Impact of religiosity on green purchase intention: A study of Vietnamese consumer

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Abstract:

The purpose of this article is to apply the Norm Activation Model to examine the impacts of religious beliefs (intrinsic religiosity, extrinsic religiosity spirituality, karma belief) on green purchase intention. This is the first assessment on the impact of religious beliefs on the green purchase intention of Buddhist and non-religious groups in Vietnam. Data was collected from 623 consumers. Partial least squares (PLS), a variance-based structural equation - modeling technique, was selected to test the research model and hypotheses. The findings reveal that religious beliefs have positive impacts on green purchase intentions in a developing context. Karma belief, intrinsic religiosity and extrinsic religiosity positively influence green purchase intention. Spirituality does not have direct effects on green purchase intention. The results give insights into religious factors associated with green-related behaviors. Understanding religion's complex connections with eco-conscious decision-making allows for culturally tailored interventions. Theoretical contribution as well as managerial implications of this study, especially for green marketing practitioners are discussed.

Keywords: extrinsic religiosity, green purchase intention, intrinsic religiosity, karma, spirituality.

Classification number: 2.2

1. Introduction

Over the last decades it has become more and more evident that unsustainable production and consumption practices have negative effects on the environment. This has led to a growing need for a shift towards behaviors that are both eco-friendly and sustainable growth [1, 2]. In order to build a future it is now widely recognized as important to promote consumption by encouraging individuals to choose "green" options such, as organic food, energy-efficient appliances and environmentally friendly products [3]. An important challenge facing marketers is to identify which customers are willing to pay more for green products. Past literature identified various factors, including environmental knowledge, attitudes, beliefs, values, materialism and the availability of sustainable alternatives on ecologically conscious consumer behavior [4, 5].

Scholars and marketing practitioners have embraced religion as a significant cultural influence on modern-day human behaviors [6]. Although religious beliefs have

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always been a cultural element in the consumer behavior framework, religion and its influences have long been perceived as a taboo subject matter for investigation in marketing areas [7]. Religiosity has been linked with workplace outcomes and processes like leadership, performance, motivation [2, 8]; coping with stress strategies [9] and individuals' life such as moral behavior, honesty and ethical practices [10, 11]. Scholars claim that consumers' buying behavior is positively influenced by their ethical practices [12], especially the environmental and social responsible behavior. Recent studies have shown the profound influence of religiosity on human values, attitudes, and behaviors, but few attempts have been made to empirically explore the extent to which, or how religious beliefs might affect and shape green purchase intention [7, 13, 14]. There is little common understanding among previous marketing studies in measuring the effects of religious beliefs like karma, and spirituality on green purchase intention [3, 15]. Studies have not thoroughly examined the aggregative relationship between various religious dimensions and



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green purchase intentions. A clear framework of religion's belief influences is urgently needed in marketing areas to assist in understanding the concept of green consumer behaviors. Furthermore, most studies have been conducted in the contexts of Muslims, Christians or in Western, while the belief in karma or the notion that actions bear inevitable future consequences is integral to Eastern religions like Buddhism, but its impact on green purchase intention is understudied [16].

This article attempts to explore the relationships between religious dimensions (namely intrinsic religiosity, extrinsic religiosity spirituality, karma belief) and green purchase intention based on the theory of consumer behaviour in middle-aged and young people. The research tests a conceptual framework elucidating how these cultural-religiosity factors shape intention and offers an alternative view of how religion influences consumers and buyers in the marketplace. This effort could assist marketers and future researchers in promoting sustainable lifestyles in Vietnam's cultural context.

2. Literature review and hypothesis development

2.1. Green purchase intention

The term "green product" emerged in the late 1980s along with the growing environmental consciousness and the concept of green consumerism. "Green products" are defined as having a reduced environmental impact compared to conventional alternatives across their life cycle, from design and production to usage and disposal [17]. According to W. Zhuang, et al. (2021) [1], there are three groups of factors that affect consumers' purchase decisions: psychological factors, individual characteristics and social factors.

Green purchase intention refers to an individual's tendency or willingness to purchase green products rather than non-green products in the future. In the literature, the intention to purchase or switch to green products is used as an approach to predict consumer behavior towards green products [8]. Consumer purchase intention is a kind of embodiment of consumer purchase behavior, so green purchase intention can be explained by consumer behavior theory. Green purchase intention is influenced by consumer cognitive and social factors [1].

2.2. Religiosity and green purchase intention

2.2.1. Religiosity

Religion is an abstract concept that challenges scholars in defining the term. Nonetheless, many scholars would agree that a religion represents a unified system of beliefs and practices relative to the sacred things, while religiosity is viewed as the degree to which beliefs in specific religious values and ideals are held and practiced by an individual [18]. Religiosity is a multidimensional concept [13]. Driven by the notion of R. Agarwala, et al. (2019) [7], this research examines four dimensions of religiosity beliefs, which include spirituality, karma belief, intrinsic, and extrinsic religiosity. Religious values are powerful influences; they have a track record of transforming societies and influencing behavior [19].

2.2.2. Spirituality and green purchase intention

Spirituality is the personal quest for understanding the answer to ultimate questions about life, meaning, and relationship to the sacred or transcendent, which may (or may not) lead to or arise from the development of religious rituals and the formation of community [8]. Spirituality refers to the human search for meaning and a connection with oneself, others, and nature beyond the material aspects of life [7]. So spirituality refers to an individual's internal orientation towards understanding existence in a wider consciousness "that binds all things into a more unitive harmony" [20]. Spirituality is an important construct in green marketing research, and even more in markets with strong spiritual influence [9]. Though spirituality has been considered a relevant factor in analyzing how consumers behave [8], there is scarce literature that analyzes and provides evidence of the importance of connections between spirituality and proenvironmental behaviors [15].

Spirituality states individual relatedness with earth, environment and universe, which is more amid spiritually oriented persons. This relatedness creates a feeling of thinking about self, gathering and environment which begets sustainable/ecological intents. Thus, spiritual orientation would probably prompt sustainable purchasing [5, 8]. It has also been suggested that spirituality is linked with environmentally and socially responsible behavior. Spiritual orientation engages people in activities that are meaningful in relation to both nature/essence of being and society. H1: Spirituality has a positive effect on green purchase intention.

2.2.3. Karma and green purchase intention

Karma is one of the important doctrines, in this religious belief it is generally accepted that whoever does good will receive good results in life. According to the belief in karma, the world is a fair place grows in civilization which gives the view that everyone gets what they deserve [16]. At its essence, karma embodies the principle of "you reap what you sow" [7]. People who engage in moral behavior are sometimes recognized for their acts and receive various tangible and non-tangible rewards (e.g., reward money, improved reputation, community awards). Similarly, immoral acts, when discovered, may lead to punishment through the criminal justice system and from informal channels such as social sanctions and social rejections [21]. This belief holds immense significance and resonates across various dimensions of human behavior, including consumer choices.

Several studies have reported that of the dominant factors karma is one that influence environmental purchasing decisions. Karma has a positive effect on purchasing interest in green products in Indonesia [22]. This is because karma can increase the spiritual level and long-term orientation of the person. R. Agarwala, et al. (2019) [7] argued that consumers who believe in karma will have lower intentions to behave unethically. Karma believers gravitate toward recognizing the repercussions of their actions, even in their consumption patterns. Given this intricate relationship, it is conceivable that individuals deeply rooted in karma's belief system exhibit heightened intentions to purchase green products.

H2: Karma has a positive effect on green purchase intention.

2.2.4. Intrinsic religiosity and green purchase intention

Intrinsic religiosity refers to the internalization of faith as the primary purpose, where religious teachings provide meaning and inner motivation for behavior [23]. It represents a sincere spiritual commitment to a religion's fundamental values versus superficial participation in rituals. According to A.R. Madni, et al. (2016) [24], intrinsic religiosity can be defined as the degree to which an individual is able to express and affirm their religious identity, attitudes, values, and beliefs. This provides a complete framework for understanding life, by describing religion as an important value in an individual's cognitive structure that has the ability to influence aspects of their behavior [25].

Previous literature has highlighted the influence of intrinsic religiosity on intentions and green behaviors [26]. Intrinsic religious people have a higher sense of morality compared to extrinsic religious people. They consume green products based on their motivation to generate benefit the society [27]. E.A. Minton, et al. (2015) [2] and P. Martínez (2015) [28] revealed a robust positive correlation between intrinsic religiosity and environmentally friendly purchasing behaviors across various religious groups, intrinsic religiosity tended individuals engage more frequently in pro-environmental actions. Individuals with a stronger inclination towards intrinsic religiosity are observed to contribute financially to environmental causes, actively choose recycled products, and participate in initiatives aimed at environmental conservation [27].

H3: Intrinsic religiosity has a positive effect on green purchase intention.

2.2.5. Extrinsic religiosity and green purchase intention

Based on a study by G.W. Allport, et al. (1967) [23], extrinsic religiosity is defined as the use of religion for utilitarian ends like social conformity, benefits, and status rather than purely spiritual internal motivations. It represents participation in religious rituals driven by external social or personal reasons [29]. It also reflects their identification or denomination membership towards religious events [24]. Such activities are heavily embodied in the context of self-identification, church/pagoda attendance, church donations, charity and so on [30].

Although there are several arguments that extrinsic religious individuals pursue religious activities for the purpose of achieving social goals such as making friends and community gathering or to fulfill their business motives rather than seeking spiritual objectives [7]. They participate in behaviors that portray them in good standing with other referential or social groups. Therefore, extrinsic religiosity does not explain ethical behaviors [27]. S.H. Hassan (2014) [3] has extensively investigated the relationship between extrinsic religiosity and green consumer behavior. Hassan's study highlighted

that extrinsic religiosity positively influences natural environmental orientation and environmental concerns, which in turn enhance green purchase intentions. E.A. Minton, et al. (2015) [2] extended this exploration to Buddhists, Christians, and atheists indicated that Buddhists, regardless of location, exhibited greater engagement in sustainable behaviors than Christians. Since religiosity is believed to have a profound influence on people's intentions [13], we proposed:

H4: Extrinsic religiosity has a positive effect on Green purchase intention.

3. Methodology

3.1. Samples and data collection

To examine the hypotheses (Fig. 1), data was gathered from a self-administered guestionnaire conducted in Hanoi, Vietnam. The participants in this study were Vietnamese consumers aged over 15, as individuals in this age group generally possess a higher level of cognitive capacity to make buying decision of sustainable products [12]. This enables them to engage more effectively with the complex concepts of religiosity and environmental consciousness and exhibit greater maturity in decision-making processes, incorporating established values and beliefs that can significantly influence their purchasing behavior. Questionnaires were randomly distributed to target respondents with control of sex, income and occupation. A total of 623 respondents took part in the study, selected through the convenience sampling method. We conducted the data collection via Google Docs. First, the questionnaires were sent to about 1.902 email addresses, 510 answer sheets were received (response rate of 26.8%). Second, the soft electronic copies of the survey questionnaire were uploaded online to alumni, class groups, associations or Facebook accounts, and then we made phone calls or met respondents directly to administer the questioning process. After collecting the questionnaires, the data was checked to ensure that the sample consisted of the research designed subjects. 5 responses were eliminated because they had been answered by students, who were born in Hanoi - inappropriate survey subjects. I eliminated additional 3 questionnaires due to their inconsistent or biased answers. After screening the questionnaires, the final sample size is 623 responses.

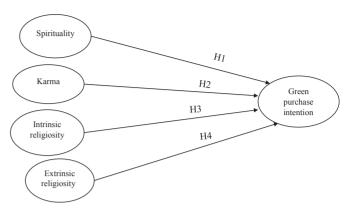


Fig 1. Conceptual framework.

In total there are 623 observations in the data set. In which, 49.6% are men, 50.4% are women. The respondent's education: 7.4% have high school degrees, 18.6% have college degrees, 62.9% have university degrees and 11.1% have graduate degrees. Regarding age, 30.5% of the respondents are 15-22 years old, 29.5% of the respondents are 23-30 years old, 21.3% of the respondents are 31-40 years old, 18.6% of the respondents are over 40 years old. 39.3% of respondents are Buddhist, 32.4% say they do not follow any religious group, 28.2% are Christian and others any religious groups, 55,1% of respondents have a monthly income less than 10 million VND/month, 38.7 of respondents have a monthly income between 10-30 million VND/ month, 6.3% of respondents have a monthly income greater than 30 million VND/month.

3.2. Measurement

The questionnaire was adapted from various sources. All scales were adapted from previous studies (Table 1). For the Spirituality variable, the measurement scale was adapted from a previous study conducted by T.F. Stillman, et al. (2012) [20], the measurement scale of karma was adopted from P.K. Kopalle, et al. (2010) [21]. The scale for intrinsic religiosity and extrinsic religiosity has been adapted from A. Mas'od, et al. (2014) [31] and E.L. Worthington, et al. (2009) [32]. The measurement of green purchase intention was adopted from R.Y. Chan (2001) [12]. All variables were measured using a 5-point Likert scale (1 = Strongly disagree; 5 = Strongly agree). Before using the questionnaire for a survey, a qualitative study has been done to test the question, adapt and make it easier to use in the Vietnamese context. Two pages of questionnaire consisted of three parts. The first part consists of questions asking about perceived personal points of view of religious beliefs, the second part includes demographic and family background information of respondents.

Factors	Statement					
	I feel the presence of a higher power in my life					
Spirituality	I experience a connection with a higher power in every aspect of my life					
Spirituality	I have never felt alone because I am always being watched over by a higher power in my life					
	I feel selfless caring for others					
	I believe in reincarnation where one becomes better (worse) due to good (bad) actions					
Karma	Good deeds in the present will produce a positive fruit in the future and life to come					
	Evil deeds in the present will produce a negative fruit in the future and life to come					
	The world was created in a continuous cycle					
	I often read books and magazines about my faith					
	I spend time trying to grow in my understanding of faith					
Intrinsic	Religion is especially important to me because it answers many questions about the meaning of life					
religiosity	I took my faith as providing purpose in my life					
	I always try to carry my religion over into all my other dealings in life					
	My religious beliefs are what lie behind my whole approach to life					
	I make financial contributions to my religious organization					
	I enjoy spending time with others of my religious affiliation					
Extrinsic	I keep myself well-informed about my local religious group and have some influence on its decisions					
religiosity	I go to religious activities because it helps me to make friends					
	The purpose of prayer is to secure a peaceful life					
	What religion offers me most is comfort when sorrows arise					
	The primary purpose of prayer is to gain relief and protection					
	I am considering switching to products because they are less polluting.					
Green purchase intention	I am considering switching to an environmentally friendly brand for ecological reasons					
	Over the next month, I plan to switch to a green version of a product					

Table 1. Scale of measurements.

3.3. Data analysis

This research is a quantitative study that aims to find out the existence and type of relationship between one variable and another, thus, the analytical tool used is Structural Equation Modeling (SEM). The analysis stages themselves were divided into early and advanced stages of analysis. Preliminary analysis was carried out to ensure that all measurement scales were valid and reliable, as well as to perform data cleaning. While further analysis was to test the hypotheses that had been built.

4. Results and discussion

4.1. Reliability and validity analyses

First, we apply Harman's single factor test to detect possibility of common method bias. There is no problem with common method bias in this data since the total variance extracted by one factor is 31.6% and it is less than the recommended threshold of 50%. Secondly, the assessment of the reliability of this study was conducted as per many researchers' recommendations to use an index form for Cronbach's alpha values [33]. It dictated the content with a reliability coefficient of 0.7 and above to be acceptable. The convergent validity of the measurement model was obtained by ensuring that the composite reliability (CR) should be greater than 0.7.

Exploratory factor analysis is applied for all independent variables simultaneously. Results showed that factor analysis is appropriate with data (KMO=0.907) and observing variables are correlated in general (sig<0.05). The total variance explained extracted from 31 observing variables of measurement scales for organizational culture (including 8 factors) and organizational commitment was 63.7%, which is ≥60% (>60% is good). Therefore, extracted factors meet the requirements of values. The original scale for environmental concern includes 4 items, however, due to, 2 items having been loaded in the wrong factor and Cronbach's alpha values is not qualified, we eliminated these 2 items from the original scale.

Table 2 shows Cronbach's alpha reliability coefficient of the variables, this study gave the following results: All of the factor scale of variables have Cronbach's alpha greater than 0.7. Thus, the factor scale of variables is appropriate, reliable and will be retained to serve the official quantitative research phase.



	Variables	Items	Sources	Cronbach's alpha
1	Spirituality	4	[20]	0.810
2	Karma	4	[21]	0.780
3	Extrinsic religiosity	7	[31, 32]	0.874
4	Intrinsic religiosity 6		0.872	
5	Green purchase intention	3	[12]	0.834

Table 2. Reliability statistics.

4.2. Hypothesis testing

Results indicate that religious dimensions including Karma, Intrinsic religiosity and extrinsic religiosity significantly affect green purchase intention (Table 3, Fig. 2). These results supported H2, H3 and H4. The positive and significant effect of karma on green purchase intention supports the arguments of P.K. Kopalle, et al. (2010) [21], R. Agarwala, et al. (2019) [7]; S. Chen, et al. (2019) [22] who found that belief in karma makes people consider the long-term consequences of their consumption choices. Consumers who believe their actions will affect their future are more likely to make eco-friendly purchases that will promote environmental sustainability. The positive effect of karma on green purchase intention is logical given the emphasis in Buddhist and Hindu teachings that current actions shape future outcomes. This study found that having religious beliefs positively influences green purchase behavior. This study confirms the applicability of a multidimensional construct "religious values" in the context of Buddhist and non-religious consumers.

The findings of the study revealed that intrinsically religious individuals possess a stronger intent to buy green products. This mirrors earlier findings linking intrinsic religiosity to pro-environmental attitudes [2, 25, 28]. Driven by faith, intrinsically religious consumers are more inclined to altruistic, sustainable actions, such as eco-friendly purchasing. The affirmative effect of intrinsic religiosity on green purchase intention underscores their commitment to embody their values in daily choices. Additionally, the study revealed that green purchase intention is positively and significantly influenced by extrinsic religiosity, this finding aligns with previous research by S.H. Hassan (2014) [3] and L. Wang, et al. (2020) [34]. The study also revealed that spirituality was not observed to influence green purchase intention. Consequently, hypothesis H1 was not supported. The insignificant effect of spirituality on green purchase intention is not in line with the works of C. Chairy (2012) [8], Y. Joshi, et al. (2019) [5], and A. Werner, et al. (2020) [35]. This non-support suggests that spirituality doesn't directly predict such intentions. This might stem from spirituality's focus on inner connection rather than outward actions. More research is needed to clarify this relationship.

Table 3. Path analysis.

Path	ı		Hypotheses					Results
GI	<	SP	H1	.053	.042	1.254	.210	Not Supported
GI	<	KA	H2	.227	.051	4.425	***	Supported
GI	<	IR	H3	.298	.049	6.092	***	Supported
GI	<		H4	.157	.047	3.319	***	Supported

SP: spirituality; KA: karma; ER: extrinsic religiosity; IR: intrinsic religiosity; GI: green purchase - intention. Source: Our research.

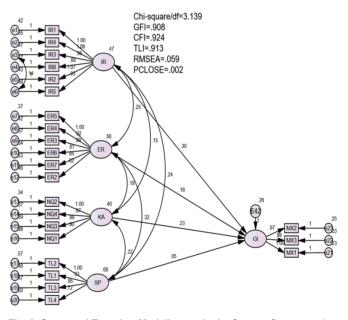


Fig. 2. Structural Equation Modeling analysis. Source: Our research.

5. Conclusions

This research has provided valuable insights into the relationship between religious dimensions and environmentally conscious consumer behavior. The findings confirm the variable impacts of karma beliefs, extrinsic religiosity, and intrinsic religiosity on green purchase intentions among Vietnamese middle-aged and young consumers. The research highlights the significance of moral considerations in driving proenvironmental behavior within various religious contexts.

The outcomes of this study have several practical implications. The results indicate that consumers who are more religious are more likely to purchase green products and this demonstrates the importance of religious beliefs in green consumption. Green product managers should give special attention to this consumer segment. Marketing communication channels should portray consumers who (symbolically) cultivate good karma. Since extrinsic religiosity and intrinsic religiosity significantly impact green purchase intention, it is recommended that practitioners may stimulate the willingness to purchase green products among consumers who express extrinsic religiosity, and intrinsic religiosity. In practical terms, this research underscores pathways for fostering sustainable consumption within the evolving landscape of Vietnam by tapping into culturally significant values. Potential strategies may revolve around emphasizing karma's principle of accountability and the moral obligations felt by individuals with intrinsic religious beliefs.

There are a few limitations to this study. Firstly, this is a cross-sectional study, future research may apply a longitudinal study to understand the change in green intention over time. The study sample is limited to middle age and young respondents which may result in the findings do not apply to old people. Future studies may widen the scope of the study for more understanding of older customers' green behaviors. Another limitation arises from not differentiating between religious and nonreligious consumers. Future research should explore each religion separately, considering their distinct perceptions of environmental issues, and make comparisons between groups. Finally, this study examined the green purchase intention in general and did not consider specific kinds of products. Future research may examine various types of green product differences.

CRediT author statement

Dinh Duc Minh: Conceptualisation, Revising, Writing; Dinh Minh Trang: Methodology, Writing, Editing; Nguyen Thu Thuy: Conceptualisation, Writing, Reviewing.

COMPETING INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this article.

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