

Article

Hotel Employees' Pro-Environmental Behaviour: Effect of Leadership Behaviour, Institutional Support and Workplace Spirituality

Olawale Fatoki 

Department of Business Management, University of Limpopo, Private Bag X1314, Sovenga 0727, South Africa; olawale.fatoki@ul.ac.za; Tel.: +927-15-268-2646

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Abstract: Pro-environmental behaviours (PEB) depict behaviours that cause minimal harm to or even benefit the environment. Employees are an important stakeholder in organisational environmental initiatives; however, there is little understanding of the leadership mechanisms and workplace support that can nurture these behaviours. In addition, empirical studies on the effect of workplace spirituality on employees' PEB are limited. Understanding the factors that can influence employees' workplace PEB is of significance in improving environmental sustainability in the hospitality industry. This study investigated the effect of leadership behaviour, institutional support and workplace spirituality on hotel employees' PEB in South Africa. This study utilised a quantitative research approach and a causal research design. The cross-sectional survey method was used for data collection. Convenience sampling method was used to identify the participants in the survey. Data analysis included descriptive statistics and structural equation modelling. The results of this study showed significant positive relationships between leadership behaviour, institutional support and workplace spirituality and hotel employees' PEB. Theoretically, the study linked spirituality to employees' workplace PEB as spiritual discourses have been marginalised in tourism research. Empirically, the study adds to the literature on the determinants of employees' workplace PEB in the hospitality sector. Practically, the study makes recommendations that can improve the workplace PEB of hotel employees.

Keywords: pro-environmental behaviour; employees; workplace; hotels; leadership behaviour; institutional support; workplace spirituality

1. Introduction

The environmental challenges faced by the world are immense. Environmental risks have topped the Global Risks Reports three times since 2010. Human civilisation, business activities and globalisation are some of the causes of the current environmental problems faced by the world. Environmental problems include global warming pollution, natural resource depletion, climate change, loss of biodiversity and ozone layer depletion. Resource overconsumption and environmental degradation by businesses have led to the call for a sustainable business model that takes into consideration not only profit but also environmental protection [1–3]. Many business organisations are becoming environmentally responsible as evidenced by the inclusion of environmental goals, strategies and practices on their websites and environmental reporting in their annual reports. There is a shift towards including environmental and social contexts in business models and reporting [4,5].

Previous research findings suggest that human behaviours and business activities are some of the major underlying causes of climate change and environmental problems. Human behaviour needs to significantly change to avert environmental disaster [6,7]. One of the ways for individuals and

businesses to reduce their negative environmental impact is to be engaged in pro-environmental behaviour (PEB). Kollmuss and Agyeman [8] describe PEB as behaviours that can reduce the negative impact of individuals on the environment. PEB depicts behaviours that cause minimal harm or even benefit the environment. Studies on PEB have tended to focus on households or private spheres. However, employed individuals spend a major part of their time at work and industrial and commercial activities produce significantly more greenhouse gases emission than homes. Although, studies done on private or household PEB have produced important findings, it is uncertain if the results of those studies can be generalised to the workplace [9,10].

Employees are one of the major actors in the workplace, and the factors that influence their behaviours have been a neglected area in research on PEB. While the management of a firm engages in PEB to meet industry, government or societal expectations, employees' engagement in pro-environmental behaviour is mainly voluntary and at times to meet organisational expectations. The existing empirical studies on employees have focused on employees of environmental departments, employees with environmental activism and top management [11,12]. Leaders are role models and through their behaviour can influence the ethical conduct and prosocial behaviour of employees. Leaders can transfer organisational cultures to employees through social exchange and also control the organisational benefits and rewards that employees receive [13,14]. Institutional support can be described as the actions of an organisation and its managers to encourage, appreciate and improve employees' prosocial behaviour. Environmental leadership and organisational support provided by top management can significantly influence employees' attitudes and behaviour [15,16]. Also, theoretical arguments suggest that workplace spirituality can make a critical contribution to PEB by positively touching on an employee's spiritual needs and inspiring him/her intrinsically, but empirical studies on such an effect are limited [17].

Based on this gap in the literature, the aim of the study is to investigate the effect of leadership behaviour, institutional support and workplace spirituality on employees' PEB in the context of hotels in South Africa. The study will make a contribution to the knowledge on the determinants of employees' workplace PEB. First, employees' workplace PEB has received little empirical attention. Despite the abundance of research on the factors influencing PEB in private and public settings, there is still the need for further investigations of employees' workplace PEB [10]. Second, empirical studies on the determinants of employees' PEB in the hospitality industry in South Africa are scarce. Third, the effect of workplace spirituality on employees' PEB is an under-theorised and under-researched perspective and spiritual discourses have not been thoroughly studied in tourism research [7,18]. This study will extend the knowledge on the relationship between leadership, institutional support and spirituality and employees' workplace PEB. The findings of this study can help the hospitality industry to understand firm-level factors that can be adapted to improve environmental sustainability. South Africa contributes about 1.2% of global emissions and as a signatory to the Kyoto Protocol on climate change, has promised to reduce emissions by 34% by 2020 and 42% by 2025 [19]. Understanding the factors that can improve employees' workplace PEB is of significance in improving business sustainability and ultimately reducing the environmental challenges faced by South Africa and the world. The study is organised as follows: the next section provides the review of the literature on hospitality and PEB. Then, the research methodology, results, discussion and conclusion are presented.

2. Literature Review

This section presents the literature review and the development of hypotheses. The definition and contribution of tourism and hospitality are provided. In addition, the literature on the effect of leadership support, institutional support and workplace spirituality on pro-environmental behaviour is reviewed.

2.1. Tourism and Hospitality Industry

The hospitality industry is a broad category of fields within the tourism industry. There is no agreement about the definition of tourism because of its multidisciplinary nature [20]. The United Nations World Tourism Organisation [21] describes tourism as comprising of activities of individuals that travel to and stay in places that are not their usual abode for a short period of time and for business, leisure and other purposes. Tourism related activities include accommodation, food and beverage services, recreation and entertainment, transportation and travel services. The hospitality industry is the largest segment of the tourism industry [22]. Just like tourism, there is no consensus on the definition of hospitality [23,24]. Department of Labour [25] describes the hospitality sector as a commercial business involved in the provision of accommodation. The hospitality sector includes hotels, motels, lodges, guest houses including bed and breakfast establishments, restaurants, pubs, taverns and cafés. Hotels provide paid accommodation to guests on a temporary or short-term basis with a variety of other benefits such as food and entertainment [26]. The broad tourism industry (including hotels) contributed 8.2% of total investment, 9.6% of total employment and 8.9% of South Africa's gross domestic product in 2017 [27]. Despite the positive contribution of the hospitality industry, its negative impacts include the production and emissions of greenhouse gases, high water and energy consumption. On average, a hotel room discharges between 160 kg and 200 kg of carbon dioxide per year. High water and energy consumption by the hospitality sector put considerable pressure on global resources. Water consumption is between 170 and 400 litres per guest per night for an average five-star hotel. Hotels produce on average 1 kg of waste per guest per night and energy consumption is high. Compared to other commercial buildings, hotels exert the greatest negative effect on the environment and the sustainability of hotel operations has become a strategic imperative. The growing demand by customers, regulators and government for eco-friendly or green hotels has put pressure on hotels to exhibit responsible environmental behaviour [28–30].

2.2. Pro-Environmental Behaviour (PEB)

Pro-environmental behaviour (PEB) is also called ecological behaviour, environment-friendly behaviour, environmentally responsible behaviour, responsible environmental behaviour, environmentally significant behaviour and environmentally related behaviour [31]. Kollmuss and Agyeman [8] describe PEB as behaviours that can reduce the negative impact of individuals on the environment. PEB comprises of all voluntary activities that people undertake to protect the natural environment [11].

Ture and Ganesh [13] point out that PEB can be practiced at home or at work. PEB at the workplace can be described as direct or indirect activities that an individual undertakes at work to improve the natural environment. Fryxell and Lo [32] point out that workplace PEB can be divided into three categories. These are information-oriented behaviours, initiating programs and environmental advocacy. The first type of behaviour focuses on the efforts of employees to obtain necessary information about an organisation's environmental rules and regulations. The second type of behaviour emphasises the activities of employees at work and include the reduction of waste, energy and water consumption and improvement in the usage of paper and environmental standards. The third category of behaviour focuses on the effort of individuals to spread environmental information in the organisation.

Bissing-Olson et al. [33] describe employee PEB as the extent that an employee performs his/her tasks at work in an environmentally friendly way. PEB is based on individual volitional choice, although there can be support structure from the employer or the society. PEB by employees includes: (1) conserving. These are behaviours that avoid waste and preserve resources such as reusing, recycling and reducing use; (2) avoiding harm: these are behaviours that mitigate or reduce environmental damage. These include pollution reduction and steps to restore the environment after damage; (3) transforming. This involves changing to be more sustainable through green products, and renewable energy; (4) influencing others through behaviours that motivate green behaviour; and (5) taking initiatives. These include behaviours that change the status quo such as activism for

the environment [34,35]. PEB is important for firms because: (1) environmental issues attract the attention of different stakeholders and have financial implications; (2) long-term survival of both nature and humanity is dependent on PEB; and (3) waste minimisation and resource conservation are very important because of scarce resources. PEB helps firms to reduce costs, improve operational efficiency, gain competitive advantage and improve financial and environmental performance [13,36].

Several theories can be used to explain PEB at work, especially the link between leaders, owners, managers and employees. The social learning theory [37,38] contends that the majority of human behaviour is learned through modelling and observation of other people. The social information theory [39] argues that acceptable behaviour is learned by subordinates through interaction with and emulation of their roles models usually leaders. The necessary conditions for effective modelling include attention, retention, reproduction and motivation. In addition, the social exchange theory [40] claims that employees reciprocate the behaviour of leaders towards them with their own matched behaviour on mutual reciprocity basis. This can stimulate an emotional link between leaders and followers. The self-determination theory (SDT) [41] is a theory of motivation that supports the inherent tendencies of individuals to behave in an effective and healthy way. Three universal needs are central to SDT. These are the needs for autonomy, for competence, and for relatedness. An individual's social environment is the primary source of need satisfaction. In the work context, leaders are an important factor in satisfying the needs of employees because of their influence on work design and reward mechanism. The four theories (social learning, social information, social exchange and self-determination) show that leaders and institutions can influence subordinate or employee behaviour. Employees can learn appropriate behaviour through observation and modelling. In addition, leaders can stimulate appropriate behaviour from employees through motivation and support.

2.3. Leadership Behaviour and Employees' PEB

Employees' PEB is of vital importance to the success of organisational environmental initiatives and organisational leaders can motivate employees to engage in behaviours that support the environment. However, there is limited knowledge about how leadership can impact on employees' voluntary PEB and the conditions that enhance such an effect. Although PEB at the workplace is often overlooked in research, the findings of empirical research have shown that employee PEB has a positive impact on pollution prevention, sustainable innovation, better environmental performance and more efficient environmental management systems [42,43]. Employee PEB at the workplace is mainly voluntary. Therefore, managers or leaders can only motivate and encourage rather than force employees to engage in such behaviours [10]. One of the ways to achieve employee PEB is for managers to demonstrate their own commitment to the environment. Managers or leaders can send positive signals to employees through environmental leadership. The study by Wesselink et al. [10] find a significant positive relationship between leadership behaviour and employee PEB. Roberson and Carleton [44] find that leaders' environmental descriptive norms positively affect employee PEB and play an important role in the greening of private and public organisations. Han et al. [14] find that there is a significant positive relationship between responsible leadership behaviour for the environment and autonomous and external environmental motivation of employees. Thondhlana and Hlatshwayo [44] indicate that positive attitude by leaders does not always influence employees' PEB due to uncontrollable external factors. While leaders may show PEB in one area, such as recycling, this may not be the case in another area, such as transportation, thereby sending conflicting signals to employees. However, leaders, because of position and power, can serve as role models to employees and can send signals to employees that certain behaviours are expected and valued. This can motivate employees' PEB. Consequently, it is hypothesised:

Hypothesis 1 (H1). *There is a positive relationship between leadership behaviour and employees' workplace PEB.*

2.4. Institutional Support and Employees' PEB

Leadership and organisational support include deliberate activities by an organisation and its managers to encourage sustainability. Perceived organisational support and leadership support are often integrated and labelled institutional support. Thus, institutional support can be described as the activities of an organisation and its managers to encourage and appreciate employees' attitudes and behaviour [15,16]. There are several activities that the management of an organisation can undertake to demonstrate their support and encourage employees PEB. These include efforts to show concern for the environment such as the availability of recycling bin and the appreciation of green behaviours [10]. However, institutional support for PEB may be constrained by a lack of vision, unwillingness to change, lack of engagement and communication with employees and limited financial resources. Many firms have not been able to find a balance between economically oriented and environmentally oriented actions [45]. Encouragement and appreciation by an organisation and its leaders may foster PEB. It is hypothesised:

Hypothesis 2 (H2). *There is a positive relationship between institutional support and employees' workplace PEB.*

2.5. Workplace Spirituality (WPS) and Employees' PEB

Spirituality in the workplace is a multifaceted and complex construct and a single universally acceptable definition of the concept does not exist. It is also called a meaningful workplace [46]. Workplace spirituality (WPS) is not about the recognition and acceptance of a specific belief or religion. It is about a sense of belonging and connectedness in the workplace and leaders and followers that understand one another as spiritual beings. It involves a deep sense of purpose in one's work and represents how employees interact with their daily work at the individual level. It involves the interaction of employees with the larger organisational purpose and connects essence of a worker with his or her task [47–49]. According to Ashmos and Duchon [50], WPS can be defined as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community". Latif and Aziz [18] find that WPS is significantly positively associated with PEB and that the relationship between workplace spirituality and pro-environmental behaviour is indirectly affected by employee engagement. Rezapouraghdam et al. A previous study [7] found that WPS is significantly associated with employees' organisational citizenship behaviour. WPS can improve the intrinsic motivation to think about nature and protect the environment for future generations. It is hypothesised:

Hypothesis 3 (H3). *There is a positive relationship between WPS and employees' workplace PEB.*

The next section will discuss the research methodology for the study. The research design and the operationalisation of measures will be presented.

3. Materials and Methods

Before data collection, the questionnaire was pretested in a pilot study of thirty respondents. The results of the pretesting helped to restructure some questions, remove unclear and sensitive questions and improve face and content validity. The quantitative research method was adopted for the study. The self-administered questionnaire method was used for data collection in a cross-sectional survey. The survey was conducted between September 2018 and March 2019 in Johannesburg and Pretoria in the Gauteng Province of South Africa. Convenience sampling method was used to select three, four and five star hotels that are graded the Tourism Grading Council of South Africa in the study area. Upscale hotels are more likely to be involved in environmental practices compared to other small accommodation types [7]. A letter was written to the management of the forty-two hotels explaining the aim and significance of the study and requesting the participation of their organisations in the survey. Employees (not managers or heads) in the various departments of the hotels were the

respondents. The phone numbers and email addresses of the respondents were obtained during the distribution of questionnaires. The phone numbers and email addresses obtained were confidentially kept by the researcher. Reminders were sent to the respondents every week through emails and phone calls to complete the questionnaire. If questionnaires were not received after one week, the follow-up procedure included telephone calls and email reminders every week. If no response is received after six weeks, it was treated as a nonresponse. The respondents were informed about the aim of the study and that participation was voluntary and confidentiality was assured. This information was contained in the cover page of the questionnaire. To ensure anonymity, the names of the respondents and their organisations were not included in the questionnaire. The Cronbach's alpha was used as the measure of reliability. Data analysis included descriptive statistics and Pearson correlation. In addition, the structural equation modelling (partial least squares (PLS) path modelling) was used to analyse the causal relationship between PEB and leadership behaviour, institutional support and workplace spirituality. The covariance-based approach (CB-SEM) and the partial least squares (PLS-SEM) are the two of the major approaches to SEM [51]. This study used the partial least squares (PLS) path modelling which is a variance based approach to test the research model. PLS SEM can be used to evaluate the measurement of latent variables and also test relationships between latent variables [52]. PLS-SEM was used to carry out both an explanatory and a further predictive analysis. PLS-SEM generally attains higher levels of statistical power and shows much better convergence behavior than CB-SEM [53]. Smart PLS 3.2.7 was the software package used for data analysis. The software, apart from estimating path models with latent variables, also computes standard results assessment criteria for the reflective and formative measurement models, the structural model, and the goodness of fit [54]. The PLS SEM consists of two submodels which are the measurement and the structural models. The measurement model signifies the relationships between the observed data and the latent variables. The structural model shows the relationships between the latent variables [53].

Measures

Three items adapted from previous studies [10,17] and based on the five-point Likert scale (1 = strongly disagree, 5 = strongly agree) were used to measure leadership behaviour. Eight questions adapted from [10] and based on the five-point Likert scale (1 = strongly disagree, 5 = strongly agree) were used to measure institutional support (leadership and organisational support). Workplace spirituality was measured by twenty-one items adopted from [47]. The items were rated on the five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Six items adapted from [43] were used to measure employee pro-environmental behaviour. The items were rated on the five-point Likert scale (1 = never, 5 = always). The measurement scales adapted from previous studies have high psychometric properties as evidenced by their Cronbach's alpha coefficients. Appendix A depicts the full items of the four concepts. Table A1 depicts the questionnaire used in the study.

The next section will present the empirical results. The response rate and biographical information as well as the results of the descriptive statistics and structural equation modelling will be discussed.

4. Results

This section will present the empirical results. The response rate and biographical information as well as the results of the descriptive statistics and structural equation modelling will be discussed.

4.1. Response Rate and Biographical Information

Forty-two hotels were contacted by the researcher and thirty-three hotels agreed to participate in the survey. A total of six hundred and sixty (twenty per hotel) questionnaires were sent out to employees of the participating hotels. Three hundred and sixty-six questionnaires were returned. Seven questionnaires were found unusable because the respondents did not complete some vital parts. Therefore, three hundred and fifty-nine questionnaires were analysed. The demographic information of the respondents revealed the following: 192 male and 167 female respondents. The ages

of the respondents were (166, 31–40 years, 132, 21–30 years, 55, 40–50 years and six above 50 years). One hundred and sixty-five respondents had Matric qualification and 194 post Matric qualification (diploma and degree). One hundred and sixty-five respondents had below five years and 194 respondents had above five years hotel work experience. Independent samples *t*-test and ANOVA results did not indicate any significant differences in the results on the basis of demographic variables (gender, age, level of education and experience). Harman's single factor test was used to identify the presence of common method bias. The result is not significant. This suggests that the interpretation of the findings of this study would not be disturbed by substantial method bias. Therefore, the full data set of three hundred and fifty-nine responses are valid and usable for testing the hypothesised relationships in this study.

4.2. Descriptive Statistics

Table 1 depicts the descriptive statistics using the scale means. The mean score for pro-environmental behaviour is 3.75 with a standard deviation of 0.99. The mean score of leadership behaviour is 3.68 with a standard deviation of 0.91. The mean score of institutional support was 3.60 with a standard deviation of 0.96 and the mean score of workplace spirituality is 4.05 with a standard deviation of 0.99. On a five-point Likert scale, a mean value below three is considered as low, three to four moderate and above four high [55]. The results indicate a moderate level of pro-environmental behaviour, leadership support and institutional support but a high level of workplace spirituality. Dispersion values of the standard deviation showed that the highest value of 1.08 was by institutional support and the lowest value of 0.99 by pro-environmental behaviour.

Table 1. Descriptive statistics.

Construct	Mean	Standard Deviation
Pro-environmental behaviour	3.75	0.99
Leadership behaviour	3.68	1.01
Institutional support	3.60	1.08
Workplace spirituality	4.12	1.05

4.3. Results of Structural Equation Modelling

4.3.1. Measurement Model Assessment

Hair et al. [53] point out that the examination of the indicator loadings is the first in measurement model assessment. Loadings that exceed the threshold of 0.708 are expected to be retained. The assessment of the internal consistency reliability using the composite reliability is the second test. Reliability values falling between 0.79 and 0.90 are satisfactory but values of 0.95 and above are too high and may cause problems because they suggest that the items are redundant [54]. The Cronbach's alpha is another measure of reliability and values are expected to be 0.7 and above. The third step is the convergent validity of each construct using the average variance explained (AVE). Hair et al. [53] recommend a minimum of 0.50 as the AVE. In addition, the square root of the AVE should be higher than the correlations among the latent variables.

Table 2 illustrates the convergent validity. The item loadings of all the constructs are greater than 0.708. In addition, the composite reliability values are higher than 0.70 but lower than 0.95, suggesting adequate construct validity. Cronbach's alpha values for the constructs are above 0.7. All the constructs of this study achieved an AVE of above 0.50 suggesting adequate convergent validity. In addition, Table 3 shows that the square root of AVE is higher than the correlations among the latent variables. The meeting of the two requirements indicates an adequate level of discriminant validity. All these tests confirm that the measurement model is satisfactory. The next step is the assessment of the structural model.

Table 2. Convergent validity.

Construct	Measurement Items	Loading	Cronbach's Alpha	Composite Reliability	AVE
Leadership behaviour	LB1	0.894	0.804	0.935	0.617
	LB2	0.867			
	LB3	0.799			
Institutional support	IS 1	0.864	0.866	0.871	0.742
	IS2	0.798			
	IS3	0.763			
	IS4	0.858			
	IS5	0.827			
	IS6	0.826			
	IS7	0.769			
	IS8	0.726			
Workplace spirituality	WPS1	0.892	0.826	0.831	0.726
	WPS2	0.884			
	WPS3	0.861			
	WPS4	0.918			
	WPS5	0.779			
	WPS6	0.764			
	WPS7	0.836			
	WPS8	0.882			
	WPS9	0.781			
	WPS10	0.909			
	WPS11	0.884			
	WPS12	0.846			
	WPS13	0.887			
	WPS14	0.795			
	WPS15	0.761			
	WPS16	0.826			
	WPS17	0.882			
	WPS18	0.909			
	WPS19	0.853			
	WPS20	0.816			
	WPS21	0.808			
Pro-environmental behaviour	PEB 1	0.886	0.824	0.833	0.769
	PEB 2	0.827			
	PEB 3	0.792			
	PEB 4	0.758			
	PEB 5	0.825			
	PEB 6	0.813			

Table 3. Discriminant validity.

Construct	1	2	3	4
PEB	<i>0.877</i>			
LB	0.729	<i>0.786</i>		
IS	0.714	0.685	<i>0.861</i>	
WPS	0.629	0.688	0.702	<i>0.852</i>

Diagonals in bold and italics represent the square root of the average variance extracted (AVE), while the other entries represent the correlations.

4.3.2. Structural Model Assessment

The assessment of the structural model includes collinearity, the coefficient of determination (R square), the cross-validated redundancy method Q square, and the statistical significance of the path coefficients as measured by the β value and the model out of sample predictive power [53].

Common Method Bias

Common method bias (CMB) could imply a threat because bias through systematic errors may affect findings. The full collinearity test based on variance inflation factors (VIFs) was used to evaluate both vertical and lateral collinearity. If VIF has a value greater than 3.3, pathological collinearity can be assumed and this suggests that the model may be contaminated by CMB [56]. The VIF values for the four constructs of this study (pro-environmental behaviour, leadership behaviour, institutional support and workplace spirituality) mission are 1.63, 1.92, 2.08 and 2.16, respectively. The maximum VIFs of the model of this study is below 3.3. This suggests that the model is free of CMD.

The Value of the R²

An important measure in the PLS-SEM model is the R², also known as the coefficient of determination. The R² shows the proportion of variation in the dependent variable that is explained by one or more predictor variables. In the context of PLS-SEM, R² value of 0.26 is considered weak, 0.50 moderate and 0.75 substantial [52]. The R² obtained in this study is 0.552 which can be considered as moderate.

Path Coefficients (β) and T-Statistics

The bootstrapping method was used generate the significance levels of the standardised coefficients. The acceptable *t*-values for a two-tailed test are 1.65 for 10% level of significance, 1.96 for 5% level of significance and 2.58 for 1% level of significance [53]. The β values of the paths were computed. The greater the β value, the bigger the effect of the endogenous latent variable. Table 4 shows the effect of the path coefficient and T-statistics.

Table 4. Path coefficient and T-statistics.

Hypothesised Path	Standardised Beta	T-Statistics	Decision
H1 LB to PEB	0.247	7.015 *	Accepted
H2 IS to PEB	0.268	7.216 *	Accepted
H3 WPS to PEB	0.263	6.852 *	Accepted

* $p < 0.01$.

Table 4 depicts the results of the path coefficients and the T-statistics. The results H1 ($\beta = 0.247$, $T = 7.015$, $p < 0.001$), H2 ($\beta = 0.268$, $T = 7.216$, $p < 0.001$) and H3 ($\beta = 0.263$, $T = 6.852$, $p < 0.001$) support significant positive relationships between leadership behaviour, institutional support and workplace spirituality and pro-environmental behaviour. The three hypotheses of the study are supported. The greater the β , the stronger the effect of the exogenous latent construct on the endogenous later construct. As depicted by Table 4, the construct with the highest β is institutional support and this indicates that it has a highest effect compared to the two other constructs.

Goodness of Fit Test

The goodness of fit test (GOF) is used to determine if the empirical data is sufficiently captured by the model. The GOF has values from 0 to 1. Henseler et al. [52] point out that values of 0.10 (small), 0.25 (medium) and 0.36 (large) show the global validation of the model. The GOF is calculated by computing the average of the AVEs and multiplying by the R^2 Value and then obtaining the squared root value. The average of the AVEs of this study is 0.714 and the R^2 value is 0.552. The goodness of fit value is 0.530, which indicates that the empirical data satisfactorily fits the model and has a significant predictive power.

Predictive Relevance of the Model (Q^2)

The predictive relevance of the model is a recommended supplementary assessment test. This study used the Q^2 for assessing the predictive model. The model is predictive if the Q^2 value is greater than zero [54]. The Q^2 of this model is 0.462 and this suggests that the model has adequate predictive power.

The Effect Size (f^2)

The effect size (f^2) depicts the degree of the effect of each exogenous latent construct on the endogenous latent construct. The effect size shows whether a construct has a substantive impact on another construct and how the deletion of one construct from the path model changes the value of the R^2 [57] in the guidelines for assessing f^2 point out that values of 0.02, 0.15, and 0.35, respectively, depict small, medium, and large effects of an exogenous latent variable on an endogenous latent variable. In addition, effect size values that are less than 0.02 indicate that there is no effect. The effect size for leadership behaviour, institutional support and workplace spirituality are 0.249, 0.256 and 0.299 and can be considered as moderate. Thus, the f^2 of the three exogenous latent constructs on PEB had a moderate effect on the value of the R^2 .

Estimated Model Fit

The model fit is measured by the standardised root mean square residual (SRMR). According to [58], the SRMR depicts the average of the standardised residuals between the observed and hypothesised matrices. The values for the SRMR range from zero to 1.0 with well-fitting models obtaining values less than 0.05. A lower SRMR indicates a better fit. The SRMR value obtained in this study is 0.03 which shows that the model has a good fit.

5. Discussion

Here, the findings of the empirical study will be explained and linked to both the theoretical and empirical literature.

This study investigated the effect of leadership behaviour, institutional support and workplace spirituality on the pro-environmental behaviour of employees in South African hotels. Employees are one of the principal actors in the workplace, and the predictors of their environmental behaviours in the workplace has been a neglected area of research. The results of this study show significant positive relationships between leadership behaviour, institutional support and workplace spirituality and the PEB of employees. The findings indicate that organisational leaders can encourage employees

to engage in PEB in the workplace by their behaviour. The hypothesis (H1) that there is a significant positive relationship between leadership behaviour and employees' workplace PEB is supported. The hypothesis (H2) that there is a positive relationship between institutional support and employees' workplace PEB is supported. According to Vinojini and Arulrajah [16], leadership support provided by top management can have a significant effect on employees' behaviour. The activities that the management of an organisation undertake to demonstrate their support, such as the availability of recycling bins and the appreciation of green behaviours, can encourage employees' workplace PEB. The findings of the study are consistent with the results of the literature [10,15], wherein institutional support positively affects employees' workplace PEB. The findings of the study support the hypothesis (H3) that there is a positive relationship between workplace spirituality and employees' workplace PEB. The findings of the study are consistent with the results of Rezapouraghdam et al. [7] and Latif and Aziz [18] that WPS is significantly associated with employees' workplace PEB. WPS improves the intrinsic motivation to think about nature and protect the environment. The findings of the study, especially the link between leadership behaviour and institutional support (leadership and organisational support) and PEB, is supported by the social exchange theory [40], the social learning theory [37,38] and social information theory [39] that acceptable behaviour is learned by subordinates through interaction with and emulation of their role models, usually leaders. The majority of human behaviour is learned through modelling. Employees reflect the behaviour of leaders towards them with their own matched behaviour on mutual reciprocity basis. This can stimulate an emotional link between leaders and followers. The self-determination theory (SDT) by Deci and Ryan [41] shows how certain characteristics of workplaces such as spirituality can create environments that lead to the satisfaction of employees' innate psychological needs and higher intrinsic motivation to engage in PEB.

6. Conclusions

Although the hospitality sector significantly contributes to employment and economic growth, the activities of the sector have a negative impact on the environment. This study investigated the effect of leadership behaviour, institutional support and workplace spirituality on the pro-environmental behaviour of employees in South African hotels. The results of this study showed significant positive relationships between leadership behaviour, institutional support and workplace spirituality and employees' workplace PEB. The theoretical implication of the study is the linkage of spirituality to employees' workplace PEB. Spiritual discourses have been marginalised in tourism research. Empirically, the study adds to the literature on the effect of leadership behaviour and institutional support on the PEB of employees in the hospitality sector. A thorough review of the literature revealed that this is the first study in South Africa to link leadership and institutional support and spirituality to employees' PEB. Practically, the findings of the study could help the hospitality sector in designing human capital education, training, and communication to improve environmental sustainability. The implementation of sustainability should not only focus on managers and leaders of hospitality firms, but also on lower level employees. Environmental citizenship behaviour of hotel managers and organisational support (such as the provision of recycling bins and the communication of environmental sustainability policy) can help to improve employees' workplace PEB. The goal of management and employees is to create an eco-hotel that has made some functional and structural adjustments to minimise its environmental impact. Managers must strive to create a spiritual environment that will make employees have a sense of belonging. The study has some limitations. The cross-sectional survey approach used by the study cannot be used to analyse behaviour over a period to time. This limits the ability of the study to determine cause and effect. The study used the convenience sampling method. The data collected may be biased and represent the views of the study participants and not the entire population. Only three hundred and fifty-nine hotel employees participated in the survey and the findings of the study may not be generalisable to all hotels in South Africa. The study also focused on employees and did not include the opinion of managers and owners. Other studies can examine the

effect of organisational culture and values on the workplace PEB of employees. A longitudinal study focusing on the same concepts will help to determine cause and effect relationships.

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Appendix A

Table A1. Questionnaire

Concept	Survey Items	Response Category
Leadership behaviour	1. When owner or manager behaves in a pro-environmental manner at work, I show pro-environmental behaviour.	1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree
	2. It is important to me that the owner/manager shows pro-environmental behaviour at work.	
	3. Seeing the owner/manager showing pro-environmental behaviour influences the way that I act.	
Institutional support	1. The owner/manager supports me in showing PEB at work (LS).	1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree LS = leadership support, OS = organisational support.
	2. My manager/owner informs me about the environmental impact of my behaviour at work (LS).	
	3. My manager/owner informs me about environmental sustainability initiatives at work (LS).	
	4. I learn environmental friendly behaviour at work from my owner/manager (LS).	
	5. 5 owner/manager supports the environmental effort of the employees (LS).	
	6. the business that I work for cares about the PEB of employees (OS).	
	7. The business likes the way I perform environmentally friendly at work (OS).	
	8. The business will assist me in performing my job as environmentally as possible (OS).	
Workplace spirituality	1. I experience joy in my work.	1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree
	2. My spirit is energized by work.	
	3. My work is connected to what I think is important in my life.	
	4. I look forward to coming to work.	
	5. I see a connection between work and social good.	
	6. I understand what gives my work personal meaning.	
	7. Working cooperatively with others is valued.	
	8. I feel part of a community.	
	9. I believe people support each other.	
	10. I feel free to express my opinions.	
	11. I think employees are linked with a common purpose.	
	12. I believe employees genuinely care about each other.	
	13. I feel there is a sense of being a part of a family.	
	14. I feel positive about the values of the organization.	
	15. My organization is concerned about the poor.	
	16. My organization cares about all its employee.	
	17. My organization has a conscience.	
	18. I feel connected with the organization's goals.	
	19. My organization is concerned about health of employees.	
	20. I feel connected with the mission of the organization.	
	21. My organization cares about whether my spirit is energized.	
Pro-environmental behaviour	1. I print double sided whenever possible.	1 = never, 5 = always
	2. I put recyclable material (e.g., cans, paper, and bottles) in the recycling bins.	
	3. I bring reusable eating utensils to work (e.g., travel coffee mug, water bottle, reusable containers, reusable cutlery).	
	4. I turn lights off when not in use.	
	5. I take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day).	
	6. I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.	

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