International Journal of Hospitality Management 100 (2022) 103094

Contents lists available at ScienceDirect

International Journal of Hospitality Management

journal homepage: www.elsevier.com/locate/ijhm

Eco-friendly hotel stay and environmental attitude: A value-attitude-behaviour perspective

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ARTICLE INFO

Keywords:
Eco-friendly hotels
Environmental concern
Health concern
Altruistic value
Egoistic value
Service quality

ABSTRACT

The growing body of literature around eco-friendly hotels indicates an increase in popularity for such hotels. However, the low booking rate in eco-friendly hotel is a major concern for sustainability and profitability. Therefore, the current study addresses the long-lasting attitude-behaviour gap by investigating the role of environmental concern (altruistic values), health concern (egoistic values), environmental attitude, and service quality on increasing the tourists' eco-friendly behaviour. The model and hypotheses were tested using a two-step approach of structural equation modelling on 450 responses collected from Indian travellers through Amazon Mechanical Turk. The findings suggest that the environmental concern and the health concern are important factors in determining tourists' eco-friendly behaviour. Additionally, service quality emerged as a key factor in bridging the attitude-behaviour gap in the eco-friendly hotel context. Our findings provide insightful implications for hospitality managers, practitioners and policymakers in devising effective marketing strategies.

1. Introduction

The hospitality industry significantly contributes to environmental pollution by emitting greenhouse gases (GHGs) (Nimri et al., 2020). Approximately 75% of the total environment-related problems caused by the hospitality industry may be attributed to unsustainable consumption of natural resources (e.g. overconsumption/wastage of water, energy, and foods) (Aboelmaged, 2018), resulting into an increase in environmental concern and awareness of environmental issues. Consequently, 61% of global travellers prefer visiting eco-friendly hotels (Statista, 2020). Similarly, according to i-Scoop (2020), approximately 33% of guests at the Hilton group of hotels, reported that its eco-friendly characteristics were the prime reason for their stay. Although the popularity for eco-friendly hotels has been on the rise, yet the actual 'stay rate' in such hotels is comparatively low (Rahman and Reynolds, 2016). Thus, the academic community acknowledges this contradiction, which effectively indicates a gap between environmental attitude and eco-friendly behaviour. The resultant attitude-behaviour gap has led scholars such as Agag and Colmekcioglu (2020), Eid et al. (2020), Nimri et al. (2020) to call for investigating the reasons for such a gap, while encouraging future researchers to address the same.

This study aims to specifically address this gap. It investigates the role of values both on attitude and actual behaviour. We argue that the understanding of why travellers stay in eco-friendly hotels not only provides scholars with in-depth insights, but also reduces the gap between travellers' attitude and behaviour. We further note that the use of eco-friendly product quality as a moderator between environmental attitude and actual behaviour may essentially reduce the much debated gap (Cheung and To, 2019), which surprisingly has not yet been considered in hospitality literature. Taking into account the backdrop of the study's context, we thereby chose to include 'service quality' as a moderator, because we believe that within our proposed research model, it would possibly lend a newer dimension, and in the process, help filling the gap in extant literature.

Based on an exhaustive literature review, we also noted that most studies in the context of eco-friendly hotels, have primarily been conducted with western nations (e.g. USA), and a few Asian nations (e.g. Vietnam, and Hong Kong) in mind. There has been limited focus in the Indian context (Verma et al., 2019). This is very interesting given the fact that Indians are believed to be among the most

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https://doi.org/10.1016/j.ijhm.2021.103094
Received 17 May 2021; Received in revised form 21 August 2021; Accepted 14 October 2021
Available online 25 October 2021
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environment-conscious individuals (Paul et al., 2016). In addition, the hospitality and tourism industry contributes approximately 6.5% of total 2019′s GDP of India (Invest India, 2020), and hence, this sector provides stimulus to economic growth. Therefore, in terms of demography, we chose India and Indian travellers, while looking to assess and understand their attitudes and behaviour towards eco-friendly hotels.

Based on this backdrop for our study, we propose two research questions:

RQ1) Do environmental (altruistic value) and health concerns (egoistic value) enhance environmental attitude and eco-friendly behaviour?
RQ2) Does service quality actually moderate the value-attitude-behaviour link?

For answering these research questions, we relied upon the 'Value-Attitude-Behaviour' theory, propounded by Homer and Kahle (1988). The underpinning of this theory focuses on individuals' values that have a significant influence on their decision- making process (Shin et al., 2017). Notably, we considered both altruistic and egoistic values, as both explain the individuals' concern towards others, as well as oneself, respectively. Therefore, in concurrence with previous studies (Yadav, 2016; Prakash et al., 2019), this study treats altruistic values as environmental concern and egoistic values as a health concern. Importantly herein, extant literature showed that both values and attitude does not necessarily translate into eco-friendly behaviour (Dhir et al., 2021; Rahman and Reynolds, 2019). Therefore, we chose to include 'service quality' as a moderator, in order to better understand eco-friendly behaviour of Indian travellers.

This study seeks to contribute to extant literature on eco-friendly hotels in the following ways: first, quite a few scholars in the past, have studied the travellers' response in the context of eco-friendly hotels, using a number of behavioural theories, such as the Theory of Planned Behaviour (Yeh et al., 2021) and Norm Activation Theory (Han et al., 2015). A few others looked to investigate the travellers' attitude-behaviour gap (Agag and Colmekcioglu, 2020; Eid et al., 2020). However, to the best of our knowledge, this study is possibly among the first to use the Value-Attitude-Behaviour theory in order to investigate the travellers' attitude-behaviour gap in the context of eco-friendly hotels. Second, this study considers environmental concern as altruistic values, and health concerns as egoistic values, albeit under the demographic setting of India. This also hasn't been considered in extant literature; and thus, based on our study, we believe future researchers (across the globe) could possibly re-assess this idea in the context of other countries/geographies, and empirically test the interplay of these variables with the travellers' actual behaviour. Thirdly, again to the best of our knowledge, ours is among the first few studies to investigate the moderating impact of service quality on the linkage between value-attitude-behaviour, within the context of eco-friendly hotels of course.

The paper is structured as follows: pursuant to the introduction, we provide insights on the adopted theoretical framework, build our hypotheses. The following section discusses the research methods, which is followed by a section on data analysis and interpretation of results. Thereafter, our findings are discussed in light of prior literature in Section 6. Finally, we conclude with next two sections on 'limitations and future research directions', and 'conclusion of the study', respectively.

2. Theoretical framework and model development

2.1. What are eco-friendly hotels?

The world at large today, is being compelled to be more environmentally conscious (Sadiq et al., 2020). Therefore, understanding the individuals' increasing environmental concern is important, specifically in this case of the hospitality industry, which has triggered the implementation of eco-friendly management practices (Han, 2020; Verma et al., 2019). With rising eco-friendly travellers, eco-friendly hotels for instance, do offer an appropriate base to compare eco-friendly hotels vis a vis non-eco-friendly ones. It may well be worth looking at the competitive advantage that the former (i.e. eco-friendly hotels) holds over the latter, and thereby assess and understand the 'best practices' that they follow (Han et al., 2020, 2018). While on the one hand, it's a question of sustenance in the hotel business, on the other, it is to contribute towards saving the environment (Verma and Chandra, 2018). Notably, the term 'eco-friendly hotel' has been used alternatively in the hospitality industry; some of the common allied nomenclatures that they have used, include 'green hotel' (Yadav et al., 2019), and/or 'sustainable hotel' (Ponnapureddy et al., 2017), and/or 'environment-friendly hotel' (González-Rodríguez et al., 2020). In fact, the term 'eco-friendly' itself reflects some of the actions that have possibly been already taken to decrease the harmful impacts on the environment (Kautish et al., 2019). Suki and Suki (2015, p. 103–104) defined eco-friendly hotels as "nature-oriented, environmentally focused and environment friendly (i.e. eco-friendly) in use of energy, water, and materials that do not exacerbate impacts on the earth and environment." A widely adopted definition of eco-friendly hotels has been proposed by the Green Hotel Association (2008), which refers to them as "environmentally friendly properties whose managers are eager to institute programs to save water, save energy and reduced solid waste while saving money — to help protect our one and only earth." This definition effectively highlights the significance of green management practices, aiming to minimise damage to the environment (Rahman and Reynolds, 2016), and extends the onus to the hotels' employees for educating guests about environmental safety (Kim et al., 2019). Some of the commonly used eco-friendly management practices include bio toilets, low-energy consumable products, water saving systems, advertising organic products, besides educating customers as well as employees about how to save the environment (Verma et al., 2019). According to Yadav et al. (2019), green hotels have been successfully managing their waste inter alia, reducing thereby their consumption of both electricity and water. In the recent past, the Hilton group of hotels has pledged to reduce its carbon footprint, across the group, using an efficient green strategy (Hilton Worldwide, 2016). The Indian hotel industry's behemoth, the ITC group of hotels for instance, has already achieved the status of the world's largest 'water positive' corporation, and has gained the status of being 'carbon positive' by creating certifiable CO2 credits (ITC Hotel, 2020). The Orchid hotel chain in India is also among the frontrunners in adopting eco-friendly management practices, for which it has been awarded an Ecotel certification (Verma and Chandra, 2018).

2.1.1. Eco-friendly hotels and Indian travellers

According to the TripAdvisor (2012), 71% of their global participants surveyed, exhibited strong intention to visit eco-friendly hotels in 2012, while 79% expressed their preference to eco-friendly hotels in 2013 (TripAdvisor, 2013). Similarly, a report by Global News (2019) argued that about 55% of travellers prefer staying at eco-friendly hotels. The Sustainable Travel Report published by Booking.com in 2021 states that 75% of Indian travellers are interested in preserving the local environment by making sustainable choices at lodging facilities. Further, a whopping 94% of Indian travellers preferred staying in eco-friendly hotels in the future (ET Travel World, 2021). In the same vein, Yadav et al. (2019) in their research claimed that 95% of the surveyed respondents are likely to display eco-friendly behaviour. These statistics go on to prove beyond doubt that there has certainly been a significant increase in environmental consciousness in the hospitality industry. On the contrary, sustainable travel report, published in 2020 revealed that 39% of Indians were not even aware of eco-friendly hotels, while 54% of Indians stated that this lack of awareness could possibly be due to the fact that as a country, India does not have enough eco-friendly lodging options. Therefore, lack of knowledge among Indian travellers is

one of the barriers which may results in attitude-behaviour gap in eco-friendly hotel context (Yadav et al., 2019). Although the Indian government has been promoting eco-friendly activities in the hospitality industry, it is still in nascent stage in India (Verma and Chandra, 2018).

2.2. Value-attitude-behaviour theory

The Value-Attitude-Behaviour theory was propounded by Homer and Kahle (1988). It suggests that consumer values are significant in forming environmental attitude, which in turn results in eco-friendly behaviour (Kautish and Sharma, 2019). In fact, the influence of value on behaviour via attitude indicates the following: "influence should theoretically flow from abstract values to midrange attitudes to specific behaviours" (Homer and Kahle, 1988, p. 638). Thus, the presence of 'value' in Value-Attitude-Behaviour theory is indeed an important component that helps researchers understand the individuals' action within a given context. Further, according to the Social Adaption Theory, value may be interpreted as a combination of social cognitions, which effectively lead individuals to act within a particular event (Kahle, 1983). Moreover, as per Schwartz's (1977) Norm-Activation Theory, it is the individuals' values that drive them to perform an action within a specific situation. Specifically, it is because of the individuals' internal values being activated that motivates them to develop cognitive or affective responses, which in turn, are expressed in the form of their actual behaviour.

Value has also been referred to as "a stable belief that facilitates an individual to conduct a particular action or end-state that he/she prefers" (Shin et al., 2017, p.114). Following Rahman and Reynolds (2019) conceptualization, this study considers values as being altruistic and/or egoistic. Schwartz (1968) suggested that altruistic value alludes to one individual, acting on behalf of another, without necessarily thinking of self-benefits within a given situation. Egoistic value on the other hand, alludes to the fact that an individual acts for himself/herself to avoid harm (i.e. act for self-benefits). Extant literature on eco-friendly consumer behaviour suggested that both altruistic and egoistic values do play an important role in determining eco-friendly behaviour (Tan et al., 2020; Verma et al., 2019). Verma et al. (2019) in the context of tourism and hospitality industry observed that altruistic value strongly affects the travellers' orientation towards eco-friendly products, such as eco-friendly hotels. Yadav (2016) on the other hand, noted that egoistic value strongly influences the individuals' orientation towards eco-friendly products. Nevertheless, it may be assumed that both altruistic and egoistic values reflect a concern for the environment. Thus, extant literature suggested that both these values (i.e. altruistic and egoistic) should be considered as environmental concern and health concern respectively (Prakash et al., 2019; Yadav, 2016). We use this phenomenon to understand the role of both altruistic and egoistic values in the context of eco-friendly hotel.

Attitude refers to "an individual's consistent tendency to respond favourably or unfavourably toward an object in question" (Kim et al., 2020, p. 799). In comparison with values, attitude is often considered as being less stable. Researchers in the past have suggested that attitude is more specific, and directly influence the individuals' behaviour (Kim et al., 2020; Verma et al., 2019). This study specifically considers individuals' attitude towards the environment, which may be defined as "a cognitive judgement towards the value of environmental protection" (Lee, 2009, p.88). Therefore, environmental attitude is considered to be among the best predictors of actual eco-friendly behaviour (Nam, 2020; Herbes et al., 2020; Felix et al., 2021). It is thereby operationalised as a consequent of values and results in behaviour (Homer and Kahle, 1988; Shin et al., 2017; Verma et al., 2019).

Importantly, this Value-Attitude-Behaviour theory has been found suitable for this study as: (a) it has been applied under different contexts, including literature on eco-friendly hotels (for example, Kim et al., 2020; Verma et al., 2019). Rahman and Reynolds (2019) conceptualised the Value-Attitude-Behaviour hierarchy model in order to study the influence of values (i.e. altruistic, egoistic, and biospheric) on attitudes (i.e. eco-centric, and anthropocentric), and behavioural intentions (i.e. intention to visit, willingness to pay more, and willingness to sacrifice). (B) The Value-Attitude-Behaviour link helped scholars in the past to investigate the influence of values on attitude and actual behaviour exhaustively (Han et al., 2019). For instance, Shin et al. (2017) studied the influence of values (i.e. altruistic, egoistic, and biospheric) on attitude towards the environment, and the willingness to pay more in the context of organic menus. They observed that biospheric value for instance, does have a significant relationship with attitude, and an insignificant relationship with behaviour. Attitude on the other hand, results in a positive and indirect effect of biospheric values on actual behaviour (willingness to pay more). (c) It focuses on the Attitude-Behaviour gap, one of the significant problems existing in consumer behaviour literature (Cheung and To, 2019), especially within the ambit of the hospitality industry (Verma et al., 2019; Yadav et al., 2019).

2.3. Eco-friendly behaviour

Eco-friendly behaviour has been referred to as "purposeful action that can reduce a negative impact on the environment" (Li et al., 2019, p.29). It has been operationalised as a different behaviour according to contexts; for instance, "recycling behaviour" (Han et al., 2020), "adoption of sustainable transport" (Smith et al., 2019), "water conservation" (Han and Hyun, 2018), "purchase of eco-friendly products" (Wang et al., 2020), "booking of eco-friendly hotel" (Nimri et al., 2020).

Eco-friendly hotel on the other hand, is referred to as "an eco-friendly lodging operation that is pro-active in decreasing its hazardous environmental impact and offers guests a healthy environment, facilities, and accommodations for their overnight stay" (Han, 2020, p. 2816). Therefore, eco-friendly behaviour in hospitality literature may be considered as a willing visit or stay in a hotel, which has eco-friendly practices to minimise harm on the environment. Basing ourselves on this premise, we contextualise eco-friendly behaviour in the hotel context, as the booking of or staying in eco-friendly hotel.

3. Hypotheses development

3.1. Altruistic values (environmental concern), environmental attitude and eco-friendly behaviour

Prior studies (Prakash et al., 2019; Yadav, 2016; Mansoor and Paul, 2021), considered altruistic values as environmental concern, when individuals tend to exhibit pro-environmental behaviour. For example, adopting eco-friendly products to protect the environment, and reflecting thereby a concern for others. Extant literature highlighted that consumers today, are more conscious about the environment due to environmental degradation (Dhir et al., 2021; Sadiq et al., 2021a; Yadav et al., 2019). Choosing eco-friendly hotels over conventional ones, does exhibit the consumers' concern for the environment and for others (Verma et al., 2019). Dunlap and Jones (2002, p. 482) defined environmental concern as "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution." Thus, environmental concern is indeed a significant factor that influences environmental attitude and eco-friendly behaviour (Kim and Hall, 2020; Sadiq et al., 2020, 2021b). Importantly, an increase in the level of environmental concern among consumers is the prime reason as to why there has been a steady growth in footfall in eco-friendly hotels (Han et al., 2018). Thus, we assume that consumers' environmental attitude and eco-friendly behaviour are effectively influenced by environmental concern. Hence, the following hypotheses are proposed:

H1. Environmental concern (altruistic values) significantly enhances environmental attitude.

H2. Environmental concern (altruistic values) significantly influences eco-friendly behaviour.

3.2. Health concern (egoistic values), environmental attitude and eco-friendly behaviour

Individuals exhibiting health concerns reflect their concerns for themselves, a genesis of egoistic values (pro self-concept) (Yadav, 2016). Eco-friendly hotels are considered as health friendly too, as opposed to conventional hotels (Butler, 2008), as they offer facilities like living plants inside the rooms for maintaining the level of oxygen (Trang et al., 2019). Seeking self-benefits (egoistic values), such as better well-being and health are likely to motivate consumers to adopt eco-friendly products (Verma et al., 2019). Health concern thereby may be defined as "the degree to which consumers are aware of the health issues and willing to solve the problems related to health" (Sadiq et al., 2021a, p.4). Scholars such as Huh and Chang (2017), Trang et al. (2019) argued that consumers seeking better health are more likely to stay in eco-friendly hotels. Extant literature suggested that health concern is one of the significant drivers of attitude and eco-friendly behaviour (Chekima et al., 2017; Prakash et al., 2019; Yadav, 2016). Therefore, we argue that consumers who're highly health-conscious are more likely to develop a positive environmental attitude, and thereby exhibit eco-friendly behaviour. Based on the same, we propose the following hypotheses:

H3. Health concern (egoistic values) significantly enhances environmental attitude.

H4. Health concern (altruistic values) significantly influences eco-friendly behaviour.

3.3. Environmental attitude and eco-friendly behaviour

Environmental attitude can be defined as "a cognitive judgement towards the value of environmental protection" (Lee, 2009, p.88). Previous studies on 'green' literature contended that attitude towards environment is among the strongest drivers of eco-friendly behaviour (Dhir et al., 2021; Taufique et al., 2017). Environmental attitude has been found to have a strong influence over the individuals' intention to stay at eco-friendly hotels (Verma and Chandra, 2018; Wang et al., 2018; Yeh et al., 2021). On the contrary, scholars such as Wang et al. (2019), Yadav et al. (2019) argued that an attitude-behaviour gap does exist in literature on eco-friendly hotels, which goes on to imply that the consumers' attitude may not always translate into eco-friendly behaviour. Thus, it is worth noting that extant literature has reported mixed findings, whereby on the one hand, scholars argued that attitude increases eco-friendly behaviour (Verma et al., 2019), while on the other, scholars highlighted an attitude-behaviour gap (Kang and Nicholls, 2021; TM et al., 2021). Such mixed reporting motivated us to investigate the linkage between environmental attitude and eco-friendly behaviour. We assume that there's indeed a positive association between attitude and actual behaviour in the context of eco-friendly hotels, as the consumers' environmental awareness has been steadily increasing over time (Eid et al., 2020). We thereby propose:

H5. Environmental attitude has a positive influence on eco-friendly behaviour.

3.4. The mediating role of environmental attitude

Extant literature highlighted the presence of the attitude-behaviour gap in the context of eco-friendly hotels (Wang et al., 2018). We argue that the gap between attitude and behaviour can be better understood by investigating the mediating role of environmental attitude between values and eco-friendly behaviour. Homer and Kahle (1988) had proposed that attitude mediates the hypothesised association between values and behaviour, and this has also found support from Kautish and Sharma's (2019) study, albeit in the context of eco-friendly behaviour. Nevertheless, a growing body of literature around environmental concern does also indicate that individuals are concerned even about environmental quality, which in turn goes on to influence their attitude towards the environment, and eventually their pro-environmental behaviour (Dhir et al., 2021; Yadav, 2016). Prakash et al. (2019), Yadav (2016) argued that health-conscious individuals are more likely to develop a positive attitude towards environmental safety and self-health safety, which in turn, results in their display of eco-friendly behaviour. In line with the theoretical framework of value-attitude-behaviour, it is plausible to consider environmental attitude as a mediator between values (environmental concern and health concern) and eco-friendly behaviour. Thus, we propose:

H6a–b. Environmental attitude mediates the association of eco-friendly behaviour with environmental concern (altruistic value) and health concern (egoistic value), respectively.

3.5. The moderating role of service quality

Sharma and Jha (2017) reported a moderate link between attitude-behaviour in the context of eco-friendly behaviour. In the same vein, Agag and Colmekcioglu (2020) observed a moderate association between attitude and actual stay in eco-friendly hotels. Lee (2009) on the other hand, reported a weak relationship between attitude and eco-friendly behaviour. Nevertheless, we have noted thus far that besides attitude value does play a significant role in driving eco-friendly behaviour. However, scholars such as Kushwah et al. (2019), Sharma and Jha (2017) found that environmental values have a weak association with eco-friendly behaviour. Therefore, the weak or moderate association, as noted in prior studies is quite concerning, as it suggests that individuals do not necessarily consume 'green' products solely based on their values and attitude towards the environment (Shin et al., 2017). Thus, additional factors should be modelled into the theoretical lens of value-attitude-behaviour to better assess and explain the attitude-behaviour gap (Yadav et al., 2019). Scholars in fact, have suggested several factors, such as perceived consumer effectiveness (Sharma and Jha, 2017), buying involvement (Kushwah et al., 2019), environmental knowledge (Suki and Suki, 2015), and eco-friendly product quality (Cheung and To, 2019), which they believed go on to influence both the value-behaviour and the attitude-behaviour gap. This study considers service quality as a moderator for three reasons: (a) it is one of the key factors in service industry; (b) examining service quality of an eco-friendly hotel is crucial, as it explains the service expectation of travellers from an eco-friendly hotel, and eventually influences its sustenance and the attitude-behaviour gap of travellers (Lee and Cheng, 2018); and (c) to the best of our knowledge, service quality is yet to be studied as a moderator in eco-friendly hotels' literature.

In line with the service quality definition of Parasuraman et al. (1985), we define it as the result of comparison between travellers' expectation and actual performance of service offerings in the eco-friendly hotel. Scholars in the past have suggested that service quality may influence the formation of positive/negative attitude and actual behaviour (Adil et al., 2020; Cheung and To, 2019; Hasan et al., 2020; Ritter et al., 2015). As eco-friendly hotels are considered as lodging building that consumes low energy, produces less waste, and reduces carbon footprint, visitors may be of view that visiting such hotels instead of conventional ones, could reduce harm to the environment, and thereby strengthen their positive attitude, which translates to actual behaviour to protect the environment. An increase in environmental values on reducing carbon footprint and waste generation from the environment could possibly drive consumers to prefer eco-friendly hotels over conventional ones. Taking this discussion further form a service quality perspective, as it is key to sustenance of the hospitality industry, eco-friendly hotels may be assumed to provide a higher service quality, motivating them to display eco-friendly behaviour (Mancini et al.,

2017). We further argue that consumers with a positive attitude towards the environment may also seek better quality of services to prefer eco-friendly hotels over conventional ones. If consumers do have a positive attitude and experience bad service at an eco-friendly hotel, they may not find substantial reason in preferring eco-friendly hotel over conventional one. Hence, they are less likely to stay/visit eco-friendly hotel. Therefore, we assume that better service quality would bridge the gap between environmental attitude and eco-friendly behaviour.

Further, extant literature on the hospitality industry at large, suggests that a hotel's service quality significantly influences the individuals' perceived values and behaviour (Iqbal et al., 2018; Tuncer et al., 2021). As an eco-friendly hotel claims to provide services, which aren't harming the environment, the travellers associate their personal environmental values with such eco-friendly hotels (Rahman and Reynolds, 2019). Offering superior service quality therefore, does positively influence the individuals' value (Iqbal et al., 2018; Oriade and Schofield, 2019). Moreover, individuals high on environmental (altruism) and health (egoistic) concern are more likely to prefer those hotels that have environmental-friendly services and practices, which effectively match the hotels' claim and travellers' expectation (Han and Kim, 2010). On the other hand, inferior service quality would affect both the value and attitude (Hasan et al., 2020; Tuncer et al., 2021). Therefore, we assume that better service quality does enhance the chance of translation of values (environmental concern and health concern) to environmental concern and eco-friendly behaviour. We thereby propose:

H7a–c. Service quality moderates the relationship of eco-friendly behaviour with environmental attitude, environmental concern, and health concern, respectively, such that high quality service offerings strengthen the influence of environmental attitude, environmental concern, and health concern on eco-friendly behaviour.

H8a–b. Service quality moderates the relationship of environmental attitude with environmental concern, and health concern, respectively, such that high quality service offerings strengthen the influence of environmental concern, and health concern on environmental attitude.

3.6. Control variables

The importance of controlling the influence of variables on the desired phenomenon has been well-explained in hospitality literature. Specifically, demographic variables, such as age, gender, and household income are controlled to better understand eco-friendly behaviour (Balaji et al., 2019). Reasons that drive us to use socio-demographic characteristics as control variables are two-fold. *First*, previous scholars (for example, Balaji et al., 2019; Nimri et al., 2020; Okumus et al., 2019; Yadav et al., 2019) have treated it as control variables in the context of eco-friendly hotels. *Second*, although studies have exhibited that socio-demographic variable do have a significant influence on eco-friendly hotel visit behaviour, researchers such as Yadav et al. (2019), and Yarimoglu and Gunay (2020) suggested a lack of consensus in terms of their influence on decision-making related to eco-friendly hotel visit. Wang et al. (2020) studied the influence of age, gender, and income on the intention to visit an eco-friendly hotel, and found that both age and gender failed to influence intention, while income did significantly influence the intention. On the other hand, Han et al. (2011) observed that women are more oriented toward visiting eco-friendly hotels, as opposed to their male counterparts. Chia-Jung and Pei-Chun (2014) found that age significantly influences the travellers' preferences for eco-friendly hotel. For instance, people who are above 41 years of age are more interested in visiting eco-friendly hotels as opposed to those who're below that age. Based on this discussion, we considered age, gender, and household income as control variables to avoid any of their influence on eco-friendly behaviour. Additionally, we also present a macroscopic view on the role of values (environmental concern and health concern) and service quality, vis a vis attitude and behaviour in the context of eco-friendly hotels in India.

Fig. 1 demonstrates the proposed hypothesised relationships.

4. Methodology

4.1. Research design

Following a critical analysis of extant literature on eco-friendly hotels, we propose two descriptive research questions (given in section one). These questions have been answered, using the theoretical framework of value-attitude-behaviour through quantitative methods. The research is quantitative in nature as it draws variables from the well-established relevant literature (Agag and Colmekcioglu, 2020; Cheung and To, 2019; Kim and Han, 2010; Prakash et al., 2019; Yadav, 2016). Additionally, we adopted a cross-sectional approach and conducted an online survey to collect data from our target respondents. In line with the Martínez (2015), and Tanford et al. (2012) suggestion, we also used a non-probability-based quota sampling to identify our target respondents.

4.2. Measure

We employed Roberts and Bacon (1997)'s 4-item scale to measure environmental concern. The sample item herein was 'the balance of nature is very delicate and can be easily upset'. Further, we modified Tarkiainen and Sundqvist's (2005) 3-item scale to measure health concerns in the context of eco-friendly hotels. Herein, a sample item was 'I chose hotel carefully to ensure the good health'. We measured environmental attitude through a 4-item scale from Kim and Han (2010). A representative sample item here was 'For me staying at an eco-friendly hotel when travelling is good'. We also used a 4-item scale from Agag and Colmekcioglu (2020) to measure eco-friendly behaviour. A representative sample item was 'I feel that I have played a great part in helping the environment when I stayed in eco-friendly hotels'. Moreover, we also used a *5*-point Likert scale to measure all the variables, whereby 'strongly disagree' and 'strongly agree' were coded as 1 and 5, respectively. Lastly, service quality in eco-friendly hotels was measured through a 2-item scale adopted from Cheung and To (2019). The sample items were 'Eco-friendly hotels offer ___ service quality than conventional hotels', and 'Eco-friendly hotels have ___ aesthetic properties than conventional hotels'. Notably, the respondents were asked to fill in their responses on a 5-point scale ranging from 1 = 'much lower/much worse' to 5 = 'much higher/much better'.

4.3. Data collection and respondent profile

The Covid-19 pandemic has battered almost every sector, including the hospitality industry (Sharma et al., 2021; Nayal et al., 2021). Thus, while collecting data, we did face some challenges. For instance, a) travel restrictions because of the full/partial lockdowns imposed across the country, due to which, travellers' footfalls were dramatically decreased (Kaushal and Srivastava, 2021). Importantly, collecting larger data sample was not possible, as there were hardly any visitors in any hotels, leave alone eco-friendly ones in the last one year. b) The Indian government has been issuing Covid-19 related travel advisory from time to time, which includes Covid-19 appropriate behaviour. Therefore, to avoid direct (in-person) contact with respondents, we decided to adopt an online survey method to collect the data. After a careful review of all the available online platforms, we preferred to use Amazon Mechanical Turk (MTurk) services for our data collection process. MTurk is considered as a viable source for collecting affordable, reliable, and good quality data (Matherly, 2019). However, at times MTurk may also yield data, which is not reliable, and low in quality (Follmer et al., 2017; Sadiq et al., 2020). Therefore, to reduce the likelihood of receiving low quality data, we adopted an inclusion criteria suggested by Peer et al. (2014) and Sadiq et al. (2021a). These inclusion criteria included: (a)

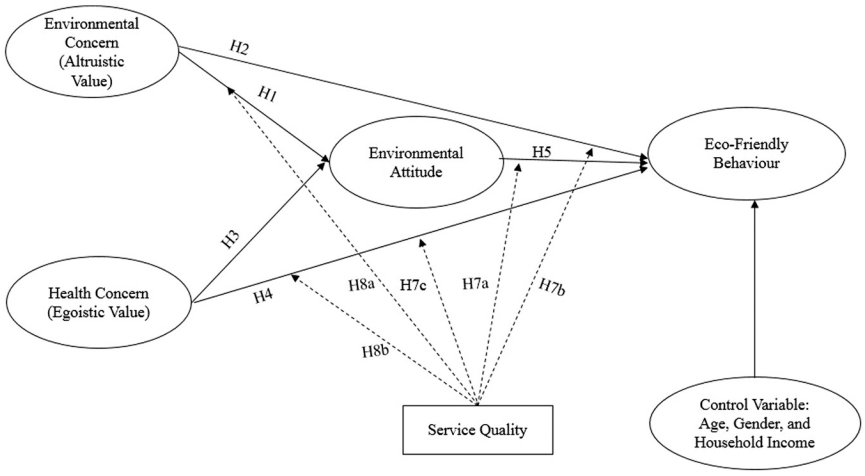


Fig. 1. Research model.

the respondents must have participated in more than 50 surveys; (b) the response acceptance rate should be 98% or more. In addition, we also set the following inclusion criteria to ensure that the data collected from the respondents were based on the following: (a) the participant should be 18 years or older as the eco-friendly concept is difficult and complex to understand by individuals who are below that age (Sadiq and Adil, 2021). (b) The participant should be of Indian origin and an Indian resident. (c) Respondents must have stayed in eco-friendly hotels within the past one year.

We uploaded the questionnaire on Mturk on October 08, 2020, from where we received about 450 responses. According to Hair et al. (2019), the number of responses generated were considered to be appropriate for an advanced multivariate statistical analysis. The recommended sample size should be 15–20 times per items (Hair et al., 2019). As we had 17 items, the minimum sample size required was 20 * 17 = 340. Moreover, extant literature on eco-friendly hotels in India suggested that the sample size between 250 and 500 does provide a reliable finding (Mishra and Gupta, 2019; Verma and Chandra, 2018; Verma et al., 2019; Yadav et al., 2019). Thus, the current sample size (450) was assumed to be suitable for further analysis. The collected data comprised of 257 (57.1%) men and 193 (42.9%) women (see Table 1). Approximately 62.4% of the respondents held an undergraduate degree, while 52.9% belonged to the working class. The average age of the sample and mean household income (monthly) was 32.3 year and ₹62,500 (851.54 USD), respectively. Lastly, 72.6% respondents stayed twice in eco-friendly hotels, followed by those who stayed once (18.7%) and thrice (8.7%). Although the respondents have shown maximum three visits to eco-friendly hotels in the past one year, they may be considered as eco-friendly travellers on the following grounds: a) India reported its first case of Covid-19 on 30th January 2020 (Varghese and John, 2020); therefore, travellers have had approximately 4-months (i.e. from October 2019 to January 2020) to travel freely. Thereafter, the Indian government issued travel restrictions and advisories, followed by a nation-wide lockdown that continued for several months with conditional unlocking (Kaushal and Srivastava, 2021). Hence, travellers' visits between 1 and 3 times to eco-friendly hotels during those 4 months period should be seen as the individuals' concern for both environment and health. b) Further, we reviewed relevant literature and observed that previous scholars (for example: Choi et al., 2015; Lee and Cheng, 2018; Yadav et al., 2019) have also considered those visitors as part of their study who had stayed/visited eco-friendly hotels for 1–5 times. However, the important caveat here was that these studies were conducted pre-Covid; thus, the travellers have had the liberty to visit destinations as per their wish and convenience. c) We also chose to consult two experts (one from the tourism and hospitality industry and another, a senior academician from one of the premium tourism and travel management institutes in India) who had more than 25 years of work experience each in their respective fields. In view of the pandemic situation, their suggestion to consider 1–3 visits to eco-friendly hotels offered support for this study.

Table1
Respondents' demographic details.

Demographic characteristics		Numbers	Frequency (%)
Gender	Male	257	57.1
	Female	193	42.9
Education	Intermediate	16	3.6
	Undergraduate	281	62.4
	Post-graduate	116	25.8
	Ph.D.	37	8.2
Occupation	Student	23	5.1
	Service worker	238	52.9
	Business owner	137	30.4
	Retired	52	11.6
Number of times visited eco-friendly hotels	1	84	18.7
	2	327	72.6
	3	39	8.7
		450	100

4.4. Statistical analysis

Following Anderson and Gerbing (1988) and Dash and Paul (2021), we adopted a two-step method to conduct structural equation modelling (SEM) using AMOS. Khan and Adil (2013) suggested commencing with a descriptive analysis of the collected data in case of co-variance based SEM. Therefore, we tested for the missing values, normalcy of the data, and outliers, using IBM SPSS. Thereafter, we tested for common method bias (CMB) to ensure that the data collected were free from self-perception bias. Lastly, we conducted SEM to test our hypothesised research model (Anderson and Gerbing, 1988).

5. Results

5.1. Descriptive analysis

Through a frequency test, we checked for the missing values. It highlighted that our data collected did not have any missing values. Thereafter, we tested the outliers, using Cook's distance technique. Stevens (2012) suggested that data are considered to have outliers when Cooks' distance for any response is greater than 1. Our results highlighted that the data was free from any outliers. Lastly, we tested for the normality of the data through the skewness and kurtosis. George and

Mallery (2013) suggested that both values should be between + 3 and − 3. We observed that the values of both skewness and kurtosis to be between the recommended range; therefore, the collected data was closed to the normal distribution.

5.2. Common method bias (CMB)

We conducted CMB to ensure that our data were free from bias. Additionally, we chose to adopt a multi-level approach, wherein (a) we used reversed coded items to ensure that the respondents didn't lose their focus while answering the questionnaire. (b) Thereafter, we also used the Harman's single factor test, wherein the results indicated that the highest total variance value explained for a single factor was 37.24%, which was less than the recommended 50% (Podsakoff et al., 2012). It was confirmed thereby that the data was free from bias. Further, in line with Dhir et al. (2021), we used the marker-variable technique in CFA to re-ensure that the data was indeed free from bias; here too, the findings affirmed that the data collected were indeed free from any CMB related issues.

5.3. Measurement model

We tested for the measurement model through confirmatory factor analysis (CFA) using maximum likelihood estimation. The initial analysis showed that the model indices were not considered to be a good fit ($\chi 2/df = 3.27$, $GFI = 0.87$; $CFI = 0.85$; $TLI = 0.88$; $RMSEA = 0.079$). Thereafter, we checked the estimates, which revealed that 2 items (EC4, EFB4) exhibited low factor loadings. Notably, after eliminating those 2 items, the model indices loaded cleanly ($\chi 2/df = 1.84$, $GFI = 0.96$; $CFI = 0.98$; $TLI = 0.97$; $RMSEA = 0.043$), i.e. above the recommended values for a good model fit.

Further, we checked the reliability and validity of the model. The internal consistency of the model was tested through composite reliability (CR). The results showed that the CR values ranged between 0.80 and 0.833, which is greater than the recommended value of 0.60 (Hair et al., 2019). Moreover, Cronbach's alpha was also found to be above the recommended cut off value (0.70) (Hair et al., 2019). Thereafter, we tested both the convergent and discriminant validity of the model. We found that the average variance extracted (AVE) for all the factors ranged between 0.561 and 0.614, which is above the suggested value (0.50) (Table 2), and hence, did support convergent validity. Table 3 demonstrates the squared multiple correlation between variables, and compares each variable's AVE value. As all the AVEs had a greater value, discriminant validity was established.

5.4. Structural model

Next, we tested the structural model. The indices of model fit exhibited that the structural model had a good fit ($\chi 2/df = 1.97$, $GFI = 0.95$; $CFI = 0.96$; $TLI = 0.96$; $RMSEA = 0.048$). The hypothesised relationships (H1–H5) were examined, and were found to be supported (Table 4). Specifically, the relationships of environmental concern with environmental attitude (H1: $\beta = 0.478$, $p < 0.001$) and eco-friendly behaviour (H2: $\beta = 0.25$, $p < 0.01$) were significant and thereby supported. Similarly, the relationship of health concern with environmental attitude (H3: $\beta = 0.537$, $p < 0.001$) and eco-friendly behaviour (H4: $\beta = 0.287$, $p < 0.01$) were also found to be significant and supported. We found that the association between environmental attitude and eco-friendly behaviour (H5: $\beta = 0.107$, $p < 0.05$) was significant, supporting H5 thereof. We also used socio demographic variables as control variables to remove their undue effect on eco-friendly behaviour (Yadav et al., 2019). Herein, we found that control variables (age: $\beta = -0.03$, $p = 0.31$, $t = -1.09$; gender: $\beta = -0.04$, $p = 0.27$, $t = -1.13$; and household income: $\beta = 0.08$, $p = 0.21$, $t = 1.83$) do have insignificant influence on eco-friendly behaviour. Further, we noted that almost 68% of the variance under environmental attitude was explained both by

Table 2
Measurement model results.

Variable (Source)	Items	Factor Loadings	CR	α	AVE
Environmental Concern (Roberts and Bacon, 1997)	The balance of nature is very delicate and can be easily upset	0.80	0.826	0.789	0.614
	Human beings are severely abusing the environment	0.76			
	Humans must maintain the balance with nature in order to survive	0.79			
Health Concern (Tarkiainen and Sundqvist, 2005)	I chose hotel carefully to ensure the good health	0.73	0.800	0.793	0.574
	I didn't consider myself as a health conscious consumer[R]	0.81			
	I think often about health related issues	0.73			
Environmental Attitude (Kim and Han, 2010)	For me staying at an eco-friendly hotel when travelling is good	0.72	0.833	0.821	0.561
	For me staying at an eco-friendly hotel when travelling is not desirable[R]	0.83			
	For me staying at an eco-friendly hotel when travelling is pleasant	0.75			
	For me staying at a eco-friendly hotel when travelling is ethical	0.69			
Eco-Friendly Behaviour (Agag and Colmekcioglu, 2020)	I feel that I have played a great part in helping the environment when I stayed in eco-friendly hotels	0.79	0.818	0.815	0.601
	I feel more comfortable when I visit normal hotels rather than eco-friendly hotels[R]	0.83			
	There is not much I can do about the environment, and my experience of eco-friendly hotels does not change my belief	0.70			

CR = Composite Reliability; α = Cronbach's alpha; AVE = Average Variance Extracted; [R] = Reverse Coded item.

Table 3
Discriminant validity.

Variable	EC	HC	EA	EFB
EC	***0.614***			
HC	0.299	***0.574***		
EA	0.138	0.108	***0.561***	
EFB	0.241	0.141	0.067	***0.601***

EC: Environmental Concern; HC: Health Concern; EA: Environmental Attitude; EFB: Eco-Friendly Behaviour; Bold and italics numbers are AVE; Non-bold and Non-italics number are square of correlation between the variables.

Table 4
Hypothesised results.

Hypothesis number	Relationship	β- value	Sig.	Support
H1	EC→EA	0.478	.001	Yes
H2	EC→EFB	0.25	.01	Yes
H3	HC→EA	0.537	.001	Yes
H4	HC→EFB	0.287	.01	Yes
H5	EA→EFB	0.107	.05	Yes

EC: Environmental Concern; HC: Health Concern; EA: Environmental Attitude; EFB: Eco-Friendly Behaviour.

environmental concern and health concern. Approximately 47% of the variance here, was explained through eco-friendly behaviour by environmental attitude, environmental concern, and health concern.

To re-validate our results, we tested an alternative model by adding a path from service quality to environmental concern and health concern. Indices for alternative model were not a good fit (χ^2/df = 4.97, GFI = 0.84; CFI = 0.82; TLI = 0.77; RMSEA = 0.091). Moreover, the additional paths were also insignificant (service quality→ environmental concern: β = 0.07, p = 0.12; service quality→ health concern: β = 0.05, p = 0.38). This further provides support to the actual structural model. The possible justification for the findings of additional paths could be that the travellers were likely not to be influenced by the service quality of eco-friendly hotels because of their high degree of personal values (i.e. environmental and health concern). Though eco-friendly hotels are generally considered to provide inferior services, as opposed to their conventional counterparts, yet travellers prefer eco-friendly hotels because of their altruistic and egoistic values (Verma et al., 2019). Further, Paul et al. (2016) revealed that Indians are considered to be more environmentally conscious than individuals from developed nations' including the USA, UK, and Australia. Nevertheless, Indians seem to lack knowledge about eco-friendly hotels (Booking.com, 2020), which effectively restricts our understandings. Therefore, we believe future researchers should collect data from a more diverse demographic, and a larger database to better understand the eco-friendly behaviour of Indians in the hospitality industry.

5.5. Indirect effect

The mediating role of environmental attitude was tested through Model 4 of Process Macro in SPSS. The analysis revealed that environmental attitude partially and significantly did mediate both the relationships of eco-friendly behaviour with environmental concern and health concern respectively, supporting H6a and H6b thereof. Tables 5 and 6 demonstrate the results of direct, total, and indirect relationships between environmental concern, health concern, environmental attitude, and eco-friendly behaviour.

5.6. Moderation analysis

The moderating role of service quality was tested through multi-group analysis in AMOS (Byrne, 2004). Usually, this method encompasses two important steps; first, 'measurement invariance', to identify the invariance between the variable and latent constructs between sample groups. The second, 'structural invariance', looks to identify the invariance in structural path between the sample groups (Byrne, 2004). Thus, to run a moderation analysis, we followed the suggestions of Kautish et al. (2019), and used the median split process to divide service quality under two groups i.e. high service quality (n_1 = 133) and low service quality (n_2 = 317).

We tested unconstrained model fit indices (χ^2 = 736.058; df = 189; p = 0.017, CMIN/DF = 3.894; GFI = 0.896; CFI = 0.902; TLI = 0.895; and RMSEA = 0.078), and found them to be well within the threshold level (Hu and Bentler, 1999). Further, a constrained model was made to compare it with unconstrained model in terms of chi-square test of difference ($\Delta\chi^2$) for specifically testing the invariance between high service quality and low service quality group (Savalei and Kolenikov, 2008). After that, we found that the invariance among both high and low service quality group was not established. We assumed therefore that both groups are effectively different ($\Delta\chi^2$ = 216.991; Δdf = 48; p = 0.000). Thereafter, we used partial metric invariance (PMI) as full metric invariance was not supported (Byrne, 2004). Thus, we chose to constrain the structural paths in one at a time to identify which path was actually different across the two groups considered. The results showed that the association between environmental attitude and eco-friendly behaviour was significantly different ($\Delta\chi^2$ = 4.83; Δdf = 1; p < 0.05), both across high service quality group (β = 0.36; p < 0.01) and low service quality group (β = 0.21; p < 0.05). However, the relationship between environmental concern and eco-friendly behaviour did not vary significantly ($\Delta\chi^2$ = 2.74; Δdf = 1; p > 0.05) across high service quality group (β = 0.09; p < 0.05) and low service quality group (β = 0.02; p > 0.05). Similarly, we also noted that health concern both significantly and positively did influence eco-friendly behaviour (β = 0.11; p < 0.05) across high service quality group, while it was insignificant across low service quality group (β = 0.04; p > 0.05). The variation between these two sample groups was insignificant ($\Delta\chi^2$ = 2.87; Δdf = 1; p > 0.05), supporting thereby hypothesis H7a; while H7b–c was not supported. Furthermore, we also noted that service quality does not moderate the effect of environmental and health concern on eco-friendly behaviour, while it did moderate the relationship of environmental attitude and eco-friendly behaviour. Therefore, the moderating results reflect that better service quality seems to help in bridging the gap between attitude and behaviour in the context of eco-friendly hotels (Table 7).

Further, the relationship between environmental concern and environmental attitude ($\Delta\chi^2$ = 2.79; Δdf = 1; p > 0.05) was not to be

Table 5
Mediation analysis.

EC→EA→EFB						
	β	se	T	P	LLCI	ULCI
EC→EA	0.258	.04	2.91	0.05	0.043	0.139
EC→EFB	0.21	.04	2.78	0.05	0.039	0.108
EA→EFB	0.192	.04	2.32	0.05	0.038	0.095
Total effect	0.242	.04	2.87	0.05	0.043	0.135
HC→EA→EFB						
	β	se	t	P	LLCI	ULCI
HC→EA	0.196	.04	2.41	0.05	0.041	0.102
HC→EFB	0.23	.04	2.88	0.05	0.047	0.113
EA→EFB	0.219	.04	2.76	0.05	0.043	0.108
Total effect	0.228	.04	2.85	0.05	0.046	0.113

Table 6
Indirect effects.

	Effect	se	LLCI	ULCI	Mediation
EC→EA→EFB	0.049	.02	0.015	0.066	Partial
HC→EA→EFB	0.042	.02	0.014	0.059	Partial

Table 7
Moderating effect of service quality.

Hypotheses		High service quality		Low service quality		$\Delta\chi^2$	Moderation
		β	P	β	P		
H7a	EA→EFB	0.36	0.01	0.21	0.05	4.83*	Yes
H7b	EC→EFB	0.09	0.05	0.02	ns	2.74ns	No
H7c	HC→EFB	0.11	0.05	0.04	ns	2.87ns	No
H8a	EC→EA	0.14	0.05	0.07	ns	2.79ns	No
H8b	HC→EA	0.12	0.05	0.05	ns	2.93ns	No

ns = non-significant.
* P ≤ 0.05.

significantly different. Because the influence of environmental concern on environmental attitude was significant in high service quality group ($\beta = 0.14$; $p < 0.05$), while insignificant in low service quality group ($\beta = 0.07$; $p > 0.05$). Similarly, health concern did have a significant association with environmental attitude in high service quality group ($\beta = 0.12$; $p < 0.05$), while it was insignificant in low service quality group ($\beta = 0.05$; $p > 0.05$). Moreover, the difference between constrained and unconstrained model was not significant among the given groups ($\Delta\chi^2 = 2.93$; $\Delta df = 1$; $p > 0.05$), hypotheses H8a–b were not supported thereof.

6. Discussion and implications

We looked to fulfil two research objectives, wherein (a) our research model explained how travellers make eco-friendly stay behaviour decisions based on their environmental concern (altruistic values) and health concern (egoistic values). (b) Our research model also explained the moderating role of service quality in bridging the value-attitude-behaviour gap in eco-friendly hospitality literature. In order to achieve the above-mentioned objectives, we grounded our research model in the value-attitude-behaviour theory (Homer and Kahle, 1988), and tested five primary hypotheses and three secondary (two mediating and five moderating) hypotheses.

The results of our study support H1, which talked about the influence of environmental concern (altruistic values) on environmental attitude. Further, the findings based on H1 reveal that an individual's level of concern for the environment would develop a positive environmental attitude ($\beta = 0.478$, $P < 0.001$), which in turn, effectively concur with previous literature (for example, Prakash et al., 2019; Rahman and Reynolds, 2016; Verma et al., 2019, Yadav, 2016), while contradicting the findings of Dhir et al. (2021). Similarly, our findings support to H2, which talked about the association between environmental concern and eco-friendly hotel behaviour. Herein, our findings showed that environmental concern does have a positive and significant influence on eco-friendly hotel behaviour ($\beta = 0.25$, $P < 0.01$). This finding concurs with Sadiq et al. (2020), Tam and Chan (2018) studies, while contradicting Dhir et al. (2021), Smith and Paladino (2010) studies. The plausible justifications for both H1 and H2 could be that Indian travellers are generally considered to be highly concerned for the environment, and believe that performing eco-friendly activities would maintain a balance between nature and human beings (Sadiq, 2019; Verma et al., 2019). Further, the feelings of 'I al 1 a.m. not responsible for everything' is low in Indian travellers (Verma et al., 2019), which effectively highlights the presence of altruistic values.

Our results also support H3, which talked about the positive relationship between health concern (altruistic values) and environmental attitude. Herein, the finding states that health concerns do positively and significantly influence environmental attitude ($\beta = 0.537$, $P < 0.001$). This concurs with the findings of Prakash et al. (2019), Testa et al. (2019), Yadav (2016), while contradicting the findings of Smith and Paladino (2010). Further, H4 was also supported, wherein the results state that health concerns both positively and significantly influence eco-friendly behaviour ($\beta = 0.287$, $P < 0.01$). This finding concurs with Chekima et al. (2017) study. In fact, through the findings, it is believed that health motives are among the key drivers for adopting pro-environmental behaviour, such as preferring to stay in eco-friendly hotels over conventional ones. Moreover, extant literature on eco-friendly behaviour does suggest that individuals' concern for self is relatively higher than the concern for others, which consequently motivates them to adopt eco-friendly products (Ghazali et al., 2017; Yadav, 2016). Additionally, in the hospitality context, individuals' concern for hygiene, tend to regulate their eco-friendly behaviour decision-making (Talwar et al., 2020).

Our findings also supported H5, which talked about the environmental attitude-behaviour gap in the context of eco-friendly hospitality (Han et al., 2019; Verma et al., 2019). We stated that environmental attitude does have positive and significant influence on eco-friendly behaviour ($\beta = 0.107$, $P < 0.05$), indicating thereby a weak association between the two variables. In fact, this gap has also been pointed out earlier by Dhir et al. (2021) and Taufique et al. (2017). The possible reason for this gap may be owed to the difference between individuals' words and deeds (Cheung and To, 2019). Suki and Suki (2015), Jaiswal and Kant (2018) suggested that lack of environmental knowledge results in this gap. Besides, social norms are also found to be influencing this gap significantly, especially within the context of eco-friendly behaviour (Al-Swidi et al., 2014). Extant literature also highlighted that if the social influencer does display eco-friendly activities, there is a likelihood that the society at large would follow, which possibly in turn, may reduce the attitude-behaviour gap (Al-Swidi et al., 2014; Goldstein et al., 2008).

Holistically, from our findings it is evident that values (altruistic and egoistic) do have a positive and significant relationship with eco-friendly behaviour. However, the reasons for such relationship between values and eco-friendly behaviour are pertinent to investigate. Thus, to gain deeper insights, we tested two mediating hypotheses (H6a and H6b). Notably, both were partially supported, concurring thereby with the findings of Cheung and To (2019), Homer and Kahle (1988), Shin et al. (2017), who highlighted that values do influence the attitude development towards a particular action, which in turn, goes on to increase the likelihood of exhibiting the 'actual behaviour'.

We discussed the attitude-behaviour gap, and proposed H7a to test the moderating effect of service quality. Herein, as noted earlier, our findings did support H7a, which talked about the moderating role of service quality on the link between environmental attitude and eco-friendly behaviour. We pointed out that better service quality does enhance the influence of environmental attitude on eco-friendly behaviour, This observation concurs with Cheung and To's (2019) study. The plausible justification for such a finding could be that hotels that provide good eco-friendly services do tend to increase the individuals' belief in their claims, and thereby strengthen the travellers' likelihood of preferring eco-friendly activities at hotels (Merli et al., 2019). We also tested the moderating effect of service quality on the relationship of eco-friendly behaviour with environmental concern (H7b) and health concern (H7c). Interestingly, as noted earlier, both the hypotheses were not supported, indicating thereby that service quality does not seem to motivate environmental and health conscious travellers to display eco-friendly behaviour. Moreover, when a hotel does provide high standard services as per their promises to travellers, the impact of environment ($\beta = 0.09$) and health concerns ($\beta = 0.11$) was significant, but not very impactful on eco-friendly behaviour. Further, we proposed two hypotheses to test the moderating impact of service quality on the relationship of environmental attitude with environmental concern (H8a) and health concern (H8b), respectively. We did not find support for both hypotheses, which reflects that eco-friendly hotels' service quality does not necessarily moderate the relationship between environmental concern and attitude, neither health concern and environmental attitude. Additionally, we observed that the association of environmental attitude with environmental concern ($\beta = 0.14$) and health concern ($\beta = 0.12$) was significant, but had a limited impact on the travellers' attitude towards the environment. These results are surprising, as they statistically contradict our assumptions, while reflecting in the process that the service quality of eco-friendly hotels offered to travellers with both environmental and health concerns are less likely to develop environmental attitude, and thereby display eco-friendly behaviour. The possible justifications for this insignificant moderating effect of service quality could be as follows: first, may be it is related to the geographical context of this study, wherein Indians by and large, may actually be suffering from issues, such as inferior service quality and green-washing. This assumption stems from Rahman and Reynolds (2019) study, whereby they observed that eco-friendly hotels are generally perceived to provide inferior services as opposed to their conventional counterparts, due to which, travellers refrain from paying

more for such hotels. Rahman et al. (2020) and Yeh et al. (2021) also suggested that eco-friendly hotels offered less service under the banner of environmental safety as opposed to conventional hotels, albeit at the same price, which effectively makes it difficult for travellers to choose eco-friendly hotels. Moreover, according to TripAdvisor (2012), 60% of hotel travellers are generally hesitant to trust the eco-friendly initiatives of the hotel because of green-washing. For example, several 'green' hotels showcase their eco-friendly activities by displaying a sign board 'save the planet: re-use towels' to lure environment-conscious travellers. However, in reality it is rarely found that hotels actually look to save energy in their laundry operations (Garza, 2011). Additionally, we also feel that these relationships do need to be re-investigated, possibly time and again, with a larger sample size, and varied demographic characteristic to better understand this phenomenon, and thereby make a conclusive statement.

6.1. Theoretical implications

This study contributes significantly to theory in extant literature of eco-friendly hotels. First, although we studied eco-friendly hotels through different behavioural theories, such as the theory of planned behaviour (Yadav et al., 2019; Yeh et al., 2021), value-belief-norm theory (Han, 2015), and motivation protection theory (Peng and Chen, 2019). Notably, very few studies in the past focused on understanding the linkage between value-attitude-behaviour within the context of eco-friendly hotels (see: Rahman and Reynolds, 2019; Verma et al., 2019). To the best of our knowledge, most studies (for example: Rahman and Reynolds, 2019; Verma and Chandra, 2018; Verma et al., 2019; Yadav et al., 2019) that have been conducted thus far, have primarily focused on the travellers' visit intention towards eco-friendly hotels. However, our study models travellers' actual behaviour towards eco-friendly hotels, offering thereby a keener understanding of the travellers' response to eco-friendly hotels. Second, this is possibly among the first studies to consider altruistic values as environmental concern, and egoistic values as health concern, again in the context of eco-friendly hotels. Herein, our study contributes significantly to broadening the scope of theory insights, and offers thereby a new lens to understand the impact of values on eco-friendly behaviour. In fact, this study would help future researchers conceptualise the values under varied contexts in order to have a keener understanding of the travellers' behaviour. Lastly, as noted earlier, empirical studies in this domain identified a gap in literature, especially relating to the integration of the value-attitude-behaviour theory with service quality as a moderator. Importantly, the theory adopted had already been used in the retailing context (see Cheung and To, 2019), with 'product quality' as a moderator, in an attempt to bridge the attitude-behaviour gap. Given our backdrop of the hospitality industry, we chose to use service quality as a moderator, which in itself marks a salient step towards explaining the travellers' behaviour towards eco-friendly hotels. In fact, our study is again among the first to employ service quality as a moderator on the value-attitude-behaviour linkage, especially within the ambit of eco-friendly hotels. In doing so, we have effectively expanded upon extant literature, addressing the value-attitude-behaviour linkage in the context of eco-friendly hotels.

6.2. Managerial implications

Our study does offer some significant insights for hoteliers, managers, and policy-makers too. First, our findings reveal that eco-friendly hotels should consider the travellers' altruistic and egoistic values, while developing an eco-friendly offering in order to increase their consumer base. This study provides empirical evidence to support that both altruistic (environmental concern) and egoistic (health concern) are important variables in determining the travellers' environmental attitude and eco-friendly behaviour. Hence, eco-friendly hotels are suggested to develop promotional strategies that may convey the message of their orientation towards environmental safety, which in turn, would possibly strengthen the travellers' environmental and health consciousness, with attitude towards environmental safety. Notably, this could be achieved through a method of 'green option matrix' (Dangelico and Pontrandolfo, 2015), evaluating 'competitors' eco-friendly offering and practices in developing an effective promotional strategy to communicate specific eco-friendly practices to its stakeholders. Further, eco-friendly hotels could also disseminate information on environmental harm done by conventional hotels, and thereby could educate the travellers to engage them proactively in protecting the environment.

Second, with weak association, we offer empirical support that the travellers' attitude towards the environment does not often translate into eco-friendly behaviour. This signals therefore an attitude-behaviour gap. Eco-friendly hotels are thereby suggested to strengthen their brand credibility and earn the travellers' trust with their eco-friendly offerings. This could be achieved by eco-friendly hotels by including a customer-centric approach in their communication strategy, whereby they could regularly communicate how their eco-friendly offerings were actually being beneficial for the environment, the travellers' health and the overall sustenance of the planet. This approach would increase the travellers' environmental concern (altruistic values) and health concern (egoistic values), and in the process, reduce the travellers' skepticism, bridging thereby the attitude-behaviour gap. In addition, as values (egoistic and altruistic) are personal factors, eco-friendly hotels could possibly apply segmentation strategy to identify the travellers that have high concern for the environment and their health, and prefer eco-friendly hotels to conventional ones. Herein, to gain the travellers' attention, eco-friendly hotels could possibly offer customised eco-tour packages.

Lastly, in terms of the role of service quality in improving value-attitude-behaviour linkage, we provide new insights, wherein we affirm that high or low level of service quality does affect the travellers' attitude development and actual behaviour towards eco-friendly hotels. Poor quality of eco-friendly services, such as poorly re-using towel services may lead to skepticism and negative attitude, which in turn, would result in further barriers to eco-friendly behaviour. Eco-friendly hotels are thereby suggested to focus on developing strategies that improve the service quality and communicate effectively benefits of their eco-friendly services for bridging the attitude-behaviour gap. Moreover, eco-friendly hotels may also consider establishing an 'environmental management reporting system', which effectively disseminates information related to their eco-friendly activities (services) to potential and actual travellers. Additionally, eco-friendly hotels may also encourage their travellers to provide testimonials about their eco-friendly activities and services, so that they could use these testimonials as their promotional tools. They could also subscribe to ISO9000 and partner with other eco-friendly organisations that may motivate the travellers to prefer eco-friendly hotels over conventional ones. These suggested strategies could possibly help eco-friendly hotels in establishing a long-term customer relationship by bridging the attitude-behaviour gap.

7. Limitations and directions for future research

Though we conducted this study with scientifically proven procedures, yet it suffers from some limitations. First, the data were collected from India, which has similar economic status to other emerging nations, such as China, but has different cultural settings. Therefore, the findings lack generalisability to other cultural settings. Second, the respondents were approached through a non-probability based sampling method, which has issues of respondent selection bias, and therefore, may again restrict the generalisability of the findings. Next, we used a survey method to generate data, which has issues of social desirability, and thereby may not reflect the actual behaviour of respondents.

The above-mentioned limitations may be dealt upon by researchers in the future. Future researchers are first suggested to test our conceptual model under different cultural settings to test the robustness of the

model, and offer empirical support. Second, to avoid selection bias and social desirability issues, future researchers could adopt probability-based sampling and conduct longitudinal and/or experimental studies. Third, a mixed-method approach could be adopted to better understand the traveller's behaviour towards eco-friendly hotels, as this method offers deeper insights to any phenomena (Han et al., 2020). Fourth, to bridge the attitude-behaviour gap, future researchers could look to extend our model by considering the influence of some additional variables like perceived consumer effectiveness, and religiosity that might help in reducing the gap. Lastly, future researchers may integrate the adopted theoretical framework with other theories such as, ABC theory (Yadav et al., 2019), and commitment-trust theory (Agag and El-Masry, 2016) to better explain the travellers' cognitive process vis a vis their action.

8. Conclusion

Eco-friendly hotel is one of the sources that help in minimizing the harm being done to the environment. Adopting eco-friendly hotels does highlight an environment-friendly and a healthy lifestyle. Nevertheless, eco-friendly hotels are yet to be widely accepted by the masses, especially in emerging economies like India; and this, effectively provides evidence of the attitude-behaviour gap. This study focused on this gap by using the value-attitude-behaviour theoretical framework of Homer and Kahle (1988) in the context of eco-friendly hotels. We proposed two research questions to better understand the travellers' display of eco-friendly behaviour by analysing the collected data from 450 respondents. RQ1: do environmental (altruistic value) and health concerns (egoistic value) enhance environmental attitude and eco-friendly behaviour? To answer this question we investigated the influence of environmental concern (altruistic value) and health concern (egoistic value) on environmental attitude and eco-friendly behaviour. Our findings suggest that both values are important drivers in reducing the attitude-behaviour gap in the eco-friendly hotel. Further, RQ2) 'does service quality moderate the value-attitude-behaviour link?' was answered through analysing the collected data. The finding suggests that a better service quality positively and significantly bridges the gap between environmental attitude and eco-friendly behaviour. In addition, our study broadens the scope of value-attitude-behaviour theory in the eco-friendly hotel context by considering altruistic and egoistic values as environmental and health concerns, respectively. To the best of the authors' knowledge, this is among the first few studies to use value-attitude-behaviour theory in the eco-friendly hotel context and first to consider service quality as a moderator on the relationship between values (environmental and health concern) and environmental attitude and eco-friendly behaviour.

Data availability

Data will be made available on request.

Acknowledgement

Authors acknowledge comments from Dr. Kumkum Bharti (Indian Institute of Management Kashipur) and anonymous reviewers who helped to improve the quality of the paper.

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