

Received: 18 October 2023 Accepted: 3 November 2023  
DOI: <https://doi.org/10.33182/tbm.v1i2.3182>

## Evaluating Consumer's Behaviour Towards Investing in Sustainable Luxury Real Estate

Nikhil Sharma<sup>1</sup> and Susan Nwadinachi Akinwalere<sup>2</sup>

### *Abstract*

*This study investigates consumers' investment inclinations towards sustainable luxury real estate. It does so by assessing the influence of various factors, namely environmental concerns, attitudes, subjective norms, perceived behavior control, and the perception of purchasing or investing in sustainable luxury real estate. Additionally, the study examines how consumer gender and age intersect with these factors to affect purchase intentions regarding sustainable versus non-sustainable luxury real estate. The research extends the Theory of Planned Behavior by incorporating the dimension of environmental concern, recognized as a pivotal element in shaping consumer intentions towards sustainable products. Data was collected from 282 respondents worldwide, aged between 18 and 40, reflecting the global relevance of environmental concerns. Data analysis was conducted using Microsoft Excel for coding and IBM SPSS version 26 for statistical analysis. The findings underscore the significant impact of environmental concern, subjective norms, attitude, and consumer perception on purchase intentions for environmentally sustainable luxury real estate. Furthermore, the research reveals notable disparities between male and female consumers and across various age groups concerning perceptions of sustainable luxury real estate.*

**Keywords:** *Consumer behaviour; sustainable luxury; real estate; Theory of Planned Behaviour*

### Introduction

Sustainability is a concept, which is related to fulfilling the desires of human beings for a better life in an alternative way, as the natural resources are limited on the earth. Over time this concept has been examined thoroughly for social, economic, and environmental welfare (Brundtland report, 1987). However, sustainability is also concerned with reducing the wastage of natural resources for future generations. According to the report of the (World Economic Forum 2016), the government and real estate representatives are concerned together about the impact of real estate business and urbanisation on the environment.

This report says that the real estate business is the major source of emissions as it consumes a considerable part of resources. It could play an essential part to build a sustainable and environmentally friendly future. They found that the real estate business contributes 20% of carbon emissions to the environment. However, it also generates a considerable amount of waste, consumes a huge amount of water, consumes other natural resources, and increases environmental pollution. (World Economic Forum 2016) claims that the real estate sector uses 40% of the overall energy produced in the world per year. It also estimates that this sector will show an increase of 56% in CO<sub>2</sub> emissions by the year 2030. However, it is also expected that this sector will use 12% of the freshwater in the world and generate 30% of waste in just

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<sup>1</sup> Nikhil Sharma, United Kingdom. E-mail: [snikhil393@gmail.com](mailto:snikhil393@gmail.com)

<sup>2</sup> Susan Nwadinachi Akinwalere, University of East London, UK. E-mail: [susanakinwalere@yahoo.com](mailto:susanakinwalere@yahoo.com)



the European Union (World Economic Forum 2016). A significant increase in the real estate market will be seen as it is estimated that the world population will surpass 8 billion, and 60% of the population will live in urban areas.

Moreover, according to the (World Economic Forum 2016), around 61% of the world GDP will be represented by the 750 biggest cities in the world, which will require

- 260 million new homes for the people
- 540 million m<sup>2</sup> of new office space and
- 60 million new jobs in the industry.

The UN and 195 other countries agreed to keep the global warming temperature under 2°C During the (COP21) climate change conference in Paris, France in 2015 December. To achieve the target of maintaining global warming under 2°C, the real estate industry must cut down the emission of CO<sub>2</sub> by 36% by the year 2030 (World Bank estimate). Furthermore, if the entire world did not work toward reducing global warming, this will result in an increase in the global temperature within a few years. Due to this, the whole world must face environmental crises such as submerging level the island nations in water because of increased sea levels, floods, etc. This study aims to evaluate the willingness of consumers to invest in sustainable luxury real estate with the objectives below:

- To identify the purchasing/investment behaviour of Gen Z and Millennial consumers with the help of a relevant literature review.
- To identify the consumer's behaviour towards modern luxury homes and sustainable luxury homes.
- To identify whether consumers prefer to invest in their property or are willing to have a rented home.

Overall, it is envisaged that knowledge, and hence a proper understanding of sustainable luxury real estate as well as evaluating the consumer's behaviour towards investing in sustainable luxury real estate, will significantly contribute to both theory and knowledge in the field. Additionally, valuable policy implications are expected to offer a useful blueprint for policy choices to facilitate the institutional implementation of appropriate measures to encourage sustainability in luxury real estate.

## **Literature Review**

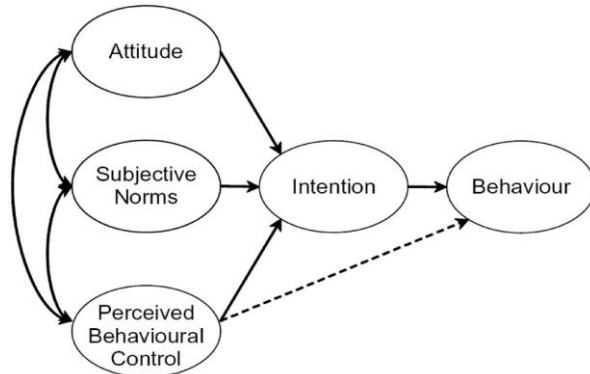
### **The Theory of Planned Behaviour and Conceptual Framework**

Studies have shown that the theory of planned behaviour TPB (Ajzen, 1991) (see Figure 1) is widely used to analyse factors that influence behaviour and intent for specific problems across various social behaviours. Proposed by Ajzen (1992), it states that the outcome of action depends on motivation and ability. The TPB assumes that a person's intention or rationale for acting in a particular way is influenced by his or her attitude, subjective norms, and perceived behavioural control. This theory was used to study investment decisions in real estate in 2018 (Hemavathy et al. M Vasuki 2018), also Lin Zhang, Liwen Chen, Zezhou Wu, Sizhen Zhang and Huanbin Song (2018) apply this theory to study young consumer

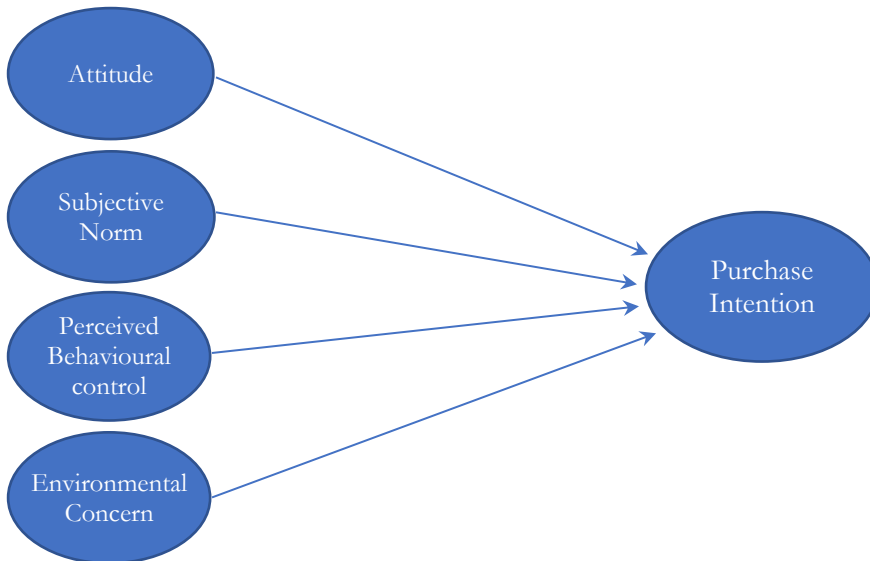


purchasing intention of green housing in China. This theory has also been used to customer perception of restaurant sustainability and to enhance biodiversity (Aurelio Tommasetti 2018 and Mariet A. Haaster-de Winter, Thomas J.M Mattijssen) respectively. Based on these findings, this theory was therefore considered suitable for this study as it seeks to assess consumers' attitudes and intentions towards investing in sustainable real estate. The evidence available in the literature has shown the effectiveness of this theory in studying human behaviour, especially volition control behaviour, as in this study.

**Figure 1.** Theory of Planned Behaviour, Source: Ajzen, 1991.



**Figure 2.** Conceptual Framework (Extended Theory of Planned Behaviour)



According to Ajzen (1991), the theory of planned behaviour is always open to exposing an extra size of variance in aim or behaviour. However, On the other hand, a new variable should be added to the original model just because of these factors: (1) To affect the decision-making method there should be a crucial factor. (2) It should be different conceptually and independently from the previous factors. (3) it should be appropriate for specific behaviour. Based on this background, the examine implements a version that extends the TPB with the

aid of using including a brand-new construct (which is an environmental concern) (see fig.2) wherein beyond literature has proven to play an important function in client buy goal of sustainable products (Meng & Choi, 2016; Chen & Hung, 2016).

### **Consumer Attitude and Investment Intention of Sustainable Real Estate**

Ajzen's (1991) theory of planned behaviour is the best theory behave that can be used to predict the behaviour of someone just by asking whether he or she is interested in behaving in a particular manner. According to some authors (Chen & Tung, 2014; Choi ,et al.;2015) consumer behaviour of visiting the green hotel and environmental consciousness is an important part of green consumer behaviour. What motivates people to make the choices they do? This is an important question to ask, as it can help us understand why they behave the way they do. On the other hand, the choices made by non-profit organisations and public policymakers are influenced by internal and external factors. This allows them to be more confident in influencing ethical and sustainable behaviour, which will likely lead to behaviour change. (Abdolmohammadi & Baker, 2008). There are a lot of exciting things to consider when it comes to consumer behaviour and the environment. Accordingly, households with children under 18 years are also of interest. It is possible that households with children under 18 years old would be more concerned about the planet's future because they learn about sustainable consumption at school. (Brennan, 2011). In countries like Australia, housing sustainability certifications are both voluntary and mandatory. Due to the national building code, all newly built homes (and, to some extent, homes being expanded) must meet a 6-star NatHERS (Nationwide House Energy Rating System) rating. Development-based tools in residential real estate are primarily Green Star (i.e., multiple units or communities), Envirodevelopment and Built Environment Sustainability Scorecard (BESS, Victoria only). According to (Ward et al., 2011), the ecolabels and star rating scheme make consumers aware of the relative efficiency of different products. They are more motivated to pay, which affects the experience of the consumers. There are potential openings for builders and engineers to showcase the maintainability certifications and traits of their improvements to include esteem, given the positive intentions of these traits for buyers. However, at shows, there is a need for sustainability data accessible to shoppers (Warren-Myers & Mc Rae, 2017). Another research says outside elements of the buyer likewise impact the buying system of a handcrafted pre-assembled house. Outside factors like reference gatherings and family buyers impact the buying cycle of a specially crafted pre-assembled house (Koklic & Vida, 2009). Social and social components play a critical part in the relative importance of lodging inclinations, which are decided by religion, Family relationships, and social relations (Jabareen, 2005). The study highlights that the purposefulness to buy genuine domain was impacted by demeanour and subjective standards, whereas perceived behavioural control was not, with the subjective standard component being more powerful. Citizenship was not a moderator on the relationship between autonomous and dependents. Based on these findings, it can be said that consumer attitude toward sustainable property, whether it works in the same way or helps to increase the environmental benefits, could affect the consumers purchasing intention.

### **Subjective Norms (SN)**

Subjective norms are described as perceived social constraints to carry out a specific behaviour (Ajzen, 1991). This norm shows how important it is for consumers to have a positive social image and how much they feel ethical towards others by purchasing sustainable products.



(Ajzen, 1992). Attitudes of these people help investors make certain decisions. This study, carried out by some research, showed a strong relationship between subjective norms and intention. (Alam & Sayuti, 2011). On the other hand, people also have a country feel which can increase the purchasing intention of a customer. It may also decrease the purchase intention among the customers for a particular product. (Kotler and Keller, 2006) According to (Zheng et al., 2015), perceived social pressure from relevant groups, such as friends and family, can affect consumer purchase intention when analysing variables influencing consumer's intentions to purchase environmentally friendly gear. This has been supported by a wide body of work from scholars like (Ko & Jin, 2017), which demonstrates a substantial correlation between subjective norms and intention to buy sustainable property. Interestingly, (Yadav and Pathak et al., 2016) also found that subjective norms substantially impacted customers' purchase intentions for other goods like organic food. Therefore, the purpose of this study is to determine if the option of close friends and family members concerning ecologically sustainable real estate has a substantial impact on the desire to invest in property.

### **Perceived Behavioural Control (PBC)**

Perceived behavioural control, according to Ajzen (1991), is the impression that people have about how simple or difficult it is to act on interest. This is the whole of the diverse ideals inside an individual's management which incorporates each of the barriers and the perceived facilitators in creating a decision (Ajzen, 2002). Ajzen (2002) defined that a man or woman can also additionally usually trust that his behaviour determines his outcomes. But at the same time, individuals are unlikely to achieve this result, as various factors such as time, money, product availability, skills, product knowledge, and previous purchases affect perceived behavioural control. In addition, it has been discovered that the availability or deficiency of the required resources also prompts the behaviour of the consumers. Therefore, the factors like knowledge of the consumers about the environment, cost and easy availability of eco-friendly sustainable real estate can remarkably influence the purchase intention of the consumers for this product.

### **Environmental Concern and Purchase Intention**

An essential factor in assessing and figuring out what drives customer attitudes and purchase choices is a concern for the environment. If customers are worried about the environment. The customers' attitudes regarding the environment will be favourable. Additionally, environmental issues are connected to the buyer's mindset and directly influence their buying decision (Uddin, S.M.F. et al., 2018).

The theory of planned behaviour (TPB) (Ajzen, 1991), a psychological model of decision-making processes, is used in the current study to examine the irrational attitudes and beliefs that influence decisions to buy a home that has received a sustainability certification.

Currently, the majority of research on the psychological factors influencing pro-environmental behaviour has concentrated on relatively low-investment behaviours, like reducing overall consumption, increasing recycling, or selecting "green" alternatives, such as organic food, energy-efficient appliances, green mobile phones, green hotels, electric cars, or energy providers. Examples include Carfora et al. (2017), Yadav and Pathak (2016), and Judge, M., Warren-Myers, G. and Paladino, A. (2019).

The TPB has frequently been expanded for studying pro-environmental behaviour by adding pertinent self-identity measures, notably pro-environmental identity or green consumer self-identification (e.g. Judge, M., Warren-Myers, G. and Paladino, A.2019). The moderating function of green consumer identity about low-investment pro-environmental behaviour has also been the subject of previous research, which is also extended by the current study (Carfora et al., 2017). In addition, (Warren-Myers et al., 2017) discovered that consumers claimed there was little conversation regarding environmental certifications throughout the development of their homes. According to (Tan et al., 2017), consumers who utilize energy-efficient items can lessen the negative effects of energy use on the environment. In addition, side studies revealed that consumers' intentions about the environment were significantly influenced by their perceptions of their moral commitments (Akhtar et al., 2021).

Due to the harm caused by the usage of numerous throwaway items, ecologically hazardous industrial methods, and environmental catastrophes, environmentalism has become a significant concern during the past few decades (Easterling et al., 1996). Numerous research on consumer behaviour about the environment has addressed the significance of an environmentally conscious mindset and environmental concerns (Laroche et al., 2001) (Han et al., 2009). According to earlier studies, individual traits such as gender, age, education, and money can significantly determine why people choose to consume environmentally friendly products (e.g., Laroche et al., 2001).

For a variety of product categories, including, to mention just two, energy-efficient appliances and forest products (Delmas et al., 2016), the influence of third-party verified environmental information on customer behaviour has been thoroughly explored. In a wide range of housing market research, conjoint analysis has been effective in gaining a deeper understanding of the relative significance of housing qualities in the subjective process of residential property purchase choices (for example, Hoshino et al., 2011).

However, only a small number of researchers have used conjoint analysis to assess how environmental factors in housing alternatives affect consumers' decisions (for example, Leishman et al., 2012). The reasons why end consumers choose to consume in an ecologically responsible way are complicated and interact with a variety of intellectual, moral, and practical issues (Moisander, 2007). Others claim that economic incentives and societal values, rather than environmental messaging, have propelled Singapore's national recycling programme to succeed (Singapore Sixth National Report to the convention on biological diversity, 2015).

Overall, it can be concluded from the research in the literature examined that environmental awareness has a substantial impact on people's decision to buy sustainable real estate and is a critical variable to consider when analyzing this decision. These evaluations led to the discovery that not enough study had been done on the topic of real estate, and more particularly, sustainable luxury real estate, employing the sustainability issue as an extra component in TPB. Additionally, the aforementioned research was conducted in various geographic regions. There is a vacuum in the literature as none of these researchers used the world as a case study. Therefore, the purpose of this study is to determine if these findings are comparable.



## **Methodology**

For this study, a deductive research strategy was implemented since it is suitable for evaluating accepted hypotheses (Yeung et al. (2007). This strategy is employed in part because the data gathered for this investigation is quantitative. Deductive and inductive research methodologies have been recognised as the two primary research techniques by (Bell et al., 2018). A grounded theory serves as the foundation for the inductive research technique, according to their claims. The deductive method, on the other hand, is best suited when a theory has to be tested. (Bell et al., 2018) have made the case that, despite the fact that deductive research methods are typically utilized in quantitative studies, they are equally suitable for qualitative investigations.

The core objective of this research is to determine purchase intention regarding sustainable luxury real estate, and the quantitative data collected will be used to do just that. After that, it will be determined whether the theory of planned behaviour is valid in predicting consumer intentions and attitudes toward the decision to invest in sustainable luxury real estate.

### **Sampling Procedure and Inclusion Criteria**

Individuals between the ages of 18 and 40 were the target respondents for this study, residing in different countries of the world. The impact of real estate can be seen on ecosystem stability and also on human health which is undeniable around the world. According to the Department of Economic and Social Affairs (World Urbanization Prospects 2018) more than half of the world's population is living in urban areas. As per the report 37 per cent increase is estimated in the urban population which will be around 2.5 billion people by the year 2050 just because of three countries namely, China, India, and Nigeria. Only individuals who are interested in real estate (in terms of living, working etc.) will be used as respondents in this survey thanks to this strategy. Participants were fully notified about the purpose of the study before their emails were taken, and they were also asked to provide their consent by signing the participation form. Three surveys were carried out, emails were sent to more than 200 respondents, and only 139 people completed the survey successfully by providing accurate and comprehensive replies. Due to this, the second round of surveys had to be conducted, and 100 respondents were contacted through LinkedIn but only 96 out of them responded back. Then a third round of the survey was also conducted through WhatsApp; 50 more respondents were contacted and 47 responded back. Overall, 400 surveys were distributed, and 282 were properly completed.

### **The Description of the Survey Instrument and Analysis Method**

Data was collected via an online survey through Google form. Along with this analysis of the acquired findings has been conducted using the SPSS tool. Simultaneously it collects information regarding the changing consumer behaviour towards their investment in sustainable luxurious real estate. Moreover, the data has been gathered from 282 customers from different countries who pose the behaviour toward investing in luxurious real estate. Furthermore, the collected information has also been critiqued with the perceptions of other authors and researchers who investigated a similar topic area.

Keeping the theory of planned behaviour (TPB) in view the questionnaire was developed. The perceived benefits of sustainable products, environmental concerns, subjective norms, and perceived behavioural control were used as a variable to indicate the attitude of the

consumers toward sustainable products. The questionnaire contains 13 questions and is divided into sections. The first one was to identify the attitude of the respondents regarding sustainable real estate. On the other hand, the second segment focused on the subjective norms of the respondents, however, the third piece looked at the perceived behavioural control. Whereas in the fourth portion, respondents' environmental concerns were assessed, Moreover, in the last section respondents' intention to purchase was evaluated.

All information was coded, entered into a Microsoft Excel spreadsheet, and then analyzed with IBM SPSS version 22. Prior to doing the statistical data analysis in detail, a preliminary frequency operation was carried out to check for missing data, anomalies in the data input, coding errors, and most importantly, the normality of the data distribution.

## Results and Analysis

**Table 1.** Descriptive Analysis of Age

Age		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	17-25 years	119	37.9	42.2	42.2
	26-30 years	105	33.4	37.2	79.4
	31-35 Years	40	12.7	14.2	93.6
	36-42 Years	18	5.7	6.4	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing</b>	<b>System</b>	32	10.2		
<b>Total</b>		314	100.0		

From the above table, it has been analyzed that the majority 37.9% proportion of the participants belonged to the age group of 17 years to 25 years. On the other hand, 33.4% of the participants were in the age group of 26 years to 30 years, while 12.7% were in the age range of 31 years to 35 years. Besides this, only 5.7% of the participants belong to the age range of 36 years to 42 years. Inspired by (Ehrlich-Scheffer et al., 2021), individuals born in the period 1997-2012 are known as Gen Z. In this respect, it can be mentioned that customers in the age range of 17 years to 25 years belong to the Gen Z category with a new attitude and thought process towards the industry. Thus, collecting information from this category of customers is considered beneficial to produce conclusive results.

**Table 2.** Descriptive Analysis of Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	180	57.3	63.8	63.8
	Female	102	32.5	36.2	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing</b>	<b>System</b>	32	10.2		
<b>Total</b>		314	100.0		

From the above visualization, it can be evaluated that most 57.3% of the customers were male, while 32.5% of the participants were females. This signifies that men are more interested in buying luxury real estate. Concerning this, it can be stated that information gathered from this section of the participants is valuable and reliable to meet the established research aim and objectives.

**Table 3.** Descriptive Analysis of Marital Status





Marital_Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	205	65.3	72.7	72.7
	Married	77	24.5	27.3	100.0
	Total	282	89.8	100.0	
Missing	System	32	10.2		
Total		314	100.0		

Table 3

The data collected regarding marital status of the participants show cases that 65.3% of the consumers were single whereas 24.5% of them were married. This gathered information helps in further evaluating that people who have not been married or more interested towards purchasing luxurious real estate properties. On the other hand, (Istanti et al. 2020) argued that purchasing decisions of customers regarding different products and services depends on a variety of factors including their desires and price. Relating to this, it can be mentioned that married people are more cautious about prices of products while making purchasing decisions compared to married ones.

Table 4. Descriptive Analysis of Country of respondents

Country		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Australia	7	2.2	2.5	2.5
	Canada	35	11.1	12.4	14.9
	China	6	1.9	2.1	17.0
	Europe	22	7.0	7.8	24.8
	India	93	29.6	33.0	57.8
	New Zealand	8	2.5	2.8	60.6
	Others	7	2.2	2.5	63.1
	United Kingdom	61	19.4	21.6	84.8
	United State	43	13.7	15.2	100.0
	Total	282	89.8	100.0	
Missing	System	32	10.2		
Total		314	100.0		

From the above visualization, it can be evaluated that the majority of the participants were from India which represented 29.6% of the total population selected. On the other hand, 13.7% of the participants were from the United States who presented their responses concerning the research area. Alternatively 19.4% of the participants were from the United Kingdom and 7% from Europe while 11.1% of the customers participated from Canada. Besides this, 2.2% of the participants were from Australia, 2.5% from New Zealand; whereas 1.9% from China. Apart from this, 2.2% of the participants participated in this research about consumer behaviour concerning luxury real estate from other nations.

Table 5. Descriptive Analysis for profession

Profession		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business	48	15.3	17.0	17.0
	Job	192	61.1	68.1	85.1
	Others	42	13.4	14.9	100.0
	Total	282	89.8	100.0	
Missing	System	32	10.2		

<b>Total</b>	314	100.0
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It can be analysed from the gathered findings that the majority 61.1% of the participants are employed with a job whereas 15.3% of them have their own businesses. Alternatively, the rest 13.4% of the respondents who participated are involved in other professions. In this respect, the majority of the data is gathered from the ones having jobs and their views regarding purchasing decisions of luxury real estate is beneficial.

**Table 6.** Descriptive Analysis for monthly Income

<b>Monthly_Income</b>		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	\$2,000-\$10,000	92	29.3	32.6	32.6
	\$11,000 - \$50,000	2	.6	.7	33.3
	\$51,000 - \$1,20,000	2	.6	.7	34.0
	£100 - £7,000	61	19.4	21.6	55.7
	£7,100 - £30,000	3	1.0	1.1	56.7
	£31,000 - £50,000	1	.3	.4	57.1
	£5,100 - £2,00,000	2	.6	.7	57.8
	EU1000 - EU5000	23	7.3	8.2	66.0
	EU5100 - EU9000	2	.6	.7	66.7
	EU9100 - Above	1	.3	.4	67.0
	RS 1,000 - RS 50,000	16	5.1	5.7	72.7
	RS 51,000 - RS 1,00,000	44	14.0	15.6	88.3
	RS 1,01,000- RS 5,00,000	15	4.8	5.3	93.6
	RS 5,01,000- Above	2	.6	.7	94.3
	No income/varies	16	5.1	5.7	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing System</b>	32	10.2			
<b>Total</b>	314	100.0			

From the above table, it is found that the majority 29.3% of the participants have income in the range of \$2,000-\$10,000. In contrast, 19.4% of the participants are considered to have income in the range of £100 - £7,000; whereas, 3% have income in the range of £31,000 - £50,000. On the other hand, around 14% of the participants are found to possess their annual income of RS 51,000 - RS 1, 00,000. Besides this, 7.3% of the participants have income in between EU1000 to EU5000, who showed their interest in participating in this research. Nevertheless, (Pícha and Navrátil et al., 2019) cited that the purchasing behaviour of customers is also dependent on the factor of income. Concerning this, it can be stated that the obtained information from these participants might vary because of the differences in their income.

**Table 7.** Descriptive Analysis for willing to invest

<b>Willing to Invest</b>		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Yes	232	73.9	82.3	82.3
	No	50	15.9	17.7	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing System</b>	32	10.2			
<b>Total</b>	314	100.0			

The collected information from the selected research participants showcases that the majority 73.9% of them are interested in purchasing luxury real estate property. However, 15.9% of



the participants have been identified to be not willing to purchase the luxurious real estate properties. From this, it can be evaluated that the purchasing decisions of customers depend on various factors to be identified in further research.

**Question 8:** Descriptive statistics for Factors motivate you to invest in real estate

<b>Factors that motivate to invest</b>		<b>Frequency</b>	<b>Percent Valid</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Valid	Culture	2	.6	.7	.7
	Culture+Others	6	1.9	2.1	2.8
	Family	26	8.3	9.2	12.1
	Family+Culture	6	1.9	2.1	14.2
	Family+Culture+Others	2	.6	.7	14.9
	Family+Friends	13	4.1	4.6	19.5
	Family+Friends+Culture	15	4.8	5.3	24.8
	Family+Friends+Social	9	2.9	3.2	28.0
	Family+Friends+Social+Culture	3	1.0	1.1	29.1
	Family+Friends+Social+Culture+Others	5	1.6	1.8	30.9
	Family+Others	6	1.9	2.1	33.0
	Family+Social	7	2.2	2.5	35.5
	Family+Social+Culture	7	2.2	2.5	37.9
	Family+Social+Others	16	5.1	5.7	43.6
	Friends	17	5.4	6.0	49.6
	Friends+Culture+Others	1	.3	.4	50.0
	Friends+Others	4	1.3	1.4	51.4
	Friends+Social	6	1.9	2.1	53.5
	Friends+Social+Culture	11	3.5	3.9	57.4
	Friends+Social+Others	3	1.0	1.1	58.5
	Others	26	8.3	9.2	67.7
	Social	54	17.2	19.1	86.9
	Social+Culture	3	1.0	1.1	87.9
Social+Culture+Others	1	.3	.4	88.3	
Social+Others	33	10.5	11.7	100.0	
Total	282	89.8	100.0		
Missing System	32	10.2			
Total	314	100.0			

Indahingwati et al. (2019) opined that consumers feel motivated to purchase due to different factors like culture, reference from their friends, family and other social aspects. Correspondingly, it has been evaluated that 17.2% of the participants are believed to feel motivated through social factors, whereas 8.3% of the respondents feel encouraged because of their family perceptions and thoughts. Besides this, 5.4% of the respondents have stated that they feel motivated because of their friends and they prefer taking suggestions from their friends who have better knowledge about real-estates.

**Question 9:** Descriptive statistics for prefer to invest for living

<b>Prefer_to_invest_for_living</b>		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Own Sustainable Property	149	47.5	52.8	52.8
	Own Non Sustainable Property	17	5.4	6.0	58.9
	Own Sustainable Property+ Own Non Sustainable Property	1	.3	.4	59.2
	Own Sustainable Property + Rented Sustainable Property	74	23.6	26.2	85.5
	Rented Non Sustainable Property	3	1.0	1.1	86.5
	Rented Sustainable Property	38	12.1	13.5	100.0
	<b>Total</b>	<b>282</b>	<b>89.8</b>	<b>100.0</b>	
Missing System	32	10.2			
<b>Total</b>	<b>314</b>	<b>100.0</b>			

From the tabular presentation, it can be analyzed that the majority of the participants intends to invest in luxurious real-estate with the aim to gain their own sustainable property. On the contrary, 23.6% of the respondents feel that they should invest in order to gain the advantage of attaining their own sustainable property along with their own non-sustainable property. Furthermore, 12.1% of the participants are found to invest with the intention to acquire a rented sustainable property. Depending on this, (Qazzafi et al., 2019) claimed that customers possess different desires while making purchasing decisions. Thus, it can be stated that customer purchasing behaviour is also dependent on their desires, interests and needs.

**Question 10:** Descriptive statistics for prefer to invest for workplace

<b>Prefer_to_invest_for_working</b>		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Own Non Sustainable Property	22	7.0	7.8	7.8
	Own Sustainable Property	88	28.0	31.2	39.0
	Own Sustainable Property + Own Non Sustainable Property	2	.6	.7	39.7
	Own Sustainable Property + Own Non Sustainable Property + Rented Sustainable Property	1	.3	.4	40.1
	Own Sustainable Property + Rented Sustainable Property	27	8.6	9.6	49.6
	Rented Non Sustainable Property	4	1.3	1.4	51.1
	Rented Sustainable Property	136	43.3	48.2	99.3
	Rented Sustainable Property + Rented Non Sustainable Property	2	.6	.7	100.0
	<b>Total</b>	<b>282</b>	<b>89.8</b>	<b>100.0</b>	
	Missing System	32	10.2		



<b>Total</b>	314	100.0
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The above presented table showcases the interests of people in purchasing luxurious real estate properties for their professional activities. Concerning this, the gathered information showcases that 43.3% of the participants intend to purchase these real estates as rented sustainable property, where they can conduct their professional practices. On the other hand, 28% of the participants intend to purchase the luxurious real estate property with the aim of using the plot as their own workplace. Alternatively, 8.6% of the participants have the interest either to purchase for their own sustainable workplace or obtain a rented plot to undertake their regular workplace activities. In this regard, it can be said that other than personal aspects, customers also intend to purchase luxurious real estate properties for their professional aspects, which represents another angle of purchasing behaviour.

### Question 12: Descriptive statistics for caring of environment

<b>Care_about_Environment</b>					
		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Valid</b>	<b>0-2</b>	2	.6	.7	.7
	<b>4-6</b>	9	2.9	3.2	3.9
	<b>7-9</b>	91	29.0	32.3	36.2
	<b>10</b>	180	57.3	63.8	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing</b>	<b>System</b>	32	10.2		
<b>Total</b>		314	100.0		

Based on the gathered findings, it can be interpreted that the majority 57.3% of the participants rated 10 concerning their care for the environment, while 29.3% rated 7-9 for their concern about environmental care in accordance with the luxurious real estate. Correspondingly, 2.9% have rated 4-6 whereas 0.6% have rated 0-2. This signifies the majority of the customers are concerned about the sustainable aspects associated with the real-estate property. Consequently, (Sharma and Foropon, et al., 2019) cited that sustainability concern about a business for the environment is another factor, which consumers lookout for while making purchasing decisions. Moreover, customers intend to purchase from businesses, which mostly undertake sustainable practices for developing their brand identity in the market.

### Question 13: Descriptive statistics invest in sustainable luxury real estate because of

<b>Reason_to_invest_in_sustainable_luxury_real_estate</b>					
		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Valid</b>	<b>Close to Nature</b>	28	8.9	9.9	9.9
	<b>Natural Lifestyle</b>	46	14.6	16.3	26.2
	<b>Natural Lifestyle + Close to Nature</b>	21	6.7	7.4	33.7
	<b>Sustainable Luxury</b>	72	22.9	25.5	59.2
	<b>Sustainable Luxury + Close to Nature</b>	73	23.2	25.9	85.1
	<b>Sustainable Luxury + Natural Lifestyle</b>	15	4.8	5.3	90.4
	<b>Sustainable Luxury + Natural Lifestyle + Close to Nature</b>	27	8.6	9.6	100.0
	<b>Total</b>	282	89.8	100.0	
<b>Missing</b>	<b>System</b>	32	10.2		
<b>Total</b>		314	100.0		

Table 12

This tabular presentation showcases the responses of customers regarding their reasons behind purchasing sustainable luxury real estate property. Concerning this, 23.2% of the participants responded that sustainable luxury real estate leads them to acquire a sustainable property, which is environment friendly. However, 22.9% of the participants mentioned their concern about obtaining a sustainable luxurious property. Besides this, 14.6% of the participants highlighted that sustainable property would help them to obtain a natural lifestyle. In this regard, it can be stated that different customer groups possess a variety of reasons for investing into sustainable luxurious real estate properties.

**Question 14:** Descriptive statistics for source of investments

Source_of_Investment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Borrowing	24	7.6	8.5	8.5
	Both	184	58.6	65.2	73.8
	Own Funds	74	23.6	26.2	100.0
	Total	282	89.8	100.0	
Missing	System	32	10.2		
Total		314	100.0		

It can be evaluated that 58.6% of the participants feel that they can either borrow or invest from their own savings in order to buy a luxurious real estate property. On the other hand, 23.6% stated that they would utilize their own funds to purchase real estate property while 7.6% of the participants mentioned that they would be required to borrow in order to invest into a sustainable luxury property. Correspondingly, it can be said that customers with different professions, priorities and income levels possess distinguished capabilities to purchase a real estate property. Therefore, different customer segments provide distinct responses to their source of investment.

### Discussion of Main Findings

The data that has been collected using the survey method is observed to provide a direct indication of the aim and objectives as well as the area of the research. These indications have been interpreted in terms of a numeric demonstration such that the research would be able to draw conclusions in an accurate and measurable way. However, these results, when obtained in numeric form, might not be readable or understandable due to their unorganised nature (Martins et al., 2019). It would be necessary to use a suitable tool to help analyse and interpret these data from their unorganised state and arrange them in a readable format for this purpose. For this purpose, the researchers have utilised the SPSS tool as a method to represent these numeric data in a tabular form, followed by an interpretation of each. Using these interpreted data, the research was able to provide a direct indication about how the service participants preferred in contact to the research questions that had been set in the introductory phase. Based on the results that have been observed, it could be observed that investment in real estate businesses is very critical when dealing with the perceptions of individuals who are working as well as those who are not (Saura et al., 2019). For this purpose, agents who are working in the real estate business need to understand the frequency and probability of investment of a particular individual in the context of their convincing



approach. Accordingly, with the results generated using the dependent and independent variables, it has been observed that income is one of the major causes for the decision to invest in the real estate business. This is because individuals with lower income might not have time for a real estate investment but prefer savings as the preferred approach. Therefore, the study is to be further interpreted such that indications of a better real estate investment opportunity could be provided for every individual considering their economic aspects.

The variables that have been considered by the surveyor are observed to be providing effective results in terms of the questions that have been asked of the participants. This is because the reliability of an answer depends upon how experienced an individual is and how they perceive a particular situation in terms of a real-life aspect (Lombart et al., 2019). From this perspective, the researchers have been able to draw conclusions from the responses of the participants in terms of the aim and objectives. According to the perceptions of the individuals, each one of them is observed to possess experience in real estate investments that leads them to provide reliable and valid answers to the questions in the survey. Real estate businesses are directly associated with how and where investment is made and how it is utilised for the development of a nation's economy (Nanda et al., 2021). For this purpose, the perceptions of individuals willing to invest in real estate business must be ascertained and then provided to the organisation so that they can apply a suitable approach for their business expansion.

### **Consumers belief about environmentally sustainable luxury real estate and how this belief affect their investment intention**

Obtaining outcomes from the primary data that has been conducted using SPSS analysis it could be observed that most of the participants that have been engaged in the study have relevant experience in real estate businesses. Based on this aspect consumer beliefs have been considered to be the focus criteria through which the impact on their investment intention has been highlighted. This indicates that real estate investors go through a decision making before investing their money within these businesses as it intrigues their ability to gain profit in the future (Ali et al., 2019). Using this perception, the research has successfully been able to address the first Research question that has been established to indicate the major aspect by which luxury real estate businesses are affected by consumer investment intentions.

### **Consumer's relationship towards environmental concern and its effect on their investment behaviour**

According to various knowledge that has been developed using the research object, there has been identified an indirect relationship between consumer investment intention to that of the investment behaviour in real estate businesses (Raza et al., 2020). This is because every individual before investing their money acknowledges the probability of loss they might encounter upon failure to invest in appropriate real estate businesses. For this purpose, the literature review has been developed on the basis of which the surviving questionnaires have been established and forwarded to the participants based on which the responses have been collected. The indications of the participants have clearly stated that the perception of consumers is often very based on how they perceive the real estate business within their scope of knowledge. The variables that have been considered by the surveyor are observed to be providing effective results in terms of the questions that have been asked to the participants (Chin et al., 2018). From this perspective, the researchers have been able to draw conclusions from the responses of the participants in terms of the aim and objectives. According to the

perceptions of the individuals each one of them is observed to possess experience in real estate investments which leads them to provide reliable and valid answers to the questions in the survey.

### **Consumers are willingness to invest in property made from sustainable sources**

Every consumer has a different limit on the basis of which day intends to invest in real estate businesses. As compared to other business categories the risk that is involved in real estate businesses are comparatively high due to which it becomes difficult for an individual to undertake a decision regarding the investment in the real estate business (Steg et al., 2018). This is because the income level of every individual is different on the basis of the post and designation they're associated with. For this purpose, real estate agents need to conduct an analysis of the background of the individual and thereafter persuade them towards investment. This is because individuals who have a low level of income might not decide to invest in real estate companies but rather would prefer to save within their bank account.

The data that has been collected using the survey method is observed to provide a direct indication of the aim and objectives as well as the area of the research. These indications have been interpreted in terms of a numeric demonstration such that the research would be able to draw conclusions in an accurate and measurable way. However, these results when obtained in numeric form might not be readable or understandable due to their unorganized nature (Martins et al., 2019). For this purpose, the application of a suitable tool that would help analyze and interpret these data from their unorganized form and arrange them in a readable way would be necessary. For this purpose, the researchers have utilized the SPSS tool as a method to represent these numeric data in a tabular form followed by an interpretation of each. Using these interpreted data, the researchers were able to provide a direct indication of how the service participants preferred contact with the research questions that had been set in the introductory phase. Based on the results that have been attending it could be observed that investment in real estate businesses is very critical when dealing with the perceptions of individuals who are working as well as who are not (Saura et al., 2019). For this purpose, agents who are working in the real estate business need to understand the frequency and probability of investment of a particular individual in context to their convincing approach. Accordingly, with the results generated using the dependent and independent variables it has been observed that income is one of the major causes of the initiated investment in the real estate business. This is because individuals having lower income might not be for a real estate investment but I prefer savings as the preferred approach. Therefore, the studying is to be further interpreted such that indications of a better real estate investment opportunity could be provided for every individual considering their economic aspects.

This is due to the fact that an individual's level of experience and how they view a certain issue from a real-life perspective determine how reliable a response is (Lombart et al., 2019). Real estate enterprises have a direct impact on how investments are made and how they are used to advance a country's economy (Nanda et al., 2021). In order for the organization to be able to use an appropriate strategy for their business expansion, it is necessary to heed to the perceptions of the people who are prepared to invest in the real estate industry.





## Conclusion

This work has contributed as a new study of a completely new research topic *consumer investment intention towards sustainable luxury real estate* no previous similar research has been done on this topic. Due to this research, the real estate companies will be benefited more as they can understand the consumer investment decision towards real estate. Also this study will show the consumer intention towards sustainability as well as luxury. This study will help the business to make plans to present a new concept of sustainability and luxury homes, offices, hotels, etc. to make them environmental friendly by utilizing eco-friendly and locally sourced materials to build buildings.

There could be a survey error while filling the questionnaire by the participants such as by mistake entering the wrong data. Participants may not understand the method of filling and answering the question of the questionnaire. However, the error can also occur while handling the data or while analyzing the data.

On the other hand, the link of google forms was created and shared with the participants which may be shared by someone to someone without the researchers knowledge and might be filled. There is no 100% accuracy grantee of the data whether it is correctly filled by the participants or not.

The findings of this study are valuable for politicians who want to lessen the negative environmental effects that the real estate business has on the environment as well as for marketing teams in real estate firms throughout the world. Based on the results of this study, the following suggestions can be made in light of this.

- This study shows that both male and female investors are more sustainability conscious, therefore, marketing policies should be shifted towards them / their requirements which will definitely provide success in the coming future as it will increase the consumption of sustainable luxury real estate.
- Social pressure is the form of making the decision to invest in real estate whereas family pressure is the second highest reason to make the decision to invest in sustainable real estate. However, the marketing messages should be made clear so that the public can be aware of how their sustainable purchase intention affects the other customer to change their decision toward sustainability.
- However, towards willingness to invest, real estate companies/ businesses should be aware that the consumers are willing to invest in real estate due to various reasons/ factors which affect their purchase intention and are ready to invest in sustainable luxury real estate. For example, a company can make its strategies according to the consumer's investment/ purchase intention. Also, the company can target its audience and focus on its niche products and also sell sustainable luxury real estate to the willing audience according to their requirement.

There are several examples when the variation is modest, which may imply that there are other factors that predict customer purchase intentions for environmentally sustainable luxury real estate. However, there should be research that will show the possible changes in the attitude of the customers as their age increases as more and more young people have participated in this study. There might be a shift in the customer's investing behaviour for the sustainable luxury real estate in the coming future.

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