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Environmental Performance of Budget Hotels in Pakistan. Nexus of Environmental Orientation, Eco-innovation and Competitive Intensity

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Abstract

The current study aims to investigate the influence of budget-hotels' environmental orientation (EO) on their eco-innovation (EI) and environmental performance (EP). Besides empirically testing the said direct relationship, mediating role of EI in the relationship between EO and EP has also been investigated. Moderating effect of competitive intensity (CI) of the firm has also been examined on the link between EI and EP. The requisite data for this study was collected from 422 individuals, working on various managerial positions in the budget-hotels in Pakistan. Correlation, path analysis, structural equation modelling and hierarchical regression were used for the purpose of data analysis.

Data analysis using SPSS and AMOS reveals a direct effect of EO on EI and EP. Moreover, the results substantiated that EI mediates between EO and EP. Moderating effect of CI on the link between EI and EP has also been confirmed. The study advocates new mechanisms which would be helpful in protecting natural environment. In the context of budget hotel segment of hospitality industry of Pakistan, the present study makes significant contribution to the literature through knowledge addition regarding the positive association of EO and EI.

Keywords: environmental orientation, eco-innovation, environmental performance, competitive intensity, budget-hotel, covid-19, Pakistan.

1. Introduction

During the last few decades, a number of scholarly studies emphasized the fact that different stakeholders have shown their serious concern and apprehension for deterioration of natural environment due to uncontrolled and unchecked economic operations (e.g. Céspedes-Lorente, Burgos-Jiménez, & Álvarez-Gil, 2003; Baah et al. 2021; Elmagrhi et al, 2019). Consequently, organizational leadership has realized the importance of environmental management and incorporated it in their strategic and policy decision making processes (Yasir et al. 2020). Environmental performance (EP) shows the level of organizational commitment for protecting natural environment (Kim et al. 2019) which can be observed through different indicators (Alomari and Ibraheem, 2019). In the contemporary business world, different industries including hotel industry have made significant progress in the area of environmental management by adopting different environmental protection practices (Ren et al. 2020; Tritto, 2020). However, the review of literature in the area of environmental management highlights that very rare research studies have so far been conducted regarding environmental performance of the budget hotels while most of the existing studies have explained the environmental management mechanism of large-scale star rated hotels (Chen, 2019; Riva, Magrizos and Rubel, 2021; Shah et al. 2021). Large scale hotels have sufficient amount of resources and expertise and thus it is much easier for them to control food wastage, water and power conservation, waste management etc. (Abuelhassan and Elsayed, 2020). But, as far as EP of budget hotels is concerned, the situation is more challenging because these organizations on one side face some major problems such as human resource (Aboramadan and Karatepe, 2021), use of technology (Mejia, 2019), poor marketing (Manigandan, Raghuram and Ganesan, 2021), low pricing and financial management (Pohland and Kesgin, 2018) and all these tantamount to give relatively less attention to the environmental performance (Sobaih, Hasanein and Elshaer, 2020 ;Johnstone and Hallberg, 2020) while on the other side the class of customers they serve demands for environmentally safe business practices (Indrayani and Wahyudi, 2020). So far, a few number of research investigations have been carried out to explore EP of the budget hotels especially in the context of emerging economies like Pakistan. The said research gap necessitates exploring EP of hospitality industry; particularly in the context of budget hotels in developing countries like Pakistan; hence this study has been conducted with the objective of filling the said research lacuna. It is a matter of fact that all the tourists and visitors cannot afford luxury four or five star hotels and thus millions of them prefer to get accommodation at relatively small economy and budget hotels (Sahin et al. 2020).Hence budget hotel sector is a very important part of the overall hotel industry and its operations would definitely have effect on the natural environment, which demands researcher attention to get investigated as how environmental performance of these hotels can be ensured.

Environmental management literature has given much importance to the notion of EP. The extant literature has highlighted various factors that have significant impact on boosting EP e.g. corporate social responsibility (Kraus et al. 2020) big data analytics (Benzidia et al. 2021) institutional quality (Usman, Elsalih and Koshadh,.2020) green human resource

management (Pham et al. 2020) etc. In addition to the aforementioned variables, environmental orientation (EO) has arisen as one of the most significant factors which not only helps in mitigating stakeholders demands but also enhances EP of the organizations. Kassinis and Vafeas (2006) explain that the Stakeholders theory given by Freeman's (1984) provides essential assumptions about numerous stakeholders for defining an organization's directions (Kassinis and Vafeas, 2006). Hence, in light of the theory, organizations maintain a competitive advantage when managers acknowledge the significance of environmental needs by addressing the expectations of many stakeholders (Huang and Kung, 2010). EO is managerial capability of understanding the significance of EP through fulfilling different stakeholders' demands (Keszey, 2020). Although some of the existing studies have shown link between different kinds of organizational orientation and organizational performance (Aboelmaged, 2018; Bu et al. 2020), there hardly exists any study which has explored the direct link between EO and EP of budget hotels in the context of Pakistan. Accordingly, the first objective of this research endeavour is to explain the mechanism through which EO influences EP of the budget hotels. It is pertinent to mention here that although EO has strong bearings on the organizational operations, however, its individual direct role in enhancing EP of budget hotels seems to be lacking in clarity and depth. Thus, in order to understand and explain the mechanisms involved amidst the direct relationship between EO and EP, it is imperative to find out those factors which are the outcome of EO on one hand while having a positive effect on EP on the other. Eco-innovation (EI) is one of the significant outcomes of EO (Zameer et al. 2020) which ultimately affects EP (Yurdakul, & Kazan, 2020). EI is defined as a novel or significant improvement in a process, product, or business approach that promotes the reduction of environmental hazards, pollution, and the harmful impacts of resource use, as opposed to traditional methods that overlook environmental concerns (Geng et al. 2021). The second and third objectives of this study are to analyze the direct relationship between EO and EI and EI and EP respectively. Similarly, the fourth objective of the study is to investigate the indirect relationship between EO and EP through mediation by EI which has not been found in the existing body of knowledge.

In addition to the above-mentioned factors, organizations always struggle for their survival in the competitive business environment. With the growing environmental awareness among different segments of society, in the competitive business environment, organizations are making all out efforts to enhance their EP for gaining competitive edge. So, it is the competitive intensity (CI) of the market which boosts up the efforts of organization for better EP. This study also analyzes the moderating effect of competitive intensity on the link between eco-innovation and EP of the budget hotels, which will accomplish the fifth objective of the study.

In order to address the research questions and get the intended results, the present research study is comprised of the following major sections: literature review has been discussed in the next section followed by the research methodology. Data analysis, conclusions drawn, recommendations for future research as well as policy implications have been explained in the subsequent sections.

2. Literature Review and Hypothesis Development

2.1 Environmental Performance

EP of an organization is defined as the level to which it takes actions to include environmental considerations while making operational decisions and observing prescribed standards (Khan et al. 2020). It is the relationship between the firm and its environment. EP includes activities such as waste reduction, decreasing subcomponents of the products, minimizing packing weight and size, installing environmentally friendly machinery and equipment, using appliances for controlling pollution as well as using fuel which produces no or minimal pollution (Alomari and Ibraheem, 2019; Naidoo and Gasparatos, 2018). With better EP, a firm can get confidence of the customers, regulatory bodies and other stakeholders, capture new and better markets as well as can earn better status in the industry (Reyes-Santiago et al. 2019). All this supports the firm in expanding its business activities and earning higher financial performance (Seman et al. 2019). Thus, through better EP an organization can ensure not only the preservation of natural environment but it would also enjoy many other advantages.

One of the greatest challenges facing humanity today is climate change (Painter, 2020) which has been identified as a direct result of poor environmental performance of business enterprises along with rapid population growth and industrialization. In the present era, business organizations are under tremendous pressure of stakeholders for minimizing environmental impact resulting from business operations (Chen, 2019). Therefore, business firms are required to follow environmental rules not only to accomplish their economic goals but also to measure their social contribution (Rehman et al. 2021). Business organizations involved in manufacturing activities which have aimed to minimize or properly remove their business waste, have been reported to have enhanced their business performance (Rehman et al. 2021). Similarly, in services industry particularly the hospitality sector, hotels which aim to minimize their waste, and control operational costs through educating their customers and employees regarding energy conservation can enhance their EP (Chen, 2019). In light of the above, it is evident that EP is a highly valuable source for the hotels to win the confidence of their stakeholders.

2.2 Environmental Orientation

Environmental orientation is the inclusion of environmental problems into business strategy in order to reduce the negative impacts of the firm's activities on the natural environment (Medrano et al. 2020). It is a core concept in the parlance of environmental management, which highlights how seriously the firms take environmental degradation being caused by their operations and work for addressing the resulting issue. In a nutshell, it is all about minimizing the negative environmental consequences of corporate activities.

The concept of environmental orientation has been debated in the research arena for a quite reasonable time (Hörisch, Kollat and Brieger, 2017; Medrano et al. 2020; Yasir, Majid and Qudratullah, 2020; Zameer et al. 2021). Business organizations have been pressurized by various stakeholders for contamination and deterioration of natural environment (Martínez

Hernández et al. 2021). Environmental orientation is one of the significant mechanisms through which organizations acquaint themselves with the stakeholders' reactions regarding their environmental initiatives (Danso et al. 2020). It is a highly effective source which enables organizations to be cognizant of the different stakeholders' perception as their reaction highly influences organizations' decision-making activities (Brulhart et al. 2019). Thus, in order to satisfy the environmental demands of various stakeholders like employees, customers, suppliers, business partners, trade unions, regulatory bodies, and law enforcing agencies etc. environmental orientation is especially focused upon by the organizations.

Environmental orientation is an organization's sense of responsibility to minimize negative effects of its operations on the natural environment (García-Sánchez et al. 2021) which not only gives emphasis to achieve economic objectives but also fulfils social and environmental needs (Brulhart et al. 2019). It has been broadly categorized as internal and external environmental orientation (Yu and Huo, 2019). Organizations' internal values, commitment and standards set for environmental protection that are embedded in the organizational routines and cultures are covered under internal environmental orientation (Bu et al. 2020). Niemann et al. (2020) are of the view that external environmental orientation is influenced by the institutional theory, which highlights firms' environmental management efforts that are the result of demands of various stakeholders. Ultimately organizations take various decisions which are highly influenced by the demands of these stakeholders. In light of above, it is hypothesized that environmental orientation is a key predictor of EP of the firm.

2.3 Environmental Orientation and Environmental Performance

EO has evolved as a key element in corporate environmentalism, indicating a proactive and inventive approach to environmental challenges (Chavez et al. 2021). In order to achieve competitive edge, such as EP it is one of the most important ways to get confidence of the various stakeholders of the organization (Chan et. al 2012). Since, environmental performance is a significant area particularly in the context of tourism services, therefore, it is imperative that a hotel firm must be fully clear about the EO to ensure attainment of better EP (Adomako et al. 2019).

EO possess the potential to support the EP of the organization. Most of the previous studies have also reported that EO has a positive effect on the EP of the firms. Niemann et al. (2020) conducted their study on German and Denmark based clean-tech organizations and reported that EO is a key predictor of EP of the organizations. Gilal et al. (2019) investigated the environmental performance mechanism in the higher education institutions of Pakistan. They revealed that the organizations concerned about the environment pay attention both internally and externally. In this respect they further argued that that EO is one of the most influential factors contributing towards EP. Yu and Huo (2019) endorsed the role of internal EO and reveal that these are the internal norms, values and beliefs, regulatory requirements, social responsibilities and legally binding agreements which all force the organizations to curb the activities causing pollution to ensure an environment which is conducive not only for working but also for living (Yu and Huo,

2019). Internal EO plays a very important role in inspiring the organization to enhance its EP (Tenner and Hörisch, 2021). Internal environmental orientation pressurizes for devising a strategy to ensure regulatory compliance and economic use of resources. In organizations where internal environmental orientation is not up to mark, they mostly struggle hard for survival as their very legitimacy is threatened. Hence these organizations make all out efforts to augment their EP. Besides internal environmental orientation, an organization's EP is also highly influenced by the external environmental orientation. Pressures exerted by external environmental orientation, force an organization to minimize air and earth pollution being caused by their operations and thus enhance EP (Yu and Huo, 2019). Hence, in this way environmental orientation as a whole plays its role in enhancing EP of an organization. On the basis of aforementioned arguments, it can be hypothesized that:

H_1: Environmental orientation positively influences EP of the organization.

2.4 Eco-Innovation

In the general sense, "innovation" is defined in a variety of ways. In connection with the present study, innovation is concerned with the discovery, development or adoption of novel ideas by the organizational management as a product, process or a decision (Ali et al., 2021). Some of the existing studies support exclusively new ideas for ensuring sustainability and solving major issues by way of radical innovation (Cai and Li, 2018).

Eco-innovation, environmental innovation or green innovation pertain to the processes carried out for making new products, processes or services that offer value to both customer and business besides significantly reducing allied environmental effects (Daddi et al., 2019; Kemp and Pearson, 2007). Eco-innovation is defined as the use of completely new or significantly enhanced products, processes, marketing solutions, and marketing improvements that result in lesser use of natural resources besides minimum discharge of hazardous substances during the whole lifespan (Gente and Pattanaro, 2019). García-Granero and Piedra-Muñoz (2018) asserted that eco-innovation is the dynamic process which organizations adopt with a view to introduce methods and processes assuring more efficient resource use, in addition to decreasing the overall environmental effect. Actions like the introduction of novel and more energy-saving technologies, novel service delivering processes, new water-saving equipment, new environmental pollution control measures, innovative organizational structures etc. will minimize the environmental effects as compared to those practices which are being substituted by these actions (Daddi, Iraldo et al. 2019). It facilitates a quality of life for everyone through economical use of natural resources and minimum discharge of substances that are poisonous.

Eco-innovation encompasses not just end-of-pipe technology, but also advances in people's lifestyles and habits. Eco-innovation leads to lower emissions and waste. Eco-innovation is based on eco-efficiency, which is the ratio of a product's or service's economic value to the environmental degradation produced by that product or service. Organizations make investment in eco-innovation with a view to get more efficient competitive edge, in the environmental impacts of a given product and/or service (Andersen, 2008; Geng et al., 2021). Besides a decrease in adverse environmental impacts, eco-innovation is also used

for various other purposes, e.g. to enhance resource-efficient productivity (Kuo et al., 2018; OECD, 2009) or to increase the understanding of international environmental change along with its association with social and economic system (He et al., 2018). The application of eco-innovation by organizations is vital in facilitating companies and societies to ensure environmental sustainability.

The development of effective environmental practices demands from firms to enthusiastically respond to multifaceted and turbulent business environments. In such unpredictable circumstances, managers are helped out by environmental orientation through provision of viable organizational procedures. Peng and Liu (2016) carried out analysis of 144 Chinese manufacturing firms and reported a positive impact of organization's EO on eco-innovation practices. Similarly, Aboelmaged, (2018) conducted survey on hotels in United Arab Emirate and collected data from 182 hotels managers and reported a positive association between EO and EI. EO augments the development of EI by attaining the environmental objectives. As a result, the ambition of external environmental advices, such as customer environmental demand and competition in environmental protection practice in the same industry, will influence the enterprise to implement eco-innovation in the face of environmental problems, either passively or actively (Kuo, Fang, & LePage, 2021). Industry practitioners and research scholars have widely accepted eco-innovation as a powerful method and more effective methods for minimizing environmental problems (Dangelico, Pujari and Pontrandolfo, 2017; Singh et al., 2020). Zameer et al. (2021) conducted their study in the equipment manufacturing industry of China and reported a positive impact of EI on EP. Similar results were also reported by Singh et al. (2020). Consequently, it can be expected that eco-innovation ensures production of goods and services in a more economical way which also helps the organizations in complying with the environmental regulations. Based upon this discussion, the following hypotheses have been developed.

H_2: Environmental orientation positively influences eco-innovation.

H_3: Eco-innovation positively influences environmental performance

2.5 Mediation by Eco-Innovation

The EP is concerned with the refinement of energy and resources utilization efficiency besides reducing environmental impact. Moreover, it results in providing a number of benefits such as cost minimization, enhancing productivity, attracting environmentally conscious customers and building organizational development (Daddi et al., 2019; Konuk, 2019). Generally speaking, eco-innovation is a way forward to improve EP (Zameer et al., 2020). It can effectively improve the EP of hospitality firms through improving efficiency and synergy, by way of improving enterprise competitiveness and cost savings (Scarpellini et al., 2020). Through upgrading their environmental adaption mechanism, EP of the organizations will be enhanced which becomes a source of improving their environmental image. Thus, it will give a competitive advantage to the organization and provide new business opportunities (Chen, 2008). As a result, according to the previously stated hypothesis and explanation provided in this area of the research, organizations' environmental orientation will significantly make them capable of eco-innovations that

would eventually increase EP. Eco-innovation brings about change in business processes and systems, which results in increasing output, minimizing resources costs, greenhouse gas emission minimization, replacing harmful inputs, production process optimization and lowering adverse effects of service and product output, that all would lead to enhanced EP in the presence of competitive intensity. The previous studies also reported the mediating effect of EI on the link between EO and hotel performance (Aboelmaged, 2018). This assumption in the context of budget-hotels of Pakistan, can empirically be tested through the following hypotheses:

> H_4: The relationship between environmental orientation and environmental performance is mediated by eco-innovation.

2.6 Competitive Intensity

According to Auh and Menguc (2005), competitive intensity refers to that situation where ferocious competition prevails because of the existence of so many competitors without any additional growth opportunities. Since long, it has been reported as a key factor which causes hostility for the routine operating environment of the organizations (Feng et al. 2019). As regards to this view, previous research studies have contended that contrary to the high competitive intensity, in case of low competition, performance of a firm is not affected despite its not paying full attention to the needs of clients (Likoum et al., 2020). The reason is that customers do not switch over to other firms due to limited number of alternatives.

Competitive intensity is a significant factor, the existence of which has great influence on the EP of an organization. In an intensively competitive environment, firms are forced to take on their operations accordingly. In a highly competitive environment, firms are required to take pro-active activities like searching for new channels of competition and pinpointing differentiation of their services, products and procedures on the basis of eco-friendly innovation.

It is expected that the existence of competitive intensity may have a contingent effect on the link between eco-innovation and EP.

2.7 Moderating Role of Competitive Intensity

In line with the aforementioned arguments Crick and Crick (2020) have recently asserted that business organizations are required to be highly market responsive in order to defuse aggressive actions of the rivals in a more competitive market. Those organizations which pay attention to eco-innovation for satisfying customers and other stakeholders' needs are expected to show better environmental performance as compared to firms performing the same in a less competitive situation. The said view is further highlighted by the extant innovation literature which contends for the more prominent competitive benefits which can be derived by the organizations through creating pro-environmental value addition for their customers (Ali et al. 2021). CI has also been used as a moderator in the previous studies such as Eldor, (2020) and Feng et al. (2019).

In view of the foregoing, it is reasonable to predict that competitive intensity will function as a moderator in the link between eco-innovation and environmental performance. Previous research studies have also highlighted the moderating role of competitive intensity (Ndubisi et al., 2020). In order to empirically test the above arguments, it is hypothesized that

> H_5: Competitive intensity moderates the relationship between eco-innovation and firm environmental performance.

2.8 Theoretical Framework

Figure 1 shows the constructs of present study i.e. EO, EI, EP and CI. On the basis stakeholder's theory this study explained direct and indirect relationship among the said constructs of the study.

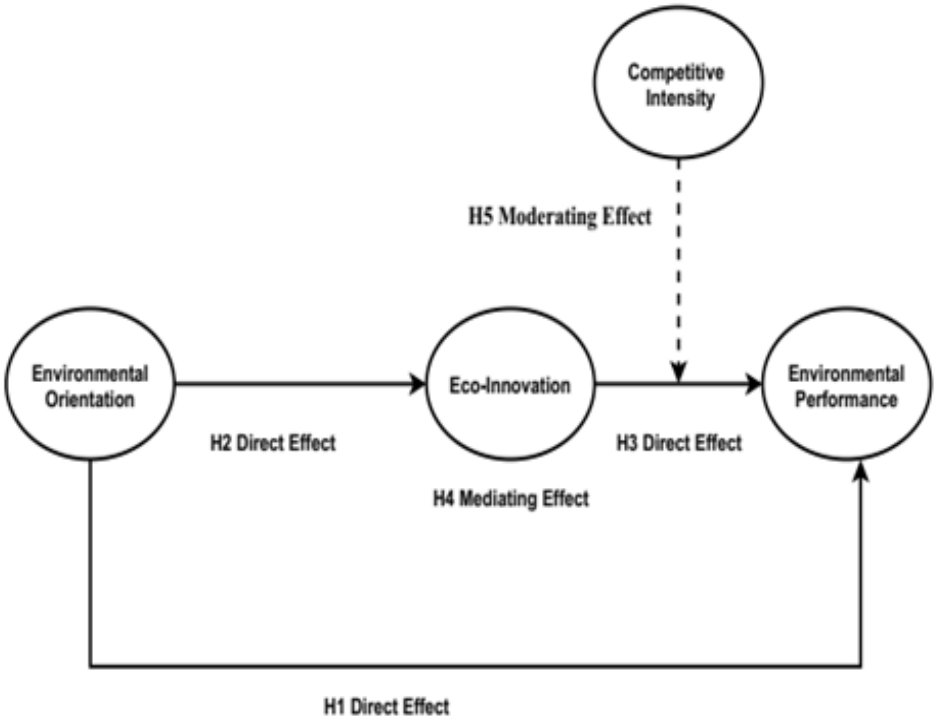

Figure 1: Theoretical Framework

3. Methods

3.1 Population and Sample Size

The research population for this study comprised of budget hotels in Khyber Pakhtunkhwa province of Pakistan. The rationale behind selecting the budget hotel segment was that most of the previous studies have made investigation regarding the environmental performance of star rated large scale hotels (e.g. Chen, 2019; Abuelhassan and Elsayed,

2020) which have ample amount of resources and formal environmental policies and systems of environmental management and adhere to the environmental regulations and other institutional pressures keeping in view their market position as well class of the customers they serve. While on the other hand, the budget hotel segment which is the largest component of the overall hotel industry does not get due scholarly attention particularly in the area of environmental management (Chan, Okumus and Chan, 2018; Sahin, Indrayani and Wahyudi, 2020). Moreover, these hotels are expected to have a major contribution in affecting natural environment.

For the purpose of data collection, 725 managers of different levels such as managing directors, CEOs, general managers, finance managers, event managers etc. working in the budget hotels were approached. Hazara and Malakand Division were selected for conducting the study. The said regions are blessed with marvellous natural beauty and every year these destinations are visited by millions of national and international tourists. Keeping in view the number of tourists visiting the proposed geographical regions as well as sufficient number of budget of hotels in the said areas, the given areas are the most suitable regions for research study.

A list of budget hotels was obtained from the Directorate of Tourism Service of Khyber Pakhtunkhwa. The data collection process for the study was carried out while observing all the national and international standards and protocols. The questionnaires annexed with a cover-letter describing the purpose of the study, were sent to the concerned respondents on their hotel's mailing addresses. The data collection process for this study was an extensive activity which was completed in three phases started during May 2021 and continued through June 2021. It was observed that the response rate for the mailed questionnaires was not satisfactory and it might be due to the apprehensions linked with Covid-19. However, the respondents were contacted again through telephone calls and were motivated by highlighting the significance of the study and were convinced to give their response. In the final phase the researchers got assistance from a team of five trained and well conversant research assistants for collection of the filled-up questionnaires which were already sent by mail. At the end, the team managed to collect 422 useable responses with a response rate of 58.53%.

3.2 Measurement

Data collection for this study was made through a structured questionnaire. The 5-point Likert scale was used to measure different constructs of the study. Questionnaire was divided into two main sections. The first section contained information about the demographics of the respondents such as his/her age, education, experience etc. To ensure a better assessment of the study background and contextual aspects, the aforementioned demographics have been used as control variables. The items pertaining to main research constructs i.e. EO, EI, MI and EP are given in the second part of the questionnaire.

3.2.1 Environmental Orientation

EO was measured using a four items scale developed by Chan et al. (2012). The same measures were also used by Zameer et al., (2020). These items generated Alpha value of 0.824.

3.2.2 Eco-Innovation

A four items scale developed by Kusi-Sarpong et al. (2015), was adapted to measure the construct of EI. The said items generated Cronbach's alpha value of 0.791.

3.2.3 Competitive Intensity

This construct was measured using six items scale, adapted from the work of Jaworski, , and Kohli, (1993). Cronbach's alpha value of 0.791 was generated by the said six items.

3.2.4 Environmental Performance

Kim et al. (2019) introduced a seven items scale for measuring EP, which has been used in other studies such as Umrani et al. (2020). Accordingly, this study also adapted the said seven items scale for measuring EP of the budget hotels, which generated an alpha value of 0.873.

4. Data Analysis

We used descriptive statistics, correlations and path analysis to analyze the data. Statistics of composite reliability, average variance extracted, and discriminant validity are shown in Table-1. Mean, standard deviation and correlation of the constructs is shown in Table-2.

4.1 Assessment and Measurement Model

All composites along with their associated indicator's reliability statistics have been reflected in Table-1. As per recommendations of Roldan and Sánchez-Franco's (2012), factor loading values of all the indicators, values of composite reliability (CR), average values extracted (AVE) as well as Cronbach's alpha values are presented. As suggested by Wong (2013), square of indicator loading was taken in order to calculate indictor reliability. The statistics show that minimum acceptability criteria have been fulfilled by all the composites and indicators. All factor loadings are above 0.70-the threshold value, likewise indicator reliability values are also above the baseline of 0.4. As regards the composite reliability, it is also above 0.6 i.e. threshold value (Bagozzi, Fornell and Larcker, 1981). Similarly, minimum criteria of Cronbach's alpha (i.e. 0.7) has also been passed by all the relevant composites.

Manual calculations of discriminant validity were made by individually taking the square root of each composite' values of AVE and comparing them with other latent variables' correlation values. The requisite values were more than the corresponding correlations (Bagozzi and Yi, 1988).

Table 1: Composite Reliability and Average Variance Extracted

Constructs	Factor Loading	AVE	CR	Cronbach's alpha
Competitive Intensity				
CI 1	0.813	0.711	0.871	0.791
CI 2	0.817			
CI 3	0.871			
CI 4	0.823			
CI 5	0.731			
CI 6	0.847			
Environmental Orientation				
EO 1	0.844	0.712	0.967	0.824
EO 2	0.827			
EO 3	0.808			
EO 4	0.844			
Eco-Innovation				
EI 1	0.813	0.711	0.871	0.791
EI 2	0.817			
EI 3	0.871			
EI 4	0.823			
Environmental Performance				
EP1	0.838			
EP2	0.814			
EP3	0.845			
EP4	0.850			
EP5	0.847			
EP6	0.798	0.731	0.850	0.873

Note: CR: Composite Reliability; AVE: Average Variance Extracted

4.2 Confirmatory factor analysis

AMOS 7.0 was used to evaluate model fitness by using the technique of confirmatory factor analysis (CFA). Four separate models with different configurations were used to validate the model fitness. The first model included environmental orientation, eco-innovation, competitive intensity and environmental performance ($\chi^2 = 134.25$; df = 116 p < .001; CFI = .84; GFI = .86 and SRMR = .19). In case of second model, factor one includes environmental orientation and eco-innovation while second factor includes competitive intensity and environmental performance ($\chi^2 = 123.09$; df = 108 and SRMR = .08). Similarly, the three factors model includes environmental orientation and eco-innovation as one factor, competitive intensity as second factor while environmental

performance as a third factor (χ^2 = 129.11; df = 105 p < .001; CFI = .82; GFI = .87 and SRMR = .076). Environmental orientation, eco-innovation, competitive intensity and environmental performance respectively are included in the four factors model. CFA of the four-factor model highlight that data is a good fit (χ^2 = 141.21; df = 116 p < .001; CFI = .95; GFI = .916 and SRMR = .054).

4.3 Descriptive Statistics

Results of the descriptive statistics are given in Table 2. These results show a higher score on eco-innovation, as reported by the average respondents. Similarly, a higher sample mean for environmental orientation has also been reported. As regards the average level of competitive intensity is concerned, it was 3.3 while in case of environmental performance the same was 3.5. The respondents' average age was 29.67 years.

The statistical results confirmed that the variables of the study were strongly correlated. The results shown a significant correlation between environmental orientation and eco-innovation (r=0.34), competitive intensity (r=0.20), and environmental performance (r=0.14) which are all significant. Similarly, a significant correlation was also confirmed by the results, which confirmed that competitive intensity (r=0.16) and environmental performance (r=0.28) are significantly correlated. While analyzing the mediating effects, the norms of Baron and Kenny (1986) were also given consideration in support to the relationships of variables.

Table 2: Descriptive Statistics and Correlation

Variable	Mean	S.D	1	2	3	4	5	6	7
Gender	0.09	.53	1						
Age	29.67	12	.09	1					
Education	2.9	.28	-.01	.03	1				
Experience	2.2	.72	.02	.04	.07	1			
Environmental Orientation (EO)	3.6	.61	.01	.05	-.04	.05	1		
Eco-Innovation (EI)	3.8	.79	.01	.02	-.05	.03	.34 **	1	
Competitive Intensity (CI)	3.3	.89	-.04	.03	-.06	.05	.20 **	.16 **	1
Environmental Performance (EP)	3.5	.55	-.05	.08	.04	.09	.14 **	.28 **	.23 *

Note: * p < 0.05, two tailed; ** p< 0.01, two tailed

4.4 Hypotheses Testing

Research hypotheses testing was carried out through structural equation modelling (SEM). Table 3 highlights the results of the path analysis.

Table 3: Parameter Estimates, Critical Ratio and Significance Values

Paths	Estimates	Standard Error	C.R (t-value)
EP ← EO	.16	.063	2.698**
EI ← EO	.32	.057	5.964**
EP ← EI	.29	.059	4.915**

Note: two tailed; ** $p < 0.01$, two tailed
EO (Environmental Orientation), EI (Eco-Innovation), CI (Competitive Intensity), EP (Environmental Performance)

Table 3 shows that there is a positive and significant association exists between environmental orientation and EP ($\beta = 0.16$, $t = 2.698$, $p < 0.01$). Therefore, the results support hypothesis 1 of the study which are consistent with the findings of Yasir, Majid & Qudratullah, (2020). It was also confirmed through the results that environmental orientation has a significant association with eco-innovation ($\beta = 0.32$, $t = 5.964$, $p < 0.01$. Hence hypothesis 2 of the study is supported which are consistent with the result of Peng and Liu (2016) Similarly, the results confirm that eco-innovation has a significant association with environmental performance ($\beta = 0.27$, $t = 4.915$, $p < 0.01$. Thus hypothesis 3 of the study is supported which are consistent with Zameer et al. (2021).

This study used normal test theory approach for verifying the significance as well as size of indirect effects of environmental orientation on environmental performance. It is worth mentioning that Preacher and Hayes, (2008) suggested that statistics for total, both direct and indirect effects are worked out through normal test theory. Measurement of direct and indirect effects was carried out by using SPSS version PROCESS Macro. Results of direct and indirect effects are enlisted in the following table 4. The table depicts total effect ($\beta = 0.25$**), direct effect ($\beta = 0.17$**) and indirect effect (0.25 - 0.17 = 0.08), of environmental orientation on environmental performance through eco-innovation. The Sobel test outcome i.e. ($Z = 4.72$), confirmed the indirect effect of environmental orientation on environmental performance via eco-innovation. Thus, hypothesis 4 of the study was substantiated.

Table 4: Direct and Indirect effects of EO on EP using SPSS version of PROCESS

Mediation Models	Total Effect			Direct Effect			Indirect Effect Normal Test Theory		
	B	*T*	*P*	*B*	*T*	*P*	*B*	*Z*	*P*
EO→ EI→ EP	0.25	8.72	0.00	0.17	1.39	0.08	0.08	4.72	0.00

Note: EO (Environmental Orientation), EI (Eco-Innovation), EP (Environmental Performance)

4.5 Moderating Analysis

Moderation effect was observed with the help of hierarchical regression. In the following Table 5, Step-1 and step-2 were used, which give explanation about the base model.

Similarly, step-3 as shown in the table, gives information regarding the moderation of competitive intensity on the association between eco-innovation and environmental performance. The table also highlights the coefficient of the interaction term i.e. eco-innovation x competitive intensity, which indicates that competitive intensity positively affect the link between environmental orientation and environmental performance ($\beta = .16$, $p < .01$) The results are in consistent with the findings of Feng et al. (2019).

Table 5: Results of Multiple Hierarchical Regressions

	Step 1	**Step 2**	**Step 3**
Moderating Effect of Competitive Intensity			
Gender	0.030	0.013	0.007
Manager Age	0.025	0.018	0.014
Manager Qualification	0.006	0.005	0.006
Manager Experience	0.030	0.034	0.044
Eco-Innovation		.32**	.34**
Competitive Intensity		.17**	.20**
Eco-Innovation x Competitive Intensity			.16**
R^2	.009	.191	.198
Adjusted R^2	.003	.159	.175
ΔR^2	.007	.163	.028
ΔF	3.182	69.83	16.18

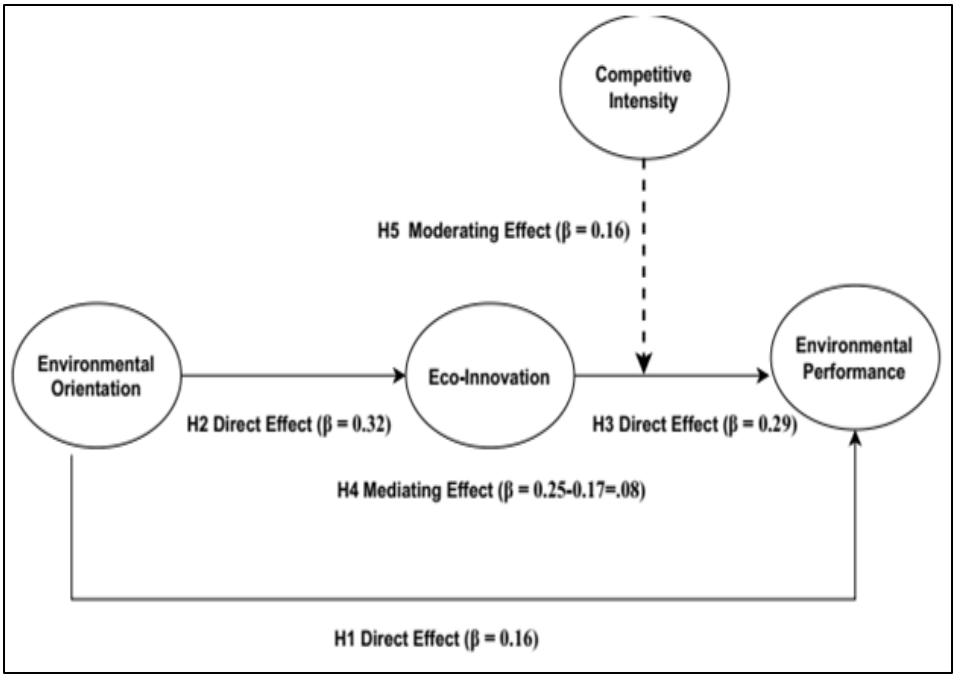

Figure 2: Path Coefficients

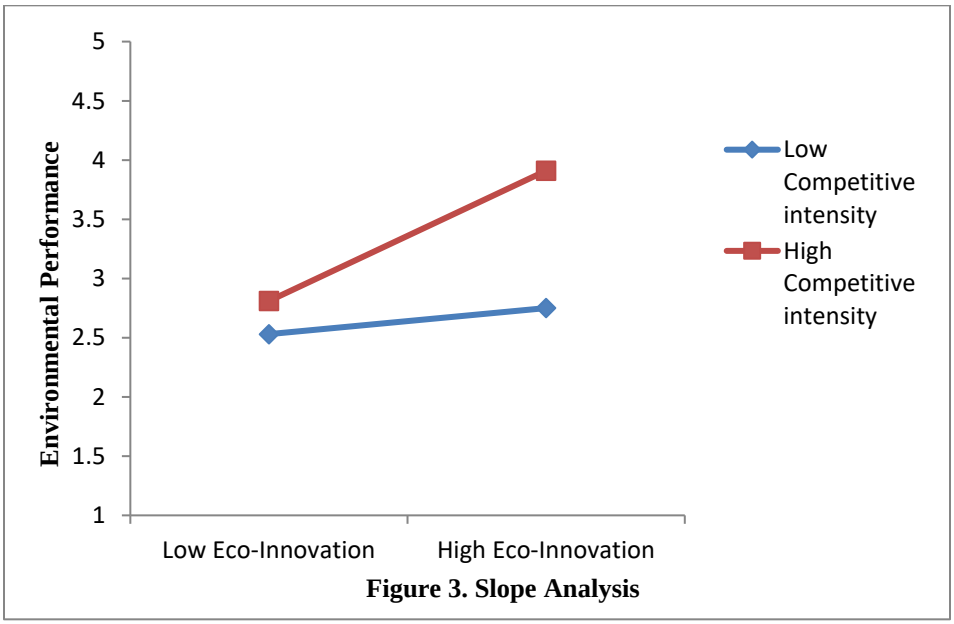

Figure 3. Slope Analysis

As suggested by Aiken and West (1991) we also conducted slope analysis for moderation of CI on the link between EI and EP, as shown in Figure 3. It reflects that when a low degree of competitive intensity prevails, it has a mild effect on the EP. However, when the CI is high, it clearly shows that EP of the budget hotels will boost up.

5. Discussion

This research study was conducted in order to provide intensive knowledge and understanding to the organizational management and practitioners through explaining the mechanism as how EO of the budget hotels acts for making improvement in EP of these hotels through the mediation by EI where the contribution of CI strengthens the association between EI and EP.

Hence, this study interlinks the EO with EI, CI and EP. In addition to this, the indirect relationship between EO on EP through EI has also been investigated. The present research endeavor was carried out to answer as how EO influences EP, and also to explain the role of EI in establishing the said relationship. This study was carried out with three main motivations i.e. (i) to address the need to remove discrepancies in the empirical results, in theoretical consideration of the association between EO and EP and (ii) to fulfil the requirement as how EI plays the role of bridge between EO and EP (iii) to confirm if the link between EI and EP could be strengthened through the moderating role of CI. Five different hypotheses were formulated in the present study in order to investigate the relationship between EO, EI, CI and EP. Findings of the study substantiated all the hypotheses. As per results shown by data analysis, H1 substantiated the direct impact of EO on EP, which is consistent with the findings of Yasir, Majid & Qudratullah, (2020). Accordingly, it is suggested that EO is one of the most effective variables which augments EP of the hotel. As far as H2 is concerned, the results confirmed that EO positively influences EI. In fact, it is the EO which signals for introduction of innovative ways, processes, procedures, structures etc. and hence EO supports EI. Similar results were reported by Aboelmaged, (2018). In case of H3, it was hypothesized that EI has a positive direct relationship with EP. The data analysis confirms that a direct, positive and visible relationship exists between EO and EI. It was proved through data analysis that the budget hotel EP is enhanced when they go for EI with a view to preserve resources like water (e.g. dual flush valves in toilets), energy (using solar system for heating, cooling etc.), waste (e.g. recycling of papers) as well as other resources. These findings are in line with the previous studies of Costantini, Crespi, Marin, & Paglialunga (2017). In case of H4, it was confirmed through the data analysis that EO predicts EP through EI. In fact, EO of the organization encourages for EI practices and ultimately it enhances EP. Similarly, H5 was also substantiated and it was proved that CI boosts up the association between EI and EP.

5.1 Theoretical Contributions

This study is a valuable and exceptional addition to the stakeholders' theory and body of knowledge in the area of environmental management. The noteworthy strength of the present research study is the consideration of organizational level constructs which affect the EP. Although a number of studies have been carried out to explore EP, however, it is one of the rarest studies which have focused to gauge EP through the lens of organizational

level variables so that an exclusively analysis is made. Secondly, the present study makes a remarkable contribution to the existing literature by giving an eco-innovation model for budget hotel segment of the overall tourism and hospitality industry providing services in the developing countries like Pakistan. The model explains as how the organizational level factors like EO and EI explain the EP of budget hotels. The third theoretical contribution of this research work pertains to the investigation of link between EO and EI. When an organizational management makes understanding of the environmental demands of various stakeholders and incorporates various significant clauses in its vision and mission and other policy statements, all this leads to adopting various EI practices. Fourth theoretical contribution of the present research study is the investigation of EO in improving EP through EI in the organizational context. EI are the novel process, practices, plans, structures etc. which ensure resource protection with minimum loss to the natural environment (Peng, & Liu, 2016; Scarpellini, Valero-Gil, Moneva, & Andreaus, 2020). The available literature of environmental management lacks in providing any significant evidence which clarifies EI with respect to its determinants and outcomes simultaneously. Accordingly, the present study focused on EO as a key determinant of EI and EP as its outcome and hence filled up the said research gap in the existing literature. Finally the moderating role of CI has also been analyzed in the present study and it is suggested that in the presence of CI, EI has a more significant contribution towards EP.

5.2 Practical Implications

The present research work has remarkable implications for hospitality service providers, practical management and policy makers as well. First, the present study suggests that hospitality industry must pay full attention on EP as in the present day world customers and all other stakeholders are well conversant with respect to counterproductive effects of the business operations on the natural environment. Second, the findings of the study suggest that EP of the budget hotels can be improved through EI. It is imperative to highlight that EI initiatives are highly influenced by the managerial environmental decisions including understanding the environmental demands of various stakeholders, therefore, it is suggested that in order to ensure sustainable growth and enhancing EP, management must pay attention on EO (Yurdakul, & Kazan, 2020). Third, findings of the study suggest that hospitality firms can improve their EP and properly address the various demands of the relevant stakeholders through paying attention on EI initiatives such as using solar heating/cooling system, use of LED lighting, provision of clean water by application of sewerage treatment plants and waste management by converting organic waste into energy through anaerobic digestion application (Aboelmaged, 2018).

Fourth, the present study also emphasized upon the mediating mechanism wherein EI plays the bridging role between EO and EP. The management of the firms must pay full attention on the environmental demands of different stakeholders, which would ultimately prove helpful in considering environmental aspects and adopting desired EI initiatives. It is a matter of fact that attaining EP is a tricky game and EO may facilitate the budget hotel

firms in protecting natural environment, however, it could be more viable if the management pay attention on the application of the EI initiatives.

Fifth significant implication of the present study is its focus on CI, which is a highly influential factor in enhancing EP by way of EI. When there will be tough competition in the economy class hotel firms, in order to ensure differentiation, they would adopt EI initiatives for enhancing their EP and would attempt to gain competitive edge through attracting more and more customers by displaying an environment friendly image. Hence, it is important that there should be a competitive business environment for budget hotel firms, which might allow them to attain their respective goals with their unique EO and superior environmental performance.

5.3 Conclusion

This study was carried out with a view to investigate the impact of EO on EI and EP. Besides this, the mediation analysis of EI on the link between EO and EP has also been conducted. Furthermore, this study has also investigated the moderating role of CI on the relationship between EI and EP. Findings of the study explain that managerial understanding of the importance of natural environment is a pre-requisite for bringing EI initiatives that may prove helpful in protecting the natural environment. Hospitality firms may enhance their environmental performance through adopting various EI measures having potential to bring drastic improvement in the EP. Interestingly, EI initiatives also play a mediating role in the link between EO and EP. Last but not the least, competitive intensity plays a pivotal role in enhancing EP by way of EI.

5.4 Limitations and Future Directions

Despite all out efforts, the present study is facing the following limitations which can be considered in the future studies: First, this research studies comprised limited number of variables, if more variables are added to the current model, it may prove more fruitful. The contemporary research studies emphasized the role of green innovation (Rehman et al. 2021) and green intellectual capital (Mansoor, et al. 2021) as important predictors of environmental performance. Secondly, the study has been conducted in the context of budget hotel segment of the hospitality industry of developing economies like Pakistan. It is possible that if the environmental performance of star rated hotels or any other hospitality facilities like rest houses is investigated nationally or globally, it may give different results which may prove helpful in attaining the United Nations Sustainable Development Goals 2030. Thirdly, due to the Covid-19 issue, many of the hotel units were found closed over an extended period of time and thus due to non-attending their land-line official phones, opinion from such hotelier could not be incorporated in the survey, and thus the result may not be error free. Finally, the present research has been carried out during the third wave of Covid-19 and hopefully after overcoming the pandemic, environmental performance of the target sector of hotels may be different. For future research studies, it is recommended that keeping in view the limitations of the present study, when the normalcy of life is restored, a large-scale study should be carried out which may have different results in the follow-up of new protocols of life in general and of hotels sector in particular. Moreover,

the post covid-19 research may also explain as how the pandemic influenced the overall environmental performance of the hospitality firms.

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