a total population of 32.7 million (Department of Statistics Malaysia, 2022). They are regarded as green building purchasers and therefore best represent the respondents in this study. The Krejcie and Morgan (1970) sampling table indicates that a sample size of 384 is sufficient for a population size of 1,000,000. Therefore, in this study, a sample size of 387 participants was determined based on the sampling table. This approach ensures the sample is representative and allows for robust statistical analysis, enabling generalisation to the entire Malaysian population.

According to MalaysiaNow (2022), there is a rising trend of parents in Malaysia buying houses for their children even before their children are grown. Therefore, the respondents in this survey can be aged 20 years old and below, even though they do not have any income. Moreover, children can influence parental house purchase decisions. As for the respondents who are aged 61 and above, they have a lot of savings, and they will buy houses for their children due to the rise in house prices (MalaysiaNow, 2022).

3.4 Procedure of Data Collection

To achieve a higher response rate and higher yield, a total of 1,000 self-administered questionnaires were distributed through channels like the internet (Google Forms), and 200 questionnaires were delivered and conducted face-to-face for those who do not have internet, email or WhatsApp access (Roberta et al., 2021). The reason for applying this method of data collection was that a substantial amount of information had to be obtained from the respondents (Taherdoost, 2022b).

3.5 Data Analysis Plan

The data collected for this study were analysed using SPSS 29.0 for Windows. The data collected in this stage was processed, verified, edited, coded, transcribed and cleaned up accordingly before data analysis was performed (Dawit, 2020; Andrew & Michael, 2022). Subsequently, the data were thoroughly verified to ensure there was no missing data before proceeding to data editing (Dawit, 2020). The data was subsequently edited for consistency, completeness, omissions, and legibility.

3.5.1 Descriptive Analysis

In this study, descriptive statistics were performed to analyse the respondents' profiles. Frequency and percentage were used to present the respondents' demographic information, including age, gender, race, religion, marital status, educational level, occupation, monthly household income, respondents' living state in Malaysia, number of family members, conventional property ownership, green building ownership and vehicle or car ownership.

132

Respondents' opinions towards independent variables (environmental characteristics, location and public transportation system), moderating variable (GWOM) and dependent variable (purchase intention) of this study were measured and determined by the values of mean and standard deviation. This included the intersection terms between GWOM and the respective independent variables.

3.5.2 Reliability Analysis

Reliability analysis will be conducted to test the internal consistency of the variables by establishing the Cronbach's alpha values, using the Statistical Package for Social Science SPSS 29.0. Cronbach's alpha is a crucial statistical measure used to assess the internal consistency and reliability of a scale by examining the correlation between multiple items designed to measure the same underlying construct (Ho et al., 2019). The result of the pilot study showed that all Cronbach's alpha values for all the constructs and items were above the minimum acceptable limit of 0.7 (Irawan et al., 2021).

3.5.3 Hierarchical Multiple Regression Analysis

To test moderating effects, a three-step hierarchical multiple regression process was carried out following the procedures suggested by Sharma et al. (1981). Hierarchical multiple regression has been advocated as a more appropriate method for determining whether a quantitative variable has a moderating effect on the relationship between two other quantitative variables (Baron and Kenny, 1986). Before testing a hypothesised moderating variable in a moderation analysis, it is crucial to ensure several assumptions are met to validate the results. These assumptions include linearity, independence of errors, homoscedasticity, normality of residuals, and the absence of multicollinearity (Hayes, 2018).

4.0 DATA ANALYSIS AND FINDINGS

4.1 Demographic Profile of the Respondents

Table 4.1 illustrates the profile of the respondents who participated in the survey. The profile includes age, gender, race, religion, marital status, educational level, occupation, monthly household income, current living state in Malaysia, number of family members, property ownership, green building ownership and vehicle or car ownership of the respondents.

A total of 387 respondents participated in this survey, which was conducted via both the Internet (Google Forms) and by e-mail and WhatsApp (in both soft and hard copy formats). As shown in Table 1 below, the highest age group was 31–40 years old, comprising 31.8%, followed by the 41–50 years old age group with 21.5%. Age group between 51 – 60 years old recorded 18.3% while age group between 21 – 30 years old contributed 17.8%. Both age groups, between 61 and above and 20 and below, were 5.4% and 5.2%, respectively. In terms of the gender of respondents, the ratio of male against female respondents corresponding to the survey was 51.9% to 48.1% of the total 387 respondents. With regards to the race of respondents, Chinese respondents stood in the highest rank with 47.3%, followed by Malay (37.7%), Indian (12.7%) and others (2.3%). In the context of the religion of respondents as shown in Table 4.6, both Islam and Buddhism shared equally the highest percentage, which was 38.8%, while Christianity, Hinduism and other religions contributed 10.8%, 9.8% and 1.8% respectively.

In terms of marital status, the provided data indicated that the majority of respondents were married, making up 68.3% of the total. Following this, single respondents represented 27.9%. The remaining categories, divorced, widowed, and those who preferred not to answer, each accounted for less than 2% of the total. On the educational level, 39.0% of the respondents held a bachelor's degree. Next, 26.9% of respondents held a diploma or certificate, while 13.2% had a master's degree. The other educational levels, MCE/SPM, doctorate degree, and other educational levels accounted for 12.1%, 1.8%, and 2.6% respectively, of the total. In terms of occupation of respondents, 57.1% of respondents were salary-employed and 18.3% were self-employed. Unemployed individuals were 11.1%. Students and others individually contributed 6.5% and 7.0%. On the subject of monthly household income, respondents with RM 10,001 and above, scored the highest percentage with 22.7%, followed by RM 4,001 – RM 6,000 (19.1%), RM 2,000 and below (18.6%), RM 2,001 – RM 4,000 (17.6%), RM 6,001 – RM 8,000 (13.7%) and RM 8,001 – RM 10,000 (8.3%).

Concerning the respondents' living state in Malaysia, Johor contributed 63.5%, while Selangor seconded 11.9%, Wilayah Persekutuan (Kuala Lumpur) stood in the third position with 5.2%. Subsequently, Penang, Kelantan and Perak recorded a percentage of 3.9%, 3.4% and 2.6% each. Kedah and Negeri Sembilan contributed 2.0% while Melaka, Sarawak and Sabah contributed the same percentage of 1.3%. Lastly, Terengganu and Pahang shared the same percentage with 0.8%, whilst none of the respondents were from Perlis (0%). Concerning the number of family members of respondents, 40.6% of respondents were having three to four family members, 37.7% living with five to six family members, 12.2% having one to two family members, 5.9% with seven to eight family members, 2.6% with nine to ten people in a family and 1% living with eleven and above family members.

In connection with conventional property ownership, the majority of respondents declared that they owned conventional property, either a residential house or a commercial building (68.7%), whilst 31.3% of the respondents did not own any conventional property. In contrast, the response of green building ownership was opposite to that of conventional property ownership, as only 10.6% of the respondents claimed they owned a green building. On the other hand, 89.4% of them did not own a green building. With respect to vehicle or car ownership, as depicted in Table 1, 83.7% of the respondents owned a vehicle or car for daily commuting. Contrarily, 16.3% of them did not have a vehicle or a car.

Table 4.1: Profile of Respondents (N = 387)

Profile	Frequency	Per cent (%)
Age:		
20 and below	20	5.2
21 – 30	69	17.8
31 – 40	123	31.8
41 – 50	83	21.5
51 – 60	71	18.3
61 and above	21	5.4
Gender:		
Male	201	51.9
Female	186	48.1
Race:		

Malay	146	37.7
Chinese	183	47.3
Indian	49	12.7
Others	9	2.3
Religion:		
Islam	150	38.8
Christianity	42	10.8
Buddhism	150	38.8
Hinduism	38	9.8
Others	7	1.8
Marital Status:		
Single	108	27.9
Married	264	68.3
Divorced	7	1.8
Widowed	4	1.0
Prefer Not To Answer	4	1.0
Educational Level:		
LCE/SRP/PMR	17	4.4
MCE/SPM	47	12.1
Diploma/Certificate	104	26.9
Bachelor's Degree	151	39.0
Master's Degree	51	13.2
Doctorate's Degree	7	1.8
Others	10	2.6
Occupation:		
Unemployed	43	11.1
Self-employed	71	18.3
Salary-employed	221	57.1
Student	25	6.5
Others	27	7.0
Monthly Household Income:		
RM 2000 and below	72	18.6
RM 2001 – RM 4000	68	17.6
RM 4001 – RM 6000	74	19.1
RM 6001 – RM 8000	53	13.7
RM 8001 – RM 10000	32	8.3
RM 10001 and above	88	22.7
Living State in Malaysia:		
Perlis	0	0.0
Kedah	8	2.0
Penang	15	3.9
Perak	10	2.6
Kelantan	13	3.4
Terengganu	3	0.8
Pahang	3	0.8
Selangor	46	11.9
Wilayah Persekutuan (Kuala Lumpur)	20	5.2
Negeri Sembilan	8	2.0
Melaka	5	1.3
Johor	246	63.5
Sarawak	5	1.3
Sabah	5	1.3
Number of Family Members:		
1 – 2	47	12.2
3 – 4	157	40.6
5 – 6	146	37.7
7 – 8	23	5.9
9 – 10	10	2.6
11 and above	4	1.0
Conventional Property Ownership:		
Yes	266	68.7
No	121	31.3
Green Building Ownership:		
Yes	41	10.6
No	346	89.4
Vehicle or Car Ownership:		
Yes	324	83.7
No	63	16.3

Note: Descriptive Analysis, using SPSS 29.0

4.2 Mean and Standard Deviation of Variables

The mean and standard deviation of each variable are shown in Table 4.2 below.

Table 4.2: Mean and Standard Deviation (N=387)

Variables	Mean	Std. Deviation	N
CPI	0.0000	0.87847	387
CEGB	0.0000	0.78184	387
CLGB	0.0000	1.06875	387
CPTS	0.0000	1.01293	387
CGWOM	0.0000	1.07759	387
INTCEGB-CGWOM	0.4236	0.92433	387

INTCLGB-CGWOM		0.6066	1.27468	387	
INTCPTS-CGWOM		0.5861	1.17430	387	

Note:

1. Descriptive Analysis, using SPSS 29.0
2. C= Centred, PI=Purchase Intention, EGB=Environmental Characteristics of Green Buildings, LGB= Location of Green Buildings, PTS= Public Transportation System, GWOM=Green Word-of-Mouth, INT= Interaction.

4.3 Reliability Analysis Result

As exhibited in Table 4.3 below, the results show that all Cronbach's alpha values for the all the constructs and items were above the minimum acceptable limit of 0.7 (Hair et al., 1998; Irawan et al., 2021) with all the main constructs falling within the range of 0.851 and 0.930 while Cronbach's alpha values for the individual item were within the range of 0.791 and 0.928. The Cronbach's alpha coefficient for each main construct was EGB (0.897), LGB (0.862), PTS (0.851), GWOM (0.891) and PI (0.930). In conclusion, the reliability analysis result was satisfactory.

Table 4.3: Correlated Item-Total Correlation and Cronbach's Alpha Value (N=387)

	Item	Corrected Item-Total Correlation	Cronbach's alpha if item deleted	Cronbach's alpha	Number of Items
Environmental Characteristics (EGB)				0.897	9
1	EGB1	0.548	0.894		
2	EGB2	0.578	0.892		
3	EGB3	0.659	0.886		
4	EGB4	0.658	0.886		
5	EGB5	0.728	0.880		
6	EGB6	0.755	0.878		
7	EGB7	0.724	0.880		
8	EGB8	0.648	0.887		
9	EGB9	0.663	0.886		
Location of Green Buildings (LGB)				0.862	6
10	LGB1	0.354	0.884		
11	LGB2	0.746	0.822		
12	LGB3	0.745	0.821		
13	LGB4	0.707	0.829		
14	LGB5	0.729	0.824		
15	LGB6	0.651	0.840		
Public Transportation System (PTS)				0.851	5
16	PTS1	0.650	0.824		
17	PTS2	0.434	0.874		
18	PTS3	0.740	0.800		
19	PTS4	0.766	0.791		
20	PTS5	0.731	0.801		
Green Word-of-Mouth (GWOM)				0.891	5
21	GWOM1	0.773	0.858		
22	GWOM2	0.762	0.860		

	Item	Corrected Item-Total Correlation	Cronbach's alpha if item deleted	Cronbach's alpha	Number of Items
23	GWOM3	0.785	0.855		
24	GWOM4	0.722	0.870		
25	GWOM5	0.625	0.890		
Purchase Intention (PI)				0.930	10
26	PI1	0.731	0.923		
27	PI2	0.656	0.928		
28	PI3	0.780	0.920		
29	PI4	0.794	0.919		
30	PI5	0.840	0.917		
31	PI6	0.638	0.928		
32	PI7	0.718	0.924		
33	PI8	0.705	0.925		
34	PI9	0.712	0.924		
35	PI10	0.732	0.923		

Note: Reliability Analysis, using SPSS 29.0

4.4 Analysing the Moderating Effect of Green Word-of-Mouth

The moderation analysis examined the influence of green word-of-mouth (GWOM) on the relationship between three independent variables, Environmental Characteristics, Location and Public Transportation System and the dependent variable, Purchase Intention of Malaysian Consumers. Table 3 presents the three-step regression model to determine whether hypotheses H1, H2 and H3 are significant.

4.4.1 Hierarchical Multiple Regression Analysis

Table 4.4 shows the three-step multiple regression analysis for the moderating effect of GWOM on the relationship between environmental characteristics, location and public transportation system, and purchase intention of Malaysian consumers, using SPSS 29.0.

As explained, the first regression model, which included the centred independent variables (EGB, LGB and PTS), explained 58.4% the variance of Purchase Intention, $R^2 = 0.584$, F (3, 383) = 179.396, p = 0.001. The coefficients indicated that in the first model, environmental characteristics (B= 0.539, SE= 0.046, β = 0.480, t= 11.788, p = 0.000), location (B= 0.130, SE= 0.035, β = 0.159, t= 3.718, p = 0.000) and public transportation system (B= 0.215, SE= 0.036, β = 0.248, t= 5.902, p = 0.000), had significant relationship (p < 0.001) with purchase intention.

The second regression model, which included the centred independent variables (EGB, LGB and PTS) and entered the centred moderator (GWOM), explained an additional 6.0% of the variance, $\Delta R^2 = 0.060$, F (1, 382) = 69.904, p < 0.001, increasing the total variance explained to 64.9%, $R^2 = 0.649$, F (4, 382) = 176.229, p < 0.001. The coefficients indicated that in the second model, environmental characteristics (B= 0.455, SE= 0.023, β = 0.405, t= 10.492, p = 0.000), , public transportation system (B= 0.150, SE= 0.035, β = 0.173, t= 4.284, p = 0.000) and green word-

of-mouth (moderating variable) (B= 0.266, SE= 0.032, β = 0.326, t= 8.361, p = 0.000) had significant effect (p < 0.001) on purchase intention while location (B= 0.064, SE= 0.033, β = 0.078, t= 1.927, p = 0.055) had significant effect at p < .100 on purchase intention.

The third regression model, which added with three interaction terms (CEGB*CGWOM, CLGB*CGWOM and CPTS*CGWOM), explained a slight increase by 0.7 % of the variance, $\Delta R^2 = 0.007$, F (3, 379) = 2.420, p = 0.066, increasing the total variance explained to 65.5 %, $R^2 = 0.655$, F (7, 379) = 102.862, p < 0.001. The coefficients indicated that in the third model, environmental characteristics (B= 0.427, SE= 0.047, β = 0.380, t= 4.991, p = 0.000), public transportation system (B= .187, SE= .038, β = .216, t= 4.959, p = .000), and green word-of-mouth (B= 0.264, SE= 0.032, β = 0.323, t= 8.167, p = 0.000) had significant impact on purchase intention. Location (B 0.056, SE= 0.033, β = 0.069, t= 1.696, p = 0.091) had a significant effect at p < 0.100 on purchase intention. The independent variables and the moderating variable remain significant. Among the three interaction terms, two of them which were CLGB*CGWOM (B= -0.051, SE= 0.031, β = -0.074, t= -1.649, p = 0.100) and CPTS*CGWOM (B= 0.090, SE= 0.034, β = 0.120, t= 2.660, p = 0.008) significantly predicted purchase intention, indicating that green word-of-mouth moderates the relationship between location, public transportation and purchase Intention. However, there was no moderating effect of green word-of-mouth on the relationship between environmental characteristics of green buildings and purchase intention due to its coefficients (B= -0.030, SE= 0.039, β = -0.039, t= -0.759, p = 0.448), where the p value was above 0.100.

The one-way ANOVA examines the means of the groups in question and evaluates whether any of them are statistically and significantly different from one another. In this case, the one-way ANOVA for all three models (Model 1, 2 and 3) showed a significance level of p < 0.001 as shown in Table 3.

Table 4.4: Moderating Analysis Result

Variables	Unstandardized Coefficients		Standardised Coefficients		
	B	Std. Error	Beta (β)	t	Sig.
Model 1					
(Constant)	-0.00005	0.029		-0.002	0.999
CEGB	0.539	0.046	0.480	11.788	0.000***
CLGB	0.130	0.035	0.159	3.718	0.000***
CPTS	0.215	0.036	0.248	5.902	0.000***
Model 2					
(Constant)	-0.00004	0.027		-0.002	0.999
CEGB	0.455	0.023	0.405	10.492	0.000***
CLGB	0.064	0.033	0.078	1.927	0.055*
CPTS	0.150	0.035	0.173	4.284	0.000***
CGMGWOM	0.266	0.032	0.326	8.361	0.000***
Model 3					
(Constant)	-0.009	0.031		-0.289	0.773
CEGB	0.427	0.047	0.380	4.991	0.000***
CLGB	0.056	0.033	0.069	1.696	0.091*
CPTS	0.187	0.038	0.216	4.959	0.000***
CGMGWOM	0.264	0.032	0.323	8.167	0.000***
CEGB*CGMGWOM	-0.030	0.039	-0.039	-0.759	0.448
CLGB*CGMGWOM	-0.051	0.031	-0.074	-1.649	0.100*
CPTS*CGMGWOM	0.090	0.034	0.120	2.660	0.008***

Model Summary			Model 1	Model 2	Model 3
R			0.764	0.805	0.809
R^2			0.584	0.649	0.655
Adjusted R^2			0.581	0.645	0.649
R^2 Change			0.584	0.064	0.007
F Change			179.396	69.904	2.420
Significant F Change			0.000	0.000	0.066

Analysis of Variance (ANOVA)		Regression		
		Model 1	Model 2	Model 3
Sum of Squares		174.031	193.189	195.157
df		3	4	7
Mean Square		35.639	28.016	11.756
F		179.396	176.229	102.862
Sig.		< 0.001	< 0.001	< 0.001

Note: Hierarchical Multiple Regression Analysis, using SPSS 29.0

1. *** p < .01, ** p < .05, * p < .10

2. Dependent Variable: Centred Purchase Intention

4.4.1.1 Moderating Effect of GWOM on the Relationship between EGB and PI

Before interacting with moderator CGWOM, CEGB had values of β = 0.480, t = 11.788, p = 0.000 initially, as shown in Model 1 in

Table 3. After entering the interaction terms (Moderator CGWOM* CEGB) into the model (Model 3), the moderated values became β = -0.039, t = -0.759, p = 0.448. Most probably, the moderator variable CGWOM could have dampened the positive relationship between CEGB and CPI, as the beta value changed from positive to negative, which means the beta coefficients before and after were moving in the opposite directions. Therefore, the moderator CGWOM still did not have a moderating effect on the relationship between CEGB and CPI, as the p-value of the interaction term only achieved p = 0.448 (p > 0.100; not significant). As explained in Figure 4.1 below, both High and Low GWOM lines were parallel, and it was impossible to see the intersection point even beyond the region of the coordinate plane between Low EGB and High EGB. Therefore, the hypothesis H1 was not supported.
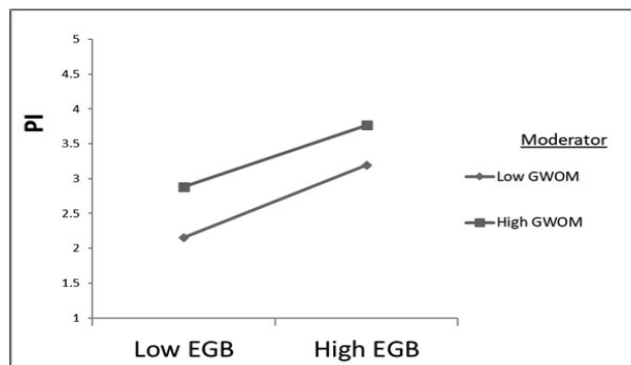

Figure 4.1: Moderating Effect of GMGWOM on EGB-PI Relationship

4.4.1.2 Moderating Effect of GWOM on the Relationship between LGB and PI

There was a significant causal effect between CLGB and CPI initially, with a p-value of 0.000 (β = 0.159, t =3.718, p = 0.000) as shown in Table 3 Model 1. In terms of the moderating results, the interaction term (CLGB*CGWOM), as shown in Table 3 Model 3, had a p-value of 0.100 (close to p < 0.100). The moderated values were β =-0.074, t = -1.649, p = 0.100. Most likely, the moderator variable CGWOM could have dampened the positive relationship between LGB and PI, as the beta value changed from positive to negative, which means the beta coefficients before and after were moving in the opposite directions. It is concluded that the moderating variable CGWOM somewhat moderated the relationship between CLGB and CPI, as shown in Figure 4.2 (Synergism Interaction). There could be a possible intersection point after the region of the coordinate plane of High LGB. Hence, the hypothesis H2 was supported.
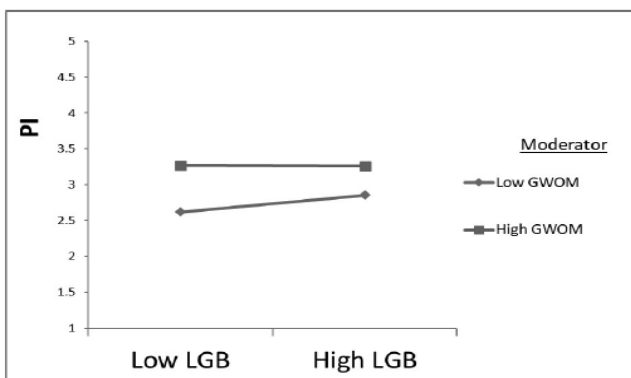

Figure 4.2: Moderating Effect of GWOM on LGB-PI Relationship

4.4.1.3 Moderating Effect of GWOM on the Relationship between PTS and PI

There was a significant causal effect relationship between CPTS and CPI initially, with a p-value of 0.000 (β =0.248, t = 5.902, p = 0.000) as shown in Table 3 Model 1. In terms of the moderating results, the interaction term (CPTS*CGWOM), as shown in Table 3 Model 3, had a p-value of 0.008 (p < 0.010). The moderated values were β = 0.120, t = 2.660, p = 0.008. Most probably, the moderating variable CGWOM could have strengthened the positive relationship between CPTS and CPI. It is concluded that the moderating variable CGWOM had a moderating effect on the relationship between CPTS and CPI, as shown in Figure 4.3 (Synergism Interaction). There could be a possible intersection point after the region of the coordinate plane of Low PTS. Hence, the hypothesis H3 was supported.
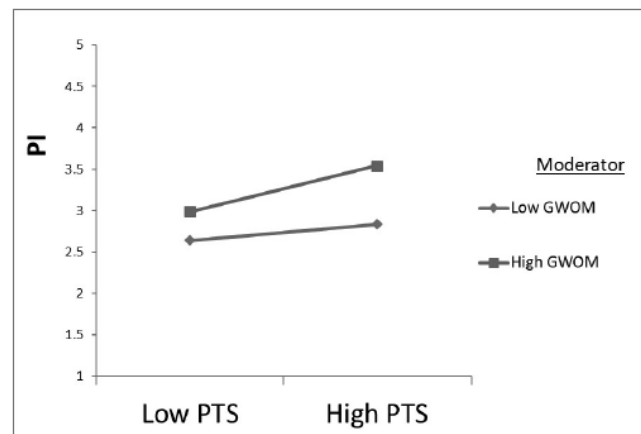

Figure 4.3: Moderating Effect of GWOM on PTS-PI Relationship

5.0 CONCLUSION

The findings of this study show that green marketing (green word-of-mouth) significantly moderated the relationship between LGB and PTS, and the purchase intention of Malaysian consumers. In contrast, green word-of-mouth did not moderate the relationship between EGB and the purchase intention of Malaysian consumers. Nonetheless, GWOM is still one of the effective marketing tools. Furthermore, it is economically cheaper compared to other marketing tools. Developers, marketers and managers can deploy this technique in promoting and attracting consumers to buy green buildings.

5.1 Discussion

In this study, two hypotheses, namely H2 and H3, were supported while the other, H1, was not.

Hypothesis H1 was unsupported in this study. The green word-of-mouth was less effective in moderating the relationship between EGB and the purchase intention of Malaysian consumers in this study. The result was less aligned with past studies conducted by Jaini et al. (2019), who found that electronic GWOM, such as YouTube, Facebook, TikTok and Twitter, plays a vital role as a moderator of the link between personal norm and green purchase intention. Nevertheless, this finding aligns with a previous study that GWOM did not affect purchase intentions for green products (Simanjuntak et al., 2023; Mayumi et al., 2022). The tendency to listen to or see other people's comments to find out about a product or service had no impact on a person's interest in purchasing green products, especially on the environmental characteristics of green buildings (Simanjuntak et al., 2023). The opinions of friends, the

government, and environmental organisations might be more influenced by environmental care attitudes (Khare, 2014). These findings are possible because other people's product reviews are less significant and do not draw attention to the product to be used. Therefore, someone who reads or hears product reviews is more concerned with the advantages and disadvantages that the reviewer experienced after purchasing the product (Simanjuntak et al., 2023). In short, consumers do not simply trust what other people say. Instead, consumers in Malaysia prefer to see and review the environmental characteristics of the properties themselves, such as paying a visit to the site and viewing the show house.

When interacting with moderator GWOM, this study found a positive relationship between the location of green buildings and consumers' intention to purchase, leading to the support of hypothesis H2. This indicates that GWOM strengthened the relationship between LGB and purchase intention. This means that through GWOM from peers, family members, friends and colleagues, consumers are more convinced in the buying experiences that have been shared. This is consistent with previous studies that companies with good GWOM are more likely to succeed in forming the beliefs and attitudes of consumers, which enhances green purchasing intention (Liao et al., 2020). The more positive information the customers gain about the product from peers, the more likely they are to make a better product choice. Therefore, it is beneficial for developers and marketers to pay more attention to GWOM and deploy this green marketing strategy to promote the purchase intention of green buildings. Consequently, GWOM may serve as an important moderator when engaging with customers, communicating value and changing attitude before purchase intention.

The last hypothesis, H3, was also supported, where GWOM showed a significant moderating effect on the relationship between the public transportation system and purchase intention of Malaysian consumers. Previous research found that word of mouth significantly affects brand image (Rahman et al., 2019). When customers see positive recommendations and experiences shared by others about green products, it can significantly enhance their trust in those products, elevate their perception of the product's value, and positively shape their attitudes, ultimately leading to a greater likelihood of purchase (Amoako et al., 2020). This study highlights a gap in research concerning the influence of GWOM on the link between public transportation and the intention to purchase green buildings. While the relationship between public transportation, green buildings, and GWOM, as well as the impact of GWOM on green building purchase intention, are individually studied, there appears to be a lack of research specifically examining how GWOM moderates the relationship between public transportation and the desire to buy green buildings. Therefore, the findings in this study fill the research gaps by exploring GWOM as a moderating variable for future studies.

5.2 Recommendations for Managerial Implications
5.2.1 Managerial Implications for Practitioners
The findings in the study are insightful for practitioners (registered valuers, appraisers, real estate agents, marketers and property managers). Marketers can leverage the influence of green word-of-mouth by connecting potential green building buyers with existing owners and their social circles. This approach allows prospective buyers to gain valuable insights from the experiences of those who have already purchased, while also incentivising existing buyers through referral fees for successful referrals.

5.2.2 Managerial Implications for Policymakers
The findings also suggest that policymakers review relevant policies and update the guidelines periodically to support green buildings. With the help of policymakers, consumers will raise awareness about environmental degradation and show their interest in the purchase of green buildings. For example, policymakers can work closely with the Department of Environment by addressing the practical problem of environmental issues as well as providing technical assistance, guidelines, and recommendations to handle them, regardless of business or residential communities. When consumers perceive a higher degree of environmental concern, they will likely create a more positive attitude towards green buildings and increase their intention to purchase green buildings.

5.2.3 Managerial Implications for Industry Stakeholders
Key industry stakeholders in Malaysia's green building industry include building owners, architects, engineers, developers, contractors, and suppliers of construction materials, who play a role in shaping the green building landscape and the environment of housing communities. These groups of players can significantly contribute to the green buildings industry by promoting awareness, encouraging innovation, and implementing best practices. This includes fostering a culture of sustainability, adopting life cycle costing, utilising Industrialised Building Systems (IBS), and encouraging research and development. They can also educate the public, provide financial frameworks, and ensure strong enforcement of green building regulations.

5.3 Recommendations for Future Research

5.3.1 This study suggests that EGB construct can include broader dimensions so that generalisation of the result is achievable, such as the condition of the neighbourhood, attractiveness of the area, quality of neighbouring houses, type of neighbouring houses, density of housing, wooded area or tree coverage, slope or topography of the land, attractive views, open space, non-residential uses in the area, vacant sites, traffic noise and so forth.

5.3.2 Future research may suggest the public transportation system as a moderator between the location of green buildings and purchase intention, rather than being a direct predictor of purchase intention. In the context of Malaysia, in most circumstances, both LGB and PTS are paired together when commuting. This can further enhance future research by exploring additional factors that cause the inconsistent findings in green purchase behaviour and identifying the influence of factors that have been studied in previous literature.

5.3.3 Concerning the target population, future research with a more extensive and diversified sample is needed with the aim of achieving a spread even distribution that can best represent the population of Malaysia. The age of respondents in future study can be classified by generation cohort namely Generation Z (Born 1997–2010; Age 12 - 27), Millennial Generation (Born 1981–1996; Age 28 - 43), Generation X (Born 1965–1980; Age 44 - 59), Baby Boom Generation (Born 1946–1964; Age 60 - 78), The Silent Generation (Born 1928–1945; Age 79 - 96) and The Greatest Generation (Born 1901–1927; Age 97 - 123) (The age ranges are as of Year 2024). This is fully supported by the previous research (Hafiszah et al., 2019), where the older generations (Baby Boomers and Gen-X) appreciate the neighbourhood and sense of

belonging with the community more than the younger generations (Gen-Y and Gen-Z), who regard the house as the main choice for future housing and investment.

5.3.4 It is important when selecting target respondents. An inappropriate target population may lead to response bias. In general, people who have already bought houses are not interested in buying a second one or more, unless it is for investment. This might have led to their unwillingness to participate in the survey, thus affecting the result of the study. To address this response bias, future research may consider focusing on respondents who do not own any conventional property or a green building. Consumers who do not own a residential house or commercial building may be motivated to buy any house.

5.3.5 This study suggests that future research may also consider selecting the respondents who do not own any vehicle and avoiding those who have already had a vehicle because the choice of answers in the survey might be inaccurate between these two groups of respondents. The majority of the respondents (83.7%) in this study claimed that they have had a vehicle. Therefore, they might not be interested in answering the questions related to the public transportation system, which might have caused response bias. It is also suggested that future research can classify vehicle ownership as one of the dimensions under the public transportation system to investigate how significant vehicle ownership can impact the public transportation system.

5.4 Summary

In summary, the moderating variable of this study (GWOM) was predicted to positively moderate the relationship between EGB, LGB and PTS, and purchase intention of Malaysian consumers. Specifically, the findings showed that GWOM significantly moderated the relationship between LGB and PTS, and purchase intention of Malaysian consumers. Surprisingly, GWOM did not moderate the relationship between EGB and the purchase intention of Malaysian consumers. Theoretically, this study contributes to and further extends the existing theoretical framework (TPB) by adding environmental characteristics, location, and public transportation system as direct predictors and incorporating GWOM as a moderator.

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