THE INFLUENCE OF SOCIAL MEDIA INFLUENCERS (SMI) ON THE PRO-ENVIRONMENTAL BEHAVIOR OF THAI GENERATION Y REGARDING THE PURCHASE OF ELECTRIC VEHICLES

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Abstract

The purpose of this study was to apply the Theory of Planned Behavior (TPB) to investigate the influence of social media influencers (SMI) on Facebook on the perception of pro-environmental values, price value, and subjective norms, which resulted in an increase in positive green purchase attitudes and green purchase intentions regarding electric vehicles (EV). The model was developed and tested on 410 Thais from Generation Y using structural equation modeling. Findings show that SMI on Facebook has a positive impact on pro-environmental values, price value, and subjective norms. However, the only factor found to influence green purchase attitudes was collectivistic value perceptions in terms of pro-environmental values. Price value and subjective norms also affect how people feel about green purchases, which in turn affects their plans to make green purchases. As a result, this study's findings contribute to a better understanding of the perception of pro-environmental values and intentions to purchase EVs, which could also play a crucial role in encouraging sustainable consumption.

Keywords: Electric vehicles (EVs), Purchase intentions, Pro-environmental value perception, Generation Y, Social media influencers (SMI)

1. INTRODUCTION

Natural resource reduction, global population increase, and unsustainable consumption habits have all negatively impacted the ecosystem around the world (Kumar & Yadav, 2021). One of the crucial aspects affecting global environmental issues is road transportation (Higueras-Castillo, Kalinic, Marinkovic & Liébana-Cabanillas, 2020). Such environmental issues have recently led consumers to begin to change their routines. Consumers also realize that their buying behavior will have an effect on

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the ecological environment and its perceived value, consequently increasing their use of environmentally friendly items (Zhuang, Luo & Riaz, 2021). In terms of green transportation, most governments in the world aim to increase the number of electric vehicle (EV) consumers to achieve a sustainable society (Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser, 2022). EVs are recognized as an efficient way to decrease CO_2 emissions, leading to more sustainable urban transportation (Wu, Liao, Wang and Chen, 2019). Globally, the popularity of EVs is rising. For example, Tesla's car deliveries have been continuously increasing year over year, reaching a record 935,950 units globally in 2021. (Carlier, 2022). According to Flipse (2018), the International Energy Agency predicts that 35% of all automobiles on the planet will be EVs by 2040.

Similarly, in 2022 EV sales in Thailand increased significantly by 48%, becoming the highest growth in EV sales within Southeast Asia due to the effort of the government (Manakitsomboon, 2022). Furthermore, many EV providers are attempting to invest more in social media platforms such as Facebook and TikTok in order to better target their customers (Sun & Wang, 2020). Sun and Wang (2020) indicated that social media plays a crucial role in influencing customers' attitudes as well as SMI. Vrontis, Makrides, Christofi and Thrassou, (2021) revealed that SMI has the ability to influence customer attitudes and purchase behavior. SMI also has the potential to draw customer interactions and develop long-term partnerships between businesses and customers (Jansom & Pongsakornrungsilp, 2021).

Previously, several studies applied the theory of planned behavior (TPB) (Ajzen, 1991) to understand sustainable consumption (Wang, Zhang & Wong, 2022). Regarding the TPB, people can be influenced by internal (such as environmental values and a green attitude) and social factors (social norms). However, the effect of external factors, such as green information, on SMI is less investigated (Johnstone & Lindh, 2022). Barboza and Filho (2019) discovered that technology such as mobile applications can influence people's attitudes toward the pro-environment. Prior research also found that pro-environmental factors are a critical aspect of green purchase intentions (Hamzah & Tanwir, 2021) as they are used to forecast consumers' green product attitudes and behaviors (Bautista, Dui, Jeong & Paredes, 2020). However, although there is significant focus on how people decide to buy green products, the role of SMI in EV purchase intentions has received little attention in the literature.

As a result, this research aims to investigate the influence of SMI on green value perception, attitudes, and EV purchase intentions among Thai Generation Y consumers. The conceptual framework of this study is based on the TPB model conducted by Ajzen (1991) with pro-environmental values as mediators. This study also extends the framework to include price value, which may influence consumers' attitudes and purchase intentions. The remainder of the paper is organized as follows: First, the literature is reviewed, followed by the research methodology, data analysis, and finally discussion of the results and implications.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Social Media Influencers (SMI)

Consumers have become more interactive and collaborative with their green product purchase experiences on social media platforms (Bedard & Tolmie, 2018). This has led to the rise of social media content creation as an influencer marketing strategy, also known as SMI, actively distributing product information and opinions (Cheung, Leung, Aw & Koay, 2022). Nafees, Stoddard, Cook and Nikolov (2021) defined SMI people skilled in their specific area with the ability to share their product knowledge with their followers (more than 10,000 followers). Furthermore, an influencer on social media can be someone who influences consumer

norms, attitudes, motivation, and behavior (Vrontis, Makrides, Christofi & Thrassou, 2021). Since social media can be defined as any online platform such as Facebook, Instagram, or YouTube, this research focuses on SMI based on Facebook.

Johnstone and Lindh (2022) found that the behavior of Generation Y related to involvement in sustainability is not linear; they are more susceptible to the effects of social influence and peer pressure than previous generations. Moreover, Pop, Săplăcan and Alt (2020) discovered that SMI enhances consumers' green cosmetic purchase intentions toward the perceived environmental issues and motivation of altruistic value, which is one of the pro-environmental values consisting of altruistic value, biospheric value, and collectivistic value (Wang, Zhang & Wong, 2022). As a result, this study hypothesises that:

H1: SMI positively influences consumers' biospheric value perception.

H2: SMI positively influences consumers' altruistic value perception.

H3: SMI positively influences consumers' collectivistic value perception.

Additionally, price is also a crucial factor for EV purchases, according to Higueras-Castillo, Kalinic, Marinkovic & Liébana-Cabanillas (2020). These researchers stated that the perception of price value for green products among consumers seems to be higher than for ordinary merchandise. Nevertheless, the price value perception could be changed by convincement from SMI through the information received (Sun and Wang, 2019). Currently, people are willing to pay a high price for long-term savings, which is one of EVs' merits. Therefore, the following research hypothesis is put forward:

H4: SMI positively influences consumers' price value perception.

Several studies have found a significant causal path from social media to subjective norms in the case of green cosmetics (Pop, Săplăcan, & Alt, 2020). According to Ajzen (1991), subjective norms refer to the perceived social pressure from the reference group — friend or family for example — to perform or not perform the behavior. Some previous studies have mentioned that customers are more likely to engage in environmentally friendly purchasing behavior if they believe that their significant reference persons do the same (Paul, Modi and Patel, 2016). This is supported by Prakthayanon and Worasatepongsa (2022) who found that Thai people tend to be influenced by subjective norms when they decide to buy EVs. As a result, this study proposes the following hypotheses:

H5: SMI positively influences subjective norms.

H6: Subjective norms positively influence green purchase attitudes.

2.2 Pro-Environmental Values

According to the research conducted by Bautista, Dui, Jeong and Paredes (2020), pro-environmental values play a crucial role in enhancing consumers' pro-environmental behaviors toward their green product attitudes. This reflects customers' beliefs regarding the significance of preserving the natural world and promoting long-term sustainability, and may shed light on why a specific person supports environmental causes (Wang, Zhang & Wong, 2022). The pro-environmental value is also determined as the green value (Barboza & Filho, 2019) involved in environmental consciousness, including biospheric, altruistic, and collectivistic (egoistic) values (Wang, Van der Werff, Bouman, Harder & Steg, 2021).

2.2.1 Biospheric Value

Biospheric value occurs when people perceive environmental issues and aim to protect or respect the environment (Barboza & Filho, 2019). According to Wang, Zhang and Wong (2022), a person who perceived biospheric value would be concerned for natural resources such as animals or plants.

Prior research has discovered that biospheric value is significantly related to nonenvironmental impact products (Wang,

Zhang & Wong, 2022). For instance, if a product stresses an animal welfare policy, consumers will perceive a higher biospheric value, leading to a pro-environmental purchase intention (Schuitema & de Groot, 2015). Wang, Zhang and Wong (2022) also confirm that biospheric value is associated with a green purchase attitude toward green products. Thus, this study proposes the following hypothesis:

H7: Biospheric value perception positively influences green purchase attitudes.

2.2.2 Altruistic Value

According to Bouman, Steg and Kiers (2018), altruistic values demonstrate an anxiety for the well-being and equitable treatment of other people. Previous studies also supported the idea that there is a correlation between a higher altruistic value orientation and greater concern for environmental issues and pro-environmental behavior (Rahman & Reynolds, 2016).

Previously, it has been argued that altruistic value is similar to biospheric value (Rahman & Reynolds, 2016). In addition, some literature found that only biospheric value has greater ability to increase pro-environmental behavior than altruistic value (Schuitema & De Groot, 2015). Nonetheless, Wang, Wong and Narayanan Alagas (2020) revealed that altruistic value is one of the most significant factors leading to a rise in consumers' green attitudes and intentions. Furthermore, research studying EV purchase behavior in China found a positive effect of altruistic value on subjective norms and green attitudes (Wang, Zhang & Wong, 2022). Hence, the following hypothesis is proposed accordingly:

H8: Altruistic value perception positively influences green purchase attitudes.

2.2.3 Collectivistic Value

In terms of consumption, people also focus on the consequences of their choices on their personal resources, which reflect their egoistic value perceptions (Bouman, Steg & Kiers, 2018). Egoistic value perception has been found to negatively influence pro-environmental norms and behaviors as it focuses mainly on self-discipline (Lin, Zhu, Liu and Kim, 2022). However, as green product consumption typically involves long-term collective concerns, collectivism is the consequence of this value spectrum (Wang, Zhang & Wong, 2022).

According to Wang, Wong and Narayanan Alagas (2020), collectivistic value is perceived when a person focuses on satisfying his or her needs in order to protect the environment for all of society. These researchers uncovered that collectivistic value has a positive relationship with green purchase attitudes when people decide to reserve green hotels. As a result, the following hypothesis is provided:

H9: Collectivistic value perception positively influences green purchase attitudes.

2.3 Price Value

The fact that EVs run on electrical power which is cheaper than gasoline fuel in the long-term, could lead to increased customer perceptions of price value (Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser, 2022). Schuitema & Groot (2015) found that when a high-priced product is associated with a higher level of quality or a more favorable impression, it may have a positive effect on purchase behavior. Therefore, the following hypothesis is suggested accordingly:

H10: Price value perception positively influences green purchase attitudes.

2.4 Green Purchase Attitude

Green products are those that are thought to be less damaging to humans or the environment, making them eco-friendly; for instance, EVs (Perera, Kalantari Daronkola & Johnson, 2022). While attitude is the degree to which a person has a positive or negative opinion of an action (Ajzen, 1991), the attitude toward green purchasing behavior is a cognitive and emotional judgement of the

goal of environmental conservation (Maichum, Parichatnon & Peng, 2016). Since environmental values can impact consumers' attitudes, it can indicate an intention to purchase green products (Bautista, Dui, Jeong & Paredes, 2020). This has been supported by the fact that individuals who are concerned about environmental issues may have a positive attitude toward green consumption (Degirmenci & Breitner, 2017). Since the study assumes that consumers who purchase EVs will perceive pro-environmental values, the following hypothesis is suggested:

H11: Green purchase attitudes positively influence green purchase intentions.

2.5 Green Purchase Intention

According to the TPB, behavioral intentions are influenced by positive attitudes toward subjective norms and perceived behavioral control (Pop, Săplăcan & Alt, 2020). The TPB is widely used to understand green purchase consumption (Pop, Săplăcan & Alt, 2020). However, there are still gaps in the relationship between Generation Y's environmental value perception toward SMI and EV purchase intentions.

Generation Y is a group of people who were born between 1980 and 2000 (Bedard & Tolmie, 2017). This generation was selected since they are characterized as being more sensitive to environmental issues than other generations (Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser, 2022). In Thailand during COVID-19, a number of younger generations have shifted their attitudes toward green items, demonstrating more sustainable consumption (Cattapan & Pongsakornrungsilp, 2022). Although Pop, Săplăcan and Alt (2020) investigated the influence of social media on green cosmetic consumption, there is still a lack of evidence related to the impact of SMI on customer EV consumption behavior.

Therefore, this research examines the influence of SMI on the pro-environmental value perception and subjective norms that may affect consumers' attitudes, and could be affected by price value perception, ultimately increasing purchase intentions regarding EVs (Figure 1).

3. METHODOLOGY

3.1 Sample and Data Collection

The sample in this research used snowball sampling techniques, allowing the researcher to categorize an initial sample that could deliver the research questionnaire to others (Atkinson & Flint, 2004). The responses were collected using Google Forms, a reliable online survey platform. The

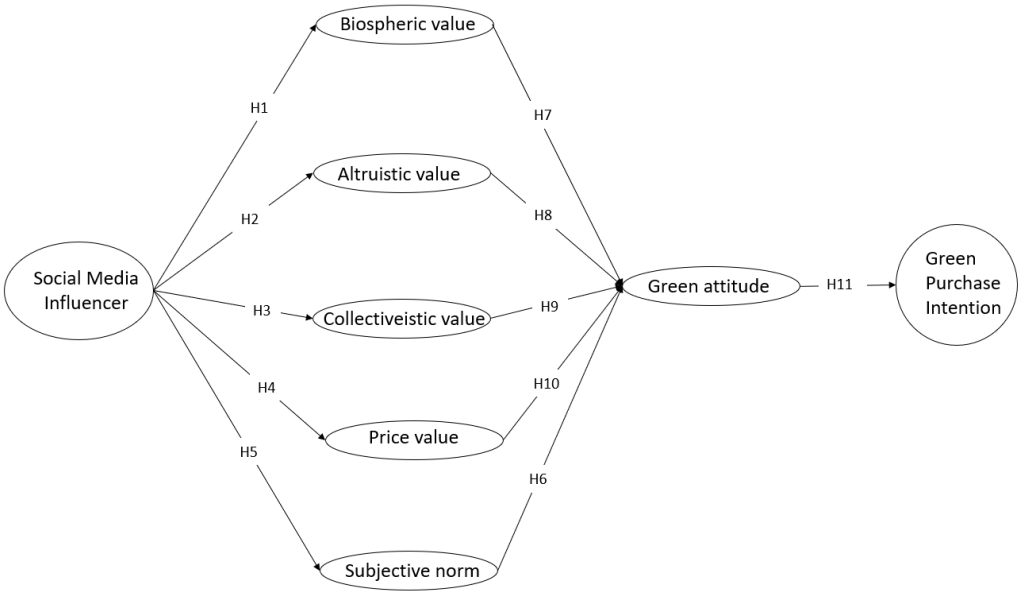

Figure 1 Research Model

total size of the research sample was 421 participants, all of whom were Thai, belonged to generation Y, (i.e. born between 1980 and 2000) (Bedard & Tolmie, 2017), and who planned to buy an EV or already had experience buying an EV. Additionally, respondents were familiar with some SMI in the area of EVs. After exclusion of invalid responses, a final sample of 410 complete surveys were acquired for the investigation. The sample number meets the minimum requirement of at least 384 samples based on the Cochran (1953) formula used to calculate a sample with a nonspecific population size with a 95% confidence level and a 5% margin of error.

3.2 Measures

The question items in the study were adapted from several valid literature sources and used a seven-point Likert scale ranging from 1 (completely disagree) to 7 (completely agree). The 30 questions were designed based on previous studies. The questions included items related to SMI, pro-environmental values, price value, subjective norms, green purchase attitudes, and green purchase intentions (Table 1). The results of the analysis utilizing the mean and standard deviation analysis method show that the overall average indicated "slightly agree" with the mean range of 4.40 to 6.10, as indicated in Table 1.

3.3 Ethical considerations

Data collection began after the research was approved by Walailak University's Ethics Committee for Human Research. The ethical approval reference number is WUEC-22-259-01, and was approved on August 30, 2022. The participants in this study all gave their consent to participate in the survey. They were allowed to withdraw from the project at any time with no consequence.

Table 1 Measurement item

Variable	Measurement Items	Source	Symbol	$\bar{x}$	SD.
SMI	I follow various celebrities, bloggers and/or influencers online.	Johnstone and Lindh (2022)	SMI1	4.88	1.39
	The relationship I have with a SMI (e.g. a celebrity or blogger) informs my EV choices.		SMI2	4.41	1.43
	I am more likely to buy a product if an online influencer reviews it positively.		SMI3	4.68	1.51
	I am more likely to like a brand if an online influencer reviews it positively.		SMI4	4.40	1.56
	Contents about EV from SMI are trustworthy.	Pop, Săplăcan and Alt (2020)	SMI5	4.77	1.58
Biospheric Value Perception	It is important to me to prevent environmental pollution.	Bouman, Steg and Kiers (2018)	BVP1	5.61	1.12
	It is important to me to protect the environment.		BVP2	5.87	1.02
	It is important to me to be in unity with nature.		BVP3	6.09	0.97
	It is important to me to be in unity with nature.		BVP4	6.10	0.94

Table 1 (Continued)

Variable	Measurement Items	Source	Symbol	$\bar{x}$	SD.
Altruistic Value Perception	Buying an EV is an ethical interest for me, considering that the products have been ecologically produced.	Pop, Săplăcan and Alt (2020)	AVP1	5.76	0.82
	The environmental preservation by EVs is coherent with my ethical values.		AVP2	5.51	0.96
	Humans must maintain the balance with nature to survive.		AVP3	5.84	0.97
	While purchasing a car, I focus on an environmentally friendly car.		AVP4	5.56	1.02
Collectivistic Value Perception	I think air pollution by industry is dangerous for me and my family.	Pop, Săplăcan and Alt (2020)	CVP1	5.40	0.98
	I like to help others in times of need.	Bouman, Steg and Kiers (2018), Wang, Zhang and Wong (2022)	CVP2	5.33	1.06
	I like to maintain good relationships with others.		CVP3	5.62	1.08
	I like to work hard for the accomplishment of the goals of my group.		CVP4	5.39	1.19
Price Value Perception	EVs are reasonably priced.	Degirmenci and Breitner (2017)	PV1	5.17	1.20
	EVs are good value for money.		PV2	4.93	1.28
	At the current price, EVs provide a good value.		PV3	5.19	1.20
Green Purchase Attitude	For me, purchasing an EV is good.	Wang, Zhang and Wong (2022)	GPA1	5.08	1.19
	For me, purchasing an EV is desirable.		GPA2	4.94	1.27
	For me, purchasing an EV is pleasant.		GPA3	5.06	1.28
	For me, purchasing an EV is wise.		GPA4	5.19	1.24
Subjective Norm	Most people who are important to me think I should purchase an EV.		SN1	4.96	1.25
	Most people who are important to me would want me to purchase an EV.		SN2	4.59	1.32
	People whose opinions I value would prefer that I purchase an EV.		SN3	5.08	1.34
Green Purchase Intention	I am willing to purchase an EV in the future.		GPI1	5.07	1.25
	I will make an effort to purchase an EV in the future		GPI2	4.85	1.43
	I plan to purchase an EV.		GPI3	5.26	1.37

3.4 Data Analysis

Data analysis was conducted in three stages using SPSS 26.0 and AMOS 22.0 to answer the research questions and test the hypotheses. Firstly, SPSS 26.0 was utilized for descriptive analysis to analyze the results of the participants' demographic characteristics. Based on the descriptive results, the respondents were mostly female (43.7%), aged between 22 and 31 years old (61.2%), had a bachelor's degree (85.4%), and received

an income between 10,001 and 20,000 baht per month. Secondly, confirmatory factor analysis (CFA) was conducted using AMOS 22.0 to verify the proposed model. Finally, structural equation modeling (SEM) was employed to test the relationship between all variables.

4. RESULTS

4.1 Testing of Reliability and Validity of the Measurement Model

The fit of the measurement model was assessed through confirmatory factor analysis (CFA) to confirm the factor loadings of the eight variables, including SMI, biospheric value, altruistic value, collectivistic value, price value, green purchase attitudes, subjective norms, and green purchase intentions. The CFA should be applied when the indicator for each latent variable is shown in the associated literature or prior information (Cattapan & Pongsakornrungsilp, 2022). According to Bollen (1989), the result of Chi-square (χ^2) p-value should be ≥ .05, and the Relative Chi-Square < 2.0. In addition, the goodness of fit index (GFI) should be ≥ .90 (Schumacker & Lomax, 2010), while the normed fit index (NFI) and comparative fit index (CFI) should be ≥ .90 (Diamantopoulos & Siguaw, 2000) and the Tucker – Lewis Index (TLI) should be ≥ .90 (Goffin, 2007). The CFA outcome of the research model demonstrated in Table 2 identifies 8 latent variables of the 30 observable variables, indicating that the outcomes signified good model fit. The results illustrate a chi-square at 357.340 with degrees of freedom [df] = 316, p = 0.054, Relative Chi-Square (χ^2/df) = 1.131, GFI = 0.949, NFI = 0.941, TLI = 0.990, CFI = 0.993, RMSEA = 0.018 and RMR = 0.066.

Furthermore, the CFA results are supported by composite reliability (CR) and the average variance extracted (AVE) (Fornell & Larcker, 1981). The AVE scores for biospheric value, altruistic value, and collectivistic value were lower than 0.50, ranging from 0.422 to 0.489, and the results were accepted as the composite reliability (CR) values of the 3 mentioned constructs were greater than 0.6 (Fornell & Larcker, 1981), ranging from 0.734 to 0.782. For other variables, AVE scores exceeded 0.50, while the resulting CR scores were greater than 0.70 (Table 2). The factor loading of all items was higher than 0.5 (Hair, Black, Babin & Anderson, 2010). In addition, to test the internal consistency of the indicators of each studied construct, alpha coefficient testing is required (Maichum, Parichatnon & Peng, 2016). The reliability testing ranged from 0.747 to 0.904; overall, Cronbach's alpha was 0.869 > 0.70 (see Table 2), indicating high reliability. In addition, the discriminant validity was tested following the recommendation of Fornell and Larcker criterion with results illustrating that the square root of the AVE of each latent variable was higher than its correlations (Prakthayanon & Worasatepongsa, 2020) (see Appendix A1).

4.2 Structural Equation Model (SEM)

SEM in this study was conducted by AMOS 22.0, with outcomes demonstrating Chi-square $\chi2$ = 336.769, df = 304.0, Sig. = 0.095 > 0.05, $\chi2$/df. = 1.108, GFI = 0.948, NFI = 0.945, TLI = 0.992, CFI = 0.994, RMSEA = 0.016 and RMR = 0.079. All these results were higher than the suggested goodness-of-fit values (Schumacker & Lomax, 2010). Therefore, the results confirm good fit of the testing model.

Table 3 displays the results of the structural model. Nine out of eleven hypotheses were supported. SMI was shown to have a highly positive influence on collectivistic value perception (β = 0.208; t = 3.804 and p < 0.001), followed by altruistic value perception (β = 0.193; t = 3.461 and p < 0.001), biospheric value perception (β = 0.179; t = 3.308 and p < 0.001), price value perception (β = 0.159; t = 2.792 and p < 0.01) and subjective norms (β = 0.116; t = 2.126 and p < 0.05) (Hypothesis 1-5). Furthermore, price value perception (β = 0.337; t = 5.654 and p < 0.001), subjective norms (β = 0.321;

t = 5.482 and p < 0.001), and collectivistic value perception (β = 0.162; t = 3.382 and p < 0.001) were indicated to positively influence green purchase attitudes (Hypothesis 6, 9, 10), while green purchase attitudes also positively influence green purchase intentions (β = 0.448; t = 7.674 and p < 0.001) (Hypothesis 11).

Nonetheless, other hypotheses were rejected (Hypothesis 7, 8) at a significance level of 0.05.

Table 2 Reliability and validity of the constructs.

Variable	Standardized Factor loading	Cronbach's Alpha	R^2	AVE	CR
Social Media Influencer (SMI)		0.904		0.651	0.902
SMI1	0.698***		48.7%		
SMI2	0.722***		52.2%		
SMI3	0.861***		74.2%		
SMI4	0.906[a]		82.0%		
SMI5	0.828***		68.6%		
Biospheric Value Perception (BVP)		0.795		0.489	0.782
BVP1	0.596***		35.5%		
BVP2	0.944[a]		89.1%		
BVP3	0.686***		47.0%		
BVP4	0.487***		23.7%		
Altruistic Value Perception (AVP)		0.747		0.422	0.734
AVP1	0.524***		27.4%		
AVP2	0.881[a]		77.5%		
AVP3	0.612***		37.4%		
AVP4	0.512***		26.2%		
Collectivistic Value Perception (CVP)		0.761		0.436	0.751
CVP1	0.605***		36.6%		
CVP2	0.78***		60.9%		
CVP3	0.717[a]		51.4%		
CVP4	0.504***		25.4%		
Price Value (PV)		0.8		0.562	0.792
PV1	0.637***		40.6%		
PV2	0.836[a]		69.8%		
PV3	0.762***		58.1%		
Green Purchase Attitude (GPA)		0.854		0.571	0.841
GPA1	0.684***		46.8%		
GPA2	0.759***		57.6%		
GPA3	0.87[a]		75.8%		
GPA4	0.695***		60.0%		
Subjective Norm (SN)		0.828		0.660	0.853
SN1	0.792***		48.3%		
SN2	0.867***		62.7%		
SN3	0.775[a]		75.2%		
Green Purchase Intention (PI)		0.864		0.685	0.866
PI1	0.763***		58.2%		
PI2	0.898[a]		80.6%		
PI3	0.816***		66.7%		

Note: *** p < 0.001, [a] Values were not calculated because loading was set to 1.000 to fix construct variance.

Table 3 Hypotheses Results of the Structural Model

Hypotheses	Path Correlation	Standardized Path Coefficient	*t*-Value	*p*-Value	Results
H1	SMI -> BVP	0.179***	3.308	0.000	Supported
H2	SMI -> AVP	0.193***	3.461	0.000	Supported
H3	SMI -> CVP	0.208***	3.804	0.000	Supported
H4	SMI -> PV	0.159**	2.792	0.005	Supported
H5	SMI -> SN	0.116*	2.126	0.033	Supported
H6	SN -> GPA	0.321***	5.482	0.000	Supported
H7	BVP -> GPA	0.050	1.013	0.311	Not Supported
H8	AVP -> GPA	0.024	0.467	0.641	Not Supported
H9	CVP -> GPA	0.162***	3.382	0.000	Supported
H10	PV -> GPA	0.337***	5.654	0.000	Supported
H11	GPA -> GPI	0.448***	7.674	0.000	Supported

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

5. DISCUSSION AND CONCLUSION

The role of social media seems to be more crucial for both encouraging people to have more sustainable consumption and to use less harmful products (Vrontis, Makrides, Christofi & Thrassou, 2021). This study aimed to investigate the pro-environmental value perceptions and EV purchase intentions of Thai Generation Y consumers. The research considered the influence of SMI on the pro-environmental value perception together with price value perception and TPB variables, including attitudes and subjective norms that may affect consumers' green purchase attitudes and lead to having an intention to purchase an EV.

Empirical findings illustrate that SMI has a positive impact on all aspects of pro-environmental value perception, including biospheric, altruistic, and collectivistic value perception. This outcome is in line with the research conducted by Pop, Săplăcan and Alt (2020) who focused on the impact of social media on the buying intentions for green cosmetics. Their findings indicated that social media has impacts on the pro-environmental value perceptions of the Romanian and Hungarian population when they have an intent to buy a green cosmetic product. This shows that SMI on Facebook can encourage Thai members of Generation Y to be concerned about environmental, altruistic, and collectivistic issues. The finding is also supported by Prakthayanon and Worasatepongsa (2020), who discovered that external factors, such as information from social media, have the ability to influence Thai people to be concerned about pollution, other people, and society.

However, even though consumers perceive environmental value, it does not affect their green purchase attitudes for EV products, which stands in contrast to Wang, Zhang, and Wong (2022). This could mean that Gen Y, who care about the physical environment, may not feel that buying EVs is actually good for the environment since the fact that manufacturing of batteries and the energy source to power these EVs' batteries still impacts the environment. Furthermore, although SMI can influence consumers' altruistic value perception, the altruistic value perception does not have a positive influence on green attitudes. This result contrasts with Wang, Zhang and Wong (2022), who found

that altruistic value perception negatively affects green attitudes among the Chinese population. On the other hand, collectivistic value perception has a positive influence on the Thai Gen Y's green attitudes. This could be because Thais may purchase an EV to satisfy their own demands, which can protect the environment for everyone in society, rather than buy an EV not for themselves but for others. Therefore, while SMI can influence one person to care for others, it cannot make people really want to buy for others as they will be more aware of buying for themselves while helping others at the same time.

The results also found that there is a significant effect of SMI on green attitudes, through collectivistic value perception as a mediator, in line with Pop, Săplăcan and Alt (2020). This means that SMI is an important factor that can influence consumers' attitudes about using or purchasing green products such as EVs by acknowledging that EVs can reduce pollution and help to achieve a sustainable society. There is also an indirect effect of SMI on green purchase intentions through collectivistic value perception and green attitudes. This finding surprisingly contrasts with previous research, such as Wang Zhang and Wong (2022). These researchers showed that the young generation, for example, Generation Y, tends to be more individual in the eastern countries. On the other hand, this research found that collectivistic value plays a significant role in determining pro-environmental behavior for Thai Generation Y when buying EVs.

Furthermore, SMI do influence consumers' perceptions of price value and subjective norms, which is in line with the results of Sun and Wang (2020) and Pop, Săplăcan, and Alt (2020). In addition, price value perception and subjective norms had an influence on green purchase attitudes, which led to influences on green purchase intentions. This could be because when Thai people need to buy an EV, they may need some external information to consider the price and need someone to support their purchase decision (Prakthayanon & Worasatepongsa, 2020). Also, when Thai Generation Y desires to purchase an EV, they seem to consider the price (Degirmenci & Breitner, 2017) and how others perceive them (Pop, Săplăcan & Alt, 2020).

In conclusion, it is important for Thai businesses to employ SMI to promote products that are good for the environment and to foster a more collective perception of value among Thai consumers. Advertisers, for instance, may inform consumers about the various ways in which adopting EVs is worthy of investment and can fulfill their needs while also helping to preserve the planet for future generations. Consumers might be influenced in this way to purchase EVs.

6. RECOMMENDATIONS

According to the results, the following implications, limitations and recommendations for future research are provided:

6.1. Theoretical Implications

Theoretically, the research framework used in this research was adapted from the TPB (Ajzen, 1991). As an extension, the present research made efforts to apply the TPB framework to study the impact of SMI on the pro-environmental behavior of Thai Generation Y regarding the purchase of EVs. This is the first study to examine the significant role of the perception of pro-environmental value as influenced by SMI via the Facebook platform and the consequent impact on EV purchase intentions. This study is also the first to consider price value as a mediator variable. Furthermore, the results indicate that SMI on Facebook can lead to increased perception of collectivistic value and price value and increases the positive attitudes and purchase intentions in this theoretical model when utilized in this research field in Thailand.

6.2. Managerial Implications

There are several managerial implications based on the findings from the research.

This study encourages EV companies in Thailand to develop suitable marketing strategies using SMIs, as they provide knowledge, motivation, and initiatives to encourage change. In addition, the EV producer or government may have an idea for a marketing campaign designed to provide consumers with a more environmentally responsible attitude and increase consumers' willingness to purchase EVs, especially among Generation Y, who are likely to become EV customers in the future. For example, an EV producer may generate marketing campaigns by hiring SMIs to stimulate Generation Y. However, the influencers should not promote only that using EVs can protect the environment but also can benefit the users, such as saving energy and costs, at the same time. This advice should also be followed by the government, as government policy typically aims to control CO_2 emissions but does not often state that use of gasoline vehicles has a negative impact on the user and others; the government may use SMI to convince people that using an EV can benefit them and others, thereby increasing their green attitudes and purchase intentions. This could help the government to achieve sustainable urban transportation as well. Last but not least, EV companies may reduce their marketing costs by not running marketing campaigns about green purchase attitudes based on biospheric value and altruistic value because these factors do not have a positive impact on Thais in Generation Y.

6.3. Limitations and Future Research

This study has a few limitations. First, the study focused only on EV consumption and only on the Facebook platform. According to Pop, Săplăcan, and Alt (2020), customers may react differently across other social media channels. Therefore, it may be worthwhile to investigate the impact of SMI in other channels on environmental value perception and green product purchase intentions in the future. Second, an additional investigation might reveal the influence of social media on repeat purchases and electronic word-of-mouth regarding electronic vehicles. Thirdly, there are some potential limitations and concerns since this study used snowball sampling, where the participants are difficult to locate. The authors must take steps to minimize bias and ensure that they recruit a diverse and representative sample. Other sampling techniques should also be considered in conjunction with snowball sampling to improve generalizability. Lastly, because this research used a quantitative approach, future research could develop a mixed-method research design by including systematic reviews, focus groups, or in-depth interviews with EV consumers, for a more in-depth understanding. Alternatively, future research could investigate other specific green products.

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Appendix A

Table A1 Discriminant Validity Results

	SMI	BVP	AVP	CVP	PV	GPA	SN	GPI
SMI	0.807							
BVP	0.153	0.699						
AVP	0.187	0.210	0.650					
CVP	0.197	0.212	0.400	0.660				
PV	0.163	0.096	0.216	0.233	0.750			
GPA	0.130	0.057	0.187	0.335	0.519	0.756		
SN	0.140	-0.024	0.108	0.118	0.411	0.499	0.812	
GPI	0.152	0.200	0.232	0.278	0.226	0.522	0.440	0.828