Influencing factors on eco-friendly furniture buying behaviour in the city of danang-vietnam

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Abstract

Sustainable and low-impact living is greatly aided by eco-friendly furniture. Consumers in Da Nang City face obstacles due to the product's scarcity and expensive price. Therefore, the purpose of this research is to investigate what factors influence Da Nang residents' decisions to purchase eco-friendly furniture. Models based on the Theory of Planned Behaviour and its variants are widely used. After completing the pilot study, we go on to the quantitative phase, where we survey 226 residents of Da Nang City using a predetermined set of questions. Social media marketing, attitude, levels of self-control, customer efficacy perceptions, and subjective norms are all measured here. Smartpls 3.2.9 is used to analyse the data in order to analyse the correlations between these variables and the propensity to buy environmentally friendly furniture. Theoretically, knowing what influences people in Da Nang City to buy environmentally friendly furniture is important. The results can also help marketers and politicians create more effective strategies and initiatives to increase the use of environmentally friendly furniture in the region.

Introduction

Rapid economic growth has led to the misuse of natural resources and an overall degradation of the environment, including the depletion of the ozone layer, the acceleration of global warming, and the contamination of our air and water. It has been shown (Wang et al., 2019). By making environmentally conscious purchases and committing to responsible consumption habits, consumers can help create a brighter and greener future. (Nekmahmud, 2020; Nekmahmud et al. Green marketing is a strategy that encourages customers to make more eco-friendly purchases and lifestyle choices (Kumar & Polonsky, 2017; Hasan et al., 2019).

Consumers' choices in goods and services have negative effects on the environment in two ways: directly and indirectly. For examples, see (Gruber & Schlegelmilch, 2014) and (iPuigvert

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et al., 2020). Therefore, it is crucial for companies to comprehend how customers view environmentally friendly items and whether or not they plan to buy them.

One study looked at the eco-friendly shopping habits of over a thousand Vietnamese adults (Vietnam Business Monitor, 2017). The majority of respondents (73.5%) place an emphasis on environmental considerations, nearly nine in ten (91.2%) are prepared to pay more for premium products, and nearly eighty percent (80%) are willing to pay more for environmentally friendly options. In industries where buyers and sellers engage directly, a firm's success hinges on its ability to predict and respond to consumer demand. Understanding client tastes in depth is essential for organisations as they strive to meet their wants. To succeed in the developing market for environmentally friendly products, businesses must make precise predictions about consumers' wants, beliefs, and actions.

Based on (1991) Exploring the goal of buying eco-friendly products, numerous research have been undertaken on green products all across the world, including those by Bamberg (2003), Kumar (2012), Lu (2014), and Wu & Chen (2014). However, research on this topic in Vietnam is still in its infancy (Nguyen et al., 2019). In addition, the field of green furniture has received little attention from academic researchers, leaving large gaps in our understanding. (Guifen et al., 2020). The research team is committed to advancing this understanding of green furniture consumption in Vietnam in the hopes of providing new insights to the area.

Green products are those that are created, used, and disposed of in a way that reduces their ecological footprint. Products including appliances, cleaning materials, and hygiene aids are included. Green furniture, on the other hand, is strictly defined as eco-friendly pieces crafted from renewable resources like bamboo, recycled plastic, or recovered wood. Waste is minimised, ethical manufacturing practises are encouraged, and non-toxic coatings are used in green furniture. Green products cover a wide range of categories, but "green furniture" narrows its focus to the furniture business to promote more environmentally friendly and healthy home furnishings.

Literature Review

Theorical framework

Ajzen and Fishbein evolved and modified the Theory of Reasoned Action (TRA) to create the Theory of Planned Behaviour (TPB), which seeks to examine the relationship between attitudes, beliefs, and actions. In addition, it recognises that consumers go through a "pre-purchase intention" stage before they actually make a purchase. Since environmentally conscious consumers typically form purchase intentions prior to engaging in real buying behaviour, this approach lends itself particularly well to the study of green consumerism. As a

result, eco-conscious buyers are less prone to impulse buys and the psychological impacts of retail therapy.

According to this hypothesis, people's stated intentions to engage in particular behaviours are strong predictors of such actions actually being taken. As was mentioned earlier, Ajzen's proposed factor of "perceived behavioural control" (which accounts for how easy or difficult an individual believes it will be to carry out a given behaviour) influences the intentions in the The theory of planned behaviour. The TPB framework will be updated to include Ajzen. This is also what separates planned actions from actual ones. This model shows that customer behaviour is both determined and impacted by purchase intentions, demonstrating a positive and reciprocal relationship between the two.

In the realm of behavioural theories, the TPB (Theory of Planned Behaviour) has garnered a considerable lot of interest and esteem. Extensive empirical study has given this theory the reputation of being a reliable and well-supported one. Recognising its value in elucidating human behaviour, a large body of scientific literature has added to the awe and respect people feel for it. As of 2020 (Feng dong et al. Organic food, green products, energy-efficient equipment, and sustainable lodgings like green hotels are just few of the areas where this principle is put to practise.

In order to better understand what drives environmentally conscious consumers to make purchases, researchers have looked beyond TPB and into related psychological characteristics (Ploeger, 2019; Liobikiene, 2016; Yadav, 2016). By incorporating new psychological factors within its framework, the TPB (Theory of Planned Behaviour) is being expanded to include topics like environmental consciousness, perceived value, and customer efficacy. This update broadens the TPB's application for studying eco-friendly consumer choices and improves its capacity to represent human behaviour. Researchers have jumped on board with this cutting-edge method, which is expanding our understanding of human behaviour. Adding these psychological considerations to the TPB makes it more nuanced and better able to handle the complexities of eco-conscious consumer purchasing. But there are bounds to this theory. It doesn't give enough attention to the way our surroundings affect our choices and instead concentrates mostly on psychological aspects of behaviour. In order to gain a more comprehensive understanding of environmentally conscious purchase patterns, researchers advise combining internal and external factors to produce a comprehensive assessment of how particular ideas interact with the wider context. As of 2020 (Feng Dong et al. That's why we're thinking about incorporating outside elements to further constrain TPB's potential.

We Are Social 2023 estimates that, as of January 2023, 70% of Vietnam's roughly 100 million population is active on social media. Businesses can seize this moment to show their support for environmentally friendly furnishings by promoting them on social media. As a result, it

appears necessary to get insight into the nuanced role of social media marketing in promoting eco-friendly furniture. Examining the online world in depth is necessary for a comprehensive assessment of the dynamic connection between social media marketing and buyers' willingness to buy green furniture. Intent is unaffected by social media use, according to Farreen (2022). As Mo et al. (2018) and Luo et al. (2020) point out, however, social media is a powerful digital space because it facilitates interpersonal and societal interaction. On the other hand, social media marketing (SMM) is a great option for businesses looking to blend their advertising messaging in with the conversations and interactions already happening on social media. Few researchers have delved into the nuanced field of TPB (Sun and Wang, 2020; Pop et al., 2020) in an effort to decipher customers' mixed messages about eco-friendly items on social media. Motivated by the vacuum in the literature, our study steps forward as an explorer, ready to disentangle the tangled web of relationships between social media marketing's sway and the solid foundation of TPB.

This study attempts to fill a knowledge gap by exploring the topic of consumers' purchasing intentions towards environmentally friendly furniture using an expanded model based on the Theory of Planned Behaviour (TPB). Attitude, subjective norm, and perceived behavioural control all interact in this model to determine the intended behaviour. Incorporating social media marketing and perceived customer efficacy into the TPB framework, this study establishes an extension model of TPB to better explain consumer purchasing intention in the specific research environment.

Green furniture

Sustainable furniture, also known as "green furniture," has gained popularity in recent years. (Darwish,2022). Sustainable materials and eco-friendly designs are trending in the furniture sector due to a greater awareness of environmental issues at both the production and consumption levels (Darwish,2022).

Proposed model

Social Media Marketing

The term "social media" is used to describe a wide range of digital tools that facilitate user-to-user communication, group projects, and content dissemination (Erkan & Evans, 2016). Twitter, blogs, and Facebook are all examples of popular social media sites. Consumers in these areas tend to cluster in social groups with similar interests and values, making social media marketing effective for brands (Lee et al., 2018). To effectively promote green products, marketers can use social media to segment consumers who share a commitment to sustainable consumption. In addition, social media is a major force in both the creation and distribution of new knowledge (Lee et al., 2018). In the realm of digital technology, a new environment is

developing, one in which people may create and share their own experiences and thoughts, paving the way for novel approaches to online marketing to be developed by corporations. Social media provides shoppers with invaluable feedback as they explore this digital world, allowing them to make more informed purchases. There's no denying the allure of the online world, with its customizable amenities designed to foster communication, connection, and community. As a result of this context, social media marketing is increasingly seen as a credible method of promotion. Researchers have studied how appealing social media marketing can make consumers more likely to take environmentally friendly measures. Both Froehlich (2009) and Hynes & Wilson (2016) have shown that this digital space can be effective in encouraging eco-friendly actions. In addition to its pedagogical value, social media shows an intriguing new phenomenon: social comparison. In this ever-changing context, individuals are subject to a tangled web of social norms and expectations that can exert a powerful influence on their actions. This fascinating topic is explored by Allcott (2011), who reveals the unique impact of social media, most notably on social behaviour. Marketers can take advantage of social comparisons and shape individuals' subjective norms through social media advertising, especially among eco-conscious consumers. People who are exposed to social media marketing are more likely to conform their behaviour to subjective norms in order to fit in with the expectations of others around them. More than half of shoppers use social networking sites as a research tool before making a purchase (Froehlich, 2009). In addition, the compelling narrative encourages others to fight against environmental degradation. The digital symphony culminates in the concept of Perceived Consumer Effectiveness (PCE), which motivates consumers to put their purchasing power towards environmental protection. Consumers' perceptions of value (PCE) and the decision-making process behind those valuations are influenced by social media marketing (Mangold & Faulds, 2009; Laroche et al., 2013).

Perceived Consumer Effectiveness

Perceived consumer effectiveness, as defined by Ellen (1991), is the extent to which consumers believe their individual behaviours (such as "green shopping") contribute to solving societal problems (such as pollution reduction). Roberts (1996) used the term "perceived consumer effectiveness" (PCE) to describe people's outlooks on environmental issues. Additionally, there is a substantial behavioural shift in customers after PCE is improved. People feel more confident in their abilities to make a difference, and as a result, they are more likely to adopt sustainable products (Webb et al., 2008). This realisation gives rise to a compelling curiosity at the crossroads of the drive to contribute to environmental progress and the desire to have a social impact, resulting in a strong desire to make eco-conscious choices.

Perceived consumer efficacy, according to Vermeir and Verbeke (2006), is a key factor in converting consumers' favourable sentiments towards green products into purchases. On the

other hand, Kabaday et al. (2015) propose that consumers who have a favourable attitude towards green consumption—those who believe their activities can contribute to addressing environmental issues—must have a high level of perceived consumer efficacy. Several studies have highlighted the importance of green purchases in the context of Asian marketplaces, finding a correlation between perceived consumer efficacy and green purchasing behaviour (Kim, 2011; Kim and Choi, 2005; Mostafa, 2006). Green purchasing decisions can also be predicted by a consumer's belief in their own ability to make those decisions (Dagher and Itani, 2014; Tan, 2011). Additionally, Jaiswal and Kant's (2018) study finds that customers' green attitudes and purchasing intentions are positively influenced by their perception of the effects.

Theory of Planned Bahvior

Attitude, subjective norm, and perceived behavioural control are the three pillars of theory of planned behaviour (Ajzen, 1991). Whether or not we actually carry out an intended behaviour is measured by our "behavioural intention" (Ajzen, 1991). According to Ajzen (1991), an individual's attitude is their "overall evaluation of how they feel about a given behaviour or action." Attitude is a strong predictor of our desire to buy, as revealed by a number of research (Chen, 2007; Smith and Paladino, 2010; Wang et al., 2016). Perceived social pressure to act in a certain way is an example of a subjective norm (Ajzen, 1991). Higher levels of subjective norm reflect increased propensity for action (Han and Kim, 2010). Our confidence in our ability to plan and carry out a certain behaviour is known as our "perceived behavioural control" (Ajzen, 1991). In the context of this study, it is reasonable to predict that consumers will be more likely to purchase green furniture if they have favourable attitudes towards making such purchases, believe that their friends and family expect them to make such purchases, and have sufficient knowledge, time, and money to make such purchases (Ajzen, 1991; Menozzi et al., 2015).

Hypotheses

The author formulated the following research hypotheses:

Hypothesis H1: Social media marketing positively affects Peceived Consumer Effectiveness.

Hypothesis H2: Social media marketing positively affects subjective norms.

Hypothesis H3: Peceived Consumer Effectiveness positively affects Perceived Behavioral Control

Hypothesis H4: Peceived Consumer Effectiveness positively affects consumers' attitudes toward green furniture.

Hypothesis H5: Attitude positively influences green furniture purchase intention.

Hypothesis H6: Subjective Norm positively influences green furniture purchase intention.

Hypothesis H7: Perceived behavioral control positively influences green furniture purchase intention.
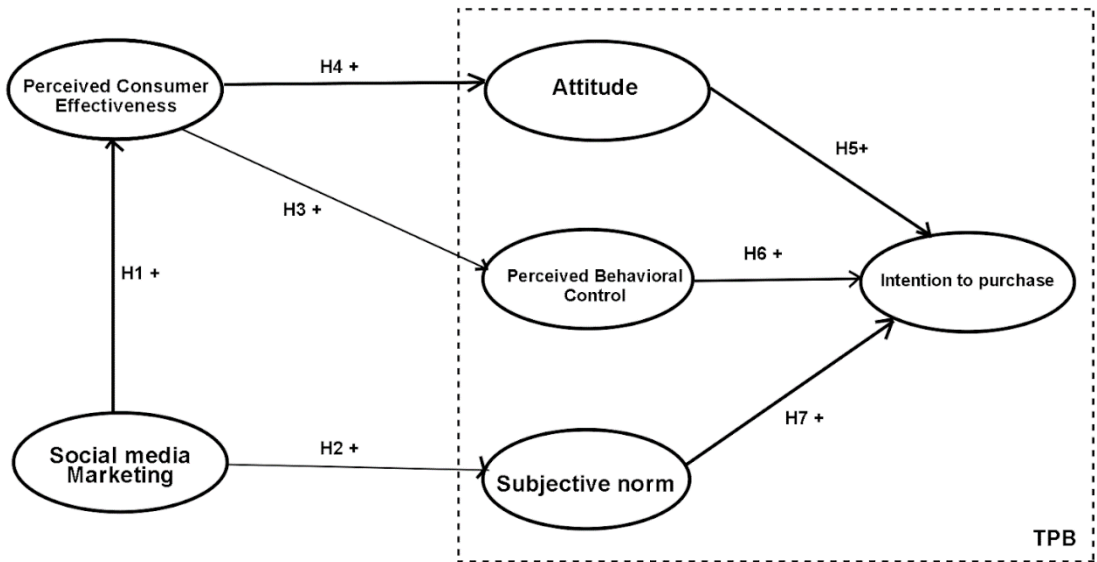
The research model is in Figure 1.

Figure 1. Overview of Proposed Model

Research method

Data collection

Quantitative research methods were used in this study; a questionnaire was used to gather information about "green furniture purchase behaviour." People in Danang who were knowledgeable about eco-friendly purchasing practises and sustainable furnishings were recruited for this study. An online survey was the major method of information gathering, and these people were chosen to take part in it.

The "10 times rule" published by Barclay et al. (1995) and generally recognised in the PLS-SEM literature served as a reference for determining the minimum sample size. Studies by Chin (1998) and Hair et al. (2021) agree that this quantitative approach is useful for calculating a sufficient sample size. A sample size of 70 was considered

adequate to test a research model with 7 variables indicating the various relationships between latent variables.

A total of 250 people were asked to fill out the survey. However, two comments were disregarded after thorough review since they were deemed invalid. The remaining 226 replies met the criteria for an adequate sample size, and were so judged representative and usable for analysis.

Pilot Study

Thirty Danang residents were selected at random for the pilot project. They needed to be familiar with eco-friendly furniture. All reliability indicators, as measured by Cronbach's Alpha, have to be more than 0.7 in order to meet the standards set forth by Hair et al. (2021).

Table 1 details the items that were found to have adequate reliability and hence were included in the study.

Table 1. Results of the pilot test are based on the scale's reliability rating.

Dimension	Cronbach's Alpha
Social Media Marketing (SSM)	0.841
Perceived Consumer Effectiveness (PCE)	0.907
Attitude (ATT)	0.858
Subjective norms (SN)	0.848
Perceived Behavioral Control (PBC)	0.837
Intention to Purchase (INT)	0.876

Source: Data analysis by Authors

Measurements

This research was conducted to address a gap in the literature by investigating how attitudes and intentions towards buying environmentally friendly furniture evolve over time. This was accomplished by extending the framework of the Theory of Planned Behaviour (TPB) to include extraneous factors. Six structures and 25 elements made up the research model. There were two main categories of external variables: social media marketing (SMM; comprising five items) and perceived consumer effectiveness (PCE; comprising four items).

The TPB comprised five different concepts: utility perception (PU), ease of use perception (PEOU), attitude (ATT), behavioural control perception (PBC), and subjective norm (SN). There were three things for each of these concepts.

The study's instruments were derived from the literature and modified for this investigation. The validity of these items was then tested in a pilot study. Table2 displays the results of this pilot study and the revised instruments used for measurement.

Table 2. Measurement items of constructs in the model

Constructs	Code	Measurement	Sources
Social Media Marketing (SSM)	SSM1	I find it easy to share my thoughts on the green furniture I want to buy on social media	Abzari et al. (2014), Erkan and Evans (2016) and Hynes and Wilson (2016)
	SSM2	It will be convenient to use social networks to find information about green furniture.	
	SSM3	I want to share information about green furniture on social media with my friends.	
	SSM4	Utilizing social media marketing is an effective way to increase public awareness regarding green furniture's positive impact on both human well-being and environmental preservation.	
	SSM5	Social media marketing is a convenient source of product information	
Perceived Consumer Effectiveness (PCE)	PCE1	My consumer behavior can positively impact society through buying green furniture	Cho et al. (2013)
	PCE2	Green cabinets will impact the trend I will buy them	
	PCE3	My choices will affect the environment I live in	
	PCE4	Individual behavior such as the use of green furniture will affect the environment	

Attitude (ATT)	ATT1	I believe that green furniture help to save nature and its resources	McCarty and Shrum (1994)
	ATT2	I support buying green furniture	
	ATT3	Given a choice, i will prefer a green furniture over a conventional furniture	
	ATT 4	Using green furniture is a good idea	
Subjective norms (SN)	SN1	Utmost people who are important to me suppose that I should use purchase green cabinetwork	Armitage and Conner (1999); Venkatesh & Morris (2000);
	SN2	My familiarity would authorize of my decision to buy green cabinetwork	
	SN3	People who go shopping with me often influence me when choosing to buy green furniture	
	SN4	If I use green furniture, my acquaintances will also influence and tend to use it	
Perceived Behavioral Control (PBC)	PBC1	I have enough money to buy green furniture	Paul et al. (2014) and Ding et al. (2017)
	PBC2	I have an address in mind to buy green furniture	
	PBC3	I can decide whether to buy green cabinetwork or not	
	PBC4	I am fully confident that I should buy or use green furniture	
Intention to Purchase (INT)	INT1	I intend to pay more for green furniture	Armitage and Conner (1999)
	INT2	I will buy green furniture in the coming time	
	INT3	I am ready to use green furniture	
	INT4	I will recommend green furniture to other people	

Source: Summarize previous studies by authors

Data analysis

The researchers used SmartPLS 3.2.9 to conduct the statistical analysis. Hair et al. (2021) state that PLS-SEM is the preferred method for assessing measurement and

structure models. Barclay et al. (1995) highlight the fact that PLS-SEM can yield more precise estimates. Two criteria, coincident validity and discriminant validity, were used to assess the theoretical model in this investigation.

The items' external loadings and AVE were analysed to determine their coincidence validity. According to Hair et al. (2021), adequate convergent validity is indicated by items with loadings over 0.7 and no values below 0.7. Composite reliability (CR) values above 0.7 also show consistent reliability. Examining cross-loadings according to the Fornell- Larcker criterion was used to determine discriminant validity (Henseler et al., 2015). The Variance Inflation Factor (VIF) was used to test for multicollinearity; VIF values between 2.0 and 5.0 indicated the absence of serious concerns (Hair et al., 2021).

The prediction power of the suggested model was measured using the correlation coefficient ($R2$). One endogenous variable's square correlation with its predictors is represented here. According to Hair et al. (2021), a number more than 0.75 indicates a robust relationship, while values between 0.50 and 0.25 suggest a moderate one, and values below 0.25 suggest a tenuous one. To evaluate the model's proposed connections, the route coefficient was calculated. To assess the importance of each path in the model, we used bootstrapping procedures with 1,000 iterations because PLS-SEM does not allow for direct testing of the significance of path coefficients (Henseler et al., 2016).

The effect of these variables on students' intent to learn via e-learning systems was investigated here using bootstrap resampling with a total of 1,000 iterations. The use of a one-tailed t-test was supported by the hypotheses' hypothesised directions of travel and the anticipated results of the route analysis.

Result

Measurement Model Evaluation

According to the findings presented in Table 3, all factor loadings were above the threshold of 0.7, indicating a high level of convergent validity. However, it is worth noting that the SSM4 indicator fell below this threshold. Also, Cronbach's Alpha was all above 0.7

Furthermore, the average variance extracted (AVE) values exceeded 0.5, indicating that the indicators exhibited satisfactory reliability. Hence, these results provide evidence that the constructs meet the requirements for dependability and convergent validity.

In terms of multicollinearity, all inner VIF values ranged from 2.0 to 5.0. These values indicate that the issue of multicollinearity was not present in this investigation.

Table 3. Convergent validity

Constructs	Items	Factor Loadings	VIF	Cronbach's Alpha	CR	AVE
Attitude (ATT)	ATT1	0.795	1.674	0.795	0.866	0.619
	ATT2	0.753	1.622			
	ATT3	0.749	1.530			
	ATT4	0.846	1.847			
Intention to Purchase (INT)	INT1	0.705	1.276	0.747	0.841	0.569
	INT2	0.751	1.503			
	INT3	0.804	1.555			
	INT4	0.755	1.534			
Perceived Behavioral Control (PBC)	PBC1	0.724	1.372	0.761	0.846	0.580
	PBC2	0.817	1.539			
	PBC3	0.758	1.689			
	PBC4	0.838	1.429			
Perceived Consumer Effectiveness (PCE)	PCE1	0.724	1.374	0.784	0.860	0.607
	PCE2	0.821	1.578			
	PCE3	0.747	1.548			
	PCE4	0.859	1.890			
Social Media Marketing (SSM)	SSM1	0.871	2.262	0.816	0.873	0.584
	SSM2	0.865	2.632			
	SSM3	0.919	3.425			
	SSM5	0.808	2.109			

Subjective norms (SN)	SN1	0.844	1.954	0.859	0.904	0.705
	SN2	0.703	1.574			
	SN3	0.889	2.702			
	SN4	0.903	3.120			

Source: Data analysis by Authors

Discriminant validity is an important consideration, and the Fornell-Larcker scale is commonly used to assess it. This scale involves calculating the square root of the AVE and comparing it with the loading indicators in relevant columns and rows (Hair et al., 2021). In cases where the correlation values in each row exceed the AVE's square root, but are relatively small, discrimination can still be deemed acceptable (Rahim & Magner, 1995).

Table 4 displays the discriminant validity results for each construct. Each construct exhibits sufficient discrimination, with values of 0.787 for ATT, 0.755 for INT, 0.761 for PBC, 0.779 for PCE, 0.867 for SMM, 0.838 for SN. Additionally, the correlation coefficients meet the criteria, as the loading indicators in each row are below the aforementioned results (Rahim & Magner, 1995). This indicates that the indicators of the other constructs are distinct and separate from one another.

Table 4. Discriminant validity (Fornell-Larcker Scale)

	ATT	INT	PBC	PCE	SMM	SN
ATT	**0.787**					
INT	0.424	**0.755**				
PBC	0.297	0.447	**0.761**			
PCE	0.270	0.334	0.234	**0.779**		
SMM	-0.124	0.031	0.012	-0.165	**0.867**	
SN	-0.131	-0.010	0.029	0.010	0.435	**0.838**

Source: Data analysis by Authors

Structural Model Evaluation

Table 5 and Figure 2 show the hypotheses test findings of the proposed research model. The results of the analysis revealed significant relationships supporting several hypotheses. The strongest relationship observed was in support of **H2**, indicating that

SSM had a substantial predictive effect on SN (β = 0.435; p < 0.001). This was followed by **H6**, which found that PBC significantly predicted INT (β = 0.351; p < 0.001). Supporting **H5**, a positive relationship was found between ATT and INT (β = 0.323; p < 0.001). Furthermore, **H4** suggested that PCE positively influenced ATT (β = 0.272; p < 0.001), and **H3** was supported, indicating that PCE had an impact on PBC (β = 0.235; p < 0.005).

However, the relationship between SN and INT was found to be non-significant (β = 0.022; p > 0.05), leading to the rejection of **H7**. Additionally, the influence of SMM and PCE was found to be non-significant (β = -0.115; p > 0.05), resulting in the rejection of **H1**. Thus, both H1 and H7 were rejected based on these findings.

Table 6 displays the coefficient of determination (R^2) values for the variables of INT (0.293), SN (0.189), ATT (0.074), PBC (0.055), and PCE (0.026) in the context of the proposed research model. These values indicate that the predictive ability of the model is deemed to be low.

Specifically, the Intention to Purchase variable demonstrated a significance level of 29.3%. However, the research findings reveal that the overall predictive capacity of the model remains relatively low, with the majority of the significance being attributed to factors outside the model's scope, as well as random error. Consequently, it is imperative to conduct further investigations into additional factors that may influence the adoption of green furniture.

**Table 5.** Hypotheses testing results

H	Relationship	β	Mean	SD	t- value	p -value	Decision
H1	SMM -> PCE	-0.165	-0.169	0.061	1.877	0.089	Not Support
H2	SMM -> SN	0.435	0.442	0.056	7.802	0.000	Support
H3	PCE -> PBC	0.235	0.243	0.084	2.808	0.005	Support
H4	PCE -> ATT	0.272	0.281	0.070	3.906	0.000	Support
H5	ATT -> INT	0.323	0.324	0.065	4.985	0.000	Support
H6	PBC -> INT	0.351	0.353	0.071	4.933	0.000	Support
H7	SN -> INT	0.022	0.021	0.051	0.434	0.664	Not Support

Source: Data analysis by Authors

Table 6. The value of R^2 for coefficient of determination

	R Square
Attitude	0.074
Intention to Purchase	0.293
Perceived Behavioral Control	0.055
Perceived Consumer Effectiveness	0.026
Subjective Norm	0.189

Source: Data analysis by Authors
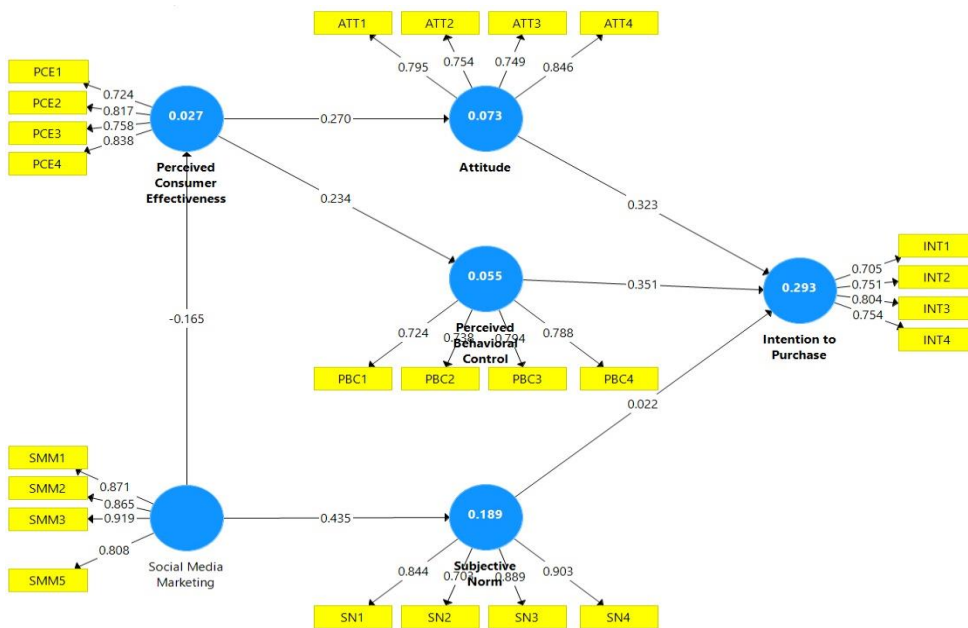
Figure 2. The structural model

Source: Data analysis by Authors

Discussion

This study examines several hypotheses (H1, H2, H3, H4) pertaining to the external variables influencing the Theory of Planned Behavior (TPB), as illustrated in the proposed research model.

The results reveal impacts of SMM on SN (H1). These findings align with previous research, such as the work of Sun and Wang (2020); Laroche et al., 2013; Mangold and Faulds (2009); Nekmahmud et al (2021), which has demonstrated the beneficial influence of social media marketing on Subjective Norms. This implies that social media marketing serves as a valuable source of information for consumers, enabling them to acquire knowledge about green furniture while becoming aware of their potential contributions to personal well-being and environmental preservation. Consequently, SMM plays a significant role in encouraging them to share social media posts related to green furniture with their social networks, including friends and family members.

However, SMM does not influence PCE (H2), suggesting that the information conveyed via social media marketing fails to emphasize the critical nature of environmental deterioration and neglects to motivate individuals to participate in Perceived Consumer Effectiveness. This indicates that social media marketing doesn't affect consumers' belief in the effectiveness of their actions (e.g., in green shopping...) in making a difference in addressing environmental issues (e.g., reducing pollution...).

In addition, our study reveals that PCE has a advantageous influence on Perceived Behavioral Control (PBC), confirming the hypothesis stated in H3. This finding is in line with prior research conducted by Zhao et al. (2014), Wesley et al. (2012), Mostafa (2009), Vermeir and Verbeke (2006), and Kim and Choi (2005). These studies provide evidence that consumers residing in Da Nang share the belief that their activities play a significant role in mitigating the adverse environmental and health-related impacts.

Furthermore, PCE has a positive influence on Attitudes (ATT) as stated in H4. This finding is consistent with prior research by Vermeir and Verbeke (2008), Webb et al. (2008), and Wesley et al. (2012), indicating that when consumers hold the belief that their individual consumption behaviors can genuinely contribute to environmental improvement, they are more likely to develop positive attitudes.

The study examined the remaining hypotheses (H5, H6, H7) within the TPB framework as depicted in the proposed research model.

This study's findings demonstrate the hypothesis that attitude (ATT) has a positive influence on green furniture purchase intention (H5). This aligns with the principles of the Theory of Planned Behavior (TPB) (Verma and Chandra, 2017; Nguyen et al., 2018; Taufique and Vaithianathan, 2018). Attitude represents an individual's internal evaluation of whether engaging in a particular behavior, such as purchasing green furniture, is advantageous or disadvantageous. When consumers perceive positive outcomes associated with a behavior, their attitude towards that behavior becomes more favorable, leading to a greater willingness to engage in it. The significant association between attitude and behavioral intention observed in The research conducted is compatible with theories of planned behavior and reasoned action. The results indicate that consumers with a positive attitude are more likely to purchase green furniture.

Additionally, perceived behavioral control (PBC) influences purchase intention (INT) (H6), which is in line with previous research findings such as Chen et al (2016), Screen et al (2018), Aril et al (2018). Perceived behavioral control refers to the belief individuals hold regarding the resources and opportunities available to them when performing a specific behavior. It encompasses two aspects: the extent of control one has over engaging in a particular behavior and the level of confidence one possesses in executing that behavior. This study reveals that as consumers perceive themselves to have more resources and confidence, such as sufficient income to afford green furniture, their commitment to environmental protection increases, subsequently enhancing their intention to use green furniture. These findings highlight the importance of perceived behavioral control, which encompasses the available resources and opportunities individuals have in engaging in a specific behavior.

The influence of Subjective Norm (SN) on green furniture purchase intention (H7) was found to be non-significant in our study, which contradicts the findings typically reported in studies conducted by Cowan and Kinley (2014) and Wu and Chen (2014). However, these results align with previous research conducted by Patel et al. (2020), Nguyen and Nguyen (2020), Paul et al. (2016), Tarkiainen and Sundqvist (2005), and Taufique and Vaithianathan (2018). Earlier researchers who utilized the Theory of Planned Behavior (TPB) framework, such as Ajzen (1991) and Tarkiainen and

Sundqvist (2005), have identified subjective norms as the weakest determinant of intention models. This phenomenon may be attributed to the increasing self-reliance of modern consumers compared to previous generations, as highlighted by Young and Hinesly (2012). Contemporary consumers tend to perceive the approval of "significant others" as less significant when it comes to their decision-making process regarding the purchase of green furniture. Their friends, family members, or peer groups fail to exert a positive influence or provide compelling reasons for purchasing green furniture. Consequently, their behaviors may not be directly influenced by important individuals in their social circle, including friends and family members.

Implication for research and practice

Firstly, to enhance consumers' intentions to purchase green furniture through subjective norms, It is vital for manufacturers to prioritize the utilization of social media marketing. By effectively communicating the advantages of green furniture through various social media platforms, manufacturers can tailor their advertising strategies and select suitable social media influencers to acquire a competitive edge in the marketplace. This targeted approach aims to foster positive attitudes towards green furniture and subsequently increase purchase intentions among consumers.

Secondly, the study findings validate the direct influence of perceived consumer effectiveness on perceived behavioral control, which in turn indirectly affects green purchase behavior. To enhance citizens' self-efficacy in adopting environmentally friendly lifestyles, it is essential to disseminate knowledge about green furniture. This can be achieved through media channels, both public and private, as well as social media platforms where influential individuals can play a significant role. Empowering consumers to believe in their ability to drive positive change towards environmental sustainability is crucial.

Thirdly, among the three Theory of Planned Behavior (TPB) variables, attitude positively affects the intention to purchase green furniture. Therefore, when targeting consumers in Da Nang who demonstrate a high level of environmental concern, emphasis should be placed on promoting positive attitudes towards the purchase of green furniture. When consumers hold a positive attitude and possess a heightened environmental consciousness, they are more likely to actively take steps to reduce their environmental impact (Singh and Gupta, 2013).

Fourthly, perceived behavioral control significantly influences green purchase intentions. Some respondents expressed uncertainty about where to buy green furniture, indicating a need for manufacturers to provide accessible information. In addition, marketers can enhance consumer confidence by diversifying the category and style of green furniture, offering detailed information about these products, and providing discounts to consumers.

Lastly, policymakers possess the potential to play a crucial role in raising Consumer understanding of the effects of their purchasing and consuming habits. They can achieve this by implementing supportive measures and regulatory policies that foster enhanced interaction between firms and consumers. Particularly, policymakers should ensure that firms substantiate their claims about the environmental benefits of their products. Such initiatives can effectively address negative perceptions surrounding green advertising and products, ultimately reinforcing consumers' intentions to make environmentally conscious purchases and contribute to sustainable consumption patterns.

Conclusion

Using an extended model based on the TPB, the present research investigated the variables influencing consumers' intentions to purchase ecological furnishings. The TPB model was expanded by incorporating two additional variables: social media marketing and perceived consumer effectiveness. According to the findings, perceived behavioral control and attitude significantly and positively influenced consumers' intention to purchase green furniture, whereas subjective norms, as defined in the TPB model, did not influence purchase intention. Among the newly added variables, social media marketing exhibited a significant and positive impact on subjective norms, While PCE had only a slight impact on ATT and PBC. Moreover, the extended TPB model employed in this study demonstrated a higher predictive ability compared to the original TPB model, validating the relevance of incorporating additional constructs. Overall, this research enhances our understanding of consumers' intentions to purchase green furniture in Da Nang.

Limitation and future research

This study has some limitations that should be recognized.

Firstly, the study does not consider actual purchase behavior, reating a chasm between intent and conduct. While purchase intention is a direct precursor to purchase behavior, factors such as unexpected circumstances or irrational consumption decisions may lead consumers to purchase green furniture. Future research should incorporate actual purchase behavior into the model to explore the relationships between the constructs and purchase behavior.

Secondly, the findings indicate that subjective norms do not significantly influence purchase intention, which warrants further investigation. Researchers can delve deeper into understanding the barriers that prevent consumers from purchasing intentions and behaviors.

Thirdly, the participants in this study are mostly young people (18-27 years old) which accounts for 70%. If millennials and older people can take part in this survey, there would be more findings related to age and their behavior towards green furniture purchase. This is a remarkable point since generations have different behaviors towards green consumption.

Fourth, this research only examines a limited set of variables. Additional variables such as "perceived value,", "social media skepticism", "trust in social media", "brand image", and "environmental knowledge" play significant roles in understanding consumers' purchase intentions for green furniture. Therefore, future studies should include these variables to provide a more comprehensive understanding of consumer behavior.

Finally, it is important to note that convenience sampling was employed in data collection, which may affect the generalizability of the findings. To improve the representativeness of the results, future research can consider adopting probability sampling techniques such as stratified and cluster sampling.

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