

# Journal of Advanced Research in Social and Behavioural Sciences

Journal homepage: https://karyailham.com.my/index.php/jarsbs/index ISSN: 2462-1951



# Buyer's Attitude Influence towards Neighbourhood, Safety and Health, and Environment on Intention to Purchase Green Housing

# Ahmad Shah Razali<sup>1</sup>, Wan Nadzri Osman<sup>1,\*</sup>

<sup>1</sup> College of Business (Stml), Universiti Utara Malaysia, Sintok, Kedah, Malaysia

ARTICLE INFO	ABSTRACT
Article history: Received 29 February 2025 Received in revised form 15 March 2025 Accepted 20 April 2025 Available online 30 April 2025	Emerging green residential housing integrates unique attributes that have evolved from the broader concept of environmentally friendly products. Three of those attributes are green neighbourhood, safety and health, and environment. When a new green concept is introduced to the market, it may not be immediately embraced by housing buyers. Their reactions of either positive or negative will reveal their inclination toward or against the novel idea. This research holds great significance in shedding light on the gap between attitudes and behaviours among house buyers, particularly as the real estate and property industry expands with the introduction of new green concepts. The main objective of this research is to determine the influence of buyer's attitude towards neighbourhood, safety and health, and environment to their intention to purchase green housing. The research methodology employed a quantitative survey approach, where 388 house buyers participated by completing questionnaires either through face-to-face self-administration or via online platforms such as the Internet or WhatsApp. Based on the analysis using the Spearman Coefficient Correlation (rho, $\alpha$ ), it was found that overall, the attitude toward the environment is the sole factor influencing the intention of buyers to purchase green residential housing is robust and statistically significant. However, when it comes to other attributes such as the green features of the neighbourhood, safety, and health, they exhibit weaker connections with purchase intention and lack statistical significance. In simpler terms, people really care about the environment when deciding to buy a green home, but other factors do not carry as much weight in their decision-making process. This research provides valuable insights for green housing developers and policymakers, helping them understand market purchase behaviour and identify areas that can be incorporated to enhance green residential
	-

#### 1. Introduction

Acquiring a home is universally acknowledged as pivotal, whether it is for personal residence or as an investment for rental income. It represents a momentous life choice, offering stability to

\* Corresponding author.

https://doi.org/10.37934/jarsbs.39.1.4557

E-mail address: wannadzri@uum.edu.my

individuals and families in their residential journey [1,46]. Housing is not like other products because it is unique, durable, and highly differentiated. Each house occupies a specific, fixed location and therefore, for potential buyers to make informed decisions, they need ample information about housing products and their attributes [9,86]. While numerous studies on homebuyers' purchasing behaviour have been conducted across various developed and developing countries, it is essential to recognize that national and cultural factors significantly influence house purchase decisions. What works in one specific context may not necessarily apply universally [58,65]. Researcher commented that when consumers make purchasing decisions, it is not always a straightforward process. Their choices are also influenced by psychological factors. In the housing and property industry, it is crucial to adopt a customer-focused approach that emphasizes new value creation. This strategy aims to capture buyers' attention and encourage them to embrace innovative concepts like green housing [23,54].

Green residential housing is a novel concept with distinct attributes, stemming from the broader green product concept. According to earlier and recent perspectives, green products are those that are non-hazardous, utilize recycled resources, have minimal packaging, and pose no harm to the environment [11,59,83]. When it comes to green products, their defining characteristics typically involve being naturally sourced, using natural ingredients, avoiding environmental pollution, being free of harmful chemicals, not tested on animals, and being recyclable or reusable [62,79]. The concept of 'green value' has emerged as a fresh addition to the residential housing market. Houses are no longer merely basic shelters; they now represent assets and symbols of status and lifestyle. Recent scholars have introduced a new perspective on residential housing, one that emphasizes on green attributes. As public awareness grows regarding the importance of preserving nature, house buyers increasingly express interest in living in homes with lush, eco-friendly landscaping [31,36,87]. When making decisions about buying a house, buyers prioritize several key characteristics. These include the house's location, the quality of its features and design, access to facilities, availability of supportive services, the overall community and neighbourhood vibe, safety and security, a healthy environment, and proximity to nature [4].

Green residential housing design should prioritize the preservation of natural surroundings and avoid disrupting flora and fauna habitats. This consideration stems from the growing awareness among both present and future generations about the impact of construction projects on environmental issues like deforestation, flash floods, and landslides. Simultaneously, construction generates a significant amount of waste, including hazardous materials, oily substances, and chemicals that pose risks to both humans and the natural environment. To safeguard our green spaces, it is crucial for housing and building developers to adopt sustainable construction practices. This involves collaboration among designers, architects, builders, town planners, and developers to choose methods that minimize harm to nature [3,8,60,81,84].

Housing contractors need to recognize that homebuyers are increasingly focused on enhancing their quality of living environment. Their attitudes and intentions have shifted toward favouring more sustainable and health-conscious residential properties [51,60]. Additionally, there are several key attributes for the development of green residential housing. These include environmental sustainability, access to social amenities, safety within and around the houses, overall environmental quality, robust infrastructure, and high-quality housing products. When considering green residential housing, three crucial attributes come into play i.e., the neighbourhood vibe, safety and health features, and the overall environmental impact [63,67] proposed. These attributes collectively shape the green living experience and guide buyers toward sustainable choices.

#### 2. Problem Statement

The Covid-19 pandemic has profoundly impacted the real estate and property market, much like other industries. Since its onset in late 2019, global lockdowns and the adoption of new norms including social distancing, mask-wearing, restricted movement in public spaces, and intermittent shutdowns of industries and facilities, have significantly altered people's behaviour. Psychologically, individuals now tend to stay home longer, either voluntarily or out of necessity, to avoid the transmission of the deadly virus. Suddenly, the world feels more subdued, and many are apprehensive about venturing beyond their home compounds investors [19].

Given that the housing market involves substantial financial investments, previewing house design prototypes and completed models has become a critical requirement for investors and house buyers; that has transformed from conventional previews to AI technologies [6,69]. It is heartening to see this shift toward more conscious choices in the housing market. Amidst these challenging times, ensuring informed decisions remains crucial. House buyers are increasingly seeking new values, including environmentally friendly or green features, especially when it comes to housing [15,90].

In Malaysia, house buyers are aware of the concept of green homes, but their understanding of its practical aspects remains limited. They lack comprehensive information about available green residential housing projects. Initially, their perception of green housing revolves around resource efficiency, such as water usage and utilities, as well as the use of alternative resources like solar energy. Additionally, they associate green homes with proximity to nature, natural environments, and the use of recycled or eco-friendly construction materials. This valuable understanding provides essential guidance to housing developers as they embark on designing green residential building projects within challenges of climate change [7,28].

When it comes to adopting green values in house buying decisions, it is a gradual, long-term shift in behaviour. This change spills over into other aspects, including the purchase of environmentally friendly or green products. House buyers take time to become aware, understand, and fully embrace these new green values. It is like planting seeds, when they need time to grow until they have a clear understanding of these concepts [37,38]. Currently, there is limited research specifically addressing the attitude-behaviour gap among housing buyers.

This research gap serves as the focal point for the present study in identifying imperfections in the relationship between green attitudes and behaviour for eco-friendly house purchase intention [12,33,34]. This gap has been an ongoing topic of discussion among social psychology and consumer behaviour researchers. Surprisingly, there is no consensus among scholars regarding the precise relationship between green attitudes and behaviour, leaving it an open field for future research.

#### 3. Literature Review

Understanding green attitude is crucial for any products that incorporate the green values for the buyers. Green house buyers' attitude is the major concept since this particular market segment has certain uniqueness of attitude in the green housing market [17,50]. This research is the mixture of behavioural and management areas, whereby it applies the Cognitive, Affective and Behavioural (CAB) theory to explain about buyers' attitude components in their decision to purchase green residential housing [30]. When considering green residential housing, understanding cognitive factors (like health consciousness), affective factors (such as environmental concern), and behavioural cues (like online reviews) can shape buyers' attitudes and intentions [24,68].

#### 3.1 Cognitive Affective Behaviour Theory

Cognitive theory emphasizes the role of mental processes such as thinking, memory, problemsolving, and perception in shaping behaviour. Cognitive theories propose that individuals process information, interpret situations, and make decisions based on their thoughts and beliefs. This perspective is crucial for understanding how people acquire, store, and retrieve information, as well as how their cognitive processes influence their behaviour. Cognitive theory is a psychological perspective that focuses on the role of mental processes in shaping human behaviour [21,29,48,64]

Affective theory, also known as emotional or mood theory, centres on the role of emotions and feelings in shaping human behaviour. Affective theories suggest that emotions play a significant role in shaping how individuals perceive and respond to the world around them. This perspective is essential for understanding the impact of emotions on motivation, decision-making, and interpersonal relationships. It explores how emotions influence cognition, decision-making, interpersonal relationships, and overall well-being [10,16,18,52,88].

Behavioural theory focuses on the role of reinforcement (increasing the likelihood of a behaviour) and punishment (decreasing the likelihood of a behaviour). Positive reinforcement involves adding a reward, while negative reinforcement involves removing an aversive stimulus. Individuals can learn by observing the behaviours of others and the consequences associated with those behaviours. Behavioural theory has been influential in psychology, particularly in areas such as behaviourism, behaviour therapy, and applied behaviour analysis. While it primarily focuses on observable behaviours, it has contributed valuable insights to our understanding of learning, conditioning, and the modification of behaviour [5,61,80]. Behavioural factors play a vital role in shaping buyers' housing choices in many aspects such as well-being, mental state, and their intention [20,35].

There are previous researches that applied the CAB theory in various industry such as study on customer experience by considering the relevant variables in three phases of customers' journey towards healthcare service delivery, namely cognitive, affective, and behaviour responses to improve service delivery in healthcare services [82]. Lifshitz *et al.*, (2020) used the CAB theory in research to promote a sustainable way of life for adults with intellectual disability (ID) to foster their development, growth, inclusion, and active participation in society [41,42]. In consumer behaviour, Liu *et al.*, (2017) has compared the effectiveness of the cognitive-affect behaviour (CAB) model and the theory of reasoned action (TRA) model as well as their extended forms (with product knowledge) in predicting everyday green consumption [44].

It is important to note that these theories are not mutually exclusive, and many psychologists integrate elements from multiple perspectives to provide a more comprehensive understanding of human behaviour. Additionally, advancements in psychology often involve interdisciplinary approaches that bridge cognitive, affective, and behavioural perspectives. Within the green housing context, the attitude components must be parallel with each other and if not, the attitude-behaviour will be inconsistent and results in the abnormalities in their behaviour. As previously mentioned, attitude-behaviour relationship is the focus this research since the house buyers' attitude can influence buyers' decisions [25,33,34].

## 3.1.1 A neighbourhood

For purpose of this research, the scope will only be on the influence of green housing attributes that include neighbourhood, security and health, and environment [9,14,56,66,75,78]. Particularly, "neighbourhood" quality attracts buyers' intention, and highly influence decision making to purchase a house. Residential neighbourhood satisfaction is an important indicator of housing quality and

condition, which affects individuals' quality of life. The "neighbourhood", "area attractiveness", "view", and "noise from around districts" is stated among the determinants of a household's residential housing decision. Few researchers propose that two most important neighbourhood attributes of green and quietness of the area will influence the housing values. They also mentioned that buyers of new housing ownership are concern on the importance of neighbourhood stability in selection of housing residentials [39,56,78]. Creating a good neighbourhood involves a holistic approach, combining sustainable housing practices with community engagement, safety, and amenities. Good neighbourhoods often include parks, community gardens, and green spaces. These areas provide opportunities for recreation, relaxation, and social interaction. Green neighbourhoods prioritize walkability, bike lanes, and public transportation. Residents can easily access amenities, reducing reliance on cars and promoting a sense of community [13,47].

H<sub>0</sub>: There is no significance influence of neighbourhood on buyers' intention to purchase green residential housing.

 $H_1$ : There is a significance influence of green neighbourhood on buyers' intention to purchase green residential housing.

# 3.1.2 Safety and health

House buyers' states that "general security" is one of the determinants of a household's residential housing decision highlights the importance of having public security bodies such as police stations and fire brigades for any assistance during emergencies. Healthcare facilities such as clinics and hospitals are also important for any residential housing areas [14,66,75]. Researchers found that house buyers in Malaysia generally opt for gated-guarded landscape compound and freehold tenure neighbourhoods for safety reasons [43]. Beyond environmental and economic considerations, the intention to purchase green residential housing is increasingly influenced by concerns related to "health and well-being". Green homes often incorporate features that enhance indoor air quality, provide ample natural lighting, and create spaces that foster overall well-being. The recognition of the built environment's impact on physical and mental health has led consumers to prioritize residences that contribute positively to their holistic well-being [14,66,71,75].

H<sub>0</sub>: There is no significance influence of safety and health on buyers' intention to purchase green residential housing.

 $H_2$ : There is a significance influence of safety and health on buyers' intention to purchase green residential housing.

# 3.1.3 Environment

"Environment" is another influencing factor in decision to select and buy green residential housing. Green housing residential should have more greener landscaping, far from noises or other disturbance, can be close by forest or hillsides, suitable with the green concept. Green spaces play a crucial role in enhancing the quality of residential areas. When it comes to landscaping, incorporating more green elements, such as trees, shrubs, and well-maintained lawns can positively influence both environmental sustainability and residents' well-being [53,58,74]. Feng *et al.*, (2021) states that the buyer's judgment on the green and environmentally friendly surroundings will tap into their cognitive components in accessing the fitness of the green concept [20]. High quality housing environment has few characteristics of its physical appearance inclusive the style of the house, condition of the

surroundings, and landscaping. It also can be symbolic values of prestige and sense of status or identity when owning the house. Additionally, the social aspects of the surroundings inclusive ethnicity, racial or economic composition are access by the green residential house buyers [2,22].

The global shift towards environmental consciousness has permeated various facets of our lives, and the real estate market is no exception [32]. The intention to purchase green residential housing has emerged as a transformative force in contemporary consumer behaviour. House buyers change their desire or willingness to buy environmentally friendly residential housing. This situation delves into the multifaceted reasons behind the growing inclination towards green homes, examining the role of environmental awareness, peer influence, economic considerations, government policies, and the impact on health and well-being [14,20,66,75] that will influence buyers' intention to purchase residential housings.

H<sub>0</sub>: There is no significance influence of environment on buyers' intention to purchase green residential housing.

 $H_3$ : There is a significance influence of environment on buyers' intention to purchase green residential housing.

# 4. Methodology

The research theoretical framework in Figure 1 shows that there are two main variables that becomes the focus investigation of this research.

# Independent Variable



Buyers' Attitude towards Green Housing



**Fig. 1.** Research theoretical framework: the influence of buyers' attitude towards neighbourhood, safety and health, and environment on intention to purchase green housing

The independent variables are the attitude towards green housing attributes of neighbourhood, safety and health, and environment; that can influence the intention to purchase green housing as the dependent variable. Based on the research theoretical framework, three hypotheses were developed as follows:

H1: There is a significance influence of neighbourhood on buyers' intention to purchase green residential housing.

H<sub>2</sub>: There is a significance influence of safety and health on buyers' intention to purchase green residential housing.

H<sub>3</sub>: There is a significance influence of environment on buyers' intention to purchase green residential housing.

The research employed a quantitative approach, conducting surveys both face-to-face and online to gather responses from house buyers. Due to the challenges posed by the post Covid-19 pandemic, the shift to online surveys became necessary. The snowball sampling method was used, resulting in 388 samples representing the broader population of house buyers. For the online survey, respondents were initially contacted through WhatsApp. The survey link was shared with them, and they were encouraged to pass it along to their contacts of friends, family, or WhatsApp groups. This approach proved effective in expanding the respondent pool. Once all the survey forms were completed, the collected data underwent analysis using SPSS version 26.0. After ensuring that there were no errors or missing answers, the data was ready for examination. The analysis focused on investigating the relationships between variables, as outlined in the research's theoretical framework and hypotheses. Specifically, the Spearman's Correlation Coefficient analysis was employed to investigate the attitude towards green housing attributes of neighbourhood, safety and health, and environment that can influence the intention to purchase green housing.

# 5. Discussions

The Spearman's Correlation Coefficient rho ( $\alpha$ ) on relationships between variables in Table 1 and Figure 2, shows that that only buyers' attitude towards environment (0.897) has strong influence on their intention to purchase green residential housing at significance at p-value of 0.001. The attitude towards neighbourhood (+0.225), safety and health (+0.513) only have weak influences and not significance at p-value of 0.001.

## Table 1

Spearman's Correlation Coefficient results on the influences of neighbourhood, safety and health, and environment on intention to purchase green housing

Relationship of Variables	Hypotheses	Spearman's Rho (α)	Direction	Strength	Significance at p-value of 0.001
Attitude towards neighbourhood influences on intention to purchase.	H <sub>1</sub> rejected H <sub>0</sub> accepted	+0.225	Positive	Weak	No
Attitude towards safety and health influences on intention to purchase.	$H_2$ rejected $H_0$ accepted	+0.513	Positive	Weak	No
Attitude towards environment influences on intention to purchase	$H_3$ accepted	+0.897	Positive	Strong	Yes

#### Independent Variable

#### Dependent Variable

Buyers' Attitude towards Green Housing



**Fig. 2.** Spearman's Correlation Coefficient results on the influences of neighbourhood, safety and health, and environment on intention to purchase green housing

The findings, based on the Spearman Coefficient Correlation, highlight a robust connection between environmental attitude and the intention to purchase green residential housing. This aligns with previous research, which identified attitude as a key factor influencing intention among Malaysian consumers. Specifically, attitude plays a pivotal role in the decision-making process for buying houses with green concept; and it was further demonstrated that attitude can predict the intention to purchase green residential housing using structural equation modelling techniques [25,57,73,76,77].

In the realm of green consumerism, product attributes and values significantly impact purchasing intentions related to green housing [40,70]. Notably, millennials are driven by their environmental awareness that exhibit positive attitudes that influence their intention to invest in green residential properties. These young buyers consider various internal and external factors when making their decisions [45]. Prior research has also consistently highlighted environmental attributes as key determinants and predictors of consumer green purchasing behaviour [25,55,85]. Even in metropolitan areas, buyers lean toward residential locations with accessible public green spaces, emphasizing the positive impact of urban greenery on nearby properties [49,89]. It seems that a favourable attitude toward green housing aligns with a preference for environmentally conscious choices.

Interestingly, this research initial findings shows a strong influence of attitude toward green environmental and the intention to purchase green residential housing, but not neighbourhood or safety and health attributes. But few previous researches have yielded different insights, for instance, it was discovered that safety and health values associated with green products positively influenced consumers' buying attitudes. Similarly, it was highlighted that consumers prioritize safety and health considerations when evaluating any product [26,27]. Their overall attitude toward environmental aspects significantly shapes their intention to purchase, driven by concerns about quality of life and a healthy, hazard-free environment. It is worth noting that our results diverged from the expected positive influence of all green housing attributes on buyers' intentions. However, this is not entirely surprising, since previous researchers have grappled with the challenge of reaching a consensus on the attitude-behaviour gap. Researchers also emphasized that buyers' attitudes toward various attributes play a pivotal role in shaping green purchase behaviour [72,76]

# 6. Conclusions

This research holds significant implications for housing developers, especially in their quest to understand house buyers' attitudes toward purchasing green residential properties, a relatively novel concept in Malaysia. As our society becomes more educated and environmentally conscious, the demand for sustainable housing continues to surge. By exploring into the intriguing attitude-behaviour gap, this study offers valuable insights to scholars, particularly within the realm of green residential projects. Think of these findings as a guiding star for other developers, underscoring the vital role of integrating green attributes when crafting residential properties. To conclude, green housing is not just another run-of-the-mill commodity; it represents a unique market segment, and this research sheds light on buyers' behaviour within that fascinating context.

## Acknowledgement

This research was not funded by any grant.

#### References

- Aaronson, Daniel. "A note on the benefits of homeownership." *Journal of Urban Economics* 47, no. 3 (2000): 356-369. <u>https://doi.org/10.1006/juec.1999.2144</u>
- [2] Abidin, Nazirah Zainul, and Nurul Zahirah Mokhtar Azizi. "Soft cost elements: Exploring management components of project costs in green building projects." *Environmental Impact Assessment Review* 87 (2021): 106545. https://doi.org/10.1016/j.eiar.2020.106545
- [3] Abidin, N. Zainul, N. Yusof, and H. Awang. "A foresight into green housing industry in Malaysia." *International Journal of Mechanical and Industrial Engineering* 6, no. 7 (2012): 373-381.
- [4] Bakar, Abu, A. Abdul Razak, Shardy Abdullah, and Aidah Awang. "Project management success factors for sustainable housing: a framework." In *International Conference Of Construction Industry*. 2009.
- [5] Adams, Mark A. "Reinforcement theory and behavior analysis." *Behavioral Development Bulletin* 9, no. 1 (2000): 3. <u>https://doi.org/10.1037/h0100529</u>
- [6] Almusaed, Amjad, Ibrahim Yitmen, and Asaad Almssad. "Enhancing smart home design with AI models: A case study of living spaces implementation review." *Energies* 16, no. 6 (2023): 2636. <u>https://doi.org/10.3390/en16062636</u>
- [7] Amar, Sylvia. "Eco-building for eco-living, an essential step to face climate change." *npj Climate Action* 2, no. 1 (2023): 34. <u>https://doi.org/10.1038/s44168-023-00065-2</u>
- [8] Ametepey, Simon Ofori, and Samuel Kwame Ansah. "Impacts of construction activities on the environment: the case of Ghana." *Journal of Construction Project Management and Innovation* 4, no. sup-1 (2014): 934-948.
- [9] Arslan, Gurkan, and Karen Howells. "Factors affecting investors' buying decision in real estate market in Northern Cyprus." *University of South Florida (USF) M3 Publishing* 5, no. 2021 (2021): 48.
- [10] Belisle, Jordan, Dana Paliliunas, Rocco Catrone, Elana Sickman, and Arvind Ramakrishnan. "A Comprehensive Behavioral Model of Emotion Rooted in Relational Frame Theory and Contemporary Extensions." *The Psychological Record* 74, no. 4 (2024): 521-539. <u>https://doi.org/10.1007/s40732-024-00603-2</u>
- [11] Branca, Generoso, Riccardo Resciniti, and Barry J. Babin. "Sustainable packaging design and the consumer perspective: a systematic literature review." *Italian Journal of Marketing* 2024, no. 1 (2024): 77-111. <u>https://doi.org/10.1007/s43039-023-00084-1</u>
- [12] Chanda, Razib Chandra, Ali Vafaei-Zadeh, Haniruzila Hanifah, and Ramayah Thurasamy. "Modeling eco-friendly house purchasing intention: a combined study of PLS-SEM and fsQCA approaches." *International Journal of Housing Markets and Analysis* 18, no. 1 (2025): 123-157. <u>https://doi.org/10.1108/IJHMA-04-2023-0059</u>
- [13] Chondrogianni, Dimitra, Yorgos J. Stephanedes, and Panoraia Fatourou. "Assessing Cycling Accessibility in Urban Areas through the Implementation of a New Cycling Scheme." *Sustainability* 15, no. 19 (2023): 14472. <u>https://doi.org/10.3390/su151914472</u>
- [14] Chung, Roger Yat-Nork, Gary Ka-Ki Chung, David Gordon, Jonathan Ka-Long Mak, Ling-Fei Zhang, Dicken Chan, Francisco Tsz Tsun Lai, Hung Wong, and Samuel Yeung-Shan Wong. "Housing affordability effects on physical and mental health: household survey in a population with the world's greatest housing affordability stress." J Epidemiol Community Health 74, no. 2 (2020): 164-172. <u>https://doi.org/10.1136/jech-2019-212286</u>
- [15] MALAYSIA, GREEN RESIDENTIAL PROPERTIES IN. "FACTORS DETERMINING THE PURCHASE DECISION OF." *Journal of the Malaysian Institute of Planners* 20, no. 2 (2022): 272-282. <u>https://doi.org/10.21837/pm.v20i21.1111</u>

- [16] Cochrane, Tom. *The emotional mind: A control theory of affective states*. Cambridge University Press, 2018. https://doi.org/10.1017/9781108579056
- [17] Quoquab, F., J. Mohammad, and R. Thurasamy. "Driving Green Consumerism Through Strategic Sustainability Marketing (Practice, Progress, and Proficiency in Sustainability Series)." (2018). <u>https://doi.org/10.4018/978-1-5225-2912-5</u>
- [18] Deonna, Julien, and Fabrice Teroni. "Affective consciousness and its role in emotion theory." *The Oxford handbook* of the philosophy of consciousness (2020): 102-123.
- [19] Di Crosta, Adolfo, Irene Ceccato, Daniela Marchetti, Pasquale La Malva, Roberta Maiella, Loreta Cannito, Mario Cipi et al. "Psychological factors and consumer behavior during the COVID-19 pandemic." *PloS one* 16, no. 8 (2021): e0256095. <u>https://doi.org/10.1371/journal.pone.0256095</u>
- [20] Feng, Qun, Yan Wang, Chuanhao Chen, Zhengnan Dong, and Xuejun Shi. "Effect of homebuyer comment on green housing purchase intention—mediation role of psychological distance." *Frontiers in Psychology* 12 (2021): 568451. <u>https://doi.org/10.3389/fpsyg.2021.568451</u>
- [21] Firmansyah, Deri, and Dadang Saepuloh. "Social learning theory: Cognitive and behavioral approaches." *Jurnal Ilmiah Pendidikan Holistik (JIPH)* 1, no. 3 (2022): 297-324.
- [22] Ghazali, Ihwan, Salwa Hanim Abdul-Rashid, Siti Zawiah Md Dawal, Irianto Irianto, Safarudin Gazali Herawan, Fu-Haw Ho, Rohana Abdullah, Amir Hamzah Abdul Rasib, and Nur Wardah Sufina Padzil. "Embedding green product attributes preferences and cultural consideration for product design development: a conceptual framework." Sustainability 15, no. 5 (2023): 4542. <u>https://doi.org/10.3390/su15054542</u>
- [23] Hassan, Mohammad Mujaheed, Nobaya Ahmad, and Ahmad Hariza Hashim. "Factors influencing housing purchase decision." International journal of academic research in business and social sciences 11, no. 7 (2021): 429-443. <u>https://doi.org/10.6007/IJARBSS/v11-i7/10295</u>
- [24] Hoang Yen, Nguyen Thi, and Dung Phuong Hoang. "The formation of attitudes and intention towards green purchase: An analysis of internal and external mechanisms." *Cogent Business & Management* 10, no. 1 (2023): 2192844. <u>https://doi.org/10.1080/23311975.2023.2192844</u>
- [25] Huang, Ming-Yi. "Effects of consumer perception, attitude, and purchase intention on the willingness to pay for green building housing products." *Journal of Housing and the Built Environment* 38, no. 3 (2023): 1559-1583. <u>https://doi.org/10.1007/s10901-022-10004-y</u>
- [26] Jan, Ihsan Ullah, Seonggoo Ji, and Chankoo Yeo. "Values and green product purchase behavior: The moderating effects of the role of government and media exposure." Sustainability 11, no. 23 (2019): 6642. <u>https://doi.org/10.3390/su11236642</u>
- [27] Qader, Iman Khalid A., and Yuserrie Zainuddin. "The Impact of Safety and Health Concerns on Environmental Attitudes towards Green Electronic Products among Lecturers." *International Journal of Management* 1, no. 6 (2013): 217-227.
- [28] Ismail, Radzi, Mohd Wira Mohd Shafiei, Ilias Said, and Fazdliel Aswad Ibrahim. "Green Homes Development Practices and House Buyers' Requirements: A Review." *Australian Journal of Basic and Applied Sciences* 7, no. 13 (2013): 7-15.
- [29] Jarecki, Jana B., Jolene H. Tan, and Mirjam A. Jenny. "A framework for building cognitive process models." *Psychonomic bulletin & review* 27, no. 6 (2020): 1218-1229. <u>https://doi.org/10.3758/s13423-020-01747-2</u>
- [30] Jhangiani, Rajiv, and Hammond Tarry. "1.2 Affect, Behavior, and Cognition." *Principles of Social Psychology-1st International H5P Edition* (2022).
- [31] Jim, Chi Yung, and Wendy Y. Chen. "Perception and attitude of residents toward urban green spaces in Guangzhou (China)." *Environmental management* 38 (2006): 338-349. <u>https://doi.org/10.1007/s00267-005-0166-6</u>
- [32] Johnson, A., & Smith, J. (2024). Holistic approaches to energy efficiency improvement: Collaborative efforts across governments, industries, and individuals. *Journal of Sustainable Energy Collaboration*, 26(3): 123-140.
- [33] Juvan, E., & Dolnicar, S. (2014). Attitude–behaviour relationship in tourism. *Annals of Tourism Research*, 44, 83-105.
- [34] Juvan, Emil, and Sara Dolnicar. "The attitude-behaviour gap in sustainable tourism." *Annals of tourism research* 48 (2014): 76-95. <u>https://doi.org/10.1016/j.annals.2014.05.012</u>
- [35] Kaklauskas, Arturas, Natalija Lepkova, Saulius Raslanas, Ingrida Vetloviene, Virgis Milevicius, and Jevgenij Sepliakov.
  "COVID-19 and green housing: a review of relevant literature." *Energies* 14, no. 8 (2021): 2072. https://doi.org/10.3390/en14082072
- [36] Khatibi, Farzaneh Shaikh, Aysin Dedekorkut-Howes, Michael Howes, and Elnaz Torabi. "Can public awareness, knowledge and engagement improve climate change adaptation policies?." *Discover Sustainability* 2 (2021): 1-24. <u>https://doi.org/10.1007/s43621-021-00024-z</u>

- [37] Kour, Manjit. "Understanding the drivers of green consumption: a study on consumer behavior, environmental ethics, and sustainable choices for achieving SDG 12." SN Business & Economics 4, no. 9 (2024): 97. <u>https://doi.org/10.1007/s43546-024-00691-w</u>
- [38] Lacasse, Katherine. "Don't be satisfied, identify! Strengthening positive spillover by connecting pro-environmental behaviors to an "environmentalist" label." *Journal of Environmental Psychology* 48 (2016): 149-158. https://doi.org/10.1016/j.jenvp.2016.09.006
- [39] Lee, Jong-Won, Sang-Woo Lee, Hai Gyong Kim, Hyun-Kil Jo, and Se-Rin Park. "Green Space and Apartment Prices: Exploring the Effects of the Green Space Ratio and Visual Greenery." Land 12, no. 11 (2023): 2069. <u>https://doi.org/10.3390/land12112069</u>
- [40] Li, Guangxia, Lifeng Yang, Baojie Zhang, Xiaoxuan Li, and Feiyu Chen. "How do environmental values impact green product purchase intention? The moderating role of green trust." *Environmental Science and Pollution Research* 28 (2021): 46020-46034. <u>https://doi.org/10.1007/s11356-021-13946-y</u>
- [41] Lifshitz, Hefziba, and Hefziba Lifshitz. "The Triple CAB Model: Enhancing Cognition, Affect, and Behavior in Adults with Intellectual Disability." Growth and Development in Adulthood among Persons with Intellectual Disability: New Frontiers in Theory, Research, and Intervention (2020): 53-82. <u>https://doi.org/10.1007/978-3-030-38352-7\_2</u>
- [42] Lifshitz, Hefziba, and Hefziba Lifshitz. "The Triple CAB Intervention for Adults with Severe/Profound Intellectual Disability to Enhance Opportunities for Growth and Life Quality." Growth and Development in Adulthood among Persons with Intellectual Disability: New Frontiers in Theory, Research, and Intervention (2020): 173-209. <u>https://doi.org/10.1007/978-3-030-38352-7\_5</u>
- [43] Liu, Tianqi, Lin Chen, Mingyu Yang, Malindu Sandanayake, Pengyun Miao, Yang Shi, and Pow-Seng Yap. "Sustainability considerations of green buildings: a detailed overview on current advancements and future considerations." *Sustainability* 14, no. 21 (2022): 14393. <u>https://doi.org/10.3390/su142114393</u>
- [44] Liu, Yu, Sigal Segev, and Maria Elena Villar. "Comparing two mechanisms for green consumption: cognitive-affect behavior vs theory of reasoned action." *Journal of Consumer Marketing* 34, no. 5 (2017): 442-454. <u>https://doi.org/10.1108/JCM-01-2016-1688</u>
- [45] Wijayaningtyas, Maranatha, and Togi H. Nainggolan. "The millennial generation purchase intention toward green residential building." *International Journal of Scientific & Technology Research* 9, no. 2 (2020): 1-6.
- [46] Koklic, Mateja Kos, and Irena Vida. "A strategic household purchase: consumer house buying behavior." *Managing Global Transitions* 7, no. 1 (2009): 75-96.
- [47] Matkovic, V., M. Jevtic, M. P. Kusturica, C. Bouland, M. Jukovic, and D. Stojanovic. "Introducing walkable cities as a Public Health intervention." *European Journal of Public Health* 32, no. Supplement\_3 (2022): ckac129-077. <u>https://doi.org/10.1093/eurpub/ckac129.077</u>
- [48] Matthews, G. E. R. A. L. D. "Cognitive Processes and Models." *The Cambridge handbook of personality psychology* (2020): 295-315. <u>https://doi.org/10.1017/9781108264822.028</u>
- [49] McCord, Michael James, Peadar Thomas Davis, Paul Bidanset, William McCluskey, John McCord, Martin Haran, and Sean MacIntyre. "House prices and neighbourhood amenities: beyond the norm?." *International Journal of Housing Markets and Analysis* 11, no. 2 (2018): 263-289. <u>https://doi.org/10.1108/IJHMA-04-2017-0043</u>
- [50] Mehta, Pooja, and Harpreet Singh Chahal. "Consumer attitude towards green products: revisiting the profile of green consumers using segmentation approach." *Management of Environmental Quality: An International Journal* 32, no. 5 (2021): 902-928. <u>https://doi.org/10.1108/MEQ-07-2020-0133</u>
- [51] Memmott, Paul, Nina Lansbury, Daphne Nash, Stephen Snow, Andrew M. Redmond, Clarissa Burgen, Paul Matthew, Simon Quilty, and Patricia Narrurlu Frank. "Housing Design for Health in a Changing Climate for Remote Indigenous Communities in Semi-Arid Australia." *Architecture* 4, no. 3 (2024): 778-801. https://doi.org/10.3390/architecture4030041
- [52] Mills, Dana. "The Emotional Mind: A Control Theory of Affective States." (2021): 215-217. https://doi.org/10.1093/pq/pgaa027
- [53] Morel, Magali, and Francis Kwakye. "Green marketing: consumers Attitude towards Eco-friendly products and purchase intention in the Fast Moving Consumer Goods (FMCG) sector." (2012).
- [54] Newell, Ben R., David A. Lagnado, and David R. Shanks. *Straight choices: The psychology of decision making*. Psychology Press, 2022. <u>https://doi.org/10.4324/9781003289890</u>
- [55] Rashid, Nik Ramli Nik Abdul, and Mohd Rizaimy Shaharudin. "Customer's purchase intention for a green home." International Journal of Procurement Management 10, no. 5 (2017): 581-599. https://doi.org/10.1504/IJPM.2017.086402
- [56] Aluko, Ola. "The effects of location and neighbourhood attributes on housing values in metropolitan Lagos." *Ethiopian Journal of Environmental Studies and Management* 4, no. 2 (2011): 69-82. <u>https://doi.org/10.4314/ejesm.v4i2.8</u>

- [57] Mei, Ooi Jen, Kwek Choon Ling, and Tan Hoi Piew. "The antecedents of green purchase intention among Malaysian consumers." *Asian Social Science* 8, no. 13 (2012): 248. <u>https://doi.org/10.5539/ass.v8n13p248</u>
- [58] Opoku, Robert A., and Alhassan G. Abdul-Muhmin. "Housing preferences and attribute importance among lowincome consumers in Saudi Arabia." *Habitat international* 34, no. 2 (2010): 219-227. <u>https://doi.org/10.1016/j.habitatint.2009.09.006</u>
- [59] Ottman, Jacqueline, and N. B. Books. "Green marketing: opportunity for innovation." *The Journal of Sustainable Product Design* 60, no. 7 (1998): 136-667.
- [60] Pakir, Abd Hamid Kadir, Amin Akhavan Tabassi, Mahyuddin Ramli, Abu Hassan Abu Bakar, and Kamand Mohammadzadeh Roufechaei. "Sustainable housing development and leadership: a review." *Australian Journal of Basic and Applied Sciences* 6, no. 12 (2012): 385-395.
- [61] Papageorgi, Ioulia. "Positive and Negative Reinforcement and Punishment." In Encyclopedia of Evolutionary Psychological Science, pp. 6079-6081. Cham: Springer International Publishing, 2021. <u>https://doi.org/10.1007/978-3-319-19650-3\_1048</u>
- [62] Mishra, Pavan, and Payal Sharma. "Green marketing in India: Emerging opportunities and challenges." *Journal of Engineering, Science and Management Education* 3, no. 1 (2010): 9-14.
- [63] Pelsmakers, Sofie, and Elanor Warwick. "Housing adaptability: new research, emerging practices and challenges." *Buildings and Cities* 3, no. 1 (2022): 605-618. <u>https://doi.org/10.5334/bc.266</u>
- [64] Plass, Jan L., and Slava Kalyuga. "Four ways of considering emotion in cognitive load theory." Educational psychology review 31 (2019): 339-359. <u>https://doi.org/10.1007/s10648-019-09473-5</u>
- [65] Pratesi, Francesca, Lala Hu, Riccardo Rialti, Lamberto Zollo, and Monica Faraoni. "Cultural dimensions in online purchase behavior: Evidence from a cross-cultural study." *Italian journal of marketing* 2021 (2021): 227-247. <u>https://doi.org/10.1007/s43039-021-00022-z</u>
- [66] Rolfe, Steve, Lisa Garnham, Jon Godwin, Isobel Anderson, Pete Seaman, and Cam Donaldson. "Housing as a social determinant of health and wellbeing: developing an empirically-informed realist theoretical framework." BMC Public Health 20, no. 1 (2020): 1138. <u>https://doi.org/10.1186/s12889-020-09224-0</u>
- [67] Said, N. S., and D. M. D. Juanil. "The housing environment preference among housing consumers in Johor Bahru." In 2nd International Conference on Technology Management, Business and Entrepreneurship, pp. 55-70. 2013.
- [68] Sang, Peidong, Haona Yao, Lin Zhang, Sen Wang, Yanjie Wang, and Jinjian Liu. "Influencing factors of consumers' willingness to purchase green housing: A survey from Shandong Province, China." *Environment, Development and Sustainability* 22 (2020): 4267-4287. <u>https://doi.org/10.1007/s10668-019-00383-8</u>
- [69] Sean, Saw Lip, and Tan Teck Hong. "Factors affecting the purchase decision of investors in the residential property market in Malaysia." *Journal of Surveying, Construction and Property* 5, no. 2 (2014): 1-13. <u>https://doi.org/10.22452/jscp.vol5no2.4</u>
- [70] Schuitema, Geertje, and Judith IM De Groot. "Green consumerism: The influence of product attributes and values on purchasing intentions." *Journal of Consumer Behaviour* 14, no. 1 (2015): 57-69. <u>https://doi.org/10.1002/cb.1501</u>
- [71] Shahril, Nur Ameera Syuhada Ainul, Sharifah Meryam Shareh Musa, Rozlin Zainal, Hamidun Mohd Noh, and Narimah Kassim. "The impact of green space in residential yard." *Research in Management of Technology and Business* 2, no. 2 (2021): 494-508.
- [72] Sharma, Kavita, Chandni Aswal, and Justin Paul. "Factors affecting green purchase behavior: A systematic literature review." *Business Strategy and the Environment* 32, no. 4 (2023): 2078-2092. <u>https://doi.org/10.1002/bse.3237</u>
- [73] Sinnappan, Punitha, and Azmawani Abd Rahman. "Antecedents of green purchasing behavior among Malaysian consumers." *International Business Management* 5, no. 3 (2011): 129-139. <a href="https://doi.org/10.3923/ibm.2011.129.139">https://doi.org/10.3923/ibm.2011.129.139</a>
- [74] Stuhlmacher, Michelle, Joshua Woods, Liping Yang, and Sarigai Sarigai. "How Does the Composition and Configuration of Green Space Influence Urban Noise?: A Systematic Literature Review." *Current Landscape Ecology Reports* 9, no. 4 (2024): 73-87. <u>https://doi.org/10.1007/s40823-024-00099-0</u>
- [75] Sujith, K. M., C. A. Biju, CR Varma Subhash, and A. S. Dili. "Need based approach: a perspective for sustainable housing." In *IOP Conference Series: Materials Science and Engineering*, vol. 1114, no. 1, p. 012042. IOP Publishing, 2021. <u>https://doi.org/10.1088/1757-899X/1114/1/012042</u>
- [76] Tan, Booi-Chen, and Teck-Chai Lau. "Green purchase behavior: Examining the influence of green environmental attitude, perceived consumer effectiveness and specific green purchase attitude." *Australian Journal of Basic and Applied Sciences* 5, no. 8 (2011): 559-567.
- [77] Tan, Teck Hong. "Use of structural equation modeling to predict the intention to purchase green and sustainable homes in Malaysia." *Asian Social Science* 9, no. 10 (2013): 181. <u>https://doi.org/10.5539/ass.v9n10p181</u>
- [78] Tan, Teck Hong. "The effects of housing characteristics on neighbourhood stability of homeownership." International Journal of Business and Emerging Markets 2, no. 3 (2010): 286-304. https://doi.org/10.1504/IJBEM.2010.033380

- [79] Tandon, Ritu, Pooja Nikhanj, and Manjinder Kaur. "Green packaging, an imminent eco-friendly approach." In Encyclopedia of green materials, pp. 1-11. Singapore: Springer Nature Singapore, 2023. <u>https://doi.org/10.1007/978-981-16-4921-9\_95-1</u>
- [80] van Haaren, Frans. "Extinction revisited: Implications for application." *Behavior Analysis: Research and Practice* 20, no. 1 (2020): 36. <u>https://doi.org/10.1037/bar0000165</u>
- [81] Vivek, K. T., Anjali, V., Akash, K., & Manjul, G. (2016). A review on environmental impact assessment of construction. *Journal of Environmental Science, Toxicology and Food Technology*, 10 (1): 21-25.
- [82] Mustaffa, Wan Salmuni Wan, Rafiduraida Abdul Rahman, Hariyaty Ab Wahid, and Noor Lela Ahmad. "A cognitiveaffective-behavioral responses of customer experience (CAB-CE) model for service delivery improvement in the healthcare industry." Int. J Sup. Chain. Mgt Vol 9, no. 2 (2020): 252.
- [83] Wandosell, Gonzalo, María C. Parra-Meroño, Alfredo Alcayde, and Raúl Baños. "Green packaging from consumer and business perspectives." *Sustainability* 13, no. 3 (2021): 1356. <u>https://doi.org/10.3390/su13031356</u>
- [84] Xiao, Yao. "Adaptation and Sustainability: The Protection and Renovation of Historic Districts and Heritage Buildings." In World Congress of Architects, pp. 63-85. Cham: Springer International Publishing, 2023. https://doi.org/10.3390/su152014732
- [85] Joshi, Yatish, and Zillur Rahman. "Factors affecting green purchase behaviour and future research directions." International Strategic management review 3, no. 1-2 (2015): 128-143. <u>https://doi.org/10.1016/j.ism.2015.04.001</u>
- [86] Yip, Chee Yin, Abdelhak Senadjki, Hui Nee Au Yong, and Azira Abdul Adzis. "Mitigating housing glut: an application to the Malaysian housing market." *International Journal of Housing Markets and Analysis* 14, no. 3 (2021): 498-522. <u>https://doi.org/10.1108/IJHMA-04-2020-0037</u>
- [87] Lee, Young-Chang, and Keun-Ho Kim. "Attitudes of citizens towards urban parks and green spaces for urban sustainability: The case of Gyeongsan City, Republic of Korea." Sustainability 7, no. 7 (2015): 8240-8254. <u>https://doi.org/10.3390/su7078240</u>
- [88] Zhou, Peng, Huimin Ma, Bochao Zou, Xiaowen Zhang, Shuyan Zhao, Yuxin Lin, Yidong Wang, Lei Feng, and Gang Wang. "A conceptual framework of cognitive-affective theory of mind: towards a precision identification of mental disorders." *npj Mental Health Research* 2, no. 1 (2023): 12. <u>https://doi.org/10.1038/s44184-023-00031-0</u>
- [89] Zhuang, Wencan, Xiaoguang Luo, and Muhammad Usman Riaz. "On the factors influencing green purchase intention: A meta-analysis approach." Frontiers in psychology 12 (2021): 644020. <u>https://doi.org/10.3389/fpsyg.2021.644020</u>
- [90] Źróbek, Sabina, Maria Trojanek, Anna Źróbek-Sokolnik, and Radosław Trojanek. "The influence of environmental factors on property buyers' choice of residential location in Poland." *Journal of International Studies* 7, no. 3 (2015): 163-173.