Religiosity to green purchase under emotional and greenwashing factors

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ABSTRACT

The advancement of the economy has negatively affected the environment. Green products/services were made as solutions to the problem. Even though there is much research on influential factors to green consumption, the relationship between religiosity to green purchases is scattered and contains many gaps. Therefore, a theoretical model was developed to study the relationship of two dimensions of religiosity to green purchases under the effect of gratitude and greenwashing factor. Theoretical and practical contributions were the concern within this research paper. First, three new theoretical ideas included in the research paper were introduced for the academic community to explore as there have not been any previous studies that research these ideas. Second, as the event of Corona pandemic played an important alert in humans to raising their awareness of protecting the environment, this research paper will help Marketers and Policymakers to imply the results and benefit their businesses, and their countries accordingly. A sample of 483 respondents was collected by convenient and snowball sampling method through a questionnaire-based survey from big cities of Vietnam. Through the PLS-SEM analysis method, the results reveal some findings. First, people with inner religious tendencies can take action to purchase green products/services more easily than those with outer tendency. Second, the gratitude factor does not moderate the relationship between green purchase intention and green purchase behavior. Third, the greenwashing factor does not moderate the relationship between the two dimensions of religiosity and green purchase behavior.

1. Introduction

Significant and escalating environmental pressures and repercussions have been a price of the tremendous economic expansion and human development that have taken place since the 1950s. The consumption of natural resources has increased rapidly from less than 10 billion tonnes in 1950 to more than 70 billion tonnes in 2010. These resources include biomass, fossil fuels, ores, minerals, and water. This level of resource utilization primarily ignored the links between resource use and environmental effects in favor of the idea that resources were unrestricted. A number of pressure points, such as climate change, decreased food security, water shortages, and air pollution, have been caused by the increase in resource use, waste, and emissions. Additionally, it has caused supply instability for a number of strategically significant resources in contemporary production and consumption systems (Weisz & Schandl, 2008).

There is some research studying factors that establish influential relationships to green consumption intention, such as environmental concern, altruism, attitude toward buying green, and health consciousness (Bulut, Nazli, Aydin, & Haque, 2021; Shen, 2017; Tseng & Tsai, 2011). According to Orellano, Valor, and Chuvieco (2020), there are some observations on thankfulness as a favorable feeling pertaining to both efforts to reduce pollution and make green purchases.

However, the research on the relationship between religiosity and green consumerism is scattered and contains conflicting results. According to Sun, Liu, and Zhao (2019), three demographic factors such as age, education, and urban/rural households have been found to have a significant relationship to green consumption. Nevertheless, the author has not discovered the relationship between one's religious status and green purchase. Furthermore, some conflicts are found among research papers. For example, while Wang, Wong, and Elangkovan (2020) stated intrinsic religiosity is not related to green consumption intention, Davari, Iyer, and Strutton (2017) found the factor creates a green consumption tendency among consumers.

Religion is one of the factors that significantly affect human psychology, cognitive decision, and consumption behavior. In doing business, it is essential for marketers to recognize their customers' consumption intentions and behavior so that they can predict and adjust their marketing campaigns. Furthermore, about 84% of the world's population identifies themselves with religious status (Pew Research Center, 2022). This indicates a possibility to establish a relationship between people's religiosity and their green purchase for marketers to enhance their knowledge to practice on the scale of their businesses and for policymakers to develop policies that help to minimize people's tendency to harm the environment.

As found by Orellano et al. (2020), there are 07 elements that are categorized in religiosity: Self-perceived, Church attendance, Intrinsic religiosity, Extrinsic religiosity, Intrapersonal commitment, Interpersonal commitment, and Religious identity. However, the study will analyse the effect of two factors: Intrinsic and Extrinsic religiosity. Furthermore, gratitude is mentioned to have some positive relation to green purchase intention and pollution avoidance (Orellano et al., 2020). From there, the research is to find out the answers to the questions:

First, what type of religiosity has the most effect on the green consumption intention and behavior of Vietnamese consumers?

Second, can the gratitude factor minimize the gap between green consumption intention and green consumption behavior?

Third, can greenwashing factor moderate the relationship of religiosity to green purchase intention and green purchase behavior?

Finally, what are recommendations for marketers and policymakers for the usage of this study?

2. Literature review and hypotheses development

2.1. Literature review

2.1.1. Theory of Planned Behavior (TPB)

TPB is one of the most generally performed theories in marketing literature by behavioral scientists to explain the causes and antecedents of consumer green purchasing intention and behavior (Maichum, Parichatnon, & Peng, 2016; Paul, Modi, & Patel, 2016). The individual's desire to do a certain conduct is a fundamental aspect of the idea of planned behavior, just as it was in the original theory of reasoned action. Intentions are thought to capture the motivating variables that impact an action; they are indicators of how hard someone is willing to try, and how much work they intend to put in to complete the activity. The TPB model is an updated version of the theory of reasoned action that incorporates a notion of perceived behavioral control, allowing predictions of acts with imperfect volitional control. Perceived behavioral control, according to the idea, is a consequence of one's views about how likely it is that one has the resources and opportunities needed to conduct the behavior. In the study, religiosity describes a person's degree of belief in a religion, which showcases their point of view on religious commitment, which might be an indicator that affects their intention and behavior.

2.1.2. Value-Belief-Norm theory

The theory implies the role of value in directing consumer behavior (i.e., frequency of buying environmentally friendly products), willingness to make sacrifices to protect the environment (e.g., willingness to pay much higher taxes to protect the environment), and environmental citizenship. A cross-cultural study found that values predicted pro-environmental behavior (recycling, not driving, and environmental citizenship, such as signing a petition about an environmental issue) through pro-environmental attitudes and willingness to sacrifice in most of the 27 countries studied, including Asian countries (Japan and Indonesia); however, the model only included country-level values (i.e., harmony and postmaterialism) and did not include individual values (i.e., environmental citizenship). It also stated that the more environmentally endorsed a person is, the more they are likely to practice green behavior.

2.2. Hypotheses development

There are five elements that establish the research paper: 'Religiosity', 'Green Consumption Intention', 'Green consumption behavior', 'Greenwashing', and 'Gratitude'.

2.2.1. Religiosity

There are copious definitions of religiosity due to the complexity of English language and the distinguished approach of different academic disciplines (Cardwell, 1980; Demerath & Hammond, 1969).

Religiosity refers to a consumer's values and beliefs and is a critical cultural component that influences their attitudes (Madni, Hamid, & Rashid, 2016; Shukor & Jamal, 2013). According to the Theory of Planned Behavior (TPB) of Ajzen (1991) an individual's belief/value can impact their attitude and purpose, and hence their action. Extrinsic religion means a religious perspective in which religion is primarily used to achieve other goals, such as societal morality or individual well-being, rather than as an end in itself. Intrinsic religion, in contrast, is defined as a religious perspective in which religious activity is seen as a goal in itself rather than a means to other objectives (Allport & Ross, 1967).

A person is said to have a religious identity when he/she has a dedication to his/her religion, which means their religiosity transforms into an inseparable part of their behavior (Shin, Park, Moon, & Kim, 2011). This commitment showcases an individual's attitudes, behaviours, beliefs, feelings, and experiences, which represents the level of consumers' bond is at with their religious beliefs.

Previous research, such as that done by Hassan (2014), has looked at how extrinsic religion affects consumer purchasing beliefs, attitudes, intentions, and behaviors. Through a purposive sample study of 158 Malaysian respondents, the paper investigated the link between extrinsic religiosity and consumers' inclination to buy green products. It suggests that extrinsic religion has a favorable and substantial impact on consumers' innate environmental orientation and environmental concerns. Additionally, environmental concerns considerably and favorably affected the green buying intention, whereas there is a positive significant association between the two. The rationale for pro-environmental behaviors among South Korean and US customers, including Christians, Buddhists, and atheists, has also been examined by Minton, Kahle, and Kim (2015). This study's analysis of an online sample of 388 respondents revealed that South Korean Buddhists participate in less indirect sustainable behaviors than their American counterparts. In contrast, more Buddhists than Christians have engaged in sustainable behaviors and low-carbon eating habits.

H1a: Extrinsic religiosity positively affects green consumption behavior

H2a: Intrinsic religiosity positively affects green consumption behavior

Religious adherence demonstrates an individual's commitment to religious ideals and ideas. Highly religious people are more likely to follow the norms and standards of behaviour established by their religious teachings (Shukor & Jamal, 2013). In contrast, if his or her faith in religious ideas is shaky, he or she may feel free to act in various ways; that is, because people's levels of religiosity vary, so will their purchase decisions reflect that religiosity (Mukhtar & Butt, 2012). A consumer's purchase decision is his/her purchase intention due to green purchase intention is priorly a course of well-thought process.

H1b: Extrinsic religiosity positively affects green consumption intention

H2b: Intrinsic religiosity positively affects green consumption intention

2.2.2. Green purchase intention

The intention is an action determined by the act that is stronger than the attitude toward behaviors. The intention affects directly consumer buying behavior, the stronger the intention, the more the customers are likely to buy the products or services (Söderlund, Vilgon, & Gunnarsson, 2001). The relationship between intention and behavior is proven to be existed by the Theory of planned behavior (Ajzen, 2011).

H3: Green consumption intention motivates green consumption behavior

2.2.3. Green purchase behavior

Green purchase behavior is the act of buying, and using the businesses' products or services alongside recycling their packaging (Minton et al., 2015). Moreover, the consumers contribute to for-profit and charitable environmental organizations as well (Minton et al., 2015). The specific thing about this behavior is that consumers will pay more attention to the resources provided to future generations needs. Green purchase behaviour can also be referred to as purchasing eco-friendly products, which can be recycled, and constraint the usage of products that are harmful to the environment (Chan, 2001).

2.2.4. Gratitude

Different definitions of gratitude have been discovered. It can be said that gratitude is "the appreciation of what is valuable and meaningful to oneself and represents a general state of thankfulness and/or appreciation" (Sansone & Sansone, 2010, p. 19).

When it comes to green consumption intention and green consumption behavior, there is a huge gap (ElHaffar, Durif, & Dubé, 2020). There have been many discussions about potential variables to correct the intention-behavior gap in addition to those commonly evaluated in the theory of planned behavior (i.e., attitude, subjective norm, and control), cognitive behaviors, such as personality, self-efficacy, and exertion of control, and planning or intent (Faries, 2016). However, none of them has discovered the moderating effect of emotion on the relationship of intention and behavior.

H4: Gratitude positively moderates the relationship between green purchase intention and green purchase behavior

2.2.5. Greenwashing

Appearing in the 1980s, the term 'green-washing' is widely renowned for being the practice of making false claims of sustainability to gain market share (Dahl, 2010). The term is also known as 'eco-bleaching', 'whitewash', 'eco-washing', 'green washing', 'green makeup', or 'green image washing', those of which are forms of misleading advertisement to achieve the business motives, such as profit in order to promote a product, to rationalize for an organization's environmental policy. Therefore, it can help to increase the company's "aggregate benefits of the product" (Kahle & Gurel-Atay, 2013).

Greenwashing is proven to be the moderator for the relationship between the receptivity of green advertising and green purchase behavior (Jog & Singhal, 2020). This shows the consumers' knowledge of green practices among organizations has increased. Greenwashing is also found to decrease the effects of environmental concern on green behavior as a moderator (Bulut et al., 2021).

Not only greenwashing is proven to act as a moderator, but it is also the antecedent of green purchase behavior (Chen, Huang, Wang, & Chen, 2020). From the study, greenwashing has a negative effect on green purchase behavior as greenwashing perception decreases the likeliness that the customers will spend money on the product of a company.

However, throughout researching electronic sources, there have not been articles that do research on greenwashing as a moderator for the relationship between religiosity and green purchase behavior.

Therefore, the establishment of greenwashing moderating the relationship between religiosity and green consumption behavior is a new finding.

H5a: Greenwashing negatively moderates the relationship between extrinsic religiosity and green purchase behavior

H5b: Greenwashing negatively moderates the relationship between intrinsic religiosity and green purchase behavior

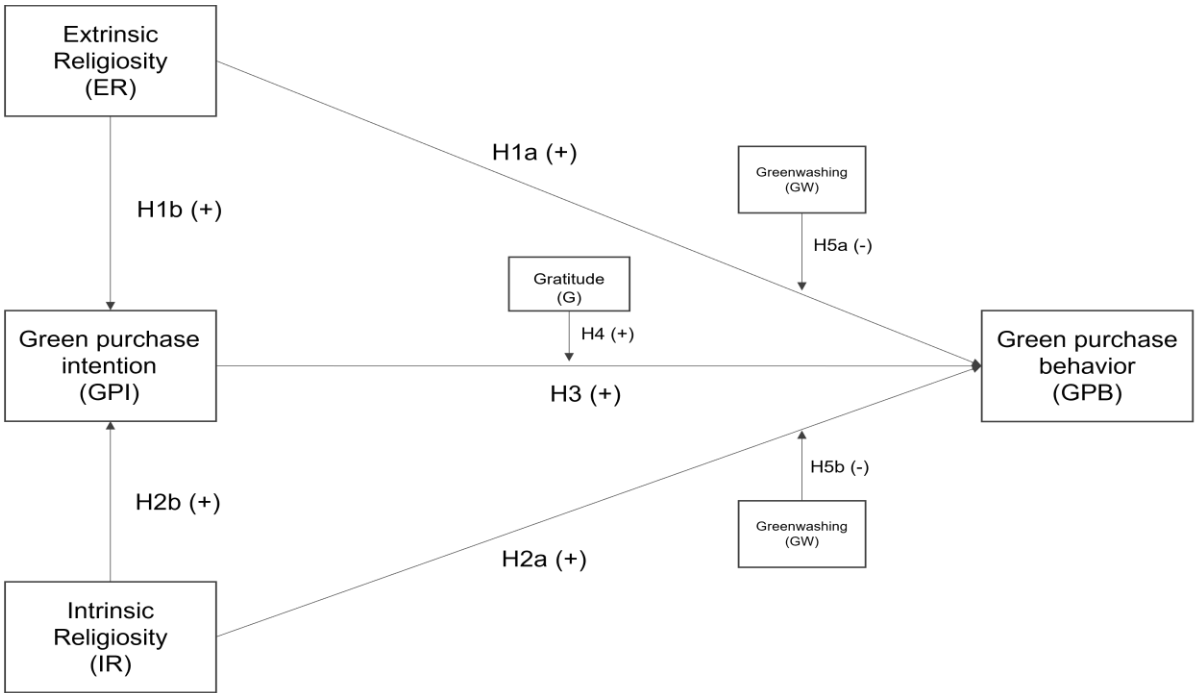

Figure 1. Hypothesised model

3. Methodology

3.1. Data collection and sampling

Due to time and cost considerations, as well as convenience, the non-probability sampling method and snowball sampling will be used. The topic focuses on Vietnamese young adults aged from 18 to 25 living in different parts of Vietnam.

Prior to questionnaire design, the author searches for previous empirical research to apply their questions. The survey was then rendered from English to Vietnamese. A small number of respondents (n = 10) were given the questionnaire to give feedback about the sentence length, wording, confidentiality, or terminology (Colton & Covert, 2007). And there were some problems occurred with the filtering part, questionnaire wording, and strategies to solve people's unwillingness to share their religious beliefs, which have been solved.

483 responses were received through an online and offline surveys with 30.4% is male and 69.6% is female. Online surveys were spread through social media networks, such as Facebook. An offline survey was printed and spread within the Vietnam National University of Ho Chi Minh City area, such as the International University and Dormitory A.

Table 1

Table of respondents' demographic

	Characteristic	**Frequency**	**Percentage (%)**
Gender	Male	147	30.43%
	Female	336	69.57%
Age	18 - 22	445	92.13%
	23 - 25	27	5.59%

	Characteristic	Frequency	Percentage (%)
Education	College	447	92.55%
	Undergraduate	33	6.83%
	Graduate	3	0.62%
Religion	Buddhism	368	76.19%
	Catholicism	96	19.88%
	Caodaism	13	2.69%
	Islam	2	0.41%
	Brahmanism	1	0.21%
	Protestantism	2	0.41%

3.2. Measurement of constructs

The 5-point Likert scale is used to assess the level of agreement subjective to the questionnaires given.

The scale for intrinsic religiosity and extrinsic religiosity with seven items to measure has been adapted from (Mas'od & Chin, 2014; McCullough, Emmons, & Tsang, 2002; Worthington et al., 2003).

The scale for green purchase intention and behavior with four items to be measured have been taken respectively from Kanchanapibul, Lacka, Wang, and Chan (2014), Panda et al. (2020), Straughan and Roberts (1999).

A greenwashing factor with five items was adapted from Jog and Singhal (2020).

Finally, Gratitude with three measurements taken from McCullough et al. (2002) and Xie, Bagozzi, and Grønhaug (2015).

Table 2

Scale of measurements

Factors	Code	Statement
Intrinsic Religiosity	IR1	I often read books and magazines about my faith
	IR2	I spend time trying to grow in my understanding of faith
	IR3	Religion is especially important to me because it answers many questions about the meaning of life
	IR4	I took my faith as providing purpose in my life
	IR5	I pray every time I'm supposed to
	IR6	I always try to carry my religion over into all my other dealings in life
	IR7	My religious beliefs are what lie behind my whole approach to life
Extrinsic Religiosity	ER1	I make financial contributions to my religious organization
	ER2	I enjoy spending time with others of my religious affiliation

Factors	Code	Statement
	ER3	I keep myself well-informed about my local religious group and have some influence on its decisions
	ER4	I go to religious activities because it helps me to make friends
	ER5	The purpose of prayer is to secure a peaceful life
	ER6	What religion offers me most is comfort when sorrows arise
	ER7	The primary purpose of prayer is to gain relief and protection
Green purchase intention (Using Likert-scale Never True (1) until Always True (5))	GPI1	You are interested in buying green products
	GPI2	You find buying green products a smart choice
	GPI3	You find the green product a good idea
	GPI4	You find buying green products an interesting idea
Green purchase behavior	GPB1	I feel that I have played a great part in helping the environment when I use green products
	GPB2	I have switched products for ecological reasons
	GPB3	I always buy paper and plastic products that are made from recycled materials
	GPB4	When I have a choice between two equal products, I purchase the one less harmful to other people and the environment
Greenwashing	GW1	Most companies mislead with words about the environmental features of their products
	GW2	Most companies mislead with visuals or graphics about the environmental features of their products
	GW3	Most companies provide vague or seemingly un-provable environmental claims for their products
	GW4	Most companies overstate or exaggerate the environmental features of their products
	GW5	Most companies leave out or hide important information about the real environmental features of their products
Gratitude	G1	I think there are many people to thank
	G2	I will feel appreciative if I see others behave in an environmentally friendly way
	G3	I will feel grateful if I see others behave in an environmentally friendly way

3.3. Data analysis

Our research looked at the data acquired using the PLS-SEM approach. PLS-SEM analysis is described in two parts by Hair, Risher, Sarstedt, and Ringle (2014). The initial phase is to evaluate a measurement model, with the goal of achieving reliability and validity first. The latent constructs and indicators are then subjected to an ordinary least squares regression to obtain outer weights, loadings, and structural model linkages. Finally, the bootstrap method was used to assess the importance of structural routes in the research.

4. Empirical findings

4.1. Evaluation of the outer model

The reflective constructs in the PLS measurement model are investigated by looking at the outer loadings of indicators for each indicator's reliability, composite reliability to look at internal consistency, Average Variance Extracted (AVE) to look at convergent validity, and the Fornell-Larcker criterion and cross-loadings to look at discriminant validity.

The outer loadings, which represent the reflective indicators' loadings to their latent variables, are useful for assessing each indicator's dependability. The indicators are regarded as trustworthy if the correlation between individual indicators and the constructs they attempt to assess is greater than 0.70 (Hulland, 1999). According to the analysis, IR4, ER1, ER2, ER3, ER4, GPB3, GPB4, GPI4, G1 are unable to pass the threshold of 0.7. Therefore, they are excluded.

According to Nunnally and Beinstern (1994) and Pallant (2001), a Cronbach's Alpha score of more than 0.6 indicates excellent dependability and an appropriate index. PLS-SEM analysis needs each block in the model to be unidimensional, according to Hair et al. (2019). This means that each block's CR value must be more than 0.70. As shown in Table 3, all the constructs in the research are eligible with α and CR, which implies internal consistency reliability.

The AVE measurements, which must surpass 0.50, are used to assess convergent validity (Fornell & Larcker, 1981). According to the analysis (see Table 3), all of the constructs surpass the threshold of 0.5, which indicates the eligibility of convergent validity.

Table 3

Constructs and their measurement results

Constructs	Code	Outer loading	α	CR	AVE
Intrinsic Religiosity (IR)	IR1	0.714	0.870	0.899	0.597
	IR2	0.723			
	IR3	0.769			
	IR5	0.768			
	IR6	0.835			
	IR7	0.820			
Extrinsic Religiosity (ER)	ER5	0.895	0.687	0.864	0.760
	ER6	0.848			
Green Purchase Intention (GPI)	GPI1	0.864	0.827	0.896	0.742
	GPI2	0.851			
	GPI3	0.869			
Green Purchase Behavior (GPB)	GPB1	0.739	0.660	0.808	0.585
	GPB2	0.719			

Constructs	Code	Outer loading	α	CR	AVE
Greenwash (GW)	GW1	0.748	0.843	0.886	0.609
	GW2	0.833			
	GW3	0.738			
	GW4	0.777			
	GW5	0.803			
Gratitude (G)	G2	0.920	0.766	0.894	0.809
	G3	0.879			

4.2. Evaluation of the inner model

The inner model is analyzed once the outside model has been examined to confirm the hypothesised linkages. Figure 3 shows the path coefficients demonstrating how strong the constructs' associations and R-squares, which reflects how much variation each construct has in the model.

When the R-squared value approaches 0.67, 0.33, or 0.19, according to Chin (1998), the value is substantial, moderate, or modest, respectively. In Figure 3, GPI and GPB have a value of 0.075 and 0.529, respectively. This means the relationship of GPI to other dependent variables is weak and the explanatory relationship for GPB is moderate.

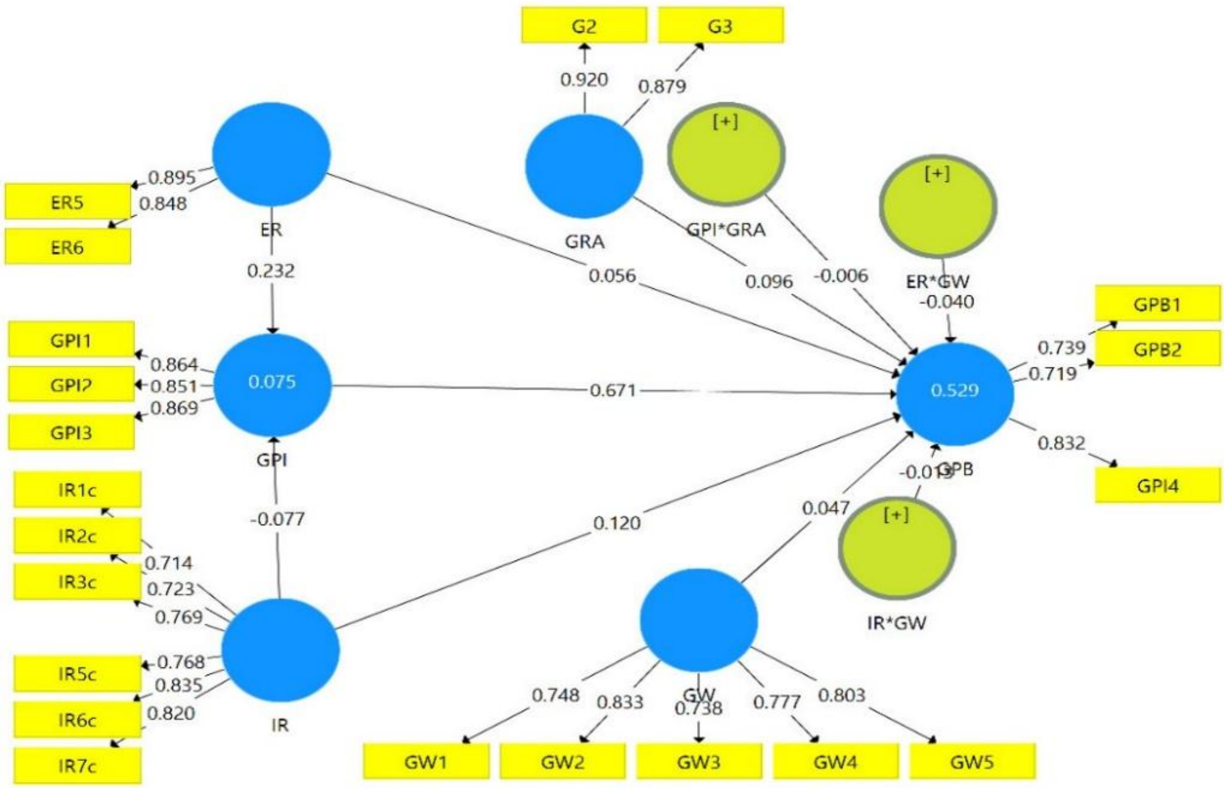

Figure 3. An analysis of path coefficients and R-val

Table 4

Result of discriminant validity

	ER	**ER*GW**	**GPB**	**GPI**	**GPI*GRA**	**GRA**	**GW**	**IR**	**IR*GW**
ER									
ER*GW	0.052								
GPB	0.325	0.070							
GPI	0.350	0.031	**0.905**						
GPI*GRA	0.063	0.036	0.200	0.261					
GRA	0.369	0.043	0.528	0.534	0.314				
GW	0.193	0.035	0.186	0.156	0.028	0.132			
IR	0.537	0.078	0.062	0.194	0.130	0.255	0.088		
IR*GW	0.096	0.457	0.092	0.102	0.009	0.071	0.044	0.028	

Table 4 represents a table of HTMT to assess the discriminant validity of all the constructs. If the path model incorporates components that are conceptually practically identical (such as affective satisfaction, cognitive satisfaction, and loyalty), Henseler, Ringle, and Sarstedt (2015) advocate a threshold value of 0.90; an HTMT score above 0.90 denotes a lack of discriminant validity. However, researchers should take 0.85 into consideration as the HTMT threshold when the route model's components are conceptually more different (Henseler et al., 2015).

The effect size of the path model (f-square) (see Table 5) is also supplied to evaluate the R-squared values of the constructs, and Cohen's f^2 is used to indicate how much the R-squared value will change when a certain construct is removed from the model. Cohen (1988) defined weak, moderate, and strong effects as having effect sizes of 0.02, 0.15, or 0.35, respectively.

Table 5

F-square and effect size

Effect size for Green purchase behavior	**f-square**	**Effect size**
ER	0.005	Weak
ER*GW	0.003	Weak
GPI	0.728	Strong
GPI*G	0.000	Weak
G	0.015	Weak
GW	0.004	Weak
IR	0.024	Moderate
IR*GW	0.000	Weak
Effect size for Green purchase intention		
ER	0.047	Moderate
IR	0.005	Weak

The analysis for path coefficients is integrated with the analysis of a 499-sample bootstrap (see Table 6). When evaluating the bootstrap outcome, Hair, Hult, Ringle, and Sarstedt (2014) noted that the test statistic observed the t-value, which is used to measure the significance of each indication. The t-value must be greater than 1.96 (5 percent significance level) or 2.57 (1 percent significance level) for the path to be valid. Variable coefficients can provide a considerable variation from zero (Henseler, Hubona, & Ray, 2016).

Table 6

Hypothesized relationships in terms of path coefficient, t-value, p-value

Relationship	**Path Coefficient**	**T-Value**	**Result**
ER -> GPB	0.056	1.614	**Unsupported**
ER -> GPI	0.232	4.813	**Supported**
ER*GW -> GPB	-0.04	1.167	**Unsupported**
GPI -> GPB	0.671	20.502	**Supported**
GPI*G -> GPB	-0.06	0.160	**Unsupported**
IR -> GPB	0.12	3.164	**Supported**
IR -> GPI	-0.077	1.739	**Unsupported**
IR*GW -> GPB	-0.013	0.328	**Unsupported**

5. Discussion

According to Table 6, there are five unsupported hypotheses and three supported hypotheses.

5.1. Unsupported hypotheses

This study does not support the relationship between ER and GPB. The reason for this is the extrinsic is said to have a materialistic and utilitarian mindset and utilize religion to achieve prosaic aims, which may lead to a lack of environmental awareness (Burris, 1999).

The research does not find any positive correlation between IR and GPI. This may be due to social commerce constructs (e-WOM) and trust. Social commerce constructs are proven to be positively correlated with buying intention (Ali, Abbass, & Farid, 2020). If high intrinsic religiosity consumers are affected negatively by social commerce constructs, their green purchase intention may reduce. The relationship between trust and purchase intention is supported by Ali et al. (2020), and Zhuang, Luo, and Riaz (2021). This indicates the negative relationship that IR individuals may have with green purchase intention when there is less trust during their purchase decision-making process.

The greenwashing factor that is hypothesized to moderate the relationship between religiosity and green purchase behavior is unassisted in this research. It is probably because there have not been many companies in Vietnam that practice greenwashing in their business yet. Therefore, we have not significantly seen its effect on the relationship.

In this research, the gratitude factor does not moderate the relationship between GPI and GPB as stated in the hypothesis. This can be explained that Vietnamese respondents are not used to linking gratitude with their green purchase behavior and it may not generate emotion within them.

5.2. Supported hypotheses

The relationship between ER and GPI is contradictory with the result captured by Wang et al. (2020), which is negative. This may be due to the consumption characteristics of the hospitality industry which the previous authors study is different from the sample the author took.

Second, the relationship between IR and GPB is in alignment with the result of Minton et al. (2015) as the study states high religious Buddhists are more likely to participate in green purchase behavior compared to other religions.

Finally, the positive relationship between GPI and GPB has also been confirmed by Naz, Oláh, Vasile, and Magda (2020).

6. Conclusion and implications

6.1. Conclusion

Based on the Theory of Planned Behavior (TPB) and Value-Belief-Norm theory, the relationship of religiosity, green purchase intention, and green purchase behavior has been established. Besides, the moderating effects of gratitude and greenwashing have been established as innovative theoretical contributions.

By studying 483 respondents from different parts of Vietnam, it has been found that green purchase intention acts as a mediator in the relationship between extrinsic religiosity and green purchase behavior. Meanwhile, intrinsic religiosity has a direct positive correlation to green purchase behavior.

However, five relationships are contradictory to the author's prediction. First, the relationship between ER and GPB can be explained by the mindset of the highly extrinsic religious people. The second, mediating effect of GPI is negative in the relationship between IR and GPB. This can be explained by social commerce constructs and trust factors. Third, a greenwashing factor is not moderating the relationship between two dimensions of religiosity and green purchase behavior as not many companies may not practice greenwashing in their business. Finally, the moderating effect of gratitude is negative between GPI and GPB. This can be explained in Vietnamese's common behavior: They are not used to linking gratitude with their green purchasing action.

6.2. Theoretical implications

The study includes three theoretical contributions: The relationship of ER - GPB, IR - GPB under the effect of Greenwash, and GPI - GPB under the effect of Gratitude. These ideas have not yet been confirmed by any research papers before, according to the author's research effort. Therefore, they are new findings that pave the way for further exploration for the academic community.

The research paper helps to re-confirm the results of some research papers and to specify their results. For example, in "Religion and motives for sustainable behaviors: A cross-cultural comparison and contrast" by Minton et al. (2015), the result of the research showcases Buddhists who are highly religious are more likely to attain green purchase behavior. However, it is unclear whether they are high intrinsic or high extrinsic religiosity. Therefore, this study helps to specify the result.

6.3. Practical implications

As the ecological consciousness of humankind is on the increase and the Covid-19 pandemic has proven the necessity to protect and sustain the planet's environment, this research paper will help policymakers and marketers. As for policymakers, they can adjust their way of establishing rules to protect the Earth for people who follow a specific religion. After the rules have been established successfully, they can then broaden the policy and apply to everyone. As for marketers, they can run appropriate Marketing campaigns to persuade religious customers to use their products first. Moreover, they can create green purchase intention and green purchase behavior for non-ecological conscious customers by applying religion to the way they promote their products.

6.4. Limitations and implications for further studies

There are some constraints that this research paper may include.

First, the research may not be applicable to the whole Vietnamese population due to its limited data collection in Ho Chi Minh City, Nha Trang, Danang, and Hanoi. Second, extrinsic religiosity and intrinsic religiosity are only two out of seven dimensions of religiosity that can be studied to discover the relationship with green purchase. Third, the data can be limited due to the convenience and snowball sampling method.

Therefore, further research papers may collect data on other parts of Vietnam and include other religious factors in the relationship with green purchase.

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