Marketing of environmentally friendly hotels in China through religious segmentation: a theory of planned behaviour approach

Lei Wang and Philip Pong Weng Wong

Abstract

Purpose - The purpose of this study is to examine the relationship between religiosity, green purchase attitude (GPA), subjective norm (SN), perceived behavioural control (PBC) and green purchase intention (GPI) towards the selection of environmentally friendly hotel. The current study argues that consumers' incentive variable, namely, religiosity, can influence consumers' environmentally friendly hotel selection.

Design/methodology/approach - This study had successfully gathered 404 completed questionnaire sets through online surveys. All survey data were subjected to descriptive analysis and analysis of variance using SPSS. Besides that, confirmatory factor analysis and structural equation modelling were performed for the testing of hypotheses.

Findings - The results suggest that religiosity significantly and positively influences GPA, SN, PBC and GPI. Furthermore, GPA and PBC positively and significantly influence GPI. The SN also displays significant positive influence on GPA, while GPA plays a full mediation role between SN and GPI. In addition, statistically significant differences in religiosity, SN and PBC were obtained between religious affiliations of consumers towards environmentally friendly hotel selection.

Originality/value - This study extended the existing knowledge based on the selection of environmentally friendly hotels among religious consumers in the tourism literature. Besides that, these empirical findings would greatly benefit hotel managers and other key stakeholders in the tourism industry.

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1. Introduction

Green purchase behaviour is closely linked to acquiring products and services that contribute to the least negative effects on the environment throughout their life cycle (Vazifehdoust et al., 2013). The green marketing concept already began back in Second World War or even before the war (Muzaffar, 2015). Green purchase behaviour has gained growing research interest, especially on identifying key predictors of consumer behaviour (Mas'od and Chin, 2014). Through the growth of green awareness, the intention to purchase green services and products and the participation in pro-environmental practices are higher (Teeroovengadum, 2019). Sutikno and Margaretha (2020) highlight a similar notion on the gradual adaptation of the current consumers to pay more for naturally benevolent products and services and adopt a diverse range of environmentally friendly practices.

In the hotel industry, more consumers demand environmentally friendly facilities and services (Wang et al., 2020) as a result of their concern on the negative implications of resource overconsumption and waste production (Wang et al., 2019a). Hence, hotel Received 3 August 2019 Revised 1 October 2019 14 December 2019 31 January 2020 26 March 2020 8 May 2020 15 May 2020 16 May 2020 Accepted 17 May 2020

marketers are driven to continuously develop and improve green practices and green initiatives (Han *et al.*, 2010). Despite the promising trend of green purchase attitude (GPA) among consumers in selecting environmentally friendly hotels (Kasliwal and Agarwal, 2015; Rahman and Reynolds, 2016), revenues and bookings received by environmentally friendly hotels have remained stagnant (Mas'od and Chin, 2014; Mohamad *et al.*, 2014).

Despite the significant expansion of environmentally friendly hotels in China (more than 700 environmentally friendly hotels), various industry research reports and empirical studies revealed low levels of concern and understanding on environmentally friendly hotels among Chinese consumers (Jiang and Gao, 2019). Moreover, green purchase behaviour was extensively explored from the Western perspectives (Wang *et al.*, 2019a). There are limited findings on the environmentally friendly hotel selection in China, resulting in the lack of a standardised definition and coherent foundation (Wang *et al.*, 2019b).

Many studies incorporated the theory of reasoned action (TRA) (Ajzen and Fishbein, 1975) and theory of planned behaviour (TPB) (Ajzen, 1991) to understand how attitude affects intention in the context of green behaviour (Han, 2015; Paul *et al.*, 2016). Beliefs and attitudes are translated into actual behaviours according to these theories but most cases revealed otherwise (Chatzidakis *et al.*, 2007). In fact, the nature of the relationship of beliefs, attitudes and actual behaviour is complex. Apart from the influence of beliefs and attitudes on behaviour, various factors affect one's behaviour (Chatzidakis *et al.*, 2007).

Religiosity reflects one's adherence to religious principles, convictions and rituals in routine (Worthington *et al.*, 2003). The influence of religiosity on certain behaviours is recognised (Martin and Bateman, 2014) but only a few studies empirically tested the role of religiosity as a precondition to comprehend attitudes and behaviours pertaining to green consumption (Mas'od and Chin, 2014; Wang *et al.*, 2019b). Moreover, how religiosity is linked to consumers' green consumption, such as the selection of environmentally friendly hotels in a non-Western context has been underexplored (Wang *et al.*, 2019b).

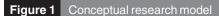
The current study had assessed the influence of religiosity on the different TPB components, specifically on how attitude and intention influence consumers' selection of environmentally friendly hotels in China. This study offers valuable and new insights from an Asian perspective. Accordingly, this study also extended the existing knowledge based on the influence of religiosity, GPA, subjective norm (SN), perceived behavioural control (PBC) and intention on the selection of environmentally friendly hotels among consumers.

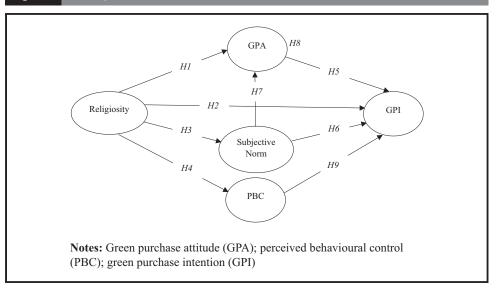
2. Literature review

2.1 Underpinning theories of study

This study adopted TPB (Ajzen, 1991), which is incorporated in the conceptual model (Figure 1). TRA and TPB are among the most prominent behavioural theories in the field of marketing (Paul *et al.*, 2016; Wang *et al.*, 2019b). Both theories are frequently used as models to assess consumers' green purchase intention (GPI) or actual behaviour (Rahman and Reynolds, 2016; Paul *et al.*, 2016) and the relationships of beliefs or values, attitude, behavioural intention and actual behaviour (Ajzen, 1991; Coleman *et al.*, 2011). Both theories allow the means to explore the impact of other contextual variables which might help to explain behaviour (Chen and Tung, 2014; Kumar *et al.*, 2017). The inclusion of religiosity as part of the proposed conceptual model was considered in this study given the flexible nature of TPB.

There are concerns on the relevance of TRA in predicting attitude and non-volitional components of behaviour given its theoretical emphasis over volitional control and disregard of the control over key opportunities and resources (Paul *et al.*, 2016). The limitations of TRA in overlooking non-volitional aspects of behaviour were addressed through the inclusion of PBC, resulting in the formation of TPB (Ajzen, 1991; Wang *et al.*, 2019c). Attitude, SN and





PBC are postulated to influence behavioural intention and eventually, the actual behaviour. Thus, referring to TPB, GPI predicts green purchase behaviour (Chen and Tung, 2014; Paul et al., 2016).

2.2 Religiosity

In the past three decades, studies have explored how cultural factors influence consumer behaviour. As an important subcultural factor, religion plays a highly significant role in effecting consumer behaviour (Ahmad *et al.*, 2015; Madni *et al.*, 2016), because consumers exhibit their beliefs through their consumption choices (Lari *et al.*, 2019). Past studies conceptualised religion as being a simple construct with religious affiliation (Mokhlis, 2009). Basically, religious affiliation reflects one's personal identification or strong beliefs towards specific religious orders (Madni *et al.*, 2016). Religious affiliations could significantly influence consumers' purchase attitudes and behaviours (Guo *et al.*, 2013; Suki and Suki, 2015), but other scholars have highlighted the inappropriateness of using this measure to examine behaviour in the decision-making process of consumers because it compromises validity given its unidimensional measurement (Mokhlis, 2009).

As previously described, religiosity reflects the extent of adherence to religious principles, convictions and rituals in one's routine (Worthington *et al.*, 2003). According to De Run *et al.* (2010), religiosity is a multifaceted concept that integrates various aspects of experiences, beliefs and practices. In marketing, intrinsic and extrinsic religiosity influences the attitude and behaviour of consumers (Wang *et al.*, 2019b). Intrinsic religiosity refers to one's stance on religious views, virtues and practices (Madni *et al.*, 2016), while extrinsic religiosity is linked to religious associations, sacred rituals and members of a spiritual society (Borzooei and Asgari, 2014).

According to Shin *et al.* (2011), religiosity affects one's purchase behaviour, which acts as a precursor of demand. There are various patterns of religious values since childhood – for instance, the development of encounters and supplementary education, languages and socioeconomic characteristics that accommodate the changing lifestyle and conditions of an individual (Madni *et al.*, 2016). Taking the case of Islam, Muslims can only purchase or consume halal products or services. This reflects the influence of religiosity on consumers

as well as their undeviating stance and adherence to the religious values over an extended period (Khraim, 2010; Wang *et al.*, 2019b).

Certain studies revealed how religiosity significantly influences the pro-environmental attitude and behaviour of consumers. According to Minton *et al.* (2015), Christianity, Islam and Judaism noted that God created nature, where God and mankind have a grander status over nature, whereas Buddhism, Hinduism and Taoism viewed God in everything, including nature itself. Certain studies found that Buddhism and Hinduism positively affected pro-environmental behaviour (Mawdsley, 2004; Minton *et al.*, 2015; Wang *et al.*, 2019b). Wang *et al.* (2019b) link the concepts or doctrines of pro-environment significance to different religions – Buddhism focuses on "karma"; Islam views Earth as "a sacred and holy place"; Taoism stresses on the notion of "humankind and nature"; and Protestantism and Catholic emphasise on "nature and human responsibility".

Previous green marketing studies discovered various contexts that were found to reinforce the relationships of religiosity, attitude, intention and behaviour among consumers (Engelland, 2014; Kirmani and Khan, 2016). For instance, Wang *et al.* (2019b) found highly religious tourists in China displayed a positive attitude towards environmentally friendly hotel selection. According to Minton *et al.* (2015), religiosity was found to significantly and positively influence different sustainable behaviours (green purchase behaviour and disposal behaviour). Meanwhile, Martin and Bateman (2014) reported a significant and negative relationship between religiosity and GPA among 416 Judeo-Christians. Based on the above findings, the following hypotheses were proposed for testing:

- H1. There is a positive significant relationship between religiosity and GPA.
- H2. There is a positive significant relationship between religiosity and GPI.

According to Wang et al. (2019c), SN refers to one's normative beliefs on the sense of right and wrong and the underlying reasons to adhere to the beliefs. There is a certain sense of importance when it comes to influencing the close members of one's social circle, which can include family members, relatives, business partners, colleagues and close friends (Paul et al., 2016). For certain individuals, it can be the members of a certain religion as they share common qualities (e.g. beliefs, principles or values). SN can either positively or negatively influence one's behavioural intention. Considering the influence of the expectations of others (e.g. religiosity) on one's SN, the following hypothesis was established for testing:

H3. There is a positive significant relationship between religiosity and SN.

Religiosity appears to have a significant value in one's cognitive structure, which can affect behaviour (Lau, 2010). Highly religious individuals are postulated to view the world from religious perspectives, as religion is incorporated into their daily life (Patel, 2012). Unlike those who display a lower level of religiosity, this group of individuals are more likely to be doctrinaire and conventional. They are also likely to act according to their religious principles and customs (Choi, 2010). Moreover, these highly devoted worshippers adeptly act and behave in a manner or choice that reflects their religious morals and doctrines. With the high level of religiosity, the perceived expectations from their religious proenvironmental doctrines can lead to positive PBC. Thus, the following hypothesis is proposed:

H4. There is a positive significant relationship between religiosity and PBC.

2.3 Green purchase attitude

Attitude describes one's evaluation of a given behaviour (e.g. positive vs negative evaluation and favourable vs unfavourable evaluation) (Ajzen, 1991). It is also plausible that attitude reflects one's psychological evaluation of a specific product or services

(Maichum *et al.*, 2016). Regardless of whether a specific behaviour is performed, attitude incorporates one's evaluation of the behaviour (e.g. good, bad or indifferent) (Paul *et al.*, 2016). Attitude reflects the unchanging preference or state of mind towards a particular behaviour or point of view (Aman *et al.*, 2012).

Numerous studies on green behaviour have demonstrated how attitude positively influences behaviour (Paul *et al.*, 2016; Teeroovengadum, 2019). Han *et al.* (2010) found that attitude significantly and positively affected intention in the context of environmentally friendly hotel selection in the USA and Maichum *et al.* (2016) reported similar results in Thailand. Likewise, Wang *et al.* (2019c) adopted the TPB model and found that attitude positively affected intention in the selection of environmentally friendly hotels among 261 Web-based sampled respondents in China. Thus, the following hypothesis was proposed:

H5. There is a positive significant relationship between GPA and intention.

2.4 Subjective norm

Ajzen (1991) defined SN as the driving social force of whether to perform a specific behaviour. It also refers to the perceived views of significant others (e.g. business partners, peers, colleagues or relatives) that would affect one's decision or choice (Chen and Tung, 2014). Han et al. (2010) found that SN significantly and positively affected intention to visit environmentally friendly hotels. Likewise, Chen and Tung (2014) found a significant and positive relationship between SN and intention to visit environmentally friendly hotels in Taiwan. In addition, Muzaffar (2015) highlighted the high explanatory power of SN as a determinant of GPI in Pakistan. In line with the finding of these prior studies, the following hypothesis was proposed:

H6. There is a positive significant relationship between SN and consumer GPI.

Certain studies have highlighted a significant causative path from SN to attitude and subsequently, behavioural intention (Chen and Chai, 2010; Wang et al., 2019c). It is likely that the favourable (or unfavourable) views or perceived novelty of the significant others (referents) on environmentally friendly hotels contributes to one's positive (or negative) GPA (Wang et al., 2019c), while their good/bad experience in green issues contributes to higher or lower GPI.

Chen and Chai (2010) demonstrated a significant influence of SN on GPA among 184 Malaysian undergraduates while Han *et al.* (2010) found that SN positively and indirectly affected intention of opting for environmentally friendly hotels. Another study by Wang *et al.* (2019c) found that SN partially mediated the relationship between attitude and intention to visit green hotels in China. Hence, the following hypotheses were developed for testing:

- H7. There is a positive significant relationship between SN and consumer GPA.
- H8. GPA mediates the relationship between SN and GPI.

2.5 Perceived behavioural control

Ajzen (1991) defined PBC as one's perceived difficulty in performing a particular behaviour. PBC also considers the degree of perceived control over certain factors that potentially prompt one's involvement in an activity (Han *et al.*, 2010). One tends to perform a specific behaviour when the difficulties of performing the behaviour can be handled (Chen and Tung, 2014).

Previous studies postulated the significant role of PBC in influencing consumer behaviour in diverse settings (Albayrak *et al.*, 2013; Chen and Tung, 2014; Paul *et al.*, 2016). For instance, a study by Paul *et al.* (2016) found that PBC significantly and positively influence intention, which was also in line with the study by Yadav and Pathak (2016). Another study

by Chen and Tung (2014) found that PBC positively and significantly affected the intention to visit environmentally friendly hotels. Hence, the following hypothesis was tested:

H9. There is a positive significant relationship between PBC and consumer GPI.

3. Methodology

3.1 Data collection

A non-probability sampling method was selected for this study as it is challenging for social science studies of this nature to acquire a precise sampling frame (Saunders *et al.*, 2011). A purposive sampling technique was performed to gather samples that fit the nature and objectives of the study (Neuman, 2002).

An online survey in the Chinese language was posted online from 1 October 2018 to 31 December 2018 and from 1 November 2019 to 1 December 2019 at the following website: www.wenjuan.com. This free online platform is widely known among individuals, businesses and organisations in China to gather primary data from online users (Wang *et al.*, 2019c). For a variety of research programs, money (i.e. RMB 5) is offered as a fundamental incentive increment to the response rate in which potential participants browse the website for prizes, or they may be invited to complete a questionnaire on the website via email.

For structural equation modelling (SEM), most studies suggested a sample size of at least 200 respondents, and between 10 and 20 cases per parameter (Tabachnick and Fidell, 2007; Kline, 2015). Based on a widely used Cochran formula for an unknown number of the target population, a minimum sample size of 384 respondents is recommended (Burstein, 2011; Sarmah *et al.*, 2013). For this study, 404 respondents were gathered, which exceeded the minimum number of sample size. A pilot test was conducted involving 40 respondents to ensure the usability and validity of the developed instrument and to prevent any problems that may affect the quality of the obtained data. The obtained sample size for the pilot test in this study exceeded the suggested sample size for a pilot test in most studies, which is 10% of the target sample size for the actual data collection (Hill, 1998; Connelly, 2008).

3.2 Research instrument

The research instrument for this study consists of a self-administered and closed-ended questionnaire that included validated measurement scales (De Vaus, 2013). There were four sections in the questionnaire. The first section focused on the religiosity construct, where ten items were adopted from Worthington *et al.* (2003). The second section focused on the different components of TPB: GPA (five items); SN (three items); and PBC (three items). All items in this section were adapted from past studies (Han *et al.*, 2010; Chen and Tung, 2014; Han and Yoon, 2015). Meanwhile, the third section focused on GPI, where four items were also adapted from past studies (Baker *et al.*, 2013; Chen and Tung, 2014; Han and Yoon, 2015). The final section is related to the demographic characteristics of the respondents. For this study, a five-point Likert scale was used to generate marginally higher mean scores and to allow more straightforward data comparison (Dawes, 2008).

4. Data analysis and results

SPSS (version 19) was used to perform descriptive analysis and analysis of variance (ANOVA) for this study while confirmatory factor analysis (CFA) and SEM were conducted using AMOS.

4.1 Descriptive analysis

Table 1 displays the descriptive statistics for the demographic characteristic of the sample.

Items	Characteristics	Frequency	(%)
Gender	Male	199	49.3
	Female	205	50.7
Age	Below 18	61	15.1
	18-30	246	60.9
	31-45	69	17.1
	46-60	21	5.2
	Above 61	7	1.7
Income level	Below 1,700	90	22.3
	1,701-3,000	89	22.0
	3,001-4,500	116	28.7
	4,501-6,000	54	13.4
	Above 6,001	55	13.6
Education level	Middle school	24	5.9
	High school	37	9.2
	Diploma (3-years)	128	31.7
	Bachelor (4-years)	185	45.8
	Masters and above	30	7.4
Religious affiliation	Buddhism	96	23.8
	Catholicism	58	14.4
	Protestantism	75	18.6
	Islam	49	12.1
	Taoism	126	31.2

This study successfully gathered 404 completed questionnaire sets for analysis. Most of the respondents were female (50.7%) and between 18 and 30 years of age (60.9%). In addition, 28.7% of the total respondents reported monthly income from CNY 3,001-4,500. There were approximately 45.8% of the total respondents who completed a four-year bachelor's degree. Most importantly, 31.2% were Taoists.

4.2 Confirmatory factor analysis

Cronbach's alpha value of equal to or above 0.7 is considered adequate for the testing of reliability (Hair *et al.*, 2010). As shown in Table 2, items with low factor loadings (i.e. IR1, IR2, ER4, GPA1 and GPI1) were removed before finalising the validity and reliability of the remaining items. Accordingly, the proposed cut-off value in determining the significance of the standardised factor loadings is 0.5, where 0.7 and above represents the ideal range (Hair *et al.*, 2010). For the current study, all factor loadings exceeded 0.7.

On the other hand, when it comes to the determination of convergent validity for the measurement model, composite reliability (CR) of above 0.7 and average variance extracted (AVE) of above 0.5 are suggested (Hair *et al.*, 2010). Meanwhile, the discriminant validity of the model can be determined based on average shared squared variance (ASV) and maximum shared squared variance (MSV) – both values should not be higher than AVE (Hair *et al.*, 2010; Byrne, 2016). For the measurement model, the correlation coefficient between different variables under study must be lower than 0.9 (Meyers *et al.*, 2006). With that, Table 3 illustrates the results of discriminant validity.

Following that, the study ensued with the assessment of model fit. Referring to the presented model fit summary, CMIN/DF of 2.053 (< 3.0), goodness of fit index (GFI) of 0.915, adjusted goodness of fit index (AGFI) of 0.909, incremental fit index (IFI) of 0.908, comparative fit index (CFI) of 0.917, root mean square residual (RMR) of 0.051, parsimony normed fit index (PNFI) of 0.764, parsimony comparative fit index (PCFI) of 0.764 and root mean square error of approximation (RMSEA) of 0.046 demonstrated adequate model fit

Table 2 Construct valid	ity				
Factor (Cronbach's alpha)	ltem	Item loading	CR	AVE	SD
Religiosity (α = 0.830)	IR3. Religion is especially important to me because it answers many questions about the meaning of life IR4. My religious beliefs lie behind my whole approach to life IR5. Religious beliefs influence all my dealings in life IR6. It is important for me to spend a period of time in private religious thoughts and reflection ER1. I make financial contributions to my religious organisation ER2. I enjoy spending time with others of my religious affiliation ER3. I enjoy working in the activities of my religious organisation	0.81 0.76 0.75 0.79 0.72 0.78 0.73	0.907	0.583	0.89 0.93 0.92 0.97 0.86 0.90 0.97
GPA ($\alpha = 0.819$)	For me, staying at an environmentally friendly hotel when travelling is – GPA2: Extremely undesirable (1)/Extremely desirable (5) GPA3: Extremely unpleasant (1)/Extremely pleasant (5) GPA4: Extremely foolish (1)/Extremely wise (5) GPA5: Extremely negative (1)/Extremely positive (5)	0.71 0.77 0.80 0.71	0.836	0.560	1.18 1.15 1.15 1.22
SN ($\alpha = 0.811$)	SN1. Most people who are important to me think I should stay at an environmentally friendly hotel when travelling SN2. Most people who are important to me would want me to stay at an environmentally friendly hotel when travelling SN3. People whose opinions I value would prefer that I stay at an environmentally friendly hotel when travelling	0.75 0.81 0.75	0.814	0.594	1.13 1.34 1.25
PBC (α = 0.728)	PBC1. Whether or not I stay at an environmentally friendly hotel when travelling is entirely up to me PBC2. I am confident that if I want, I can stay at an environmentally friendly hotel when travelling PBC3. I have resources, time and opportunities to stay at an environmentally friendly hotel when travelling	0.72 0.78 0.71	0.781	0.543	1.24 1.11 1.12
GPI ($\alpha = 0.803$)	GPI2. I will make an effort to stay at an environmentally friendly hotel when travelling GPI3. I am likely to stay in a hotel implementing environmental strategies GPI4. I am more likely to stay in an environmentally friendly hotel over a non-environmentally friendly hotel	0.77 0.75 0.81	0.820	0.604	0.80 0.81 0.88
Notes: Items of religiosity; S	SN; PBC and GPI were measured on a five-point Likert scale from 1 (s	strongly disa	gree) to 5	(strongly a	gree)

Table 3 Discriminant validity								
Research construct	1	2	3	4	5	AVE	MSV	ASV
1. PBC 2. Religiosity	1 0.095	1				0.543 0.583	0.445 0.009	0.200 0.005
3. GPA 4. SN	0.588 0.667	0.046 0.003	1 0.603	1		0.560 0.594	0.364 0.445	0.188 0.202
5. GPI	0.019	0.086	0.203	0.006	1	0.604	0.041	0.012

(Hair *et al.*, 2010). According to Ho (2006), the assessment of model fit requires that at least three indices must be satisfied. Hence, this study proved an adequate model fit.

4.3 Structural equation modelling

For the assessment of the structural model and testing of the proposed hypotheses, SEM was performed. The overall goodness-of-fit recorded CMIN/DF of 2.055, RMR of 0.060, AGFI of 0.849, CFI of 0.914, GFI of 0.911, IFI of 0.912, PNFI of 0.764, PCFI of 0.872 and

Figure 2 The structural model outcomes

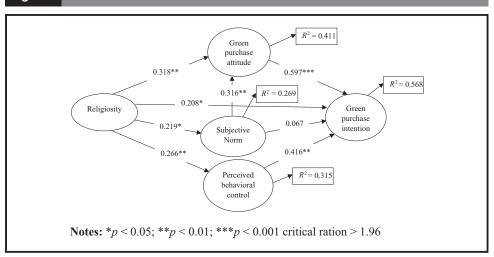


Table 4	Structural relationships	s and hypothes	es testing		
Items	Parameter	Estimate	p-value	CR	Decision
H1	Religiosity → GPA	0.318	0.008	3.177	Supported
H2	Religiosity → GPI	0.208	0.017	3.264	Supported
НЗ	Religiosity → SN	0.219	0.033	3.016	Supported
H4	Religiosity → PBC	0.266	0.004	3.214	Supported
H5	$GPA \to GPI$	0.597	0.000	7.648	Supported
H6	$SN \rightarrow GPI$	0.067	0.411	0.657	Not supported
H7	$SN \rightarrow GPA$	0.316	0.009	3.117	Supported
H8	SN/GPA/GPI				Supported
H9	$PBC \to GPI$	0.416	0.004	5.532	Supported

Notes: Green purchase attitude (GPA); green purchase intention (GPI); subjective norm (SN); perceived behavioural control (PBC)

RMSEA of 0.051. In other words, an adequate model fit was demonstrated. This step is illustrated in Figure 2 and Table 4 accordingly.

Wang *et al.* (2019b) noted that path coefficient of below 0.1 implies small effect; path coefficient of about 0.3 implies moderate effect; and path coefficient of 0.5 and above implies large effect. The obtained results are as follows:

- religiosity and GPA were positively and significantly correlated (moderate effect) ($\beta = 0.318$, p = 0.008); thus, H1 was accepted;
- religiosity and GPI were positively and significantly correlated (moderate effect) (β = 0.208, p = 0.017); thus, H2 was accepted;
- religiosity and SN were positively and significantly correlated (moderate effect) (β = 0.219, p = 0.033); thus, H3 was accepted;
- religiosity and PBC were positively and significantly correlated (moderate effect) (β = 0.266, p = 0.004); thus, H4 was accepted;
- GPA and GPI were positively and significantly correlated (large effect) (β = 0.597, p = 0.000); thus, H5 was accepted;

- SN and GPA were positively and significantly correlated (moderate effect) ($\beta = 0.316$, p = 0.009); thus, H7 was accepted; and
- PBC and GPI were positively and significantly correlated (moderate effect) (β = 0.416, p = 0.004); thus, H9 was accepted.

On the other hand, the direct causal link between SN and GPI was found statistically insignificant (p=0.411). Therefore, H6 was rejected. Meanwhile, the mediation effect of GPA was determined based on the direct and indirect effects of the two-tailed significance test under bootstrapping at 0.05 level. In particular, the direct relationship between SN and GPI was found statistically insignificant (p=0.318) whereas the indirect relationship between SN and GPI was found statistically significant (p=0.023). With that, attitude was found to exhibit full mediation on the relationship between SN and GPI; thus, H8 was accepted.

4.4 Analysis of variance

Finally, ANOVA was performed to examine the influence of different religious affiliations on the different variables under study. The results of one-way ANOVA are tabulated in Table 5. The Scheffe alpha test was conducted for the classification of the differences of religious affiliation groups (Table 6). Firstly, the ANOVA results revealed no significant difference between religious affiliation for the cases of GPA and GPI (p > 0.05).

The ANOVA results revealed statistically significant effect of religious affiliation on religiosity, [F(4,399)=6.209, p=0.000]. Referring to the results of the Scheffe post-hoc test, the Islam group exhibited a statistically higher effect of religious affiliation on religiosity than the Taoism group at 0.05 level. The mean difference (I-J) between the religious affiliations of the Islam group and Taoism group was 0.70295. With that, the Islam group displayed a higher level of religiosity than the Taoism group. As for the comparison of religiosity between other religious affiliation groups, no statistical difference was found.

Meanwhile, the effect of religious affiliation on SN was found statistically significant [F (4,399) = 3.31, p = 0.011]. The results of the Scheffe post-hoc test demonstrated that the Catholicism group exhibited a statistically higher effect of religious affiliation on SN than the Buddhism group (p = 0.031). The mean difference (I-J) between the Catholicism group and Buddhism group was 0.5558. With that, the Catholicism group displayed a higher level of SN than the Buddhism group. As for the comparison of SN between other religious affiliation groups, no statistical difference was found.

Table 5 One-way ANOVA samples test								
Dependent variable	Factor	Sum of squares	df	Mean square	F	Sig.		
Religiosity SN	Religious affiliation Religious affiliation	19.796 13.74	4	4.949 3.435	6.209 3.31	0.000		
PBC	Religious affiliation	9.498	4	2.374	2.885	0.022		

Table 6 Post-hoc tests of religiosity, SN and PBC								
Dependent variable	(I) Religious affiliation	(J) Religious affiliation	Mean difference (I-J)	Std. error	Sig.			
Religiosity SN PBC	Islam Catholicism Islam	Taoism Buddhism Buddhism	0.70295 0.55580 0.42092	0.15030 0.16943 0.15928	0.000 0.031 0.039			

Besides that, the effect of religious affiliation on PBC was found statistically significant [F (4,399) = 2.885, p = 0.022]. The results of Scheffe post-hoc test demonstrated that the Islam group exhibited a statistically higher effect of religious affiliation on PBC than the Buddhism group (p = 0.039). The mean difference (I-J) between the Islam group and Buddhism group was 0.42092. With that, the Islam group displayed a higher level of PBC than the Buddhism group. As for the comparison of PBC between other religious affiliation groups, no statistical difference was found.

5. Conclusion

Focusing on the selection of environmentally friendly hotels in China, the extended TPB model that incorporated attitude, SN, PBC, intention and religiosity was empirically tested. In addition, this study also assessed the mediation effect of GPA on the influence of SN on GPI. This study empirically supports the validity of the theoretical foundations used, where a direct causal path of values or beliefs (i.e. religiosity), attitude and intention was found.

In addition, this study empirically demonstrated that highly religious consumers display more positive GPA in environmentally friendly hotel selection. This study also found that SN significantly and positively affected GPA and confirmed the mediation effect of GPA in the relationship between SN and GPI.

The present study supported the findings of previous studies where PBC significantly and positively influences GPI. Accordingly, the concept of perceived effectiveness of individuals' actions and their applications to environmentally friendly hotels were considered useful in promoting favourable attitudes and environmentally friendly hotel selection, making it a major driving force in the competitive marketing of hotels.

This study also demonstrated that Muslim consumers exhibited a higher level of religiosity than Taoist consumers and more Muslim consumers tend to select environmentally friendly hotels, as compared to Taoist consumers. Furthermore, Muslim consumers were found to display a higher level of PBC than Buddhist consumers. In other words, Muslim consumers display a higher willingness to visit environmentally friendly hotels, even when they encounter difficulties in environmentally friendly hotel selection. Last but not least, Catholic consumers in this study are more likely to obtain and disseminate insights on environmentally friendly hotels to Buddhist consumers. The key findings of this study are illustrated below:

- Religiosity positively and significantly influenced consumer GPA, SN, PBC and GPI to visit environmentally friendly hotels, respectively.
- GPA and PBC positively and significantly influenced consumer GPI to visit environmentally friendly hotels, respectively.
- SN positively and significantly influenced GPA. However, SN displayed an insignificant effect on GPI. Furthermore, GPA mediated the relationship between SN and intention to visit environmentally friendly hotels.
- Muslim consumers exhibited higher religiosity than Taoist consumers and higher PBC than Buddhist consumers. Further, Catholic consumers exhibited a higher SN than Buddhist consumers towards environmentally friendly hotel selection.

6. Implications of the study

6.1 Theoretical implications

Firstly, this study was among the first that empirically tested and validated the significant causal relationships of religiosity, attitude, SN, PBC and intention, using the highly rigorous method of SEM, as well as the relationship between religiosity and environmentally friendly

hotel selection. These findings are especially significant for certain countries or regions with communities which profess a high degree of religiosity, such as the USA, China, Korea, Malaysia, India and Indonesia, as religiosity influences businesses, especially in the creation of consumer products and marketing strategies (Shah Alam *et al.*, 2011).

Second, although numerous studies have acknowledged the direct effects of different aspects of religiosity on consumers' decision-making processes, there has been limited number of studies on the relationship between religiosity and green consumer behaviour, including environmentally friendly hotel selection, in China. The study outcomes offer an alternative perspective on the environmentally friendly hotel selection among the non-Western consumers and valuable insights on the significance of the TPB model in assessing the influence of religiosity.

Moreover, the obtained results confirmed that there is a significant causal path from SN to GPA that leads to GPI. This particular finding in the non-Western context with the application of TRA or TPB was deemed noteworthy, as non-Western countries such as China, Japan and Korea have highly collectivistic communities, as compared to most Western countries (Wang *et al.*, 2020). Non-Western consumers who are highly collectivistic tend to share their experience of the green products or services, such as environmentally friendly hotel selection, to their significant others. This study provided the basis for future research in replicating the quantitative data analyses and understanding the influence of religiosity on consumers' green purchase behaviour.

6.2 Practical implications

There were a number of practical implications for environmentally friendly hotels based on the findings of this study. Firstly, this study highlighted the need for hotel companies to develop different marketing strategies using religiosity as a segmentation variable as most consumers belong to different religious affiliations. The results of this study reaffirmed significant and positive relationships of religiosity as well as the significant relationships of attitude, SN and PBC with environmentally friendly hotel selection in China.

With the insights on the role of religiosity on the selection of environmentally friendly hotel gained from this study, different parts of China should be considered as new prospective markets. The implementation of green strategies for environmentally friendly hotels targeting customers from areas with highly religious populations such as the economically developed provinces in China such as Henan, Fujian and Jiangsu, which have a high proportion of Taoists, and well-known tourism provinces such as Shaanxi and Xinjiang where a majority of Muslim population can be found. This information reveals the distribution of religious groups for targeting by local and international hotels, which plans to market themselves as environmentally friendly hotels.

A better understanding of the different aspects of religions can benefit green hotel managers in developing effective marketing strategies for their business. For example, sensitising religious consumers to a pro-environmental worldview will promote a higher level of green consumption behaviour, including the selection of environmentally friendly hotels. Hotel managers can promote environmental values and perspectives through formal communication channels while focusing on green education initiatives.

The growing demand for religious tourism dictates that certain hotels are motivated to consider religious themes, because the religious tourism is a distinct type of tourism that undergoes a transformation phase (Collins-Kreiner, 2019). The development of unique and personalised products and services has become particularly significant to attract consumers of different religious affiliations in visiting environmentally friendly hotels. For instance, environmentally friendly hotels that adopt Buddhism theme in a Buddhist-populated place can opt to provide organic and vegetarian food. Meanwhile, environmentally friendly hotels catering to Catholics and Protestants can opt to donate

excess food and facilities for charity to improve their reputation. Besides that, the provision of prayer or meditation rooms and the use of certified halal products can attract Muslim consumers given their preferences for halal food and a healthier lifestyle.

6.3 Limitations

There were several limitations in this study. Firstly, data was collected through the use of an online survey. Despite the prevalent use of online survey, it poses several limitations. In this case, non-users were excluded. Secondly, the online survey was conducted in two different timeframes:

- 1 October 2018 to 31 December 2018; and
- 2. 1 November 2019 to 1 December 2019.

The first round of online survey only managed to gather 283 respondents (small sample size). As a result, the second round of the online survey was conducted to gather more respondents for a more comprehensive representation of the target population (Saunders et al., 2011). Past studies identified demographic attributes as one of the most widely used methods to examine consumers' general or green purchase behaviour as such information is readily available and easy to apply for segmentation issues (Wang et al., 2019a). With that, the influence of demographic attributes as determinants of consumers' green purchase behaviour should be explored in future research.

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