Pakistan Journal of Commerce and Social Sciences
2020, Vol. 14 (3), 614-634
Pak J Commer Soc Sci

Antecedents of Environmental Performance of Front-Line Managers in Hospitality Industry of Pakistan

Muhammad Tariq
Government College of Commerce and Management Sciences, Mansehra, Pakistan
Email: muhammadtariq.rafay@gmail.com

Muhammad Yasir
Department of Management Sciences, Hazara University Mansehra, Pakistan
Email: success_destined@yahoo.com

Muhammad Yasir
Government College of Commerce and Management Sciences, Balakot, Pakisan
Email: gccm81@gmail.com

Abdul Majid (Corresponding author)
Department of Management Sciences, University of Haripur, Pakistan
Email: abdulmajidmughal@hotmail.com

Article History

Received: 03 May 2020 Revised: 24 Aug 2020 Accepted: 15 Sept 2020 Published: 30 Sept 2020

Abstract

This study is an attempt to find out the effect of line managers' environmental attitude on their organizational citizenship behavior for environment (OCBE) and environmental performance (EP). In addition to above examination, the study has also made an investigation regarding the mediating role of OCBE in the relationship of management environmental awareness (MEA) and managers' environmental performance (MEP). Moderating effect of top management awareness for environment has also been tested on the link between MEA and OCBE. Data for this study was collected from 546 front line managers from 154 hotels and tourism units operating in Pakistan. Data analysis was carried out through correlation, linear regression as well structural equation modeling (SEM). Results of the study reported a direct effect of MEA on OCBE and MEP. Moreover, the findings validate that OCBE mediates between MEA and MEP. Furthermore, the findings confirmed that top management environmental awareness (TMEA) supports the link between MEA and OCBE. This study provides novel insights for environmental performance of hospitality industry of Pakistan by emphasizing the environmental attitude, OCBE and MEA. Thus it advocates new mechanisms that would be supportive in initiating protection of natural environment. Study provides significant insight to literature by contributing new knowledge regarding the positive associations of manager's environmental attitude and OCBE in the context of hospitality industry of Pakistan.

Keywords: manager environmental attitude, organizational citizenship behavior for environment, manager environmental performance, management environmental awareness, front line managers, hospitality industry.

1. Introduction

For the last few decades, public concern and voice about the counterproductive effects of business operations on society has been increasing tremendously (Bsumek et al., 2014; Li et al., 2012). Despite the fact that there is a rising scholarly interest in studying environmental management mechanism and its prospective reimbursement to different stakeholders, till now, very exceptional studies have explored the antecedents of line managers' environmental performance (EP) especially in the context of tourism and hotels industry of developing countries like Pakistan. Since the 1990s, it has been observed unprecedented climatic changes like global warming, pervasiveness of pollution in its different facets and abnormal depletion of resources with an alarming speed (Bastiaansen et al., 2020). Different stakeholders and social actors are showing their concern that business firms are earning hefty amount of profits at the cost of environmental deterioration and other social irregularities (Bsumek et al., 2014). In order to calm down and getting a positive image in the eyes of society, it is foremost for the business organizations to contribute to the society through mitigating suffering caused by the very operations of the firms (Zhang et al., 2019). In this regard, the organizations are supposed to enhance its EP through involving its managerial and other frontline workforce in environmentally friendly activities (Roscoe et al., 2019).

Organizations across the world are taking different measures to resolve or minimize the environmental problems engendered by their activities (Yadav et al. 2017). Earlier research studies have considerably investigated the overall EP of the firms in the context of corporate governance (Walls et al., 2012), CSR (Chuang and Huang, 2018), information technology (Wang et al., 2015), etc. However, the question regarding the environmental performance (EP) of line managers particularly of small and medium sized hotels (SMSHs), manager's environmental attitude (MEA) and their organizational citizenship behavior for environment (OCBE) still demands answer. MEA have surfaced as a main determinant of EP. An organization is like a team wherein the input of every member has a significant impact on the overall performance, however, some players are supposed to play key role of leading from the front (Singh et al., 2020; Wombacher and Felfe, 2017).

As far as the business organizations are concerned, these are the line managers who are perceived as game changers, who with their cognitive abilities in the form MEA, take on such voluntary behaviors that accept the challenge of protecting the natural environment (Nienaber, 2017). It is an undeniable fact, that a team can only achieve the collective goals like livable environment, when all players particularly the front runners show collective voluntary behaviors, which are helpful in protecting environment (Widianto et al., 2017). Moreover the MEA and OCBE on the part of line managers will give the desired results if they are backed by the top level management awareness for

environment (TMAE). Thus MEA and OCBE with the existence of TMEA make it certain to attain the desired objectives of enhanced EP.

Notwithstanding some of the earlier research works have spotlighted the significance of environmental attitude and its constructive role in augmenting EP (see e.g. Landry et al., 2018); however, there exist very limited studies that may give explanation about direct effect of MEA on MEP. MEA is a hypothesized construct which involves a mental process for development of pro-environmental behavior which results in enhancing EP. Ajzen (1991) theory of planned behavior gives a comprehensive insight and logical reasoning regarding individual's (i.e. line manager's) attitude pertaining to their behavior. Thought processes of environmental knowledge, environmental awareness and environmental concern of individual manager's persuade them to assume different OCBEs, which enhance their own EP (Coelho et al., 2017; Trivedi et al., 2018). Hence an indirect relationship between MEA and EP through OCBE is established. OCBE refers to the individual voluntary social behaviors that are not clearly acknowledged by the usual reward systems of the organizations, instead are exercised by the mangers and other team members and are considered helpful in making sure the desired EP (Boiral and Paille, 2012; Zientara and Zamojska, 2018). It is imperative to state that though MEA develops their OCBE to augment EP, however, on ground it looks very difficult for manager's to exercise OCBE without the environmental awareness of august managerial bodies and officials like president, CEO etc. Hence, the link between MEA and OCBE is highly dependent on TMEA.

Based on the social and environment related literature and the explanation given by the theory of planned behaviors (Ajzen, 1991), the present research work theorizes and explores the proposed model through giving explanation as how and why MEA influences the MEP. This mechanism postulate that MEA foster OCBE with the contingent effect of TMEA, and all this collectively contributes toward EP of the individual line managers.

Besides the significance of line manager's EP, there exist hardly any previous research studies which have made investigation to explain the link between MEA to EP via OCBE. Furthermore, there looks a noteworthy lack of research work which may give explanation as to how MEA with the contingent effect of TMEA affects OCBE to enhance EP of the line manager's particular in the context of SMSH. This research study enhances existing boundaries of knowledge through examining a direct link of MEA and MEP with the mediation of OCBE, consequently makes a remarkable addition in the existing knowledge banks regarding SMSHs.

The main objective of this study is to give explanation about the association between MEA and MEP via OCBE with the contingent role of TMEA in SMSHs. Following five key objectives are required to be accomplished with this research work. (i) to explain the relationship between MEA and OCBE (ii) OCBE and MEP (iii) MEA and MEP (iv) the role of OCBE between MEA and MEP (v) to investigate the impact of TMEA on the link between MEA and OCBE. In the first section of present research paper provides outline of the literature review as well as relationship development among different variables of the study. The latter sections explain research methodology, results/findings of the study, and major contributions of the study. Finally, the limitations of this study along with recommendations regarding further research studies have also been provided.

2. Study Background and Hypothesis Development

2.1 Manager Environmental Attitude and Environmental Performance

Manager's EP can be defined as the level to which a manager has participated in actions, pursuits and behaviors, and made contributions towards firm's environmental protection, during a specified time period (Kim et al., 2019; Paille and Meija-Morelos, 2019). It may be expected from a manger while on duty to make pro-environmental contributions, and also keep a check on counterproductive effects regarding the organizational EP in a given time period (Chuang and Huang, 2018; Dumont et al., 2017) and their individual contributions are named as line manager's EP. Although this study is making enquiry into EP on individual level (i.e. line manager), however, at this juncture, it is viable to briefly draw some distinction between individual level EP and that of an organization's as a whole. Di Norcia (1996) elaborated the difference as direct environmental measures as well as and indirect environmental measures. The former pertain to scalable effects of firms on its circumambient besides the assessment of effects of its activities on environment in general. Indirect EP refers to the level of organizational commitment towards implementing environment protective policies to attain environmental objectives in addition to promoting moral reasoning and motivating line managers and other employees to protect natural environment with specific reference to their employment. In plain words, EP denotes efforts of a firm to mitigate harmful effects on environment caused by its operation.

The present research study explains the link between environmental attitudes of the managers' its impact on EP. Line managers' EP is extremely linked with their environmental understanding, knowledge, awareness and concern (Gholamzadehmir et al., 2019; Singh et al., 2019). As stated by Benedetta and Vincenzo (2020), environmental attitude strongly influences different acts of the individuals (line managers) to shield the environment from deterioration. An individual manager having a positive mindset about environmental importance makes his level best to make certain that his activities while performance of duties may not violate environmental rules and regulations, manage and address environmental crisis and he/she guides other co-workers about the environmental matters (Ertz and Sarigollu, 2019; Paille and Meija-Morelos, 2019).

Individual attitudes dealing environmental actions have seemingly been recognized as considerable predictors of EP of the line managers (Arulrajah, 2016; Singh et al., 2019). It is the environmental attitude of the managerial employees which results in taking various actions by them for augmenting EP (Gutiérrez andTeshima, 2018; Hameed et al., 2020; Yucedag et al., 2018). As line manager's EA encompasses main dimensions like environmental knowledge, environmental awareness and concern for environment, hence, it becomes easy for them to meet the environmental goals (Ertz and Sarigollu, 2019; Okumus et al., 2019).

Manager's having a pro-environmental mindset, make efforts to enhance EP via their job activities by observing the environmental regulations, resolving environment related issues, besides motivating colleagues to behave sensibly for environment (Singh et al.,

2019; Tian et al., 2019). Hence, the above deliberations provide solid base for the following hypothesis:

- **H_1:** Line managers' environmental attitude positively affects their environmental performance.

2.2 Environmental Attitude and Organizational Citizenship Behavior for Environment

Attitude are hypothetical constructs which gives explanation regarding an individual's liking or disliking for some specific items, places or a things (Albarracin and Shavitt 2018; Durairatnam et al., 2019). It includes both positive and negative views of the concerned individuals or organizations (Bergkvist et al., 2016). Liu et al. (2018) explained environmental attitudes' as an individual's (frontline managers) concerns about environment problems or caring regarding environmental issues. MEA consists of environmental knowledge, concern as well as environmental awareness (Okumus et al., 2019; Paço and Lavrador, 2017). Environmental knowledge refers to an individual's ability regarding interpreting and evaluating societal effects on the natural environment (Liobikiene and Poskus, 2019; Tariq et al., 2020). Environmental awareness discusses consciousness regarding natural environment and opting those choices which promote the earth and/or avoid harms to it (Banyai et al., 2019). The concept of environmental concern deals with the assessment of an individual regarding the environmental impediment which may arise due to his/her own as well as other's behavioral actions (Helm et al., 2018).

The concept of OCBE reveals a manager' enthusiasm for collaboration with the firm and its other members in following those behaviors which are not formally required by employment agreement but prove helpful in protecting the natural environment (Luu, 2019). Tuan (2019) describe that OCBE comprise of eco-civic engagement (manager's voluntary participation in firms activities to protect environment), eco-helping (facilitating colleagues in defusing environmental concerns) as well as eco-initiatives (involving in voluntary behaviors and find out solutions to enhance EP). Luu (2019) further elaborates that these are optional social behaviors which are not clearly prescribed by the proper job contracts and are influential in improving corporate EP.

OCBE depicts the readiness of line managers of the firm to take concrete steps in safeguarding the environment. Prior research studies spotlight numerous activities representing OCBE e.g. avoiding disposable articles, make use of paper on double side, observing economy in using electric air conditions, heaters and other allied electronic equipment which need high voltage power, preferring natural lighting during day hours, rational use of official vehicles, utilizing public transport facilities, supporting firms in different greening campaigns (e.g. tree plantations) and taking necessary courses of action to guard natural environment.(Tuan, 2019). As stated by Kim et al. (2016) and Pham et al. (2019) there are five important behaviors which represent OCBEs (i) taking initiatives (ii) conserving (iii) transforming, (iv) avoiding harm and (v) influencing others.

A number of previous studies have reported that environmental attitude positively affects OCBE (see e.g. Pham, et al. 2019; Xiong and King, 2019). Otto et al. (2019) explain that environmentally friendly attitude is a key predictor of buying such products/articles that are green and environment friendly. It is also opined that pro-environmental attitude positively influences OCBE (Chan et al., 2017; Tian et al., 2019). It has been argued that the line manager's having positive environmental attitude may demonstrate a responsible behavior to

protect the natural environment (Shimoda et al., 2020; Wells et al., 2016). In line with these arguments, following is the next hypothesis of this study:

- **H_2:** Environmental attitude of line manager's positively affects organizational citizenship behavior for environment.

2.3 OCBE and Environmental Performance

OCBE is meant as those actions that are not formal requirement of an individual's job; nevertheless, still he/she assumes it willingly to safeguard environment from the counterproductive effects of business activities. Kim et al. (2019) argues that OCBE is an important contributor to promote EP. Involving line managers to address the environmental challenges and motivating them to demonstrate OCBE is considered as a valuable strategy by the organization as it results in increasing EP (Anwar et al., 2020; Tian and Robertson, 2019).The postulation that OCBE is a significant predictor of EP is acknowledged as the line managers participation in environmental activities beyond their job requirements facilitate organization to enhance its environmental efficiency (Yusoff, 2019).

Since OCBE encompass a variety of environmentally friendly behaviors, it is rational to argue that manager's environmental behaviors positively influence their EP in a number of ways (Kim et al., 2019; Luu, 2019). As OCBE help out to attain several environmental objectives, therefore, these are considered as additional opportunities to enhance EP (Bishop et al., 2017). There are different reasons to give justification that why EP is improved on a regular basis due to OCBE. From the literature review, regarding EP, different examples can be given. For instance, by participation in organizational environmental committee (Stewart and Tyler, 2019), OCBE can enhance EP in the shape of eco-civic management (Boiral et al., 2018; Dangelico, 2015). Similarly, OCBE as recycling or low energy consumption augments EP in the form of avoiding preventable resource usage (Anwar et al., 2020). In short, OCBE deals with managers' pro-environmental voluntary actions during their routine employment activities, and soundly play their role in strengthening EP. Therefore, it is reasonable to hypothesize that:

- **H_3:** Line manager's citizenship behavior for environment enhances environmental performance.

2.4 Mediation of OCBE

As explained in the previous lines that MEA is an antecedent of OCBE (Han et al., 2019) similarly, OCBE positively affects MEP (Luu, 2019; Whitburn et al., 2019). It is rational to suggest that MEA has an indirect effect on their EP via OCBE which is in consonance with the theory of planned behavior. Furthermore, the above discussion gives clarity to infer that there is an indirect positive effect of line manager's environmental attitude on their EP via OCBE. That's why, it is hypothesized that:

- **H_4:** Line managers' organizational citizenship behavior for environment mediates the relationship between their environmental attitude and environmental performance

2.5 Moderation Mechanism of Top Management Environmental Awareness

Top management environmental awareness is referred to commitment, attitudes, and values of senior managers pertaining to the formulation of organizational strategies (Cao and Chen, 2019). As explained by strategic selection theory, it is postulated that top management plays the principal role for devising business strategies (Wijethilake and Lama, 2019). As explained by Latan et al. (2018), organizations take different policy decisions concerning EP keeping in view their top management's attitudes and values. Top management with better environmental awareness is more expected to recognize the probable role of line manager's environmental attitude and OCBE (Peng and Wei, 2015). Besides this, managers with strong environmental awareness are expected to accomplish the needs of various stakeholders (Cao and Chen, 2019), and recognize the potential benefits of manager's environmental attitude for the growth of their organization's EP (Dubey et al., 2017).

It is obvious that being the apex decision making forum, it is the top management which formulates different business policies and take strategic decisions (Steinbach, et al., 2017). Environmental awareness of top-level management highly influences organizational policies and other strategic decisions. In the present study, it is believed that the relationship between line manager's environmental attitude and OCBE are influenced by TMEA. This is for the reason that top management deals with the broader decisions and policy formulation which reflects their awareness toward environment, therefore, it influences the line manager's process of imagination (i.e. environmental attitude) which is visibly reflected through OCBE (Shahab et al., 2018).

Top management with primary responsibilities deals with goal setting and policy formulation gives importance to the environment related issues at the highest level (Lee et al., 2018). Besides this, though participation in environmental matters themselves, they endorse operational managers and other employees for enhancing environmental behaviors (Kim et al., 2019).These actions on the part of senior level management become a role model for the lower level managers (i.e. line managers) and other employees, who resultantly show more environmental behaviors (Boiral et al., 2018; Wijethilake and Lama, 2019). Moreover, it is important to mention that line manager's EA is necessary but not adequate for OCBE, hence in the said mechanism top management awareness for environmental issues play a significant role. In light of the above deliberations, it can be hypothesize that:

- **H_5:** TMEA has a contingent effect on the relationship between Line Manager's EA and OCBE.

The previous hypotheses suggest that the TMEA will have conditionally influence on the indirect relationship between MEA and MEP. The said situation depicts a moderated mediation pattern of the relationship between the said variable as is shown in Figure 1. In accordance with the earlier arguments which show a positive moderating effect of TMEA on the link of MEA and MEP, it can be hypothesized that:

- **H_6:** The indirect effect of manager environmental attitude and MEP through OCBE is strongest when top management environmental awareness is high while this effect is weakest when top management environmental awareness in low.

2.6 Theoretical Framework

The constructs of this study i.e. MEA, OCBE, MEA and MEP have been shown in Figure 1. On the basis Theory of Planned Behavior's assumptions, the current study explained direct and indirect relationship among MEA, OCBE, MEA and MEP.

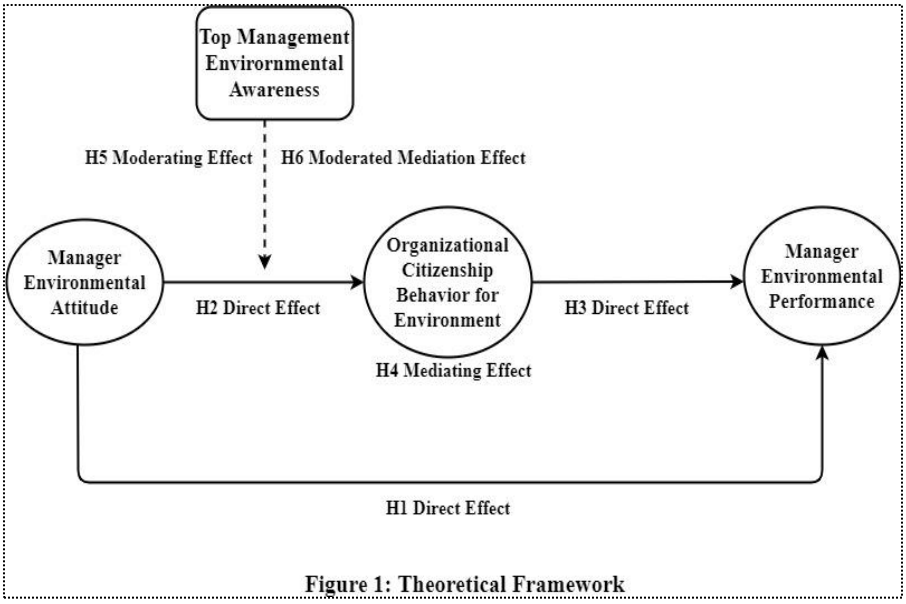

Figure 1: Theoretical Framework

3. Methods

3.1 Population and Sample Size

The population for this study comprises of frontline hotels managers of tourism industry. In order to collect data, 546 frontline managers belonging to 154 hotels providing services in seven big cities of Khyber Pakhtunkhwa province of Pakistan were approached. The reasons for selecting the said seven districts for conducting study is that, these areas are blessed with wonderful natural beauty and millions of tourists visit to these destinations every year (Arshad et al. 2018).

During the course of data collection for the study, all standers of national and international level were given due consideration. Data was collected through a structured questionnaire. The questionnaires were attached with a covering letter, giving brief description regarding the purpose of this study. The data collection process for this study was relatively a lengthy one, as it was started during August 2019 and finalized by the end of October, 2019. It was a three phased process. During the first phase of data

collection process, questionnaires were sent to the respondents on their postal addresses, followed by a telephonic contact with them to request for extending their cooperation, however, this second phase could not get satisfactory response. During the final phase, the services of five research assistants were hire, who were given requisite training and guidance for collecting the data from the aforementioned population. On completion of the third and final phase, the research team collected 424 valid responses.

3.2 Measurement

The data for current study was conducted through a structured questionnaire. The study constructs were measured with the help of 5-point Likert scale. The questionnaire comprised of two sections. Information regarding the respondents' age, education etc. was given in the first section To ensure better understanding of the study background and contextual factors, these variables were taken as control variables. The items regarding the study construct i.e. MEA, OCBE, MEP and TMEA were given in the second part of the questionnaire.

3.2.1 Manager Environmental Attitudes

Measurement of EEA was made with three dimensions i.e. environmental knowledge with 5-items, while environmental awareness as well as environmental concern each with 7-items. All these items were adapted from the previous studies of Kaiser et al., (1999); Morgil et al, (2004) and Minton and Rose (1997). Alpha value of 0.79 was generated by these items.

3.2.2 Organizational Citizenship Behavior for Environment

To measure OCBE, a 10-items scale was used. Boiral and Paille (2012), introduced these items and accordingly the present study adapted these from the work of said scholars, which generated α value of 0.76. Paille and Meija-Morelos (2019) also used the same measures in their work.

3.2.3 Top management environmental awareness

A 3-items scale was used to measure TMEA. The said items were adapted from the work of Gadenne et al. (2009) which generated 0.84 alpha value.

3.2.4 Manager Environmental Performance

The MEP was comprised of four dimensions; measured with a 15-items scale, adapted from Henari and Journeault (2010). The same were also used by Majid et al. (2019). The items generated α value of 0.86.

4. Results and Analysis

For the purpose of data analysis current study used descriptive statistics, correlation and multiple hierarchical regressions techniques. Moreover, discriminant validity was examined using AMOS software through confirmatory factor analysis (CFA).

4.1 Reliability, validity and Model Fitness

The calculated value of Cronbach's alpha, AVE and CR are above threshold criteria for all the constructs. Hence, scale reliability and validity are established. For discriminant validity, we followed the suggestions of Fornell and Larcker (1986), using this approach

we compared the calculated coefficients of AVE and shared-variance of each construct. This comparison established discriminant validity of construct because AVE of each construct is higher than the calculated value of share-variance of any other constructs. Moreover, the value of CR and AVE was found above threshold value i.e. 0.7 and 0.5 respectively. Hence, on the basis of these findings discriminant validity was established for the scale used for the current study. Table 1 contained the coefficients of both AVE and CR.

Table 1: Discriminant Validity of Construct

	Items	**Cronbach Alpha**	**Factor Loading**	**Composite Reliability**	**AVE**
Manager Environmental Attitude	19	0.79	0.72-0.91	0.87	0.69
OCBE	10	0.76	0.71-0.88	0.92	0.72
Manager Environmental Performance	15	0.86	0.75-0.90	0.94	0.74
Top Management Environmental Awareness	3	0.84	0.70-0.93	0.90	0.71

4.2 Confirmatory Factor Analysis (CFA)

In the current study, before analyzing the data, we confirmed that the model is adequate for analysis by using a technique of CFA. The verification of models fitness we have used four separate models with different configuration. A number of indicators were used to prove the validity of construct and to measure the overall model-fit. The values of Comparative Fit Index (CFI) was = 0.94, while χ^2 =145.78, the Goodness of Fit Index (GFI) = 0.92 and the Root Mean Square Error of Approximation (RMSEA) = 0.049 for hypothesized model. The result shows that CFI, GFI and RMSEA values are in line with standard norms, where CFI and GFI values must be 0.90 or more than 0.90 and RMSEA values must be 0.05 or less than 0.05 (Brown & Cudeck, 1993).

4.3 Descriptive Analysis

The values of correlations, mean and standard deviation (SD) are presented in Table-2. Table-2 shows that there is a significant and positive relationship between all constructs including: independent, mediator, dependent and moderator. Table-2 presents a positive relationship between MEA and MEP (0.18**), MEA and OCBE (0.22**), OCBE and MEP (0.32**). According to Baron and Kenny (1986), positive and significant relationships among variables provide support for mediation analysis.

Table 2: Correlation Matrix

Variables	Mean	SD	1	2	3	4	5
Age	3.2	.79	1				
Education	0.3	.86	.09	1			
MEA	2.7	.82	.06	.01	1		
OCBE	2.2	.89	.04	.03	.22**	1	
TMEA	3.7	.91	.07	.10*	.18**	.25**	1
MEP	3.5	.89	.03	.09	.32**	.33**	.37**
Note: (*$p<0.05$, tow tailed) (**$p<0.01$, two tailed)							

4.4 Testing hypotheses

Hierarchical Regression analysis was performed to confirm the formulated hypotheses. Table 3 shows coefficient values derived from regression analysis. Supporting hypothesis 1, Model 2 provides the results for the effect of MEA on MEP. The coefficients of regression shown in Model 2, MEA is a positive and significant predictor of MEP (β = 0.18**). Thus, study Hypothesis 1 is confirmed. Model 5 provides the regression coefficients used to analyze the direct effect of MEA on OCBE. MEA is positively predicting OCBE according to the results (β =0.24**) presented in Model 5. Thus, the study Hypothesis 2 is confirmed. Model 3 provides the regression coefficients used to analyze the direct effect of OCBE on MEP. OCBE is positively predicting MEP according to the results (β = 0.25**) presented in Model 3.Thus, the study Hypothesis 3 is confirmed.

Table 3: Results of OLS Regression for the Mediating Effects of Organizational Citizenship Behavior for Environment

Variables	**DV: Manager Environmental Performance**			**DV: OCB for Environment**	
	Model 1	Model 2	Model 3	Model 4	Model 5
Controls					
Age	0.014 (0.056)	0.006 (0.046)	0.015 (0.044)	0.007 (0.057)	0.012 (0.041)
Education	0.019 (0.123)	0.019 (0.063)	0.012 (0.089)	0.017 (0.098)	0.013 (0.084)
Predictors					
Manager environmental attitude		0.18*** (0.035)	0.12 (0.088)		0.24*** (0.031)
OCBE			0.25*** (0.055)		
R^2	0.032	0.38	0.36	0.043	0.36
Adjusted R^2	0.019	0.34	0.33	0.029	0.33
F-value	1.94*	20.65***	47.86**	3.10**	35.64***
Durbin-Watson	1.676	2.096	2.014	1.823	2.215

OLS regression analysis was conducted for testing mediation effects. Model 3 in Table 3 assesses the mediating role of OCBE in explaining the association between MEA and MEP. After OCBE is added, the coefficient of MEA for MEP reduced from $\beta = 0.18^{**}$ to $\beta = 0.12^{*}$), while the coefficient of OCBE is ($\beta = 0.25^{**}$). These findings reveled that OCBE partially mediates between MEA and MEP. Thus, Hypothesis 4 is fully supported.

Table 4: Regression results of PROCESS

Path Estimated	**Dependent Variables**
	Manager Environmental Performance
Control	
Age	0.005 (0.059)
Education	0.010 (0.088)
Predictors	
Manager environmental attitude	0.22*** (0.039)
Top management environmental awareness	0.41*** (0.044)
MEA * TMEA	0.18** (0.057)
*R*2	0.40
F-statistic	73.036***

Table 4 assesses the role of TMEA as a moderator on the relationship between MEA and MEP. The coefficient (0.18**) of interaction term (MEA x TMEA) strengthen the effect of MEA on the MEP. Thus, Hypothesis 5 is fully supported. Slope analysis is made according to Aiken et al., (1991) method. Figures-2 illustrates the results of the slope analysis. Figure 2 revealed that MEA bring MEP when TMEA is high; in other words, the effect of MEA on MEP is low when TMEA is low. Based on these results, which show in Table 4 study, H_5 is confirmed.

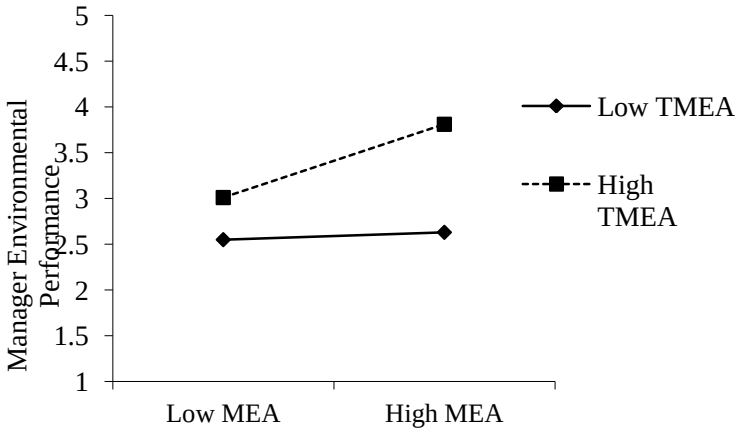

Figure 2: Slope Analysis

Table 5: Conditional Indirect Effect of Manager Environmental Attitude on Manager Environmental Performance

Mediator	**Condition**	**Conditional Indirect Effects of Top Management Environmental Awareness**			
		Effect	**Boot SE**	**Boot 95% CI**	
				LL	**UL**
Organizational citizenship behavior for environment	Low (- 1 SD)	0.169	0.043	0.118	0.251
	Middle (0)	0.207	0.041	0.154	0.289
	High (+ 1 SD)	0.245	0.037	0.189	0.329

Table 5 presented that when the level of TMEA was high, MEA shown indirect effect on MEP via OCBE (β = 0.245; 95% bias-corrected CI: [0.189, 0.329]). When the level of TMEA was low, MEA shown indirect effect on MEP via OCBE (β = 0.169; 95% bias-corrected CI: [0.118, 0.251]). These findings reveal that as the level of TMEA increases, indirect effect become higher, hence the study H_6 accepted.

Table 6: Results of moderated mediation analyses

Independent variable	**Dependent variable**	**Moderator**	**Mediator**	**Index**	**Boot SE**	**Boot 95% CI**	
						LL	UL
Manager environmental attitude	Manager environmental performance	Top management environmental awareness	OCBE	0.034	0.007	0.053	0.007
Note. SE=standard error; CI=confidence interval; LL=lower limit; UL=upper limit.							

In addition as per the suggestions of Hayes and Preacher (2014), we tested whether the Boot CI of the index of the moderated mediation contained zero, and verify whether the

indirect effect is affected by TMEA. Table 6 contained the results of moderated mediation which indicated that the moderated mediation effect was positive and had a non-zero probability (β = 0.034; 95% bias-corrected CI; [0.053, 0.007]). On the basis of these results, we can conclude that TMEA positively moderates the indirect effect of MEA on MEP via OCBE. Therefore, the study H_6 is also supported. Fig. 3 shows that indirect effects of all values of TMEA are far from zero. Overall, it is concluded that MEA demonstrated higher indirect effects on MEP when TMEA was higher.

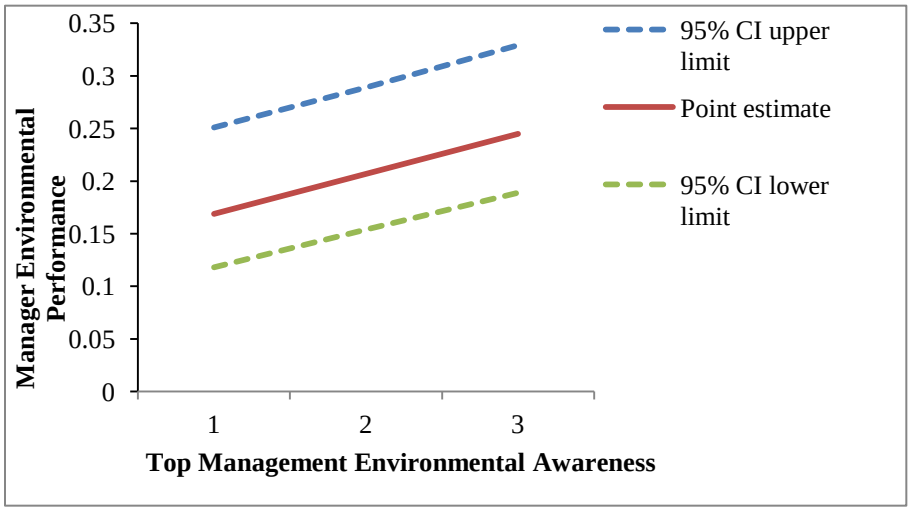

Figure 3: The Conditional Indirect Effect of Manager Environmental Attitude on Manager Environmental Performance

5. Discussion

In order to provide intensive knowledge to the management and practitioner the present study was conducted which explained the mechanism as how MEA makes contribution for improvement in MEP through OCBE. Hence, the present study interlinked the MEA with OCBE and MEP. Besides this, the indirect effect (i.e. mediation) of OCBE have also been investigated between MEA and MEP. This research study was carried out to explore how MEA affect MEP, besides explaining the role of OCBE in developing the said relationship. The present study was conducted on two fundamental motivations i.e. (a) the need to remove divergences in the empirical findings, in the course of explaining theoretical grounds of the link between MEA and MEP (b) to address the need of providing explanation as how OCBE mediates between MEA and MEP.

In this research study six hypotheses have been formulated to investigate the relationship between manager environmental attitude, OCBE, TMEA and MEP. The analysis of data confirmed all the hypothesis. Regarding H_1, it was proposed a positive relationship between MEA and MEA. However, the results regarding H_1, have shown limited strength for the link between MEA and MEA. The said findings explain that MEA is not an

exclusive factor for improvement in the MEA, which gives an opportunity to test mediation between the said constructs.

As regards H_2 is concerned, it confirmed that MEA positively affect OCBE. The findings are in line with the results of Chan et al., (2017) and Tian et al., (2019), accordingly it is reported that MEA is the significant factor in the development of OCBE. Regarding H_3, the data substantiated that OCBE is a positive predictor of MEP. As regards H_4, the results confirmed that MEA predict MEP through the mediation of OCBE. It is the MEA which motivates the managers to develop OCBE that boosts up their EP. Regarding H_5, the data confirmed that TMEA positively moderates the link between MEA and OCBE. Finally, results substantiated a positive moderation of TMEA on the indirect relationship between MEA on MEP through TMEA, as higher TMEA's value provides a stronger positive effect.

5.1 Theoretical Contribution

This study makes noteworthy contributions in the existing body of knowledge pertaining to environmental management research. The most important strength of this study is that it highlights the holistic view of MEP. Secondly, this study makes significant contribution in the research literature by providing MEP-model for hotels particularly providing services in the developing countries. MEP-Model gives explanation about the mechanism that how the integrated factors of MEA, TMEA and OCBE determine MEP. The third major contribution of the present study is that, it makes contribution to the theory by providing a comprehensive scale of MEA.

Fourth, the strength of present study refers to the investigation of MEA in brining OCBE for the manager. OCBE is a significant view of manager about the ecological concern and instantly and effectively reconfigure and reallocate important resources in addressing environmental issues (Groening et al., 2018; Ottman, 2017). The existing literature lacks in producing any valid evidence on the role of manager's OCBE regarding its determinant outcomes. Hence in order to fill up the said gap in the existing body of knowledge, the present research pay more attention on MEA being a potential determinant of manager's OCBE, and MEP being a outcome of manager's OCBE.

5.2 Practical Implications

This research study has remarkable implications for policy makers and management as well. First, findings of the study suggest that managers can boost up their environmental performance and successfully address the demands of different stakeholders through EA and OCBE (Pham, et al., 2019; Xiong and King, 2019). By doing so, MEP can only be achieved when they are more inclined towards EA and OCBE.

Secondly, the present study suggests that MEA has emerged as an exclusive and influential determinant of manager’s OCBE. Hence, to enhance EP, there is a need to flourish EA that will help to improve OCBE (Yusoff, 2019).

5.3 Limitations and Future Research

Even though this study suggests the important findings, some of the little limitations ought to be noted. Firstly, the study at hand was self-reported data-based study and cross-sectional research so it increases the problem of social desirability bias. There are various

limitations of collecting data utilizing self-reported instrument. In order to address this problem a mix methodology could be adopted in future research.

Further future research in this area can indulge through inclusion of other definite variables that can mediate the relationship between EA and EP. Lastly, the findings of this research were retrieved from research survey in which data was collected from the tourism and hotel industries. Therefore, the findings of this research may be sector specific. So, the results might not be generalized to other sectors of large organizations.

Grant Support Details / Funding

This research work received no research grant.

REFERENCES

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage, London.

Albarracin, D., & Shavitt, S. (2018). Attitudes and attitude change. *Annual Review of Psychology*, *69*, 299-327.

Anwar, N., Mahmood, N. H. N., Yusliza, M. Y., Ramayah, T., Faezah, J. N., & Khalid, W. (2020). Green human resource management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *Journal of Cleaner Production*, *256*(2020), 120401.

Arshad, M. I., Iqbal, M. A., & Shahbaz, M. (2018). Pakistan tourism industry and challenges: a review. *Asia Pacific Journal of Tourism Research*, *23*(2), 121-132.

Banyai, T., Tamás, P., Illés, B., Stankevičiūtė, Ž.,&Bányai, Á. (2019). Optimization of municipal waste collection routing: Impact of industry 4.0 technologies on environmental awareness and sustainability. *International Journal of Environmental Research and Public Health*, *16*(4), 634-647.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173-1187.

Bastiaansen, R., Doelman, A., Eppinga, M. B., & Rietkerk, M. (2020). The effect of climate change on the resilience of ecosystems with adaptive spatial pattern formation. *Ecology Letters*, *23*(3), 414-429.

Benedetta, C., & Vincenzo, M. (2020). Do environmental preferences in wealthy nations persist in times of crisis? The European environmental attitudes (2008-2017). *Italian Political Science Review/Rivista Italiana di Scienza Politica*, *50*(1), 1-16.

Bishop, J. W., Govindarajulu, N., & Daily, B. (2017). Perceptions of Environmental and Quality Performance and Employee Support: The Role of OCB and OCBE. In *Academy of Management Proceedings* (Vol. 2017, No. 1, p. 17508). Briarcliff Manor, NY 10510: Academy of Management.

Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, *109*(4), 431-445.

Boiral, O., Raineri, N., & Talbot, D. (2018). Managers' citizenship behaviors for the environment: a developmental perspective. *Journal of Business Ethics*, *149*(2), 395-409.

Brown, M. W., R. Cudeck. (1993). Alternative ways of assessing model fit. Kenneth A. Bollen, J. Scott Long, eds. Testing Structural Equation Models. Newbury Park, Sage, CA 136–162.

Bsumek, P. K., Schneider, J., Schwarze, S., & Peeples, J. (2014). Corporate ventriloquism: Corporate advocacy, the coal industry, and the appropriation of voice. In *Voice and environmental communication* (pp. 21-43). Palgrave Macmillan, London.

Cao, H., & Chen, Z. (2019). The driving effect of internal and external environment on green innovation strategy-The moderating role of top management's environmental awareness. *Nankai Business Review International*, *10*(3), 342-361.

Chan, E. S., Hon, A. H., Okumus, F., & Chan, W. (2017). An empirical study of environmental practices and employee ecological behavior in the hotel industry. *Journal of Hospitality & Tourism Research*, *41*(5), 585-608.

Chuang, S. P., & Huang, S. J. (2018). The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green information technology capital. *Journal of Business Ethics*, *150*(4), 991-1009.

Coelho, F., Pereira, M. C., Cruz, L., Simões, P., &Barata, E. (2017). Affect and the adoption of pro-environmental behaviour: A structural model. *Journal of Environmental Psychology*, *54*, 127-138.

Dangelico, R. M. (2015). Improving firm environmental performance and reputation: The role of employee green teams. *Business Strategy and the Environment*, *24*(8), 735-749.

Dixon-Fowler, H. R., Ellstrand, A. E., & Johnson, J. L. (2017).The role of board environmental committees in corporate environmental performance. *Journal of Business Ethics*, *140*(3), 423-438.

Dubey, R., Gunasekaran, A., Helo, P., Papadopoulos, T., Childe, S. J., & Sahay, B. S. (2017). Explaining the impact of reconfigurable manufacturing systems on environmental performance: The role of top management and organizational culture. *Journal of Cleaner Production*, *141*, 56-66.

Durairatnam, S., Chong, S. C., &Jusoh, M. (2019). People-Related TQM Practices, Organisational Culture, Organisational Justice and Employee Work-related Attitudes for Quality Performance: A Research Agenda. *Global Journal of Management and Business Research*. *19*(4), 1-11.

Fornell, C., & Larcker, D. F. (1981).Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Gadenne, D. L., Kennedy, J., & McKeiver, C. (2009). An empirical study of environmental awareness and practices in SMEs. *Journal of Business Ethics*, *84*(1), 45-63.

Groening, C., Sarkis, J., & Zhu, Q. (2018). Green marketing consumer-level theory review: A compendium of applied theories and further research directions. *Journal of Cleaner Production*, *172*, 1848-1866.

Gutiérrez, E., & Teshima, K. (2018). Abatement expenditures, technology choice, and environmental performance: Evidence from firm responses to import competition in Mexico. *Journal of Development Economics*, *133*, 264-274.

Hameed, Z., Khan, I. U., Islam, T., Sheikh, Z., & Naeem, R. M. (2020). Do green HRM practices influence employees' environmental performance? *International Journal of Manpower*, [ahead-of-print], Publication date: 18 February 2020.

Han, Z., Wang, Q., & Yan, X. (2019). How Responsible Leadership Motivates Employees to Engage in Organizational Citizenship Behavior for the Environment: A Double-Mediation Model. *Sustainability*, *11*(3), 605-618.

Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, *67*(3), 451-470.

Helm, S. V., Pollitt, A., Barnett, M. A., Curran, M. A., & Craig, Z. R. (2018). Differentiating environmental concern in the context of psychological adaption to climate change. *Global Environmental Change*, *48*, 158-167.

Henri, J. F., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Accounting, Organizations and Society*, *35*(1), 63-80.

Kaiser, F. G., Wolfing, S., & Fuhrer, U. (1999).Environmental attitude and ecological behaviour. *Journal of Environmental Psychology*, *19*, 1–19

Kim, S. H., Kim, M., Han, H. S., & Holland, S. (2016). The determinants of hospitality employees' pro-environmental behaviors: The moderating role of generational differences. *International Journal of Hospitality Management*, *52*, 56-67.

Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, *76*, 83-93.

Landry, N., Gifford, R., Milfont, T. L., Weeks, A., & Arnocky, S. (2018). Learned helplessness moderates the relationship between environmental concern and behavior. *Journal of Environmental Psychology*, *55*, 18-22.

Lee, J. Y., Park, S., & Baker, R. (2018).The moderating role of top management support on employees' attitudes in response to human resource development efforts. *Journal of Management & Organization*, *24*(3), 369-387.

LiLiobikiene, G., &Poškus, M. S. (2019). The Importance of Environmental Knowledge for Private and Public Sphere Pro-Environmental Behavior: Modifying the Value-Belief-Norm Theory. *Sustainability*, *11*(12), 3324-3343.

Liu, Y., Hong, Z., Zhu, J., Yan, J., Qi, J., & Liu, P. (2018). Promoting green residential buildings: Residents' environmental attitude, subjective knowledge, and social trust matter. *Energy Policy*, *112*, 152-161.

Luu, T. T. (2019). Building employees' organizational citizenship behavior for the environment. *International Journal of Contemporary Hospitality Management*, *31*(1), 406-426.

Majid A, Yasir M, Yasir M, Javed A. (2019). Nexus of institutional pressures, environmentally friendly business strategies, and environmental performance. *Corporate Social Responsibility and Environmental Management*, *27*(2), 706-716.

Morgil, İ., Seçil, A. R. D. A., Seçken, N., Yavuz, S., & OSKAY, Ö. Ö. (2004).The influence of computer-assisted education on environmental knowledge and environmental awareness. *Chemistry Education Research and Practice*, *5*(2), 99-110.

Nienaber, H. (2017). Immediate manager, performance evaluation and employee engagement: game changer for organizational performance? *READINGS BOOK*, 665.

Okumus, F., Koseoglu, M. A., Chan, E., Hon, A., &Avci, U. (2019). How do hotel employees' environmental attitudes and intentions to implement green practices relate to their ecological behavior? *Journal of Hospitality and Tourism Management*, *39*, 193-200.

Ottman, J. (2017). *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding*. Routledge. Berrett-Koehler Publishers.

Otto, S., Evans, G. W., Moon, M. J., & Kaiser, F. G. (2019). The development of children's environmental attitude and behavior. *Global Environmental Change*, *58*, 101947.

Paço, A., & Lavrador, T. (2017). Environmental knowledge and attitudes and behaviours towards energy consumption. *Journal of Environmental Management*, *197*, 384-392.

Paille, P., & Meija-Morelos, J. H. (2019). Organisational support is not always enough to encourage employee environmental performance. The moderating role of exchange ideology. *Journal of Cleaner Production*, *220*, 1061-1070.

Paille, P., &Meija-Morelos, J. H. (2019). Organisational support is not always enough to encourage employee environmental performance. The moderating role of exchange ideology. *Journal of Cleaner Production*, *220*, 1061-1070.

Paille, P., Mejia-Morelos, J. H., Marché-Paille, A., Chen, C. C., & Chen, Y. (2016). Corporate greening, exchange process among co-workers, and ethics of care: An empirical study on the determinants of pro-environmental behaviors at coworkers-level. *Journal of Business Ethics*, *136*(3), 655-673.

Pham, N. T., Tuckova, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, *72*, 386-399.

Roscoe, S., Subramanian, N., Jabbour, C. J., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, *28*(5), 737-749.

Shahab, Y., Ntim, C. G., Chengang, Y., Ullah, F., & Fosu, S. (2018). Environmental policy, environmental performance, and financial distress in China: Do top management team characteristics matter?. *Business Strategy and the Environment*, *27*(8), 1635-1652.

Shimoda, A., Hayashi, H., Sussman, D., Nansai, K., Fukuba, I., Kawachi, I., & Kondo, N. (2020). Our health, our planet: a cross-sectional analysis on the association between health consciousness and pro-environmental behavior among health professionals. *International Journal of Environmental Health Research*, *30*(1), 63-74.

Singh, S. K., Chen, J., Del Giudice, M., & El-Kassar, A. N. (2019). Environmental ethics, environmental performance, and competitive advantage: Role of environmental training. *Technological Forecasting and Social Change*, *146*, 203-211.

Singh, S. K., Del Giudice, M., Chierici, R., &Graziano, D. (2020). Green innovation and environmental performance: The role of green transformational leadership and green human resource management. *Technological Forecasting and Social Change*, *150*, 119762.

Steinbach, A. L., Holcomb, T. R., Holmes Jr, R. M., Devers, C. E., & Cannella Jr, A. A. (2017). Top management team incentive heterogeneity, strategic investment behavior, and performance: A contingency theory of incentive alignment. *Strategic Management Journal*, *38*(8), 1701-1720.

Stewart, J., & Tyler, M. E. (2019). Bridging organizations and strategic bridging functions in environmental governance and management. *International Journal of Water Resources Development*, *35*(1), 71-94.

Tariq, M., Yasir, M., & Majid, A. (2020). Promoting employees' environmental performance in hospitality industry through environmental attitude and ecological behavior: Moderating role of managers' environmental commitment. *Corporate Social Responsibility and Environmental Management*. [First published: 12 August 2020].

Tian, Q., & Robertson, J. L. (2019). How and when does perceived CSR affect employees' engagement in voluntary pro-environmental behavior? *Journal of Business Ethics*, *155*(2), 399-412.

Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *Journal of Cleaner Production*, *196*, 11-22.

Tuan, L. T. (2019). Catalyzing Employee OCBE in Tour Companies: Charismatic Leadership, Organizational Justice, and Pro-Environmental Behaviors. *Journal of Hospitality & Tourism Research*, *43*(5), 682-711.

Walls, J. L., Berrone, P., & Phan, P. H. (2012). Corporate governance and environmental performance: Is there really a link? *Strategic Management Journal*, *33*(8), 885-913.

Wang, Y., Chen, Y., & Benitez-Amado, J. (2015). How information technology influences environmental performance: Empirical evidence from China. *International Journal of Information Management*, *35*(2), 160-170.

Whitburn, J., Linklater, W. L., & Milfont, T. L. (2019). Exposure to urban nature and tree planting are related to pro-environmental behavior via connection to nature, the use of nature for psychological restoration, and environmental attitudes. *Environment and Behavior*, *51*(7), 787-810.

Widianto, S., Runing, H. S., Wahyuni, S., & Sunaryo, S. (2017, January). How team leaders, collective psychological capital and team goal clarity affect team performance. In *Academy of Management Proceedings* (Vol. 2017, No. 1, p. 13683). Briarcliff Manor, NY 10510: Academy of Management.

Wijethilake, C., & Lama, T. (2019). Sustainability core values and sustainability risk management: Moderating effects of top management commitment and stakeholder pressure. *Business Strategy and the Environment*, *28*(1), 143-154.

Wombacher, J. C., & Felfe, J. (2017). Dual commitment in the organization: Effects of the interplay of team and organizational commitment on employee citizenship behavior, efficacy beliefs, and turnover intentions. *Journal of Vocational Behavior*, *102*, 1-14.

Xiong, L., & King, C. (2019).Aligning employees' attitudes and behavior with hospitality brands: The role of employee brand internalization. *Journal of Hospitality and Tourism Management*, *40*, 67-76.

Yadav, P. L., Han, S. H., & Kim, H. (2017).Sustaining competitive advantage through corporate environmental performance. *Business Strategy and the Environment*, *26*(3), 345-357.

Yucedag, C., Kaya, L. G., & Cetin, M. (2018). Identifying and assessing environmental awareness of hotel and restaurant employees' attitudes in the Amasra District of Bartin. *Environmental Monitoring and Assessment*, *190*(2), 60-74.

Yusoff, Y. (2019). Linking Green Human Resource Management Bundle to Environmental Performance in Malaysia's Hotel Industry: The Mediating Role of Organizational Citizenship BehaviourTowards Environment. *International Journal of Innovative Technology and Exploring Engineering (IJITEE), 8 (9S3), 1625, 1630*.

Zhang, J., Cheng, M., Wei, X., Gong, X., & Zhang, S. (2019). Internet use and the satisfaction with governmental environmental protection: Evidence from China. *Journal of Cleaner Production*, *212*, 1025-1035.

Zientara, P., & Zamojska, A. (2018). Green organizational climates and employee pro-environmental behaviour in the hotel industry. *Journal of Sustainable Tourism*, *26*(7), 1142-1159.