Article

Corporate Social Responsibility, Green Human Resources Management, and Sustainable Performance: Is Organizational Citizenship Behavior towards Environment the Missing Link?

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Abstract: The manufacturing sector is one of the major sources contributing towards economies as well as environmental pollution. Contributing to the theory of ability motivation opportunity theory, the aim of the current study was to investigate the mediating role of organizational citizenship behavior towards the environment on the relationship between green human resources management (green recruitment and selection, green training, green rewards, and green performance evaluation), corporate social responsibility, and sustainable performance (economic, social, and environmental performance). The quantitative survey research design was used in the current study and structured questionnaires were distributed for the collection of data. The cross-sectional data were collected from 150 firms. Sample of the study was consisted of HRM managers, directors. Total 200 questionnaires were distributed but 150 completed responses were received and analyzed. A structured questionnaire was used. For data analysis, smart partial least square structural equation modeling (PLS-SEM) was used. The measurement model and the structural model were developed and tested in the study. The measurement model aim was to investigate and establish reliabilities and validities of the instrument while to test hypotheses structural model was formulated/developed. Results revealed that the instrument was found reliable and valid; the instrument has met all standard criteria for average variance extracted, composite/construct reliability factor loadings, and alpha values. While structural models illustrated that all hypotheses are accepted. It is concluded from the results that organizational citizenship behavior towards the environment significantly mediated the relationship between corporate social responsibility and green human resource management practices. This implies that organizational citizenship behavior towards environment significantly effects sustainable performance. The originality of the current study lies in highlighting corporate social responsibility, green human resources management practices to enhance sustainable performance through organizational citizenship behavior towards environment.

Keywords: organizational citizenship behavior towards environment; sustainable performance; green human resources management

1. Introduction

The climate of our planet has been fluctuating tremendously in recent years. One of the reasons behind this detrimental change is an economic activity at a massive level

that has calamitous repercussions on the environment [1]. The abuse of the environment needs to be treated seriously and systematically, according to environmental scientists. Some of the human activities harm our ecosystem, like emission of CO_2 which comes from burning fossil fuels, deforestation, dumping plastics into the oceans, and millions of animals are on the brink of extinction, are almost immeasurable [2–4]. The Consensus is developing around the world to protect the ecosystem from catastrophic effects, so many organizations are taking rigorous steps to depollute and disinfect the society through an environmental management system (EMS). In order to maintain and implement EMS, human resource needs to develop alignment with environmental management practices [5]. Environmental management is a distinctive organizational process and social responsibility to attain sustainability in waste reduction [6]. The environmental management system has both tangible and intangible benefits such as it burnishes the company's image [7], developing dynamic processes [8], expenses regarding operations decline intermittently [9], sustainability in the environmental accountability of customers [10]. Hence, different methodologies have devised to shape employee behavior to contain lethal environmental hazards. In the contemporary world, Green Human Resource Management (GHRM) is being touted as an emerging discipline of management sciences that assimilates the sustainable performance of an employee with environmental management practices and Green Talent Management is becoming an important domain for organization's survival and success in energy sector [11]. Moreover, [12] believe that GHRM is an extension of HRM in the sustainable performance of an employee. GHRM is playing a dynamic role in formulating policies, implementing laws, and promoting awareness campaigns to train employees about the vital importance of environmental protection. Thus, GHRM practices at all levels have not restricted to specific organizations rather than any operational area of any organization is responsible for green jobs and green duties to work environmentally green [13]. Furthermore, in response to environmental issues, GHRM wholeheartedly endorses Green Employee Behavior (GEB) [2,3]. The growth of any organization majorly depends on sustainable human resources [13], because now in every organization, there is a high demand for trained employees as the human resource level has reached an extremely competitive edge [14]. Green Human Resource Management begins even before the induction of new employees or new talent in any organization because the policies to select, hire, train and their job description must be environmentally oriented. In this way, the firm develops a green workforce to evoke the necessity and responsibility of employees to protect the environment and combat the environmental [15]. Green Human Resource Management functions and practices can develop strategic environmental planning to promote environmental behavior and mitigate the effect of organization on environment but scholars are still hovering nervously about which GHRM practices and functions need more focus to progress environmental performance. GHRM practices are green recruitment, green selection, green training and development, green compensation and rewards, green performance evaluation, green employee relations and collective bargaining, green grievances handling [16]. Researchers believed that GHRM helps the firm to get a competitive advantage by developing environmentally friendly employee behavior, shaping environmental policies, enhances eco-friendly performance, and their implementation at the workplace [2]. Stakeholders, consumers, and employees consider such companies who not only focus on quality products and services but also corporate citizenship in today's competitive business and trade environment [17].

Organizational citizenship behavior towards the environment (OCBE) is an employee's discretionary social behavior to contribute better and sustainable environmental management performance for the organization because this friendly environmental behavior of employees is essential for organizations [2,18]. Discretionary social behavior contains many approaches such as depolluting the workplace, finding a solution to reduce waste, promote and implement the green technology, attend environmental conferences to get more knowledge about managing environmental protection [19]. OBCE's discretionary approach is hard to analyze and measure performance evaluation because corporate

greening behavior is unrewarded, unrecognized, and extra-responsibility to contribute to organizational effectiveness [20]. Few studies have been conducted on GHRM in Asia to date [2,21,22]. Environmental management and OCBE has drawn less attention in developing economies where there are more ecological issues, so there is an immense need to focus on sustainability problems to contribute towards reducing issues [2].

Corporate social responsibility (CSR) is a responsibility imposed by firms on different dimensions of societies to enhance performance like environment, economy, well of an employee, ethical development of the business, and firm's planning and operations that ultimately creates the image of the firm in the eyes of stakeholders. CSR initiatives are related to company's performances and Human Resource Management, so when there is sound strategic HRM policies, there will be stronger CSR policy [23]. A positive image builds up when a firm's CSR is known to stakeholders, then this image increases the firm's value [24]. The authors refer to the different roles of stakeholders, consumers, and employees in different companies when it comes to today's competitive business. Taking into account that we are in the 21st century I miss a connection with digital transformation as well as data analytics in generating business value [25] as well as social value for sustainable societies [26]. Furthermore, while CSR has been around for many years, it has been argued that it is not very successful, but instead creating shared value is a more appropriate strategy to address societal challenges [27].

Firms branded with the vigorous image when involve in CSR actively [28], reputation enhances [29], commitment of employees increases multiple times [30], and financial performance mingled with output improves [31]. According to Freeman (1994) companies can only attain sustainable performance when the interests of all the stakeholders are considered. That is why Corporate Social Responsibility has been added in this study to investigate its impact upon sustainable performance and the indirect effect of OCBE upon CSR, while sustainable performance is under the yoke of investigation in this research through the lens of Ability motivation opportunity (AMO) and stakeholder theory [32]. An attempt was made by the current study to address the research question in the current study: how can sustainable performance be achieved through OCBE, green human resources management practices, and corporate social responsibility.

As an emerging economy, Pakistan is contributing 0.4% of the total World's CO_2 emission, which is gradually increasing, this is a great concern for stakeholder and there is need to restructure the business models to get competitive advantage and sustainable environmental performance [33]. Through the lens of AMO theory and stakeholder theory, the current study will find the impact of GHRM and CSR upon sustainability through the mediating role of OCBE. The current study offers original contribution to the body of knowledge as follows:

Studies on GHRM, CSR, and sustainability are limited.

Studies on OCBE as mediator are limited.

Empirical evidences in Pakistan's perspective regarding OBE, CSR, GHRM needs to be reported.

Literature on OCBE in Pakistan scenario needs to be enriched.

2. Review of Literature/Background and Related Work

2.1. Sustainable Performance

Brundtland (1987) first introduced sustainability and has gained support from governments and researchers as well. The most generally known definition of sustainability defined as "development that meets the current needs without impacting the needs of the future generation" [34]. Besides, the most accepted sustainable performance (SP) principle has three dimensions: economic, social, and environmental performance [35]. Dealing with financial matters falls under economic performance, handling environmental issues falls under environmental performance, and taking care of the interests of stakeholders is related to social performance [36]. Social sustainability refers to the quality of human system depending on a variety of ethical principles, including justice, fairness and commitment.

In addition, in the social domain, CSR viewpoint was illustrated by [37,38]. Green issues are prominent in emergent economies like Malaysia, leading to the use of more oil and natural resources [39]. Positive effects and outcomes have been identified for organizations, such as a decline in air emissions and waste [36]. Developing countries are struggling with issues and concerns of sustainable development. Specifically, rising CO_2 emissions and associated issues related to climate change have adverse impacts [33]. Past research concluded that combining sustainability with business processes is the key to successful performance. HRM's role in supporting environmental sustainability was highlighted by [40,41]. Study of [42] concluded that varied capabilities including human resource that enhance capability for variation must be integrated in the production companies. Key challenges pushed companies to reconsider and update management approaches for sustainability [22]. Sustainability is not just about in numerical terms and monetary form but takes an interest in the climate and general wellbeing of staff, society, customers, and other stakeholders [43,44]. Hence, the organizations are now getting more geared towards people with green practices as its goal. So, sustainability implies the implementation and creation of approaches to solve the environmental and societal issues [45]. Research in Pakistan suggested that there is a limited ethical framework and standards adopted by manufacturing companies; this is why awareness on such topics as GHRM, CSR, and sustainable performance needs to be increased.

2.2. Theoretical Background of the Study

Green human resources management practices, corporate social responsibility can be better understood through the lens of AMO and stakeholder theory [46]. According to [47] motivation of workforce, their productivity and performance of employees, as well as organizations, can be increased through the implementation of green activities and CSR activities which then lead to the high level of OCBE. Performance of employees can be evaluated with the actual performance achieved and target given to employees. Set of Practices, including involvement, information exchange, and autonomy, such practices that enhance the participation of employees. Through the lens of AMO several researchers investigated GHRM in different areas such as Chema et al., [48] in the textile sector, Pinzone et al., [49], Pham et al., [50] and Yu et al., [51] in the automobile industry and Ragas et al., [52] in several private industries etc. GHRM dimensions become significant when these can be integrated into a comprehensive theoretical framework explaining their impacts on sustainable performance. This study is addressing the literature gap by investigating the mediating role of OCBE among employees between GHRM practices, CSR, and sustainable performance which is based on the AMO framework. The current study has contributed towards AMO theory.

2.3. Corporate Social Responsibility

The idea of corporate social responsibility arises from firms' commitment to seeking beneficial contributions to society or to any person who may be affected by their social activities [53]. In the reviewed literature, there is no consensus on the corporate social responsibility definition [54]. CSR possibly can be said to be indeterminate, geographical, dimensionless, societal, and cultural [55]. Depending on where we find ourselves, CSR has various meanings, the person understanding it, or even the firm working on it [54]. There may be some consensus on the recognition of the dimensions of CSR, which is economic social, environmental, an unbiased and global CSR vision is hard to build due to certain elements of context besides how each organization responds to its stakeholders [56]. Measuring CSR reveals how companies and businesses interact with customers, vendors, retailers, and different stakeholders. Carroll (1991) [57] defined CSR as "corporate social responsibility encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point in time". Organizations have responded to their stakeholders' new social demands with the application of CSR acts, including environmental and social operations which go beyond the economic interests [55].

Environmental research describes how their company leads to society's progress by combining their enterprise with social issues [58]. Corporate environmental responsibility consists of company procedures and practices like pollution prevention, water management and conservation, recycling, control and re-utilization of by-products [59]. Past research in the developing countries revealed how CSR applied to solve various challenges, such as strengthening human rights, battling child labor, and addressing issues like unemployment and decreasing environmental emissions successfully [60]. It is, therefore, time to found institutions and systems that lead to reduction in poverty, social fairness, the welfare of the society, and protecting the environment [61].

2.4. Green Human Resource Management

Green Human Resource Management (GHRM) is responsible for environmental management. It builds a green workforce that develops a green culture within the organization. GHRM refers to when the environmental priorities of the company and the objectives of human resources are matched [21]. Kramar (2014) [62] defined GHRM as "HRM activities, which enhance positive environmental outcomes". The dimension of human resource has a key role in managing the overall performance of business while concentrating the several activities for industry growth [11]. Recklessness and excessive use of natural resources are causing contamination, which is a threat to current and future generations. Hence, environmental objectives and goals would be incorporated into the corporate objectives [63]. Green activities help firms to reduce environmental issues, and that will happen as workers become aware of environmental problems and their significance [30]. GHRM using HRM policies, activities, procedures, and ideologies to maximize business efficiency and resources sustainably. GHRM needs to be explored on a global level to understand how the different management systems influence the actions and attitudes of workers for the environment [64]. The success and growth of every company rely on the efficiency and sustainability of human capital [13,65]. The findings of [66] have shown that GHRM has directly and indirectly connected to an in-role employee green behavior workplace. Green-focused initiatives are difficult to undertake since they require organizational reforms. All changes need to be adopted, enforced, and approved by workers, as this is one of the goals of GHRM [67]. Those companies that adopt green activities can attain increase productivity and get a competitive edge [68]. According to [69] environment, consciousness and green initiatives help to attract talented staff and enhance sustainability. Earlier scholars contend that HRM has frequently analyzed in a framework that includes all HRM activities (GR&S, green training (GT), green performance evaluation (GPE), GR) [21].

2.4.1. Green Recruitment and Selection, Sustainable Performance, and OCBE

The importance of green recruitment and selection (GR&S) is now being taken into consideration by companies. HR professionals are taking a great deal of interest in attracting and retaining talented workers, in particular those who have environmental awareness [70]. Talent recruiters are suggested to apply a systematic, multidisciplinary approach to assessing talent [71]. Discretionary actions that do not directly acknowledge by the structured reward system is called organizational citizenship behavior. OCBE is an employee's free act not rewarded by the organization toward improving the environment [72]. Hence, the OCBE relates to the employee's sustainable practices within the organizations [73]. These practices are also not compensated or required by the structured program of rewards of the company. However, these are thus a valuable complement to the environmental actions of the general public and green growth policies of companies [72]. Activities on sustainability and environments could help companies to recruit trained, skillful, and highly qualified employees [21]. A firm's environmental performance should be used to appeal interest in the recruiting process [74]. Web-based recruiting offers recruiters more detail about their environmental protection practices relative to the mainstream channels such as brochures or newspaper ads [3]. Additionally, due to green hiring, it would be easy for companies to attract skilled and qualified staff that know the environment and

sustainable performance [41]. Employees prefer to be part of firms who show concern for sustainability [3]. The findings of [75] show the significant effect of GR&S on sustainability. In the same way, GR&S also has positive effect on OCBE and sustainability [2]. Moreover, the same effects were reported by [76,77] found that green recruitment has a positive and significant impact on OCBE.

Those employees having environmental awareness were preferred by firms [78]. Firms should hire such employees to effectively deal with sustainability issues [70,79]. According to [80] employees feel valued as a member of socially responsible firms, also those firms initiated green activities are successful in retaining a talented workforce [3]. The empirical findings of [76] GHRM is directly related to OCBE and sustainable corporate performance. Hence, the hypothesis established as under:

Hypothesis 1a (H1a). *Green recruitment and selection has a positive effect on sustainable performance.*

Hypothesis 1b (H1b). *Green recruitment and selection has a positive effect on OCBE.*

2.4.2. Green Environmental Training, Sustainable Performance, and OCBE

The environmental training and development programs are important towards the enhancement of employee skills and attitudes to environmental management [81]. Green training (GT) helps workers to increase their workplace awareness of the significance of environmental protection and also improves their capacity to adapt to it. Besides, it helps them to learn important ways to save resources and reducing waste at the workplace [82]. Hence, training, assessment, and rewards lead to the improvement of motivation of workers to support the environmental issues of the company [83]. Green training has been studied in the literature at the corporate level and the employee level [84]. Green training is essential for improving HR skills and achieving sustainability goals [85]. The results of the study [86] show that green training affects organizational green creativity. Environmental training emerged as a support activity to increase the knowledge and competence of environmental organizations from all the viewpoints adopted [87]. According to Delmas and Pekovic [88], environmental training is related to the greening of organizations. Green environmental training is an efficient method for increasing awareness of environmental protection. Moreover, according to [89], green training is a vital element in inspiring workers to tackle environmental issues. It has been found that organizations with a greener trained workforce are more productive. Thus, green training of employees allows them to save energy, reduce natural resource consumption, and achieve maximum efficiency [2,76]. According to [90] green training also recognized as environmental training "gives workers the requisite knowledge of a firm's environmental policies, its activities and the requisite behaviors". Environmental training encourages the dissemination of environmental values to facilitate the voluntary activities of employees [91]. This strategy supports to communicate green awareness and skills to employees, thereby improving their capability to identify environmental issues [92]. In addition to encouraging workers to take part in environmental activities [89,93]. Thus, green training can enhance the environmental performance of employees [94]. Findings of [95,96] shown green training has a positive relationship with OCBE. Further, the research findings of [21] demonstrated that green training has a positive effect on environmental, social, and economic performance. Hence, it posits the following hypothesis:

Hypothesis 2a (H2a). *Green training has a positive effect on sustainable performance.*

Hypothesis 2b (H2b). *Green training has a positive effect on OCBE.*

2.4.3. Green Performance Evaluation, Sustainable Performance, and OCBE

According to [90] green evaluation refers to "assessing and registering the environmental performance of employees during their professions in their organizations and providing feedback on their performance to strengthen exemplary behavior". With the environmental responsibilities into a performance management program gives comprehensive information to employees, what they are supposed to do with environmental management. Giving consistent input on environmental performance to employees help them increase their awareness, capability, and skills in environmental management [12].

The research study of [97] has been carried out in order to examine the requirements for evaluating the green performance of airports. The most significant and vital criterion for green airports are green policies and regulations. The principle of employee green job performance is applicable and measurable to all workers of a company of their work or work background [98]. Hence, determination of the green assessment criteria the most significant component is output and its significance weights In making a performance appraisal tool [99]. Numerous organizations have set environmental goals and assess their contributions to environmental sustainability and management as one criterion in the performance evaluation program. ISO 14001 has established the environmental standards and this is generally the case in ISO 14001 accredited organizations [74]. Performance appraisals are carried out by almost every world organization, using various methods and procedures. It allows companies to identify employee strengths and weaknesses and helps raise wages and performance feedback [30]. Whereas green performance assessment sees the green environmental performance of employees [74]. Organizations should concentrate on green performance management of employees by giving them targets and goals of key performance indicators [100]. The findings of [2] showed a significant relationship between green motivation practices (green performance and green rewards) and OCBE. Additionally, findings of [101] demonstrated a significant relationship between performance appraisal and OCBE. Evaluation programs are commonly used for managing salaries, identifying the strengths and limitations of an employee, and provide input on results in order to improve operating efficiency [30].

Green performance evaluation (GPE) emphasizes environmental cases, the implementation of environmental obligations, and environmental issues and policy communication. Organizations, though, face challenges in calculating environmental performance levels across departments and making accessible data on the environmental performance of the employees [3]. Past studies exposed that green performance management and compensation have a positive impact on sustainability and it contributes significantly to three dimensions of sustainable performance, i.e., economic performance. Despite the organization's difficulties of reliably evaluating employee's efficiency, green performance appraisal has a positive effect on sustainable performance [41,102].

Hypothesis 3a (H3a). *Green performance evaluation has a positive effect on sustainable performance.*

Hypothesis 3b (H3b). *Green performance evaluation has a positive effect on OCBE.*

2.4.4. Green Rewards and OCBE

Employees motivation and their citizenship behavior could be enhanced by providing different kinds of incentives such as financial (promotion, cash rewards, bonuses) and non-financial rewards such as flexible working hours etc. [3,12]. In order to promote environmental performance, numerous organizations used green rewards. Green rewards (GR) are the dominant instruments that are used to connect individuals and also the goals of the organization. Previous research has indicated that the green rewards scheme is a good method for practicing GHRM [12]. In order to recruit and retain green talented workers, hospital management should create efficient reward criteria that can suit all individuals, since most of them considered the reward system as a requirement for organizations

to operate [103]. The employees whose performances do not follow the organization's sustainability objectives by using disincentives the workers may be encouraged to take greater responsibility for environmental issues of their organization [70]. According to [104] these rewards can affect OCBE towards environmental management at the workplace. Encouraging employees on environmental management initiatives the company should set up excellent rewards and pay plans [90]. The research findings of [2] indicated significant relationship between green motivation practices (green performance and green rewards) and OCBE.

Managers connect performance to rewards. Those rewards could be either monetary or non-monetary. The rewards are powerful instruments that can link organizational interests with the interests of employees. It can direct the focus of employees to the essential aspects of their work and encourage them to make every effort [12]. Green rewards are defined as "the establishment of a system of financial and non-financial rewards to employees with the capability to handle environmental management" [90]. To promote environmental performance many companies introduced green rewards [12]. Employees would be motivated when their performance was intertwined with rewards. Earlier studies have shown that green rewards are closely linked to sustainable performance. The findings of [102] shown that green rewards did not significantly influence sustainable performance. While the results of [103] exposed a positive association between the GHRM practices (green rewards, green training, and green recruitment) and environmental performance.

Hypothesis 4a (H4a). *Green rewards have a positive effect on sustainable performance.*

Hypothesis 4b (H4b). *Green rewards have a positive effect on OCBE.*

2.4.5. Corporate Social Responsibility, Sustainable Performance, and OCBE

The concept of CSR emerges through the dedication of companies to find beneficial contributions to society or to any individual who may be influenced by their social activities [53]. CSR is about an organization's commitment to enhancing the contributions of an organization to human society [105]. The presence of CSR depends on the vows of organizations when considering the welfare and fruitful assistance to the culture by ethical, economic and beneficial applications of business that are useful to stakeholders and the business environment [105]. By pursuing CSR regulations to protect the environment well, a company may implement its ethics to address social issues that are critical indicators of corporate social responsibility. Previous studies showed that socially responsible companies perceive their different stakeholders and consumers as having a positive image [106]. The research study of [107] concluded that CSR activities with people preference could be a successful strategy for raising public awareness of the industry's CSR activities. CSR is an issue that got attention in discussions on sustainability and the environment. Some of the largest corporations in the world have made a highly visible pledge to CSR with programs aimed at minimizing their environmental effect. These companies claim that financial and environmental performance will work together to drive growth and social credibility in companies [108]. Organizational citizenship behavior towards the environment (OCBE) is a significant element in the effective implementation of environmental management programs and the adoption of an organization's environmental policies [109]. CSR and task significance interact to predict organizational citizenship behavior (OCB), where CSR is more positively associated with OCB [110]. The OCB includes topics such as organizational identification, strategic HRM and OCBE. So, (Daily et al. 2009) [72] reported that OCBE results in environmental efficiency. Besides, OCBE is an important issue identifying workplace pro-environmental behaviors [83]. The objective of the study of [111] to examine how CSR contributing to employees OCBE. The results confirmed that CSR has a positive impact on OCBE among employees.

CSR refers to a business carrying out its legal, environmental, philanthropic and ethical obligations towards society [112]. CSR is broad and it may be defined from different viewpoints and approaches. The value of CSR increases with the emergence of and fast

expansion of environmental management. Social business impact has increased and been even more important. The community now expects from companies not only to manufacture goods but also to show a more positive role in society. According to [113], firms taking socially responsible business practices enjoy improved corporate results. Recent studies indicate that CSR activities have a positive influence on financial performance [112]. The empirical results of [114] revealed that CSR commitment positively and significantly linked with social and environmental performance. Further, findings of [115] indicated positive influence of CSR on economic performance. Additionally, the research findings of [106] reported a significant positive impact of CSR on sustainable performance. Based on the above literature, the following hypothesis is postulated:

Hypothesis 5a (H5a). *Corporate social responsibility has a positive effect on sustainable performance.*

Hypothesis 5b (H5b). *Corporate social responsibility has a positive effect on OCBE.*

2.5. Organizational Citizenship Behavior towards the Environment

OCBE represents the will of employees to cooperate with their company to implement activities that favor the natural environment to go beyond their duties [72]. Once workers feel valued by the company, they are more involved and engage themselves in OCBE [116]. Collective OCBE represents the synergy of team members' efforts in green initiatives required by the sustainability strategy, rather the sum of individual green contributions [117]. An environmentally friendly atmosphere of a company may improve OCBE among employees significantly. Hence, companies' environmental success cannot depend entirely on corporate sustainability policies but relatively on the environmentally friendly behaviors of workers such as OCBE [118]. OCBE is an employee's voluntarily act not rewarded by the organization toward improving the environment [72], which has proven to be a crucial contributor to the sustainability of companies and environmental management [66,119]. Researchers and supervisors have started investigating what aspects would motivate workers to pick up OCBE [116]. Current scholars have concentrated their attention on HRM [66]. Findings of [120] showed significant effect of GHRM on OCBE. OCBE is more focused to help an organization accomplish sustainable development by reducing individual and organizational resource consumption and improving the environment. OCBE is closely tied to the green behavior of employees. With OCBE and green behavior of employees, both seek to improve the overall welfare of community. Several researchers have shown a significant relationship between OCBE and environmental performance [2,49,83].

Hypothesis 6 (H6). *OCBE has a positive effect on sustainable performance.*

2.6. The Mediating Role of OCBE

Boiral (2009) first suggested the idea of OCBE since it has drawn the attention of several academics and researchers. According to (Boiral, 2009) OCBE is a discretionary behavior not accepted by the structured reward scheme of a company, yet leading to environmental performance [91]. An example of OCBE is when workers suggest measures to minimize the use of resources and energy, or inspire peers to carry out their work in more environmentally friendly ways [20]. OCBE, on the one hand, encourages interconnection and collaboration with structured frameworks of environmental management systems and fills environmental gaps that have not been established by regulatory structures. In the other hand, it may directly assist the company to decrease environmental costs and increase the environment's image of the company [121,122]. HR practices have a role in establishing a background that promotes OCB among employees [123]. Findings of [83] revealed SHRM leads to environmental performance. Besides [49] OCBE was stimulated by green HRM practices. Whereas [72] observed that OCBE contributes to environmental performance. OCBE has thus been proposed as a way of translating GHRM practices for environmental performance enhancement.

OCBE covers numerous sustainable activities, including occupational waste management, recycling, carbon saving, and empowering workers to adopt more environmentally friendly behaviors [124]. OCBE includes voluntary actions and activities of workers often contrary to structured systems and incentives [83]. OCBE not just contributes significantly to the environmental performance of companies but also increases financial performance of companies [125]. As OCBE research is limited, there is proof of OCBE positive effect on the environmental performance of companies, which can help them to tackle environmental concerns, these include degradation of the environment, climate change, and global warming [83,126]. According to (Boiral et al., 2015) there are three dimensions of OCBE. (i) Eco-initiatives are voluntary efforts to enhance environmental efficiency and performance. (ii) Eco-civic involvement is a person's voluntary conduct to participate in events coordinated by pro-environmental firms. (iii) Eco helping is the voluntary action of others to be aware of the environment [126]. The study of [2] used OCBE as mediator between GHRM and environmental performance. All the mediation hypotheses were found significant which means OCBE significantly mediates between GHRM and environmental performance. Besides, the study of [77] used OCBE as mediating variable while green recruitment and green training have taken as dependent variable and employee's performance has taken as an independent variable. Data were analyzed using structural equation modeling with PLS software. The results have shown that green recruitment and green training positively and significantly influence employee performance through mediation of OCBE. Further, the findings of [76] revealed that OCBE fully mediated the relationship between GHRM practices and sustainable corporate performance. Moreover, Paillé et al.'s [83] findings also reported significant role of OCBE as a mediator, it also shows the relationship between SHRM and environmental performance is entirely mediated by OCBE. A conceptual model was established in this study through a review of scientific literature (Figure 1).

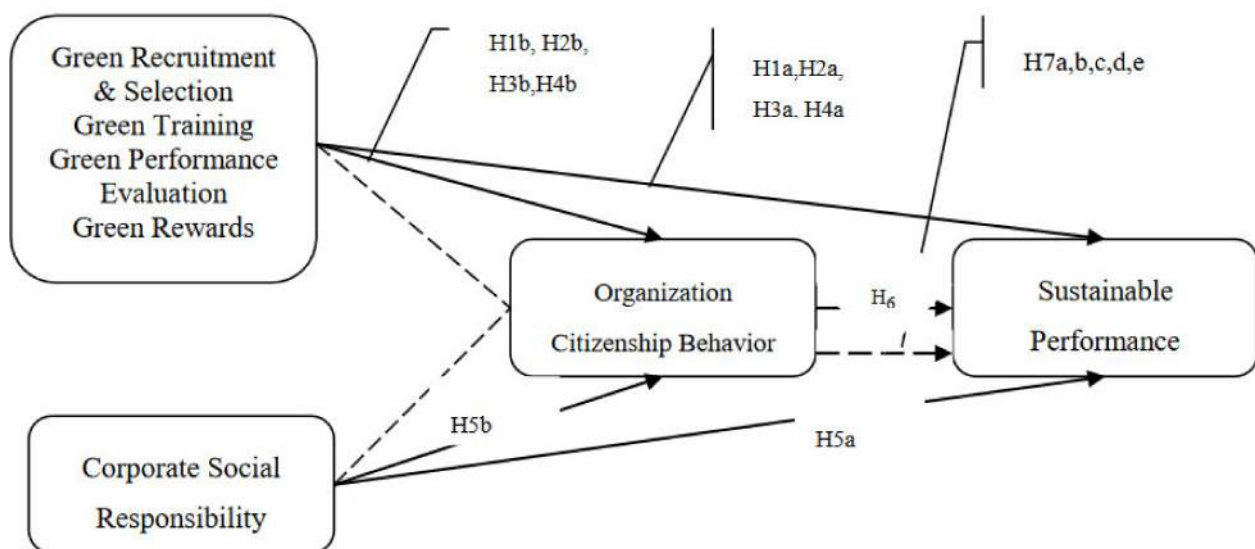**Figure 1.** Research model and hypotheses.

Based on the above literature, the following hypotheses postulated:

Hypothesis 7a (H7a). *Green GR&S and sustainable performance is mediated by OCBE.*

Hypothesis 7b (H7b). *Green training and sustainable performance is mediated by OCBE.*

Hypothesis 7c (H7c). *Green performance evaluation and sustainable performance is mediated by OCBE.*

Hypothesis 7d (H7d). *Green rewards and sustainable performance is mediated by OCBE.*

Hypothesis 7e (H7e). *CSR and sustainable performance is mediated by OCBE.*

3. Methods

3.1. Research Model and Hypotheses

The current study focused on exploring the association between GHRM practices, CSR, and sustainable performance with the addition of OCBE as a mediator. The research model (Figure 1) was constructed based on a review of the literature.

3.2. Data Collection Procedure

Quantitative survey approach research design has adopted in the current study [127]. One time data collection that is cross-sectional design was used whereas different statistical tests were applied to hypothesis testing. The goal of this study was to determine the positive effects of GHRM and CSR upon sustainability. The structured instrument was used to check the framework and hypotheses. The scales applied in the current study comprised of dimensions and items of green HRM, i.e., (GR&S, GT, GPE, GR), CSR, OCBE, and sustainable performance. The population of the study comprised manufacturing firms i.e., paper and board, food and personal care products, cement, textile spinning, glass and ceramics, chemical, textile composite, and sugar were selected from Pakistan Stock Exchange (PSX). The total listed companies are 540 in Pakistan stock exchange. A total of 200 manufacturing firms are selected on the basis of number of employees' working i.e., 100–300. So, 200 questionnaires were distributed, and 150 completed questionnaires were used in the analysis, yielding a response rate of 75%. The firms include (18%) from the paper industry, 16% from food and beverages, 10% cement, 16% textile, 12% glass, 8% chemical, and 19% sugar. Such companies which are renowned for applying green activities and CSR are preferred in this study. Hence, only those participants who know about CSR, green activities, and sustainable performance were contacted.

3.3. Measurements

Triple bottom line principal i.e., sustainable performance (SP) having three dimensions such as economic performance, environmental performance, and social performance measured on 15 items instrument for sustainable performance. Each construct has five items and adopted from [21], it is a 7 point scale 7 = to a great extent 1 = not at all. While CSR scale was developed by [106], it is a three items scale for CSR. Green Human Resource Management (GHRM) scale was adopted from Yong et al. (2019) [21], it has 12 items and five dimensions such as green recruitment and green selection, green training, green rewards, and green performance evaluation. Two items for green recruitment and also two items for green selection, green training three items, while green performance evaluation was measured on three items and green rewards were measured on two items scale. All items were measured on a seven point scale and 1 stands for "not at all" and 7 stands for "to a great extent". On the other hand, organizational citizenship behavior towards environment (OCBE) was measured on 10 items scale adopted from Anwar et al., (2020) [2], OCBE has ten items but three items were deleted because of low factor loadings and seven items were retained which met the criteria of factor loadings >0.70. OCBE has three dimensions/attributes: eco-initiatives, eco civic engagement, and eco helping.

3.4. Data Analysis Tools and Techniques

Partial least square structural equation modeling (PLS-SEM) has been used for data analysis in the current study [128]. PLS-SEM is normally used for non-normal data. Measurement and structural models were developed in PLS-SEM [129]. The current study has used a complex mediation model which was not possible in SPSS using regression, as a model was not possible to be tested together. Structural equation modeling was applied in the existing study. There are two alternate choices available for solving problem and

testing the model one is covariance-based (CB-SEM), software's like Liseral, Mplus, and AMOS-SEM, or use of PLS-SEM and Warp PLS. Anwar et al. (2020) has elaborated the following advantages of PLS-SEM, small sample size can be used in PLS-SEM, formative models can also be analyzed and investigated in PLS-SEM, PLS-SEM is superior choice when assessing complex models such as mediation models. It was also further stated that PLS-SEM is the most reliable software for assessing mediation models as it is free from assumptions of sample size, normal distribution of data, and independence. Validity and reliability of the scales were checked by factor loadings, AVE, CR, and alpha values. According to [129,130] later on, researchers also investigated discriminant validity using criteria [131]. The researcher ensured complete compliance with ethical considerations. None of the respondents were forced to give details and their identification was not shown in the research. Hence the anonymity of the employees was assured and verbal participant consent was taken.

Measurement and Structural Model

In the measurement model researchers have reported convergent and discriminant validity. Convergent validity was used to check whether items measure the same ideas and discriminant validity used to investigate whether items differ from constructs [130,132]. Hetero-trait and mono-trait ratio (HTMT ratio) were used to report discriminant validity. According to [133] threshold or cut off level for HTMT is less than 1. After this, the researcher proceeds for the structural model for testing hypotheses [130].

4. Results

Table 1 measurement model represents the results of green human resource management practices (green recruitment and selection, green training, green performance assessment, green rewards), corporate social responsibility (CSR), organization citizenship behavior towards environment (OCBE), and sustainable performance (economic, social, and environmental). First order factor loadings for all the constructs are higher than 0.7, composite reliability (CR) > 0.70, AVE > 0.50, Cronbach alpha > 0.70. It was noted that one item (GR&S3) was excluded from analysis due to low factor loadings, two items of economic performance (ECP2 and 3) and one item of social performance (SCP5) were also excluded. Moreover, the last three items of OCBE (OCBE 8,9,10) were also deleted from analysis due to low factor loadings. Based on of results represented in Table 1, the instrument used in the current study are found reliable and valid.

Table 1. Measurement Model.

Construct	Item	Questions	Loadings	CR	AVE	Cronbach
Economic Performance	ECP1	Decrease in costs for materials purchasing.	0.890	0.857	0.688	0.848
	ECP2	Decrease in costs for energy consumption	-			
	ECP3	Decrease in fees for waste treatment.	-			
	ECP4	Decrease in fees for waste discharge.	0.733			
	ECP5	Decrease in fines for environmental accidents.	0.822			
Environmental Performance	ENP1	Improved compliance with environmental standards	0.817			
	ENP2	Reduction in airborne emissions.	0.875	0.916	0.686	0.903
	ENP4	Reduction in consumption of hazardous materials	0.852			
	ENP3	Reduction in energy consumption.	0.740			
	ENP5	Reduction in material usage.	0.851			
Green Performance Evaluation	GPE1	Every employee has specific environmental goals to achieve.	0.934			
	GPE2	Contributions to environmental management are assessed	0.958	0.964	0.900	0.945
	GPE3	Individual performance assessment results are recorded	0.954			
Green Rewards	GR1	Cash rewards are provided to recognize environmental performance	0.972	0.973	0.946	0.943
	GR2	Environmental performance is recognized publicly.	0.974			

Table 1. *Cont.*

Construct	Item	Questions	Loadings	CR	AVE	Cronbach
Green Recruitment and Selection	GR&S1	The environmental performance of a company attracts new employees	0.927			
	GR&S2	The company prefers to hire employees who have environmental knowledge	0.894			
	GR&S3	Employee selection takes environmental motivation into account	-	0.940	0.839	0.905
	GR&S4	All selection steps consider environmental questions.	0.927			
Green Training	GT1	Environmental training is continuous.	0.921			
	GT2	Environmental training is a priority	0.928	0.929	0.814	0.885
	GT3	Environmental training is an important investment.	0.856			
Social Performance	SCP1	Improved overall stakeholder welfare.	0.858			
	SCP2	Improvement in community health and safety.	0.866	0.904	0.703	0.899
	SCP3	Reduction in environmental impacts and risks to the general public.	0.856			
	SCP4	Improved occupational health and safety of employees.	0.770			
	SCP5	Improved awareness and protection of the claims and rights of people in the community being served.	-			
Corporate Social Responsibility	CSR1	This firm is very concerned with environmental protection.	0.945			
	CSR2	This firm is very concerned with customers' benefits	0.961	0.959	0.885	0.935
	CSR3	This firm actively participates in social initiatives	0.916			
Organization Citizenship Behavior Towards Environment	OCBE1	I spontaneously give my time to help my colleagues take the environment into account in everything they do at work	0.903			
	OCBE2	I encourage my colleagues to adopt more environmentally conscious behavior	0.897			
	OCBE3	I encourage my colleagues to express their ideas and opinions on environmental issues	0.882	0.953	0.745	0.942
	OCBE4	I spontaneously speak to my colleagues to help them better understand environmental problems	0.908			
	OCBE5	Even when I am busy, I am willing to take time to share information on environmental issues with new colleagues	0.906			
	OCBE6	I actively participate in environmental events organized in and/or by my company	0.732			
	OCBE7	I undertake environmental actions that contribute positively to the image of my organization	0.797			

Table 2 explained the discriminant validity of the constructs based on hetero-trait/mono-trait ratios given by Henseler et al. (2015) [131]. This is the new way of assessing the discriminant validity of the constructs. Table 2 shows that discriminant validity of green human resource management practices (green recruitment and selection, green training, green performance assessment, green rewards), corporate social responsibility (CSR), organization citizenship behavior towards environment (OCBE), and sustainable performance (economic, social, and environmental) was established.

Table 2. HTMT Ratio Discriminant Validity.

	CSR	GPE	GR	GR&S	GT	OCBE	SP
CSR							
GPE	0.867						
GR	0.889	0.915					
GR&S	0.901	0.893	0.905				
GT	0.934	0.977	0.945	0.991			
OCBE	0.890	0.887	0.887	0.801	0.917		
SP	0.936	0.895	0.887	0.870	0.951	0.956	

Hetero-trait/mono-trait ratio.

Bootstrapping was run to test the hypotheses. Table 3 presented the results of the first 6 hypotheses. It was explained in the Table 3 that GR&S has a positive and significant impact upon sustainable performance and organization citizenship behavior towards environment (OCBE) ($\beta = 0.252$, t = 2.896, $p < 0.05$; $\beta = 0.276$, t = 2.889, p < 0.05), furthermore,

green training has also positive and significant role upon sustainable performance and organization citizenship behavior towards environment (OCBE) ($\beta = 0.285$, t = 2.707, $p < 0.05$; $\beta = 0.312$, t = 2.725, $p < 0.05$), in addition, green performance evaluation has also positive and significant role upon sustainable performance and organization citizenship behavior towards environment (OCBE) ($\beta = 0.220$, t = 2.340, $p < 0.05$; $\beta = 0.241$, t = 2.320, $p < 0.05$). moreover, green rewards has positive and significant impact upon sustainable performance and organization citizenship behavior towards environment (OCBE) ($\beta = 0.289$, t = 4.008, $p < 0.05$; $\beta = 0.316$, t = 3.981, $p < 0.05$), likewise, corporate social responsibility has positive and significant impact upon sustainable performance and organization citizenship behavior towards environment (OCBE) ($\beta = 0.318$, t = 3.569, $p < 0.05$; $\beta = 0.348$, t = 3.648, $p < 0.05$) and OCBE has positive role upon sustainable performance ($\beta = 0.337$, t = 4.260, $p < 0.05$) thus on the basis of above discussion it is concluded that (H1a, H1b, H2a, H2b, H3a, H3b, H4a, H4b, H5a, H5c, H6) are accepted.

Table 3. Path Coefficients.

Hypotheses	Relationships	Std Beta	Standard Error	T Stat	*p* Values
H1a	GR&S–> SP	0.252	0.087	2.896	0.004
H1b	GR&S–> OCBE	0.276	0.095	2.889	0.004
H2a	GT–> SP	0.285	0.105	2.707	0.007
H2b	GT–> OCBE	0.312	0.114	2.725	0.007
H3a	GPE–> SP	0.220	0.094	2.340	0.020
H3b	GPE–> OCBE	0.241	0.104	2.320	0.021
H4a	GR–> SP	0.289	0.072	4.008	0.000
H4b	GR–> OCBE	0.316	0.079	3.981	0.000
H5a	CSR–> SP	0.318	0.089	3.569	0.000
H5b	CSR–> OCBE	0.348	0.095	3.648	0.000
H6	OCBE–> SP	0.337	0.079	4.260	0.000

Organizational citizenship behavior towards environment (OCBE) was used as a mediator between green human resource management (GHRM) and corporate social responsibility (CSR) and sustainable performance. GR&S, sustainable performance was mediated by OCBE ($\beta = 0.252$, t = 2.896, $p < 0.05$, BCILL = 0.155, BCIUL = 0.504), further analysis of results illustrated that OCBE positively and significantly mediated between green training and sustainable performance i.e., ($\beta = 0.285$, t = 2.707, $p < 0.05$, BCILL = 0.031, BCIUL = 0.398). In the same way, OCBE mediated relationship between green performance evaluation and sustainable performance i.e., ($\beta = 0.220$, t = 2.340, $p < 0.05$, BCILL = 0.140, BCIUL = 0.415) furthermore, OCBE mediated the relationship between green rewards and sustainable performance, i.e., ($\beta = 0.289$, t = 4.008, $p < 0.05$, BCILL = 0.430, BCIUL = 0.074) it was also found that OCBE significantly mediated between corporate social responsibility and sustainable performance i.e., ($\beta = 0.318$, t = 3.569, $p < 0.05$, BCILL = 0.085, BCIUL = 0.476). on the basis of above results H7a, H7b, H7c, H7d, H7e are substantiated in Table 4. The r square (R^2) is 0.879, showing 87.9% of variance in sustainability performance explains by the constructs of GHRM (GR&S, GT, GPE, GR) and CSR.

In the above Table 5, variance inflation factor (VIF) values were less than 5, indicating an nonexistence of multicollinearity problems for the structural model [129].

Table 4. Mediation Effects.

Hypotheses	Mediation Relations	Std Beta	Standard Error	T Stat	*p* Values	BCILL	BCIUL
H7a	GR&S–> OCBE–> SP	0.252	0.087	2.896	0.004	0.155	0.504
H7b	GT–> OCBE–> SP	0.285	0.105	2.707	0.007	0.031	0.398
H7c	GPE–> OCBE–> SP	0.220	0.094	2.340	0.020	0.140	0.415
H7d	GR–> OCBE–> SP	0.289	0.072	4.008	0.000	0.430	0.074
H7e	CSR–> OCBE–> SP	0.318	0.089	3.569	0.000	0.085	0.476

Table 5. Variance Inflation Factor.

	OCBE	SP
CSR	2.961	4.584
GHRM	2.961	3.542
OCBE		4.783

5. Discussion

In this study, we examined the effects that green HRM practices (green recruitment and selection, green training, green performance appraisal and green rewards) and CSR have on sustainable performance, in addition to the mediating role of OCBE. Getting support from (AMO) and stakeholder theory, the current study developed the hypotheses that green HRM practices and CSR have positively associated with sustainable performance. This study has added to the body of knowledge of CSR, OCBE, GHRM, and sustainability. The goal of this study was to investigate the mediating role of OCBE between green HRM practices, corporate social responsibility and sustainable performance through the lens of ability motivation opportunity theory and stakeholder theory. Thus the researchers have chosen a cross-sectional research design. Survey questionnaires from previous studies have adopted for data collection. The researcher has used the latest software (PLS-SEM 3.2.8) partial least square structural equation modeling, PLS-SEM used for testing hypotheses. This software can interpret the measurement and structural model at the same time. Seven hypotheses have developed in this study.

H1a was developed to examine the impact of GR&S on SP while H1b was developed to examine the impact of GR&S on OCBE. The findings of this study support the H1a and H1b. GR&S has a significant effect on sustainable performance and OCBE. The results have shown that H1a and HIb were found to be significant. That is explaining GR&S is responsible to bring significant sustainable performance in organizations and GR&S positively influence on OCBE. Sustainable performance was positively predicted by green recruitment and selection. That means GR&S practices have been introduced and implemented by manufacturing companies and by demonstrating their interest in recruiting environmentally conscious workers, this may help businesses gain competitiveness. These findings were in-line with the past empirical findings of [21] who have used resource-based view (RBV) theory in their study and smart PLS for data analysis and reported that GR&S has a positive and significant impact on sustainable performance (environmental social and economic performance). Besides, in this study, we also derive green recruitment and selection as positively related to OCBE. According to [74] firms, environmental performance should be used to appeal interest in the recruiting process. These results supported the earlier findings of [77] who used PLS-SEM for data analysis and reported that GR&S has a significant impact on OCBE. So, on the basis of the above discussion H1a and H1b are accepted and substantiated.

H2a developed to determine the effect of green training on SP while H2b was developed to examine the impact of green training on OCBE. Green training has significant effect on SP and OCBE. The results shown that H2a and H2b found significant. Further

analysis of the findings showed a strong association between green training and sustainable performance. Green training develops employees' environmental knowledge, motivates their green innovation creativity and boosts their commitment to the environment and all these contribute to improving environmental performance [21]. The findings of the existing study are aligned with the research findings of [21] who confirmed that green training has a positive effect on environmental social and economic performance by using partial least square software for data analysis. Such findings suggest that green HRM can produce workers that are environmentally committed, dedicated to the community and disperse environmental issues from the business, that in turn may help to achieve sustainability for business. Furthermore, in this study, the results demonstrated that green training has a positive and significant relationship with OCBE. According to [89] green training is a vital element in inspiring workers to tackle environmental issues. It has been observed that organizations with a greener trained workforce are more productive. Results are aligned with [95,96] who have revealed that green training has a positive relationship with OCBE. Based on the above discussion H2a and H2b are accepted.

H3a has developed to examine the impact of green performance evaluation on SP while H3b has developed to observe the impact of green performance evaluation on OCBE. The results have shown that H3a and H3b were found to be significant. Explaining that green performance evaluation is able to bring a significant sustainable performance in firms and green performance evaluation positively influence on OCBE. The findings of current study matched with the findings of who confirmed the sustainable performance was positively predicted by green performance management [41,102] and both studies applied PLS technique using PLS software for data analysis. Without the proper green performance evaluation, it is hard to maintain sustainable performance. Hence, fair and regular performance evaluation boosts sustainable performance [101]. The green performance assessment sees the green environmental performance of employees [74]. Similarly, the results in this study exhibited that green performance evaluation has a positive and significant relationship with OCBE and these findings are aligned with the results of [101] who reported a significant relationship between performance appraisal and OCBE. Thus on the basis of above discussion H3a and H3b are accepted and substantiated.

H4a developed to observe the effect of green rewards on SP while H4b has developed to examine the impact of green rewards on OCBE. The findings of the existing study support the H4a and H4b. Clarifying that green rewards are responsible to bring significant sustainable performance in organizations and green rewards positively influence on OCBE. Green rewards also predicted sustainable performance. Giving rewards to employees and to link it with sustainable performance encourages employees to perform well and timely completion of tasks and provide the services to the highest possible level [30]. Results of this study are in line with results of [75,103] who have reported green rewards had significant influence on environmental performance. HRM practices suggested as a way to transform workers into rare, important and inimitable tools that can support the organizational goals [134]. According to [104] that rewards can effect OCBE towards environmental management in the workplace. The research findings of the current study are matched with the research findings of [2], who used PLS modelling technique to analyze data and showed significant relationship between green motivation practices (green rewards and green performance) and OCBE. Based on the above discussion H4a and H4b are accepted.

H5a developed to determine the positive effects of CSR upon sustainability whereas H5b has developed to examine the impact of CSR on OCBE. CSR is about an organization's commitment to enhancing the contributions of an organization to human society [105]. CSR has been around for several years, it has also been argued that it is not really effective, but it is creating shared value is more appropriate approach to tackle social problems [27]. In the present study, we found positive and significant effect of CSR on sustainable performance. These findings are in line with the research findings of [106] who reported significant positive impact of CSR on sustainable performance and also findings of [114] exposed that CSR commitment positively and significantly linked with social and environmental

performance. Some of the biggest companies claim that financial and environmental performance will work together to drive growth and social credibility in companies [108]. The findings of this study revealed positive relationship between CSR and OCBE. These results are matched with the findings of [111] that CSR has positive impact on OCBE among employees. On the basis of the above discussion, H5a and H5b are accepted and substantiated.

H6 has developed to observe the positive effects of OCBE on sustainable performance. Bootstrapping has run to test the hypothesis. The results indicated that H6 found significant. OCBE positively predicted sustainability. OCBE and green behavior of employees, both seek to improve the overall welfare of the community. OCBE is an employee's voluntarily act not rewarded by the organization toward improving the environment [72]. In this study, we found OCBE has positive role upon sustainable performance. Past research confirmed significant relationships between OCBE and environmental performance [2,49,83]. Besides, OCBE also increases financial performance [125]. Based on the above discussion H6 is accepted.

Furthermore, hypotheses H7a, H7b, H7c, H7d, H7e, were developed to examine that OCBE had mediated between independent variables (GHRM practices and CSR) and sustainable performance. From the results, it is observed that OCBE positively and significantly mediated the relationship between GHRM practices (GR&S, training, performance evaluation and rewards) and sustainable performance. Similarly, OCBE also significantly mediated between CSR and sustainable performance.

Hence, the findings of existing study are consistent with past results of the research study of [2] who reported OCBE significantly mediates between GHRM and environmental performance. Besides, results of this study matched with the findings of [76] confirmed that OCBE fully mediated the relationship between GHRM practices and sustainable corporate performance. Similarly, the results of the current study have also supported the findings of the research study of Paillé et al. [83] who confirmed significant role of OCBE as mediator and found that the relationship between SHRM and environmental performance is completely mediated by OCBE.

Thus, on the basis of discussion and research findings hypotheses H1a, H1b, H2a, H2b, H3a, H3b, H4a, H4b, H5a, H5b, H6, and H7a, H7b, H7c, H7d, H7 have been accepted. The mediating variable OCBE has significantly and positively mediated the relationship between GHRM practices and CSR and sustainable performance. It further indicates that the effective implementation of GHRM practices can enhance sustainable performance.

6. Conclusions

The manufacturing industry is one of the main contributors to the economy as well as towards pollution and environmental issues. Internal and external stakeholders have a big concern with environmental issues and they need proper arrangements and solutions to reduce those issues. Therefore it is crucial to decrease environmental issues by implementing green initiatives and through corporate social responsibility activities in the societies. Green activities and CSR help the firms to attain competitive advantage and achieve sustainable performance. Green activities help organizations to attract talented, hardworking, and skilled workforce, corporate social responsibility creates the good image of the firms in the eyes of stakeholder and increases the brand image, and solves problems of societies. While OCBE means will of the employees to cooperate their firms to initiate those activities which can reduce environmental problems.

The current study has investigated the impact of green human resource management practices (green recruitment and selection, green training, green performance evaluation, green rewards) corporate social responsibility, sustainable performance through integrating (mediating) mechanism i.e., organization citizenship behavior towards environment through lens of ability motivation opportunity theory and stakeholder theory.

Studies conducted on GHRM, CSR, and sustainability are limited. Besides studies on OCBE as a mediator is limited. Recent studies conducted on GHRM, environmental

performance and OCBE as a mediator by (Anwar et al. 2020) [2] and study on CSR and HRM and sustainable performance by (Hereera, 2020) [55] however these were two separate studies. Thus, empirical evidence in Pakistan's perspective regarding OCBE, CSR, GHRM needs to be reported. No studies have provided any evidence on the framework provided in this article from the perspective of Pakistan. Another novelty of this study, through the lens of AMO theory and stakeholder theory, is that these variables (GHRM, CSR, and sustainable performance) were never reported in one study. The novelty of the study lies in the unfolding role of GHRM, CSR, and OCBE in attaining sustainability by contributing to AMO and stakeholder theories.

AMO and stakeholder theory have successfully applied in the current study. It has concluded that firms can attain sustainability through green activities and by showing socially responsible behavior. OCBE will be helpful to motivate the employees to cooperate with firms to reduce environmental issues. According to recommendations of [124] managers should prefer those candidates having environmental knowledge and awareness and high in OCBE. Likewise, CSR also helps to achieve sustainability. Thus it is concluded that firms can attain competitive advantage and sustainability by implementing GHRM, CSR, and OCBE.

6.1. Implications for Managers

Evidence-based implications are provided for stakeholders of manufacturing industries towards significance and contributions of corporate social responsibility, green human resources management and organizational citizenship behavior towards the environment. The findings and results of the current study will help policymakers in the manufacturing sector, re-shaping the pro-environmental behavior of stakeholders. Green recruitment and selection policy of firms will help them to attract and retain those candidates who have an environmental mindset, attitude and awareness. Moreover, the green training program will help firms to increase environmental awareness and knowledge. Likewise, providing rewards will stimulate the employees as well as stakeholders to put some extra efforts for environmental activities initiated by firms. Furthermore, green involvement activities such as a cleaning campaign and recycling day will assist employees to modify their pro-environmental behavior and encourage them to actively participate in such kind of activities. Similarly, corporate social responsibility helps the firms to increase and enhance their image in the eyes of stakeholder by participating in social activities such as free education, medical facilities, environmentally protected climate, provide benefits to consumers and customers. The significant relationship between OCBE and sustainable performance is presented to policymakers. Focusing on such areas will help firms to motivate their employees to voluntarily participate in reducing environmental issues, employees should be kept informed about such activities, and to adopt friendly environmental behavior will lead to improved sustainable performance.

6.2. Theoretical Contribution

To the best of researcher's knowledge this is the first empirical study conducted in Pakistan manufacturing industries through the lens of AMO theory and stakeholder theory regarding green human resources management practices (GHRM), corporate social responsibility (CSR), organization citizenship behavior towards environment (OCBE), and sustainable performance (economic, social, and environmental performance). The current study extended the literature on green human resource management practices, corporate social responsibility, organization citizenship behavior towards environment, and sustainability.

The current study also validated the scales used for GHRM, CSR, OCBE, and sustainable performance through CFA in PLS-SEM. These instruments were validated and developed in other countries i.e., western perspective it was essential to validate those scales in Pakistan perspective. Furthermore, the current study has implemented and validated the AMO theory and stakeholder theory in Pakistani manufacturing industries

perspective. Managers, practitioners and policymakers can take benefits from findings of the current study. While enhancing citizenship behavior of employees, initiating green activities and socially responsible behavior of the firms will be a contribution towards the body of knowledge.

6.3. Limitations and Future Scope

Opportunities are available for the future researcher because of theoretical, methodological, and practical limitations. The data used and analyzed was cross-sectional data, i.e., data collected at one point of time is called cross-sectional data. CSR and Green HRM might take long time to intervene and change behavior it is recommended that future studies may use longitudinal and dyad data. Longitudinal and dyad data will help researchers to understand in-depth the phenomenon understudied i.e., environmental citizenship behavior and sustainable performance by implementing and executing green HRM activities and CSR initiatives. Furthermore, replication of the current study in multi-cultural perspective across boundaries will develop more understanding of GHRM and, CSR, OCBE and sustainable performance. It is also recommended that future studies may use qualitative data and quantitative data i.e., mix methods research for in-depth understanding. A single method of data collection might create biases so mix method research will reduce this factor of biases and common method bias. In future, supervisor support, management support, might be used as a mediator in the theory of AMO. Data was collected from manufacturing industries it is recommended that hospitality, leisure, tourism, and higher education institutions might be included in future studies. These industries involved complex activities that can have an impact on sustainable performance. Moderators like training, participation in decision making, and mediators like organizational culture, green work life balance, management support, and employee attitude. This study has implemented and validated the current model through the lens of AMO theory and stakeholder theory. In the future studies the researchers may use resource-based view theory (RBV) in their studies.

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