

Materialism and Sustainable Consumption Behavior in Thailand: The Moderating Role of Income

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Abstract

Purpose This study is to investigate the influence of materialism on sustainable consumption behavior among Thai consumers, with income serving as a moderating variable, and also to examine the materialism of Thai consumers. **Methodology** This study adopts a mixed-methods approach employing an explanatory sequential design. The research method begins with quantitative research data, which is then followed by qualitative research data. Quantitative research was employed to collect data through an online questionnaire from a sample of 355 participants and analyzed using regression analysis. Qualitative grounded theory was applied by using a semi-structured interview to collect data from a sample of 30 participants. The interview questions were developed based on the quantitative research findings, and the data were analyzed using thematic analysis. **Findings** The quantitative research demonstrates that materialism was found to have a significant negative effect on sustainable consumption behavior at the 0.05 level. In addition, income was identified as a full moderating variable in the relationship between materialism and sustainable consumption behavior. In addition, qualitative research findings found that Thai consumers did not agree that materialism is a focus of their lives, and that materialism does not lead to happiness. On the other hand, they think that materialism is an indicator of key success in life. Moreover, the findings of this study differ from perspectives derived from international literature, as Thai consumers perceive materialism as an individual behavior primarily focused on the acquisition of possessions. Consequently, this behavior led them to overlook three important aspects of life, which are family, health, and debts. **Applications** of this study To suggest that the government should implement additional taxation policies on luxury goods in order to reduce consumers' levels of materialism among Thai consumers and to use online social media to promote and stimulate sustainable consumption behavior. As for the industrial factor, it is advised to design and produce products that support increasingly sustainable consumption behavior among Thai consumers, such as non-polluting raw materials or environmentally friendly packaging.

Keywords: Materialism, Sustainable consumption behavior, Mixed-method research approach

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Introduction

Materialism is a complex concept that emerged in the nineteenth century and is grounded in scientific reasoning and the belief that all things, living and non-living, are composed of physical elements and tangible entities (Lange, 1877). However, there are multiple definitions of materialism. Within the discipline of marketing and consumer studies, Belk (1985) defines materialism as a focus on possessions and the belief that material goods are the source of happiness. Materialism is composed of acquisitiveness, possessiveness, and envy. For Richins & Dawson (1992) materialism is a personal belief, focusing on materialistic importance that is composed of 3 dimensions as follows: Dimension 1: Material is centrality (C) and a belief that acquiring and possessing materials is the most important aspect of life; Dimension 2: Material is a life success (S) and a belief that acquiring and possessing materials signifies life success and satisfaction; Dimension 3: Material is life happiness (H) and a belief that acquiring and possessing materials bring happiness to life (Richins & Dawson, 1992; Richins, 2004; Ponchio & Aranha, 2008).

Previous research regarding materialism in international contexts show that most research is quantitative, investigating the relationship between materialism and behaviors of environmentally friendly purchase intentions. For example, Alzubaidi et al. (2021) found that materialism influenced both direct and indirect negative effects on pro-environmental purchase intentions in Saudi Arabia. This research is in line with Dangelico et al. (2021), who found that materialism influenced negative effects on green purchase behavior in Italy. Most prior material research in a Thai context is quantitative research regarding materials and factors such as brand strategy (Sangkhawasi & Johri, 2007) and the relationship between family structure and society (Nguyen et al., 2009). In addition, there are comparative studies examining the materialism of Thai consumers in relation to that of consumers in other countries. For example, a comparison between Thai and Turkish consumers (Dogerlioglu-Demir & Tansuhaj, 2011) and a comparison between Thai and American consumers (Watchravesringkan, 2012). Parvatiyar & Sheth (2023) state that over the past several decades, advertising across various media platforms and social media has contributed to a growth in consumerism, materialism, wealth, and hedonism. These influences encourage excessive consumption beyond actual needs and ultimately lead to undesirable consumption behaviors.

At present, the concept of materialism and sustainable consumption behavior has been widely discussed because the United Nations (UN) and member countries have jointly promoted the implementation of Sustainable Development Goals (SDGs) for the period 2015–2030 (Biermann et al., 2017). Sustainable consumption behavior (SCB) refers to consumer behavior that emphasizes consumption practices that enhance well-being. This can be promoted by using products and services that respond to basic needs and environmentally conscious consumption. This means reducing the use of natural resources, toxic materials, and curbing the release of waste throughout the life cycle of products and services to safeguard future generations. (Quoquab & Mohammad, 2020; Quoquab, Mohammad, & Sukari, 2019). However, relevant

previous research that investigated the influence of materials on sustainable consumption behavior is very limited in international contexts (Dimitrova et al., 2022), and no studies have yet been found within the Thai context.

As a result, this current study fills an existing research gap from previous studies in three areas. Firstly, there is no research about materials influence on sustainable consumption behavior in a Thai context. Secondly, this study applied a mixed-methods approach, in contrast to previous studies, which solely use a single research method to establish the relationship between materialism and sustainable consumption behavior in a causal manner. As discussed, this study firstly conducted a quantitative approach in order to scrutinize the influence of individual-level materialism on sustainable consumption behavior in Thailand, and a qualitative investigation to provide further explanation regarding the materialistic tendencies of Thai consumers. Finally, this study tested income as a moderating variable, as income reflects an indicator of consumers' purchasing power. The findings are expected to be beneficial for government and private sector planning related to sustainable consumption.

Research Objectives

1. To investigate the influences of materialism on the sustainable consumption behavior of Thai consumers.
2. To examine the influences of income as a moderator affecting the relationships between materialism and sustainable consumption behavior.
3. To scrutinize the perception of being materialistic among Thai consumers.

Literature Review and Hypotheses development

Materialism

Richins & Dawson (1992) identify 3 dimensions of materialism as follows: Dimension 1: Materialism is centrality (C), reflecting how strongly individuals place possession in life. Dimension 2: Materialism indicates life success (S); the possession of materials signifies life success and satisfaction. Dimension 3: Materialism is Life happiness (H), indicating that materialistic possession makes for a happy life.

Previous international studies found that materialism has drawbacks and negative effects by causing impulsive buying behavior (Jalees et al., 2024; Patial et al., 2024), buy-now-pay-later purchasing behavior, and shopping addiction (Raj, Jasrotia, & Rai, 2024). Moreover, materialism has negative effects on personal financial management (Li, Chatterjee, & Moorman, 2024; Kasser, 2016; Shrum, Chaplin, & Lowrey, 2022). In the context of Thailand, studies conducted in academic institutions have indicated that materialism influenced students' willingness to engage in dishonest behaviors, such as cheating on mathematics examinations (Koul, 2012).

On the other hand, previous studies revealed that materialism in business showed beneficial attributes, directly affecting the trustworthiness of organization administrators, creating

image and brand reputation (Huaman-Ramirez & Merunka, 2021; Green, 2014). Furthermore, Shrum et al. (2014) explain that materialism can stimulate a person to achieve a short-term goal. However, materialism is merely consumption driven by personal motivations, especially when motivation is threatened or challenged. In other words, challenges are from human basic needs, such as being a part of society, having power, and being respected. When facing threats, humans try to recover self-value by engaging in consumption or using symbolic materials to construct and maintain their identity and subsequently communicate these behaviors to others in order to gain confidence and social acceptance. This aligns with the findings of Segev et al. (2015), who state that materialism is merely a natural coping mechanism in human behavior.

Sustainable Consumption Behavior

Sustainable consumption behavior refers to consumers' behavior, focusing on consumption that affects the next generation, including consumption related to environmental concerns, using products and services that respond to basic needs by reducing the use of natural resources and waste released throughout the life cycle of products and services for individual well-being (Quoquab & Mohammad, 2020; Quoquab, Mohammad, & Sukari, 2019).

The outcomes of most previous research on sustainable consumption behavior indicate that factors positively influencing such behavior include environmental concern, sustainability consciousness, altruism, and perceived savings. For example, Sabah Welbeck & Larbi (2025) found that sustainability consciousness and concern for the common good exert a positive influence on sustainable consumption behavior. This finding is consistent with Tan and Ota (2024), who reported that the factors that exerted a positive influence on sustainable consumption behavior in Japan were environmental concerns, perceived frugality, and self-efficacy. In Thailand, Vantamay et al. (2019) conducted an evaluation of a community-based social marketing campaign aimed at promoting sustainable consumption behavior among Thai youth. The study reported that the factors influencing sustainable consumption behavior were attitude toward the behavior, subjective norm, perceived behavioral control, and intention to undertake sustainable consumption behavior (Vantamay, 2018).

Materialism and Sustainable Consumption Behavior

Previous international research examined materialism and sustainable consumption behavior. For example, Issock, Muposhi, & Dlamini (2025) revealed that materialism had a negative effect on sustainable consumption and consumers' well-being, whereas Soule & Egea (2024) reported that materialism had a positive influence on anti-sustainable consumption behavior in the United States and Spain. Similarly, Lee & Ahn (2016) found that materialism was negatively correlated with consumers' well-being. In addition, Islam et al. (2022) investigated samples in the United States and China and found that materialism had a negative influence on sustainable consumption of luxury brands. Moreover, Geiger et al. (2020) indicated that materialism was negatively associated with sustainable consumption behavior in Germany. However, the influence

of materialism on sustainable consumption behavior remains inconclusive. Materialistic individuals may spend time striving to acquire possessions to satisfy their own needs; consequently, they neglect sustainable consumption behavior. Therefore, this leads to hypothesis 1 (H1) as follows:

Hypothesis 1 (H1): Materialism has a negative effect on sustainable consumption behavior.

Moderation

Demographic variables are considered variables that allow a researcher to understand the demographic characteristics being examined, such as gender, age, income, and education; specifically, income variables, which potentially indicate the purchasing ability of consumers. For example, Srisathan et al. (2023) found that income moderates the relationship between perceived benefits of green products and the consumers' environmentally friendly awareness. This is consistent with Liang et al. (2024), who found that income alters the relationship between environmental awareness and health awareness. Similarly, Verma (2025) found that income influences the relationship between perceived economic well-being and conspicuous consumption.

Therefore, this leads to hypothesis 2 (H2) as follows:

Hypothesis 2 (H2): Income moderates the relationship between materialism and sustainable consumption behavior.

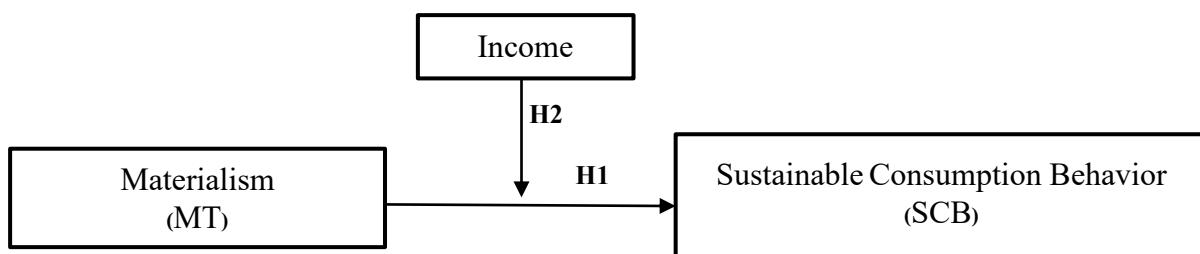


Figure 1 Research Framework

Methodology

This study adopted a mixed-method approach by using an explanatory sequential design. The quantitative approach was conducted first of all, followed by a qualitative approach. The research team used quantitative research outcomes in order to triangulate with the research hypothesis. Following this, the qualitative approach was conducted in order to understand the materialistic perception of Thai consumers, and to generate in-depth data to explain the hypothesis outcomes in the context of Thai consumers. The following section unpacks the process of our quantitative approach, followed by the qualitative approach.

Quantitative Research

The population in this study are consumers above 18 years old. The sample size is based on suggestions by Hair et al. (2019), who explain that a suitable sample size should have at least 5 to 10 times the number of items in the questionnaire. This research has 20 interview questions; as a result, the samples should not be fewer than 200. Since the exact population size was unknown, a non-probability sampling method was employed, specifically snowball sampling. According to Baltar and Brunet (2012), when using snowball sampling via Facebook, the questionnaire response rate was found to be 2-3 times higher than that obtained through traditional snowball sampling methods. Moreover, snowball sampling is a low-cost and time-efficient approach that allows researchers to reach populations that are difficult to access. It also gives potential participants an opportunity to access information concerning the researchers before consenting to be included in the research sample.

However, there may be some limitations to snowball sampling in relation to the representativeness of the sample. In this study, the researchers used an online questionnaire distributed through two social media platforms, Facebook and LINE, and then forwarded it to groups with diverse gender and age profiles to mitigate sampling bias. The researchers provided clear instructions to respondents on each platform. After completing the questionnaire, the respondents shared the questionnaire with other participants within the group. At the same time, the researchers set inclusion criteria for respondents, who had to be over 18 years old in accordance with human research ethics, as they are able to understand the content and objectives of the study and can participate independently (Miracle, 2016).

The research tool in this study is a questionnaire, and the moderator is income level categorized into three groups: low income (less than 15,000 Thai baht (THB) per month), medium income (15,001–60,000 THB per month), and high income (60,001 THB per month or above) (Sangkhawasi & Johri, 2007). The questionnaire's questions regarding materialism have been developed from Richins & Dawson, 1992; Ponchio & Aranha, 2008; Dimitrova, Ilieva, & Angelova, 2022), and the questions related to sustainable consumption have been developed from Dimitrova, Ilieva, & Angelova, 2022; Quoquab, Mohammad, & Sukari, 2019). The questions on materialism and sustainable consumption were measured using a 7-point Likert scale, with responses ranging from 1 (strongly disagree) to 7 (strongly agree). Prior to data collection, the questionnaire was evaluated for validity. The factor loadings for the materialism and sustainable consumption constructs exceeded 0.600, meeting the statistical criterion (Hair et al., 1995). In terms of reliability, Cronbach's alpha values for both materialism variables and sustainable consumption variables were greater than 0.700, which meets the statistical criterion (Cronbach, 1951). Therefore, the research instrument demonstrated both validity and reliability. Consequently, the research tool in this study is valid and a reliable data collection tool.

The data were collected and analyzed by using statistical software for Social Science research. The analysis was conducted in two parts. Part 1 is descriptive statistics. This part involved interpreting respondents' levels of agreement, categorized into five levels as follows: 1.00–2.20

= very low, 2.21–3.40 = low, 3.41–4.60 = moderate, 4.61–5.80 = high, and 5.81–7.00 = very high. Part 2 is inferential statistics. This part demonstrated hypothesis testing using Pearson correlation, regression analysis, and the PROCESS Macro V4.2 to examine relationships between variables based on Hayes (2017).

Qualitative Research

This research employed grounded theory following the systematic procedure (Strauss & Corbin, 1998), and the data were analyzed by employing the grounded theory principles. The population for the qualitative study is equivalent to that of the quantitative study. They are consumers in Thailand aged 18 years and older, for whom the exact population size is unknown. Nevertheless, qualitative research does not emphasize representativeness of the population but rather focuses on selecting participants whose characteristics enable them to effectively address the research objectives. Subsequently, a purposive sampling of vendors was used in this research. Vendors were chosen as they had convenient time periods for providing information. For instance, during the time after setting up their stalls, but before customers arrived, or while waiting for potential buyers to make purchasing decisions. In order to conduct the interviews with research participants, they were preliminary contacted by our research team to establish a positive rapport with the participants (the vendors) in order to gather authentic information. The research scope is Wat Phutthabucha open-air weekend market in Bangkok. The data were derived from samples varying across income. Moreover, this market was a suitable area to collect data for this research because the market environment is characterized by active consumer spending. In our qualitative research, there were no strict rules for determining sample size because the focus is primarily on reaching data saturation. Previous studies by Guest et al. (2006) and Hennink & Kaiser (2022) recommend an appropriate sample size of 15–20 participants. Consequently, the researchers collected data from a total of 30 participants.

The data were collected by using a semi-structured interview method, and interview questions were prepared in advance. The questions used in the qualitative study were derived from the quantitative research in order to further explicate the quantitative findings. The interview questions cover 3 dimensions derived from the theory of Richins & Dawson (1992). In our qualitative study, the focus was on exploring the underlying reasons behind participants' responses. For example, a question related to materialism, which emphasizes the role of one's lifestyle, was "What do you typically spend the most money on, and why?". The researcher conducted fieldwork to carry out the interviews.

The research data were derived from taking notes and participants' interview recordings. The interview data from the samples were transcribed. All names were made anonymous and renamed in order to protect their privacy in accordance with research ethics. The data were analyzed, coded, and themed by using thematic analysis based on the method of Strauss and Corbin (1998). After the data were analyzed, internal validity was ensured through a triangulation

approach by cross-checking the analyzed data with interview recordings and field research notes during the interview. The results were then discussed and summarized.

Results

Quantitative Research

In this study, a total of 362 respondents completed the questionnaire, of which 355 were fully completed. The results indicated that the majority of participants were female (70.42%), aged 18–29 years (45.07%). More than half of the respondents held a bachelor's degree (65.07%), and most reported a monthly income of 15,001–30,000 THB (31.80%). From Table 1, the questionnaire respondents' assessment of materialism (MT) indicated a mean score of 2.76 on a 5-point scale, suggesting that materialism among Thai consumers is relatively low. In contrast, the variable sustainable consumption behavior (SCB) had a mean score of 6.10 on a 5-point scale, indicating that Thai consumers exhibit a very high level of sustainable consumption behavior.

Prior to conducting regression analysis, preliminary assumptions were examined, beginning with a normality test. The results indicated that the data in this study were approximately normally distributed, with skewness values ranging from -2.00 to +2.00 and kurtosis values ranging from -7.00 to +7.00, which meet the statistical criteria suggested by Schumacker & Lomax (2010) and Curran et al. (1996). This can be seen in Table 2. Normality Test. Next, multivariate outliers were examined using the Mahalanobis distance method, with cases having a p-value below 0.05 excluded from the dataset (Hair et al., 2019; McLachlan, 1999). Finally, the relationships between the two independent variables were assessed. The Variance Inflation Factor (VIF) values were all below 10, and the Tolerance values were above 0.1 (Hair et al., 2019), indicating that there were no issues of collinearity and two independent variables were not excessively correlated.

Table 1 Descriptive Statistics (n=355)

Variable	Mean	Std. Deviation	Meaning Interpret
Materialism (MT)			
MT1: I admire the owner of the clothes car and the expensive house.	2.52	1.30	
MT2: I would be happier if I had more money to spend.	3.60	1.41	low
MT3: I really love spending money on things.	2.15	1.25	
Total	2.76	1.32	

Table 1 Descriptive Statistics (n=355) (Cont.)

Variable	Mean	Std. Deviation	Meaning Interpret
Sustainable Consumption Behavior (SCB)			
SCB1: I try my best in order to use products and services appropriately. For example, switching off the electricity and the fan when leaving the room.	6.26	1.07	
SCB2: I order food at restaurants in portions that I can finish to avoid food waste.	6.11	1.21	very high
SCB 3: I try to minimize excessive consumption for the benefit of future generations.	5.93	1.12	
Total	6.10	1.13	

Table 2 Normality test (n=355)

Variables	Skewness		Kurtosis	
	Statistics	Std. Error	Statistics	Std. Error
MT	0.133	0.129	-0.942	0.258
SCB	-1.039	0.129	0.534	0.258
Income	0.561	0.129	-1.026	0.258

To test Hypothesis 1 (H1), regression analysis was conducted to examine the influence of the variable. As shown in Table 3, materialism had a significant negative effect on sustainable consumption behavior, with $b = -0.086$, $p < 0.05$, and a coefficient of determination (R^2) of 0.024. This indicates that materialism in this model explains 2.4% of the variance in sustainable consumption behavior. Based on these results, Hypothesis 1 (H1) is accepted.

The moderating effect was tested using PROCESS Macro version 4.2 following the method of Andrew F. Hayes (2017). In this study, income was considered as a moderator in the relationship between materialism and sustainable consumption behavior. The results indicated that materialism had a significant negative effect on sustainable consumption behavior ($b = -0.484$, $p < 0.05$). Furthermore, the interaction term is the interaction between materialism and income, which also had a statistically significant negative effect on sustainable consumption behavior ($b = -0.083$, $p < 0.05$). ($b = -0.083$, $p < 0.05$). In other words, income is a moderator of the relationship between materialism and sustainable consumption behavior. Based on these results, Hypothesis 2 (H2) is accepted.

In identifying the type of moderator, the criteria of Sharma et al. (1981) were applied. The study results indicated that the materialism variable (MT) and the interaction variable (MT*Income) had a statistically significant effect on sustainable consumption behavior, whereas

income alone was not statistically significant. This suggests that income functions as a pure moderator. As a result, the model yielded a coefficient of determination (R^2) of 0.322, meaning the model explains 32.2% of the variance in sustainable consumption behavior.

Table 3 Regression analysis results of the studied variables (n=355)

Hypothesis	Variables	Coefficie				Collinearity			
		nts (b)	S.E.	t	P-value	Statistics Tolera nce	VIF		
H1	Constant	6.422	0.118	54.470	0.000*	1.000	1.000		
	MT	-0.086	0.029	-2.934	0.002*				
	$R^2 = 0.024$	R^2 change = 0.024							
	$F = 8.607$	P value = 0.002*							
H2	Constant	6.109	0.054	113.237	0.000*	0.517	1.933		
	MT	-0.484	0.051	-9.451	0.000*				
	Income	0.025	0.039	0.641	0.261				
	MT*	$R^2 = 0.322$	R^2 change = 0.017	-2.236	0.013*				
	Income								
	$F = 5.001$	P value = 0.013*							

* Significant at the 0.05 level, Dependent variable: SCB

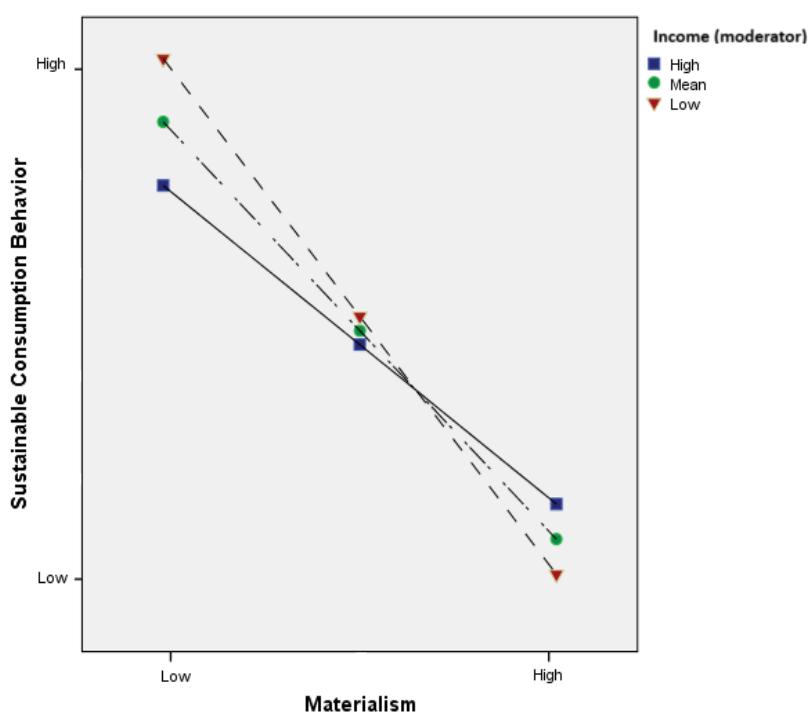


Figure 2 Analysis of the moderating variable (income level) influencing the relationship between materialism and sustainable consumption behavior.

Figure 2 illustrates the results of the analysis examining the moderating interaction effect. This shows the graph producing a negative relationship. This can explain that materialism has a negative effect on sustainable consumption behavior, with income functioning as a pure moderator in the relationship between materialism and sustainable consumption behavior. Specifically, at high levels of materialism, consumers with lower income exhibit less sustainable consumption behavior than those with higher income. Conversely, at low levels of materialism, consumers with lower income demonstrate higher sustainable consumption behavior than those with higher income.

Qualitative Research

Based on interviews with 30 research participants, thematic analysis revealed that most Thai consumers in this study prioritize essential items over desired ones and are generally satisfied with what they currently possess. Meanwhile, opinions were divided regarding the belief that possessions signify life success and happiness, with some agreeing and others disagreeing. The qualitative findings can be categorized into three areas according to the framework of Richins & Dawson (1992), as detailed below.

Part 1: Centrality, which focuses on reasons to which material possessions play a central role in individuals' lives, that is, the opinion regarding the importance placed on necessities versus desired items. The findings indicated that most interviewees reported moderate to frugal spending habits, prioritizing expenditures on essential items for daily living, particularly food, consumables, and household expenses. The research participants reported that they generally prioritize necessary items over discretionary goods. They explained that essential items constitute part of the four fundamental necessities of life. In addition, the interviewees expressed managing discretionary items by considering the current economic conditions and regulating their emotions by applying rational judgment before making any purchase decisions. Based on the interview question concerning the prioritization of spending on desired items versus essential items, the following responses illustrate the interviewees' viewpoints.

“...Some of the things I want are not necessary for daily life; some items are simply too wasteful...” (Interview with Mr. Chaiwat, 11 August 2024).

“...Basic necessities must always come first; everything else can wait. In an economy like this, it's risky, so I have to think carefully about whether something is truly necessary. Sometimes I fool myself (laughs). I see others have something, and I want it too—but that's not really right...” (Interview with Mr. Direk, 18 August 2024).

Most interviewees reported feeling neutral when seeing others acquire or possess various items. They explained that they were satisfied with what they currently had, as these possessions were obtained through honest means. Some participants further noted that accumulating many possessions could become a burden on them later, if the goods were unused. Thus, self-restraint

and an awareness of one's own desires were viewed as essential. Regarding the question about how they feel when seeing others possess various items, the interviewees expressed the following viewpoints.

“...I feel indifferent because I already have everything I need. But if I compare myself to billionaires, that's a different story. I don't think that far. I'm satisfied with what I have now...” (Interview with Mr. Athip, August 18, 2024).

“...Oh, people's thoughts—everyone has desires. We all want things. But we also need to look at ourselves and what we are capable of. Don't dream beyond your means (laughs). I don't know... whether others think as I do, I'm not sure. But this is how I see it...” (Interview with Ms. Balika, August 4, 2024).

Part 2: Questions concerning materialism. The second theme concerns materialism as an indicator of life success (S). Interview findings revealed that most participants stated that possessing various items, such as a large house, a luxury car, or branded clothing, signified success in life. They provided two key perspectives to support this viewpoint. The first perspective is that the value of these possessions reflects one's affordability, and thus, this can be displayed to others, enhancing one's outward appearance. The second perspective is that such possessions represent a sense of pride in one's achievements, as they are acquired through one's own hard work. However, participants also emphasized that these possessions do not constitute the ultimate measure of life success. In response to the question regarding whether having materials signifies success in life, the interviewees' answers were presented as follows:

“...It can partly tell. This is because the items add value to a person; consequently, our image looks better and luxurious...” (Interview with Ms. Nawamon, August 4, 2024).

“...indeed, because I'm proud of myself that I can do it...” (Interview with Mr. Traipop, 18 August 2024).

On the other hand, some interviewees disagreed with the perception that materials signify success and instead perceived that these materials facilitate their future. From another perspective, if they do not possess what other people have, it is unnecessary for them to get these materials immediately. These participants preferred to wait for the appropriate time in the future, gradually increasing income before purchasing at a later date. Some interview answers that reflect their viewpoints can be seen as follows:

“...No, I don't feel the need to show off. Because I feel that we should gradually build things up. Whatever we don't have, there's no need to rush or strive for it. If the opportunity

comes, we will eventually have it — we can obtain it ourselves..." (Interview with Ms. Warissara, 4 August 2024).

"...No. Because first of all, having a house and a car is already an essential part of life at this point. If someone already has their own place to live, it means they have a foundation for their future. They won't have to worry about paying rent or daily living costs..." (Interview with Mr. Chaiwat, 11 August 2024).

Part 3 consists of questions about happiness (H). According to some interview answers, they perceived that having more money brings the most happiness in life. They explained that money earned through honest work brings peace of mind, enabling them to buy whatever they want without worries. Based on the question about whether having a substantial amount of money is a source of happiness in life, the following responses illustrate the interviewees' viewpoints.

"...If we obtain things honestly, then we can feel at ease, right?" (Interview with Ms. Yaowadee, 4 August 2024).

"...Yes, because when we have enough money, there's really no problem. We're not troubled, there's no issue, no obstacle. We can just live our daily life without stress..." (Interview with Ms. Chompunut, 11 August 2024).

However, some interviewees thought that having more money is not their ultimate happiness in life. Their answers reflected religious reasons by emphasizing moderation and discouraging excessive ambition, and they believed that money cannot purchase everything in this world. True happiness, in their view, arises from within and is something that money cannot buy. Even though money can acquire various material goods, such things are inherently impermanent. This perspective is reflected in the following interview excerpts.

"...When family members have stable employment and can support themselves without having to struggle or fall into debt, that is happiness, my dear..." (Interview with Ms. Balika, 4 August 2024).

"...No, because money cannot buy the kind of happiness we truly seek. It cannot buy everything. We must cultivate it ourselves—through acts of merit, meditation, paying respect to the Buddha, and so on. Money can buy certain things, but it cannot buy our inner state of mind. This type of happiness cannot be purchased. Sometimes money simply cannot buy it, but our family remains grounded in mutual understanding..." (Interview with Mr. Traipop, 18 August 2024).

“...That is not true, because such happiness is only temporary. It is not enduring, and sooner or later suffering will arise...” (Interview with Mr. Khunphon, 18 August 2024).

In addition, the qualitative findings reveal three key points among Thai consumers. The first point is the family context. Expenditures on luxury goods or non-essential items are viewed as matters requiring considerable caution in the current economic situation in Thailand. A lack of prudence in spending may adversely affect the management of household finances. The second point is health. Material possessions often compel individuals with already low incomes to work even harder, leaving them with insufficient time to rest, which may in turn have negative long-term effects on their health. Finally, the issue of indebtedness. An excessive focus on material consumption can lead individuals to be in debt in order to purchase goods that exceed their essential needs. However, three key points among Thai consumers are considerably interrelated. When comparing the research outcomes between quantitative and qualitative research, there are some relevant and irrelevant parts regarding materialism, as shown in Table 4 below

The quantitative findings, particularly the descriptive statistics, indicate that most Thai interviewees exhibited a low level of materialism, which is consistent with the qualitative results. The qualitative data suggest that the Thai interviewees do not perceive materialism as a central focus of life, nor as a primary source of happiness. They would rather prioritize essential needs, especially the four necessities, and psychological well-being. Moreover, the quantitative findings based on the descriptive statistics reported that most Thai interviewees exhibited a low level of materialism, which is inconsistent with the qualitative findings. The qualitative data suggest that the Thai interviewees perceive materials as an indicator of life success. They are proud to achieve success through their own efforts, and therefore, they want to express this success through the material possessions they are able to afford.

Table 4 Mixed-Method Research Findings

Research Objectives	Research Outcomes		Conclusion
	Quantitative	Qualitative	
1. To investigate the influence of materialism on sustainable consumption behavior.	1. Materialism had a negative effect on sustainable consumption behavior. 2. Most Thai consumers in this study exhibited a low level of materialism. 3. The majority of Thai consumers in our study exhibit a very high level of sustainable consumption behavior.	The Thai consumers in our study disagreed that materials are a life focus and bring happiness, but they agreed that materials are an indicator of success.	The quantitative results indicate that most Thai consumers in this study display a low level of materialism, consistent with the qualitative findings, which reveal that materialism is not emphasized in their lives and is not perceived as a source of happiness.

Table 4 Mixed-Method Research Findings (Cont.)

Research Objectives	Research Outcomes		Conclusion
	Quantitative	Qualitative	
2. To examine the moderating influence of income on the relationship between materialism and sustainable consumption behavior.	<p>1. Income is a moderating variable in the relationship between materialism and sustainable consumption behavior.</p> <p>2. Individuals with low income and a high level of materialism tend to exhibit a lower level of sustainable consumption behavior than those with moderate or high income.</p>	<p>Income is an important factor influencing materialism because the Thai consumers in our study manage their finances with consideration of their income level and economic situation, particularly low-income individuals with high levels of materialism tend to experience greater stress in managing their daily finances than those with moderate or high income. This is because, despite already having limited financial resources, they still want to acquire additional material possessions.</p>	<p>The qualitative findings provide additional explanation for the income variable, thereby supporting the quantitative results, especially for individuals with low income but exhibiting a high level of materialism. These individuals tend to exhibit a low level of sustainable consumption behavior. As a result, they have no balance between financial management and excessive spending beyond necessity, resulting in the neglect of sustainable consumption behavior.</p>
3. To scrutinize materialistic viewpoints among Thai consumers.	-	<p>1. Thai consumers in our study found that materials are an indicator of life success, but disagreed that materials are emphasized in their lives, and are not perceived as a source of happiness.</p> <p>2. The thematic analysis of materialism reveals that Thai interviewees in</p>	<p>The Thai consumers in our study hold perspectives on materialism that differ from the conceptualization proposed by Richins and Dawson (1992). Richins & Dawson (1992). This is because some Thai interviewees in perceived materialism</p>

Table 4 Mixed-Method Research Findings (Cont.)

Research Objectives	Research Outcomes		Conclusion
	Quantitative	Qualitative	
		our study perceive materialistic individuals as those who excessively strive to acquire possessions beyond their essential needs. This behavior can lead to household financial problems, requiring longer working hours, negatively affecting their health, and ultimately leading to increased indebtedness.	as an individual behavior placing excessive importance on material possessions; consequently, they overlook three key aspects of life, such as family, health, and indebtedness.

Discussion and Conclusion

The quantitative findings support both hypotheses, indicating that materialism has a negative effect on sustainable consumption behavior, with income serving as a full moderating variable. The study results show that low-income individuals with high levels of materialism exhibit lower engagement in sustainable consumption behavior compared to higher-income consumers. These findings align with prior research suggesting that materialism has a negative effect on personal financial management (Li, Chatterjee, & Moorman, 2024; Kasser, 2016; Shrum, Chaplin, & Lowrey, 2022) and that perceived frugality exerts a positive influence on sustainable consumption behavior. In contrast, low-income individuals with low levels of materialism exhibit higher engagement in sustainable consumption behavior than higher-income consumers. It is possible that low-income individuals with high levels of materialism lead lifestyles oriented toward the pursuit of material possessions. They tend to view earning money as a means to satisfy their materialistic desires, rather than to engage in sustainable consumption behaviors. In contrast, higher-income individuals experience less pressure to earn money for materialistic fulfillment, enabling them to pay greater attention to sustainable consumption. In contrast, low-income individuals with low levels of materialism may be naturally more cautious in their spending due to limited financial resources compared to higher-income consumers. Although the quantitative analysis identifies these relationships and provides empirical evidence, it does not provide sufficient detail to explain the underlying reasons for this finding. Therefore, the qualitative investigation in this study further explores the underlying reasons.

According to the qualitative research, the first perceptual dimension of Richins and Dawson (1992) is that materialism is a life centrality (C). Thai consumers do not agree that materialism should be a central focus in life. They emphasize essential items, the four necessities, rather than non-essential goods driven by desire. The second dimension is materialism, is an indicator of life success (S) for Thai consumers. In terms of pride derived from achieving success through one's own efforts; some individuals express this sense of accomplishment through the material possessions they are able to acquire. This aligns with prior research suggesting that materialism can have a positive effect on life satisfaction (Sirgy et al., 2021; Joseph Sirgy et al., 2013). The third dimension is materialism is happiness. Thai consumers do not agree that materialism enhances happiness; instead, they place greater value on inner, psychological well-being. Most Thai consumers in this study still view materialism as an undesirable consumption behavior. They see that placing excessive importance on material possessions leads individuals to overlook three essential aspects of life, such as family, health, and indebtedness.

The qualitative findings can explain the Thai consumers' perspectives on materialism, which are closely linked to the quantitative results concerning income. Individuals with high levels of materialism and low income tend to exhibit lower engagement in sustainable consumption behaviors compared to those with moderate or high income. This may be because low-income individuals experience greater financial stress in managing their daily expenses compared to those with moderate or high incomes. Moreover, a high level of materialism or excessive spending beyond necessity and financial hardship limits individuals' ability to prioritize sustainable consumption behaviors. In contrast, at low levels of materialism, high-income individuals tend to exhibit lower sustainable consumption behaviors than those with moderate and low-income levels.

This study employed a mixed-methods design, beginning with a quantitative phase to examine the influence of materialism on sustainable consumption behavior. The results indicate that materialism exerts a negative effect on sustainable consumption behavior. Thai consumers in our study exhibit low levels of materialism and very high levels of sustainable consumption behavior, while income fully moderates the relationship between materialism and sustainable consumption behavior. Since income plays a critical role in determining consumers' purchasing power, those with lower income but higher levels of materialism tend to exhibit lower levels of sustainable consumption behavior. In addition, the qualitative findings further elaborate Thai consumers' perspectives on materialism, based on the concept of Richins and Dawson (1992), and indicates that Thai consumers tend not to agree with the first dimension of Richins and Dawson (1992), which suggests that materialism is a central focus in life, nor with the third dimension, which proposes that possessions generate happiness. However, they do agree with the second dimension of Richins and Dawson (1992), which views materialism as an indicator of life success. This demonstrates that Thai consumers perceive materialism as a personal behavior emphasized by an excessive focus on material goods, which is not a focus of life happiness. At the same time, they view materialism as an indicator of success in life in terms of the pride

derived from achieving accomplishments through one's own efforts. Moreover, the research findings reveal an important aspect of Thai consumers' perspectives on materialism. Thai consumers perceive materialism as an individual behavior characterized by an excessive focus on material possessions. As a result, this leads to neglect in three key aspects, such as family, health, and indebtedness. Within the Thai context, individuals who exhibit high levels of materialism tend to spend on acquiring goods rather than caring for their own health and taking care of family members. Therefore, a high level of materialism results in being in debt due to acquiring extravagant items. Consequently, such overspending driven by materialism reduces the emphasis placed on sustainable consumption behaviors.

Implications

Academic Recommendations

This study contributes to the field in three distinct academic ways. Firstly, this research employs a mixed-method approach, and to date, no previous studies either in international contexts or within Thailand have examined the influence of materialism on sustainable consumption behavior using this methodological design. In particular, the moderating effect of income was tested. By employing a mixed-method design, this study generated both breadth and depth of data, thereby enabling a comprehensive response to the research objectives.

Secondly, according to the concept of materialism proposed by Richins and Dawson (1992), materialistic individuals view possessions as central to life; the acquisition and ownership of material goods are regarded as life's highest importance, a source of happiness, and an indicator of success. The present study found that materialism in the Thai context demonstrates both similarities to and differences from how materialism has been conceptualized in other studies from other countries. Thai consumers view material possessions as symbols of life success. In accordance with previous research in the literature review, for example, Sirgy et al. (2021) found in the German context that materials signify success and future satisfaction through economic motivation. This is consistent with the research in France conducted by Huaman-Ramirez and Merunka (2021) regarding the notion that materials are a symbol of success that enhances the image and credibility of organizational executives, as well as the reputation of the brand.

However, Thai consumers in this study do not perceive material possessions as sources of happiness or as the central focus of life. They think that individuals who are materialistic in the Thai context tend to focus on acquiring objects without paying attention to family, health, and debt. Although their lives may not be happy and they may be lonely, in debt, and in poor health, they still take pride in owning material goods because such possessions are viewed as indicators of success, which demonstrate to society that they are capable and accomplished to obtain these objects.

Third, the findings indicate that most Thai consumers view materialism negatively, consistent with Western perspectives reported in previous studies. Therefore, materialism should

not be considered culture-specific or particular to an ethnic group; rather, it is an individualised subject.

Practical Recommendation

This study can provide 2 practical implications. The first implication is that the findings of this study are beneficial for advancing the Sustainable Development Goals (SDGs) of public sector agencies, particularly Goal 12, which aims to ensure sustainable consumption and production patterns. Achieving this goal also contributes to progress toward three additional SDGs as follows: Goal 1: ending poverty in all its forms everywhere; Goal 2: ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture; and Goal 3: promoting well-being for all at all ages. Collectively, these goals contribute to the promotion of sustainable consumption behavior (Carlsen & Bruggemann, 2022). Therefore, the research team proposes recommendations for public sector agencies by drawing on Sustainable Development Goal implementation practices from China, Japan, and South Korea. These recommendations emphasize ecological sustainability by promoting natural resource conservation activities, as well as raising awareness of resource use that considers its long-term impact on future generations and social sustainability. This approach focuses on people, emphasizing justice and equity in access to basic needs in order to ensure long-term quality of life and well-being (Xie et al., 2021).

In addition, educational institutions play a key role in educating students and cultivating sustainable consumption behaviors. Social media serves as an important instrument in this process. Confetto et al. (2023) and Vantamay (2018) found that presentation of sustainability-related content on social media has a positive influence on teenagers' sustainable consumption behaviors, as well as on other activities (Vantamay, 2018). Moreover, public education should be implemented to promote sustainable consumption behaviors by persuading consumers to consider future generations and to reduce materialistic orientations. These recommendations are consistent with the findings of this study. The Thai government may consider imposing taxes on luxury goods, particularly targeting consumers with high levels of materialism, in order to encourage individuals to shift their focus away from material possessions towards three key points, which are family members, good health, and avoiding excessive indebtedness.

The second implication is that the industrial sector should raise an awareness of sustainable consumption by producing products that encourage consumers to adopt sustainable consumption behavior with consideration of consumers' well-being, environmental impact, and the effect on future generations. For example, industry can encourage the use of non-polluting raw materials, environmentally friendly packaging, and clean energy in production processes. Such approaches can encourage low-income consumers with high levels of materialism to exhibit more sustainable consumption behaviors (Monteiro et al., 2019; Svanes et al., 2010).

Limitation and suggestion for future research

This study is cross-sectional research, and the recommendation for future research is to conduct longitudinal research in order to reveal the relationship between materialism and sustainable consumption behaviors. Moreover, future research may examine additional moderating variables that could influence the relationship between materialism and sustainable consumption behavior, such as educational background, age, and other related demographic factors.

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