

Lampiran 4. Hasil Analisis Data SmartPLS

Outer Loading

Outer Loadings

Matrix	Attitude	Environmental...	Green Purchas...	Green Purchas...	Green Trust	Perceived Risk
ATT2	0.791					
ATT3	0.847					
ATT4	0.858					
EK1		0.890				
EK2		0.822				
EK3		0.828				
GPB1			0.879			
GPB2			0.876			
GPB3			0.753			
GPB4			0.853			
GPI1				0.879		

Construct Reliability and Validity

Construct Reliability and Validity

Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted ...	Copy to CI
	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	
Attitude	0.859	0.869	0.904	0.701	
Environmental Knowledge	0.804	0.813	0.884	0.718	
Green Purchase Behavior	0.862	0.871	0.907	0.709	
Green Purchase Intention	0.872	0.875	0.912	0.723	
Green Trust	0.850	0.852	0.909	0.769	
Perceived Risk	0.719	0.719	0.842	0.641	

Cross Loading

Discriminant Validity

	Fornell-Larcker Criteri...	Cross Loadings	Heterotrait-Monotrait R...	Heterotrait-Monotrait R...	Copy to Clipboard:	Excel f
	Attitude	Environmental Knowledge	Green Purchase Behavior	Green Purchase Intention	Green Trust	Perceived Risk
ATT2	0.791	0.665	0.605	0.514	0.609	0.538
ATT3	0.847	0.710	0.662	0.565	0.681	0.566
ATT4	0.858	0.695	0.771	0.670	0.710	0.681
EK1	0.712	0.890	0.736	0.653	0.647	0.615
EK2	0.718	0.822	0.658	0.550	0.663	0.555
EK3	0.666	0.828	0.615	0.562	0.612	0.570
GPB1	0.680	0.685	0.879	0.745	0.643	0.722
GPB2	0.686	0.684	0.876	0.760	0.724	0.700
GPB3	0.659	0.631	0.753	0.604	0.615	0.566
GPB4	0.722	0.671	0.853	0.727	0.682	0.643
GPI1	0.707	0.651	0.731	0.879	0.678	0.642
GPI2	0.678	0.632	0.742	0.868	0.633	0.662
GPI3	0.607	0.594	0.722	0.847	0.606	0.677
GPI4	0.495	0.482	0.679	0.806	0.497	0.610
GT1	0.708	0.638	0.733	0.659	0.891	0.660
GT2	0.717	0.685	0.661	0.618	0.870	0.606
GT3	0.665	0.664	0.685	0.595	0.869	0.602
PR1	0.713	0.697	0.703	0.644	0.743	0.766
PR2	0.491	0.453	0.565	0.569	0.429	0.808
PR3	0.512	0.478	0.603	0.610	0.514	0.827
ATT1	0.852	0.692	0.675	0.687	0.661	0.616

R-Square

R Square

Matrix	R Square	R Square Adjusted
Green Purchase Behavior	0.715	0.714
Green Purchase Intention	0.668	0.663

F-Square

f Square

Matrix		f Square		Copy to Clipboard:			Excel Format	R Format
	Attitude	Environmental Knowledge	Green Purchase Behavior	Green Purchase Intention	Green Trust	Perceived Risk		
Attitude				0.032				
Environmental Knowledge				0.012				
Green Purchase Behavior								
Green Purchase Intention			2.509					
Green Trust				0.025				
Perceived Risk				0.216				

Path Coefficients

Path Coefficients

Mean, STDEV, T-Values, P-Val...	Confidence Intervals	Confidence Intervals Bias Co...	Samples	Copy to Clipboard:	Excel Format	R Format
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	
Attitude -> Green Purchase Intention	0.212	0.214	0.112	1.900	0.058	
Environmental Knowledge -> Green Purchase Intention	0.116	0.133	0.096	1.206	0.229	
Green Purchase Intention -> Green Purchase Behavior	0.846	0.845	0.034	25.010	0.000	
Green Trust -> Green Purchase Intention	0.162	0.156	0.098	1.648	0.100	
Perceived Risk -> Green Purchase Intention	0.414	0.399	0.082	5.039	0.000	

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Does individuals' age matter? A comparative study of generation X and generation Y on green housing purchase intention

Gen X and Y:
green housing
purchase
intention

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Abstract

Purpose – This comparative research examines the factors influencing individuals' purchase intention toward green housing. By examining these factors, this study provides fruitful insights into the purchase intentions and behaviors for greenhouses among individuals of different age groups in India.

Design/methodology/approach – Data were gathered from Generation (Gen) X (313) and Generation (Gen) Y (297) using self-administered questionnaires. The "partial least squares structural equation modeling" was used to test the hypotheses.

Findings – The outcome shows that attitude and green trust substantially impact the green purchase intention of Gen X and Y. More specifically, environmental knowledge insignificantly influences the green purchase intention of Gen X while significantly influencing Gen Y. However, perceived risk insignificantly affects the purchase intention of both Gen X and Y. Consequently, green purchase intention substantially impacts the green purchase behavior in both studies.

Research limitations/implications – This research focuses primarily on India; future research may be conducted in different geographical contexts. This study could also be extended to all age groups individuals.

Practical implications – The findings of this article facilitate policymakers, real estate developers and professional bodies in formulating strategies for sustainable nations in the future.

Originality/value – The current article is the initial empirical attempt to examine the home-buying decisions of individuals in India. Moreover, the role of Generation X and Generation Y in green housing purchase decisions will provide fruitful insights into how different age groups impact the decision-making process of green housing.

Keywords Green housing, Environmental knowledge, India, Green purchase intention, Green trust, Green purchase behavior

Paper type Research paper

1. Introduction

In recent years, green housing has been recognized as a promising subject that can provide a healthy environment through various environment-friendly services. It is a rising idea in the construction industry that aims to promote environmental sustainability (Zahan *et al.*, 2020). The concept of "green real estate" covers many activities that emphasize all eco-friendly relationships throughout the project cycle, such as project design, operation, manufacturing, maintenance, decoration and services (Jacob *et al.*, 2023). They also found that in Indian residential real estate, companies focus on maintaining sustainable features, which include green building products, energy-efficient applications and solar panels, and encourage them with the help of green marketing campaigns. Through this, such buildings help reduce environmental harm, save resources (water, energy and land), reduce and recycle construction material waste and maintain a healthy environment (Ofek and Portnov, 2020). Hence, Rosner *et al.* (2022) reported that green housing is structured to decrease the effect of housing on the atmosphere through awareness and technology. However, as per the World



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Health Organization (WHO), over 80% of persons in urban regions still reside in air-polluted areas (Jacob *et al.*, 2023). Therefore, the need for eco-friendly housing arises as it contributes to environmental preservation and offers health and community benefits to homeowners and society.

Over the past decades, environmental concerns have become a prominent issue for various governments (Wang *et al.*, 2022). According to the World Green Building Council (WorldGBC, 2022), the construction sector accounts for approximately 40% of global energy-related emissions. The Centre for Science and Environment (CSE, n.d.) report describes that "leadership in energy and environmental design" is a rating agency for green housing projects in India. By introducing a rating agency, the government wants to promote and facilitate green building practices and create more environmentally responsible buildings. As the Indian government takes numerous initiatives to promote green building practices, there remains a significant lack of awareness about the benefits of sustainable construction. Thus, it is vital to comprehend the factors that impact the behavior of individuals toward the purchase of green housing. Although green housing is a holistic approach to a home's design, development and operation, with the initial aim of conserving water, energy and building material at each stage of a house's life cycle, the extant literature on house-buying behavior is still at an initial growth stage (Kaynak *et al.*, 2022). Prior research on green housing mainly focused on young adults' experience using chatbots in green housing (James *et al.*, 2023), green building housing products (Huang, 2022) and real estate investment decisions (Kabir *et al.*, 2023). Despite this, Jacob *et al.* (2023) found a need to clarify the factors influencing purchasing and promoting green homes. Only a few research studies have examined potential individuals' behavior toward green housing purchases in India. Hence, this article fills the research gap by offering the answers to the subsequent questions:

RQ1. How do attitude, environmental knowledge, green trust and perceived risk affect the Individuals' green purchase intention?

RQ2. How does green purchase intention influence individuals' green purchase behavior?

Accordingly, the current research offers several significant contributions to the green housing literature. Firstly, the authors contribute to the previous literature by answering Jacob *et al.* (2023) call for more research on the individual's preferences for eco-friendly features that transform into actual behavior in real estate. Thus, the authors conducted their study by examining the effect of various factors (attitude, environmental knowledge, green trust, and perceived risk) on green purchase intention. Second, Kaynak *et al.* (2022) recommended that more studies are required on the comparative research of individuals' home-buying behavior. Accordingly, this research is the first attempt to undertake a comparative analysis of Gen X and Gen Y to predict the individuals' behavior toward green housing. Finally, the outcomes of this article should be beneficial for policymakers, home sellers and real estate developers in formulating advertisement and promotional strategies. The current study offers valuable insights for home developers and property consultants to design eco-friendly properties and effectively market them to clients.

The manuscript is arranged in the following ways. Section 2 comprises a literature review and research hypotheses on green housing. Additionally, sections 3 and 4 encompass the research methodology, data analysis and the results of this study. Lastly, sections 5 and 6 include the discussion, implication, conclusions and further research directions of the present study.

2. Literature review and hypothesis development

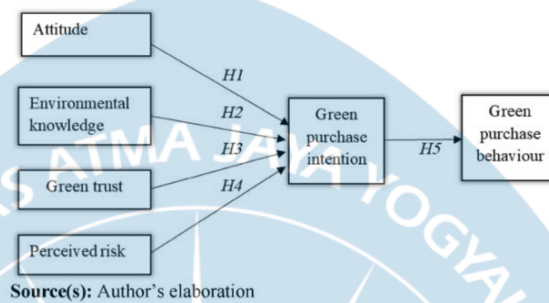
2.1 Green housing

In the modern era, green housing has emerged as a solution to foster sustainable living for individuals. Green housing units decrease environmental harm, conserve natural resources, recycle construction waste, decrease carbon emissions, and keep an unpolluted environment (Ofek and Portnov, 2020). In the context of real estate, Moslehpour *et al.* (2023) claim that green housing is a complex practice that includes the pattern of ethical decision-making resulting from responsible behavior. Hence, green buildings aim to minimize energy and resource consumption, reduce greenhouse gas emissions, and offer a comfortable and healthy living environment.

Furthermore, genius loci is also a significant concept in architectural and environmental design. This is recognized through inherent processes, as genius loci indicate a naturally occurring process that cannot be intentionally created (Vecco, 2020). He also reveals that in the earliest times, genius loci were perceived as the tangible reality encountered by humans in their daily lives. However, in recent times, the Indian real estate sector has stood out as a major contributor to greenhouse gas emissions, highlighting the increasing necessity for awareness about the environmental impact of unsustainable practices (Jacob *et al.*, 2023). This can also help better understand the complicated environmental problems of the present time (Norberg-Schulz, 1983). Consequently, environment-friendly constructions are required to integrate strategies for water management and energy efficiency. Notably, Rosner *et al.* (2022) also claimed that construction projects still rely on traditional methods, neglecting the utilization of green housing. Thus, the current article aims to enhance the existing knowledge of green housing, specifically in emerging economies like India.

Besides, real estate is one of India's most vital, fastest-growing, and attractive industries. Several studies have been conducted on green housing in developed nations, such as Taiwan (Huang, 2022; Moslehpour *et al.*, 2023), Israel (Rosner *et al.*, 2022), etc. Nevertheless, Zahan *et al.* (2020) reveal a need to re-examine the models from the perspectives of developing nations. Green housing holds immense potential within developing countries, offering a pathway towards sustainable development and environmentally-conscious living. According to the Niti Aayog report (2018), the Sustainable Development Goals (SDGs) are created to set unprecedented and universal goals encompassing environmental, societal, and financial aspects for society's welfare. The well-being and prosperity of current and coming generations depend on the development and actions of recent times. Hence, there is a need for sustainable and inclusive growth in an integrated and balanced way (G20 report, 2023). This report also mentioned the commitment of the Indian government to boost environmentally sustainable waste management, achieve a substantial reduction in waste generation by 2030, and emphasize the significance of zero waste initiatives. However, the real estate industry is also known as a "silent" environmentally damaging sector; thus, there is a demand for more study on environmental issues in the real estate industry (Jacob *et al.*, 2023). Furthermore, Kaynak *et al.* (2022) found that real estate developers and public policymakers need more empirical studies to understand better the differences in house selection and purchasing behavior among various household sectors. However, the role of multiple factors impacting greenhouse purchase intention has been largely ignored, and its influence on individuals' purchase behavior remains to be seen. Therefore, the current article attempts to examine the factors impacting the behavior of Gen X and Gen Y towards green housing (see Figure 1).

Figure 1.
The proposed
conceptual model



2.2 Hypothesis development

2.2.1 Attitude. According to Huang (2022), attitude is described as the sentiments and beliefs of an individual. In addition, attitude is vital in changing one's behavior (Asif et al., 2023) as it relates to the positive and negative feelings toward green housing. Additionally, the favorable attitude of consumers towards green brands positively influences their purchasing behavior. However, without green labels, the level of trust among individuals reduces, which ultimately influences the purchase intention of customers (Wang et al., 2022). Contextually, Asif et al. (2023) reveal that attitude substantially impacts individuals' green purchase intention. Therefore, the authors posit:

H1. Attitude significantly affects the green purchase intention.

2.2.2 Environmental knowledge. Individuals' trust in green facilities is strengthened when they have appropriate environmental knowledge (Asif et al., 2023). However, insufficient consumer knowledge regarding green products decreases the intention of eco-friendly buying and influences their overall buying behaviors (Moslehpour et al., 2023). They also found that green housing boosts individuals' purchase intentions by reducing environmental impact and enhancing health outcomes. Consequently, Asif et al. (2023) found that environmental knowledge significantly impacts green purchase intention. Conversely, Zahan et al. (2020) reveal that environmental knowledge insignificantly impacts green purchase intention. However, the effect of environmental knowledge on individuals' behavior has yet to be explored in residential real estate. Accordingly, the researcher framed the following:

H2. Environmental knowledge affects green purchase intention.

2.2.3 Green trust. Trust is the certainty in the individual's behavior (Asif et al., 2023). They also found that using a product at its initial phase is more challenging because of a higher level of insecurity. Individuals' trust in green housing shows that it is reliable and adheres to standards (Wang et al., 2022). The previous studies of Huang (2022) and Asif et al. (2023) found that green trust substantially influences individuals' green purchase intention. Despite various studies on green housing, Jacob et al. (2023) found that future research can also investigate the impact of green trust on green purchase intention. Motivated by their study, the authors posit:

H3. Green trust affects influences green purchase intention.

2.2.4 Perceived risk. Perceived risk refers to the uncertainty experienced by consumers when encountering products or services (Tan and Goh, 2018). Consumers prioritize minimizing perceived risk over maximizing utility (Pan *et al.*, 2021). They concluded that when perceived risk is reduced, there is a corresponding increase in purchasing intention and probability. Based on these arguments, the researcher concludes that perceived risk insignificantly influences individuals' green purchase intention. Therefore, the current article framed the following hypothesis.

H4. Perceived risk affects the green purchase intention.

2.2.5 Green purchase intention. Purchase intention is "the extent to which individuals are willing and able to buy goods or services from a brand within a specific period (Jacob *et al.*, 2023)." As per Zahan *et al.* (2020) and Nguyen *et al.* (2023), it is an important construct to capture the motivational facets of green purchase behavior. Additionally, individuals' behavior includes how persons, groups, and institutions buy, utilize, and dispose of things to fulfill their requirements and acquire services or experiences (Huang, 2022). Apart from existing literature on green housing, Zahan *et al.* (2020) exhibited that consumers' green purchase intention does not ensure their purchase behavior. Thus, it is vital to comprehend the association between green purchase intention and the behavior of individuals toward green housing. Hence, the authors framed the following:

H5. Green purchase intention affects green purchase behavior.

3. Research methodology

3.1 Measurement scale

All items in the current research were adopted from the prior studies and changed as per the study context. Following prior literature, the four attitude items were taken from (Huang, 2022). To access the environmental knowledge of individuals, items were adopted (Zahan *et al.*, 2020; Moslehpour *et al.*, 2023). Further, to measure the green trust of individuals, this study used three items of Asif *et al.* (2023). Likewise, perceived risk was measured through the three items of Pan *et al.* (2021). The four items taken from Zahan *et al.* (2020), Pan *et al.* (2021), and Jacob *et al.* (2023) were found appropriate for the present study for assessing the green purchase intention and behavior of individuals. Following the initial measurements, the items taken from constructs were measured through a "seven-point Likert scale" ("1 = strongly disagree" to "7 = strongly agree") as used by (Huang, 2022; Kumar *et al.*, 2023c).

3.2 Methods used

This article employed an exploratory research design, enabling them to explore the relationships and causal connections between variables. The objective of employing this research design is to test the developed hypotheses using statistical procedures. Additionally, self-administered questionnaires were used to collect the data and validate the conceptual model. The target respondents of the current research are individuals of Gen X and Gen Y of NCR (India). There are several reasons to consider India's green housing as an appropriate context for testing the proposed hypotheses. Firstly, NCR includes rural and urban areas, with a total population exceeding 46,069,000 (Kumar *et al.*, 2023d). As per NCRPB (2017), the NCR region includes Haryana (14 districts), Rajasthan (2 districts), Uttar Pradesh (8 districts),

and Delhi. This shows that NCR (India) is home to a broad and diverse population. Thus, this region holds significant importance, and there is a requirement to analyze the behavior of individuals in NCR, India. Second, Gen X and Gen Y are highly conscious about the environment and can make environmentally friendly decisions. Hence, the current article is focused on the individuals of Gen X and Gen Y of NCR to examine their purchase intention towards green housing. Before collecting data, the authors met property consultants in the NCR (India) region, where we explained the objectives of the research and requested to provide information about those individuals who want to purchase a house shortly. We have guaranteed that the information of participants and property consultants will be kept confidential.

3.3 Sampling

The study focuses on individuals residing in the NCR (India) who intend to buy a home and are considered the population. The current article used two screening questions to select the targeted respondents; "Do you lie between the age group of 26 and 57 years?" and "Do you want to purchase a house shortly (Jacob *et al.*, 2023)." Those participants who answered "yes" were retained for further analysis. The data was collected in two phases. Based on the information provided by the property consultant, questionnaires were distributed among respondents through random sample techniques in the initial phase. In the second phase, snowball sampling is utilized in which the remaining sample is chosen based on the references of previously selected participants. To conduct the sampling process, 59 questionnaires were distributed among respondents through simple random sampling. In the initial step, the authors chose 46 respondents, excluding 13 individuals who expressed no interest in purchasing green housing. Based on 46 participants, the researchers spread out the remaining 652 questionnaires. Consequently, 313 Gen X and 297 Gen Y respondents were considered qualified for analysis. The final survey takes 98 days, from 5 October 2022 to 10 January 2023. As per Hair *et al.* (2011), this study has a suitable sample size for conducting the research, as it surpasses the required minimum threshold limit of participants.

313 Gen X and 297 Gen Y respondents responded to accomplish the study objectives. In Gen X, the majority of the respondents, 75.08%, are also male, 72.20% are married, and 40.58% are graduate. Most Gen Y, 85.52%, is male, 81.14% are married, and 44.78% are graduate. This shows that male and married respondents are more interested in purchasing green housing. Furthermore, 55.27% of respondents from Gen X are self-employed, and 33.55% have income over 10 lakhs. Additionally, 62.96% of respondents from Gen Y are self-employed, and 28.28% have an income of more than 10 lakhs. This indicates that self-employed individuals are more interested in purchasing green housing. Table 1 shows the demographic profile of participants.

3.4 Common method bias (CMB)

As the same respondents measured all variables simultaneously, the authors employed established statistical approaches to evaluate common method bias. Following the recommendation of James *et al.* (2023), Harman's single-factor test was applied to study the existence of CMB in the data. The results depict that the first factor accounted for only 30.12% of the variance below 50%, suggesting that CMB was not a significant concern. Secondly, Shehzad *et al.* (2022) recommended that when the value of VIF is less than 5, it indicates the absence of multicollinearity problems in the latent constructs and confirms the robustness of the model (please refer to Table 2).

Respondents	N = 313 (%) Gen X	N = 297 (%) Gen Y	Respondents	N = 313 (%) Gen X	N = 297 (%) Gen Y
Gender			Occupation		
Male	235 (75.08)	254 (85.52)	Unemployed/Student	9 (2.88)	14 (4.72)
Female	78 (24.92)	43 (14.48)	Self-employed/ businessman	173 (55.27)	187 (62.96)
Marital Status			Salaried	131 (41.85)	96 (32.32)
Single	87 (27.80)	56 (18.86)	Annual income (Rs.)		
Married	226 (72.20)	241 (81.14)	Up to 2.5 lakh	7 (2.24)	16 (5.39)
Education			2.5 lakh to 5 lakh	53 (16.93)	39 (13.13)
Up to 12th	67 (21.41)	86 (28.96)	5 lakhs to 10 lakhs	148 (47.28)	158 (53.2)
Graduation	127 (40.58)	133 (44.78)	Above 10 lakhs	105 (33.55)	84 (28.28)
Post-Graduation	96 (30.67)	47 (15.82)			
Others	23 (7.34)	31 (10.44)			
Source(s): Survey data					

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green housing
purchase
intention

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Table 1.
Demographic profile

4. Data analysis

The present study used PLS-SEM to quantify the net effect of individual exogenous constructs. Following the recommendation of Kumar *et al.* (2023a, b), PLS-SEM was used for analysis the quantitative data. The primary motivation behind selecting PLS-SEM was its capability to address various challenges commonly met in empirical data analysis, as outlined in the PLS literature (Hair *et al.*, 2019). These challenges include missing values, concerns related to multicollinearity, non-parametric tests, and situations involving small sample sizes. Therefore, the researchers opted for PLS-SEM as it provided a suitable methodology to handle the specific characteristics of the dataset effectively.

4.1 Assessment of measurement loading

The measurement model performs confirmatory factor analysis to assess the validity and reliability of the constructs. Gen X and Y studies are confirmed through the outer loading of each item, as shown in Table 2. Experts recommended that the value of Cronbach alpha (CA) and composite reliability (CR) be above 0.7 and below 0.95 (Hair *et al.*, 2019). Therefore, the value of CA lies between Gen X ($0.852 \leq CA \leq 0.720$) and Gen Y ($0.823 \leq CA \leq 0.760$). Moreover, the values of CR ranged between ($0.874 \leq CR \leq 0.756$) for Gen X and ($0.837 \leq CR \leq 0.774$) for study Gen Y, confirming the reliability and validity of the data.

As noted by Hair *et al.* (2011), all the study Gen X ($0.769 \leq AVE \leq 0.621$) and the study Gen Y research constructs ranged ($0.737 \leq AVE \leq 0.579$), which concludes that the items assessed within the same constructs explain more than 50% of the variance in those constructs. Moreover, Hair *et al.* (2019) stated that discriminant validity between all construct values are less than the proposed cut-off of 0.90 and fulfilled the convergent validity condition (See Table 3) (see Table 4).

4.2 Structure model assessment

The coefficient of determination (R^2), path coefficient (β), and t-statistics measured the structural model. According to Gen X ($R^2 = 0.554$ and Gen Y ($R^2 = 0.545$), attitude, environmental knowledge, green trust, and perceived risk drive 55.4% and 54.5% of the variation in green purchase intention. Similarly, Gen X ($R^2 = 0.421$) and Gen Y ($R^2 = 0.401$) and green purchase intention drive 42.1% and 40.1% of the variation in green purchase behavior, respectively. Furthermore, the effect size of the predictive ability (f^2) of both (Gen Y and Gen X) has a high predictive ability (Hair *et al.*, 2011). β are tested using the bootstrapping

Table 2.
Results of
measurement models

Construct	Outer loadings		Variance inflation factor		Cronbach's alpha		Composite reliability		Average variance extracted	
	Gen X	Gen Y	Gen X	Gen Y	Gen X	Gen Y	Gen X	Gen Y	Gen X	Gen Y
<i>Attitude (ATU)</i>										
Purchasing green housing is a good idea (ATU1)	0.884	0.762	1.879	1.398	0.826	0.760	0.843	0.774	0.741	0.579
Helps in reducing pollution (ATU2)	0.862	0.725	1.985	1.455						
Provide good quality of life (ATU3)	0.836	0.817	1.793	1.577						
In comparison to conventional housing, green housing is safe (ATU4)	-	0.736	-	1.472						
<i>Environmental knowledge (EK)</i>										
Realize the responsibility to protect the environment (EK1)	0.898	0.880	2.243	1.835	0.852	0.823	0.874	0.837	0.769	0.737
Use of green housing is environmentally safe (EK2)	0.889	0.859	2.028	1.954						
Aware of the environmental issues (EK3)	0.843	0.836	2.037	1.783						
<i>Green trust (GT)</i>										
Green housing environmental claims are trustworthy (GT1)	0.832	0.832	1.399	1.383	0.778	0.769	0.793	0.786	0.688	0.679
Helps in the sustainable growth of a nation (GT2)	0.819	0.811	1.812	1.743						
Assure environmental protection (GT3)	0.838	0.830	1.871	1.798						
<i>Perceived risk (PR)</i>										
Chances of having a negative impact on the environment (PR1)	0.725	0.857	1.827	1.563	0.720	0.802	0.756	0.827	0.623	0.711
More expensive in comparison to conventional housing (PR2)	0.812	0.816	1.191	1.852						
Lack of availability of skilled professionals (PR3)	0.827	0.855	1.933	1.834						
<i>Green purchase intention (GPI)</i>										
Intention to purchase green housing in the future (GPI1)	0.751	0.746	1.498	1.481	0.820	0.814	0.826	0.818	0.650	0.643
Environmental friendly features influenced me to purchase green housing (GPI2)	0.845	0.842	1.983	1.950						
Advertisements influence the purchase decision (GPI3)	0.784	0.787	1.650	1.639						
Ready to pay more price (GPI4)	0.841	0.830	1.895	1.824						
<i>Green purchase behavior (GPB)</i>										
Prefer green housing due to its eco-friendly features (GPB1)	0.823	0.820	1.908	1.892	0.801	0.797	0.816	0.811	0.621	0.617
Green housing is better than non-green housing (GPB2)	0.850	0.848	2.505	2.594						
Before purchase, I ensure it contains environmentally friendly material (GPB3)	0.725	0.730	1.882	1.944						
Recommend others to purchase green housing (GPB4)	0.747	0.737	1.281	1.250						

Source(s): Software output

Variables	Attitude	Environmental knowledge	Green trust	Perceived risk	Green purchase intention	Green purchase behavior
Attitude	(0.861)					
Environmental knowledge	-0.025	(0.877)				
Green trust	0.642	-0.107	(0.830)			
Perceived risk	0.057	0.120	-0.015	(0.790)		
Green purchase intention	0.659	0.036	0.673	-0.041	(0.806)	
Green purchase behavior	0.709	-0.116	0.665	-0.108	0.649	(0.788)
Discriminant validity-heterotrait-monotrait (HTMT) ratio (Gen X)						
Constructs	Attitude	Environmental knowledge	Green trust	Perceived risk	Green purchase intention	Green purchase behavior
Attitude						
Environmental knowledge	0.053					
Green trust	0.780	0.139				
Perceived risk	0.132	0.159	0.049			
Green purchase intention	0.790	0.068	0.825	0.053		
Green purchase behavior	0.844	0.137	0.749	0.141	0.762	
Correlation analysis and discriminant validity-Fornell-Larcker criterion (Gen Y)						
Attitude	(0.761)					
Environmental knowledge	0.558	(0.858)				
Green trust	0.480	0.622	(0.824)			
Perceived risk	0.041	-0.035	-0.120	(0.843)		
Green purchase intention	0.541	0.641	0.658	-0.044	(0.802)	
Green purchase behavior	0.456	0.695	0.652	-0.112	0.633	(0.785)
Discriminant validity-Heterotrait-Monotrait (HTMT) ratio (Gen Y)						
Attitude						
Environmental knowledge	0.696					
Green trust	0.592	0.762				
Perceived risk	0.102	0.056	0.161			
Green purchase intention	0.674	0.774	0.815	0.085		
Green purchase behavior	0.536	0.830	0.732	0.137	0.746	

Note(s): Italic values in parentheses represent the square root of AVEs
Source(s): Software output

Gen X and Y:
green housing
purchase
intention

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Table 3.
Correlation analysis
and discriminant
validity-Fornell-
Larcker criterion
(Gen X)

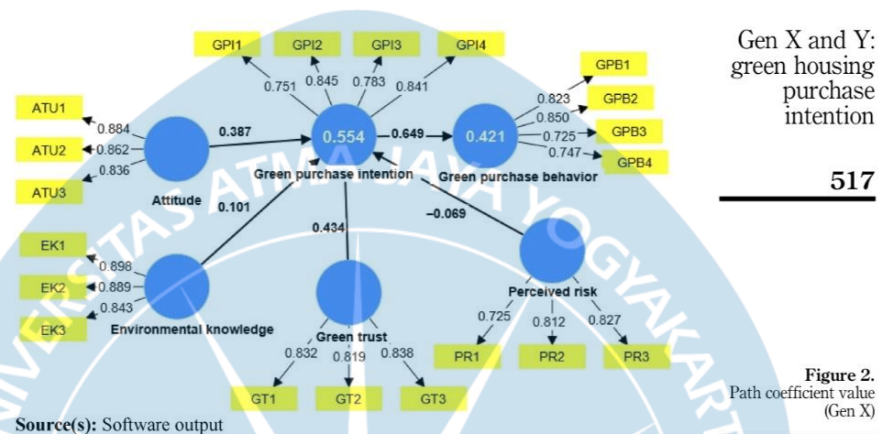
technique (5000 subsamples). The findings of Gen X (see Figure 2) show that green trust → green purchase intention has a higher impact ($\beta = 0.434, p < 0.001$) than attitude ($\beta = 0.387, p < 0.001$), confirming the H1 and H3. However, the environmental knowledge ($\beta = 0.101, p > 0.05$) and perceived risk ($\beta = -0.069, p > 0.05$) negligible influence green purchase intention; accordingly, H2 and H4 are not supported.

Table 4.
Results of hypotheses
testing (Gen X and Y)

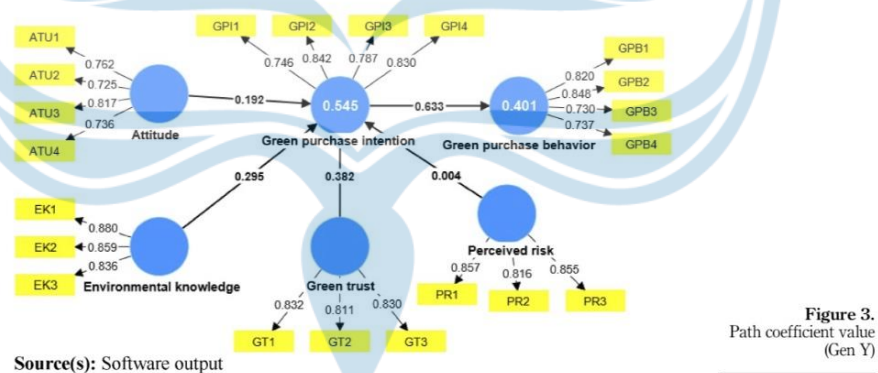
Hypothesized path	Path coefficient		Difference		f^2		t-value		Results	
	Gen X	Gen Y	(Gen X - Gen Y)		Gen X	Gen Y	Gen X	Gen Y	Gen X	Gen Y
H1 Attitude → Green purchase intention	0.387	0.192	-0.195		0.195	0.053	7.593***	3.974***	Supported	Supported
H2 Environmental knowledge → Green purchase intention	0.101	0.295	0.194		0.022	0.101	1.800	5.521***	Not supported	Supported
H3 Green trust → Green purchase intention	0.434	0.382	-0.052		0.245	0.185	8.507***	7.413***	Supported	Supported
H4 Perceived risk → Green purchase intention	-0.069	0.004	0.0733		0.010	0.000	1.074	0.075	Not supported	Not supported
H5 Green purchase intention → Green purchase behavior	0.649	0.633	-0.016		0.726	0.669	19.238***	17.637***	Supported	Supported

Note(s): Significance at $p < 0.05^*$, $p < 0.001^{***}$

Source(s): Software output



Besides the outcome of Gen Y (see Figure 3), green trust $\rightarrow$ green purchase intention has a higher impact ($\beta = 0.382, p < 0.001$) than environmental knowledge ($\beta = 0.295, p < 0.001$) and attitude ($\beta = 0.192, p < 0.001$), confirming the H1, H2, and H3. Nevertheless, the perceived risk ($\beta = 0.004, p > 0.05$) has a negligible effect on green purchase intention; accordingly, H4 is not supported. On the same note, the finding of the path coefficient of green purchase intention $\rightarrow$ green purchase behavior for Gen X ($\beta = 0.649, p < 0.001$) and Gen Y ($\beta = 0.633, p < 0.001$) have substantial influence; therefore, confirming H5.



5. Discussion

In India, the active involvement of individuals (Gen X and Y) in real estate purchase decisions is a matter of substantial significance and contribution. Thus, the current study established and examined a research model on the factors influencing Gen X and Gen Y toward green purchase behavior. The present study offers various important and exciting findings.

First, the results show that attitude significantly influences the green purchase intention of Gen X and Gen Y. This indicates that when individuals hold a positive attitude toward green housing, they are motivated to purchase it (Zahan *et al.*, 2020; Kabir *et al.*, 2023). The findings of this research are consistent with previous research (Huang, 2022). Further, the authors exhibited a substantial association between green purchase intention and environmental knowledge in Gen Y, parallel to the outcomes (Asif *et al.*, 2023). However, environmental knowledge insignificantly influences the green purchase intention of Gen X, consistent with (Zahan *et al.*, 2020). It shows that Gen X has limited exposure to environmental issues or may need to be fully aware of the environmental impact on their purchasing decisions.

Notably, green trust significantly impacts individuals' green purchase intention, which aligns with the findings of Asif *et al.* (2023). It implies that individuals' trust that green housing fulfills the environmental protection commitment substantially influences their buying decisions. However, the results show that perceived risk insignificantly influences the green purchase intention of Gen X and Gen Y. This shows that people are not interested in purchasing green housing when they perceive it to have higher initial and maintenance costs. The finding parallels the research of (Tan and Goh, 2018; Pan *et al.*, 2021), which shows that perceived risk insignificantly influences the green purchase intention of Gen X and Gen Y. Moreover, green purchase intention substantially impacts individuals' green purchase behavior, parallel to the result of (Zahan *et al.*, 2020; Kabir *et al.*, 2023). It means that when individuals have high intentions to purchase green housing, they are the buyers.

5.1 Theoretical implications

This article offers numerous vital theoretical contributions to the extant literature. Firstly, research examining home selection and purchasing decisions is few and is in the early stages of academic interest (Kaynak *et al.*, 2022). The previous literature has comprehensively examined the green purchase intention of individuals; there has been a significant gap in understanding the potential differences in individuals' behavior towards green housing. Hence, the current study makes a conceptual model reflecting the factors impacting individuals' green purchase behavior toward green housing.

Second, this article is pioneering empirical investigations conducted from the Gen X and Gen Y perspectives in NCR (India). Additionally, the current article also contributes significantly to the extant literature on green housing purchases by providing a comprehensive understanding of how and what factors influence the green purchase behavior of Gen X and Gen Y. By conducting comparative research between Gen X and Gen Y, this article sheds light on the nuanced variations in their behavior of individuals towards green housing.

Finally, the current research reveals that environmental knowledge and perceived risk insignificantly influence the green purchase intention of Gen X. It shows the variables that significantly impact the purchase behavior of individuals when they want to purchase a greenhouse. The findings also suggest that green trust and purchase intention are essential considerations in forming the purchase behavior of individuals. Furthermore, understanding these factors is essential for real estate developers and policymakers, as it helps formulate policies for enhancing green housing use in individuals.

5.2 Practical implications

The present research has significant practical implications for real estate developers, individuals, government officials, and policymakers. According to empirical results, perceived risk insignificantly influences the green purchase intention for Gen X and Gen Y. It indicates that limited accessibility or availability of resources, i.e., skilled professionals, eco-friendly materials, and financing options, can raise concerns and perceived risks in green housing projects. Thus, policymakers can offer financial incentives, including tax credits,

grants, and subsidies, to make green housing more affordable for prospective buyers (Moslehpour *et al.*, 2023). Real estate developers emphasize fulfilling customers' basic requirements and preferences, such as cost, place, and facilities. These initiatives can offset the initial costs and alleviate financial concerns associated with green housing. Marketers and real estate developers can incorporate sustainable initiatives, i.e., solar panels and energy-efficient appliances, responsible for eco-friendly practices (Jacob *et al.*, 2023).

For Gen X, the results depict an insignificant link between environmental knowledge and green purchase intention. Thus, public awareness and education campaigns are also essential for motivating individuals, especially Gen X, to consider green housing. Due to urbanization, people are increasingly relocating from rural areas to cities; therefore, the demand for housing is increasing daily. So, the government can start campaigns to inform people about the benefits of green housing and encourage environmentally friendly living. It reduces pollution by addressing energy consumption, water usage, waste generation, material selection, indoor air quality, and promoting sustainable urban development. These practices benefit the environment and enhance the overall well-being of residents and communities. Economists and governments should formulate policies to enhance green production and eco-innovation by creating awareness and enforcing specific regulations to motivate individuals to make green purchase intentions (Moslehpour *et al.*, 2023). This research also recommends that the government offer financial incentives, implement regulations, and raise awareness that can motivate individuals to embrace sustainable housing solutions and contribute to a sustainable future. Consumers are more likely to choose green apartments if they ascribe more importance to the welfare of other species, people, and nature. Thus, consumer positioning strategies to promote the adoption of green apartments would be more effective if they target the right values that consumers hold.

5.3 Limitations

Although the present study is expected to contribute substantially to the literature on green housing, some limitations of the existing research provide ways for future studies. The present research was conducted on Indian individuals regarding green housing purchase intention. Therefore, future studies may focus on various nations, or a comparative analysis may examine the geographical differences. Secondly, this article is based on cross-sectional data; however, further studies can be found on a longitudinal research design that explains the differences between purchase intentions and purchase behavior over a long period. Third, this study utilized snowball sampling techniques for collecting responses from Gen X and Gen Y. Future research used probability sampling techniques to gather responses from a more extensive and diverse sample, thereby representing a wider population. In future research, the respondent's residence place (i.e., metro/small city, rural/urban) can be considered a moderating variable to understand individuals' green purchase behavior.

6. Conclusion

Green real estate is a prominent sector focusing on protecting the environment and establishing harmony between nature and people (Jacob *et al.*, 2023). The findings exhibited that individuals had a stronger preference for green housing purchasing in both studies. By increasing the understanding of green housing, the present study helps promote green housing use in India. Similar to the result of Zahan *et al.* (2020), the outcomes show that consumers' green purchase intention (advertisements influence the purchase decision, ready to pay more) has the most significant impact on their green purchase behavior. Additionally, in Gen X and Y, the effect of environmental knowledge on green purchase intention was varied. Gen Y, where environmental knowledge encompassed awareness of environmental

concerns and a sense of accountability to save the environment, showed a significant effect. However, in the case of Gen X, the impact of environmental knowledge was found to be statistically insignificant. This difference can be attributed to the limited awareness of environmental issues among Gen X, which led to negative perceptions influencing their purchase intention. Additionally, both kinds of research also exhibited that perceived risk (negative environmental impact, more expensive and limited skilled professionals while purchasing green housing) had insignificantly influenced individuals' purchase intention. These results highlight the significance of addressing these issues to increase individuals' intention to move toward green housing. Individuals' trust in green housing will significantly influence their purchase intention, leading to purchase behavior. To stimulate the intention of purchasing green housing, the government requires advocating the growth of green housing for housing developers. This study also suggests that government needs to set higher standards for green building certifications; governments can create a market demand for green housing and ensure that sustainable features are incorporated into new construction projects. Hence, practitioners can tailor their strategies to effectively communicate the benefits of sustainable homes by understanding the factors that drive individuals to invest in green housing.

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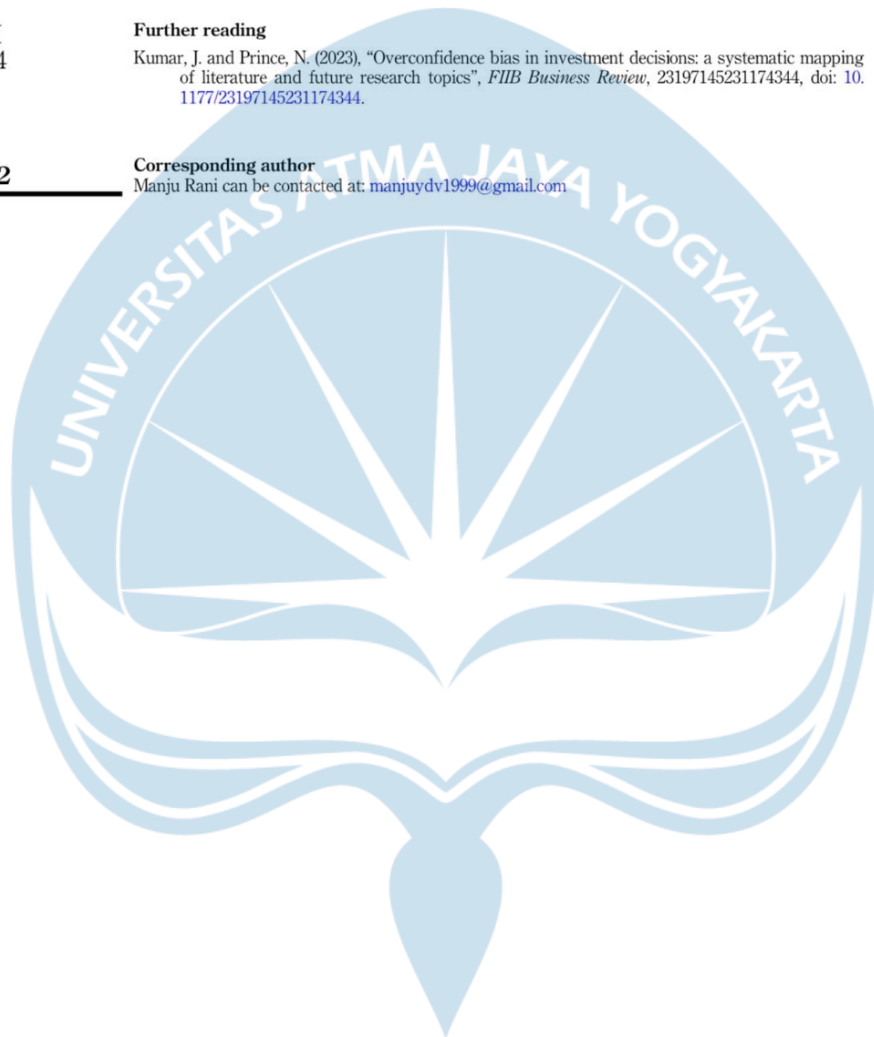
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