



## Unlocking the Power of Green HRM: Exploring its Impact on Organizational Citizenship Behavior - An Empirical Investigation

Farah Noreen Arshad <sup>a</sup>

<sup>a</sup> Institute of Communication Studies, The University of Punjab, Lahore, Pakistan

### ARTICLE DETAILS

**History:**

Accepted 25 August 2023

Available Online September 2023

**Keywords:**

GHRM Practices, Sustainability-Oriented Behavior, Ability, Motivation and Opportunity (AMO) Theory, Sustainable Development, Emerging Economy

**JEL Classification:**

D23, L25, M12, M54

**DOI:** 10.47067/reads.v9i3.496

### ABSTRACT

*This paper addresses a significant research gap by focusing on the impact of green Human Resource Management (HRM) practices on employees' organizational citizenship behavior in the context of the health industry, particularly within an emerging economy like Pakistan. Despite the increasing recognition of the importance of environmental sustainability and corporate social responsibility, there has been a notable dearth of research in this specific domain, especially in regions like Pakistan, which are often overlooked in the existing literature. To bridge this gap, our study employs the well-established Ability, Motivation, and Opportunity (AMO) framework as the theoretical foundation. We aim to investigate both the direct and interactive effects of green HRM practices, including reward systems, training initiatives, employee involvement, and performance management, on employees' organizational citizenship behavior for the environment. To substantiate our hypotheses and gain insights into their managerial implications, we conducted an empirical study employing a comprehensive questionnaire survey methodology. Through rigorous analysis, we utilized a regression model as an econometric technique to validate our research framework. The findings of our study are illuminating. We provide robust evidence of the direct and interactive impacts of these four key GHRM practices on employees' organizational citizenship behavior with a particular focus on their environmental engagement. Notably, our results highlight that green training emerges as a pivotal instrument in fostering employees' voluntary environmental actions. The practical implications of our research are noteworthy. By showcasing the effectiveness of GHRM practices in shaping employees' voluntary behavior, our study offers valuable insights for the development of future policies and practices in organizations. Moreover, our research underscores the broader societal relevance of GHRM practices in contributing to sustainable development, emphasizing their role in influencing employees' organizational citizenship behavior for the environment.*

© 2023 The authors. Published by SPCRD Global Publishing. This is an open access article under the Creative Commons Attribution-NonCommercial 4.0

Corresponding author's email address: [faraharshado57@gmail.com](mailto:faraharshado57@gmail.com)

## **1. Introduction**

Increased knowledge on a global scale of the sustainable development goals set by the United Nations improves the impact that sustainably oriented behaviour has on human resources. A number of the Sustainable Development Goals, including SDG 3 "Good Health and Wellbeing," SDG 5 "Gender Equality," SDG 8 "Decent Work and Economic Growth," and SDG 10 "Reduced Inequalities," are directly tied to HRM. Organisations function in a complicated context, in which they are confronted with a wide range of internal and external difficulties, such as an ageing population, unstable labour markets, a dearth of talent, an increase in the amount of work, and an intensification of competition. In addition, organisations have to deal with competing demands from various stakeholders while simultaneously fulfilling several goals, such as maximising profits, ensuring the long-term viability of the organisation, and maintaining social legitimacy (Ehnert, 2014).

Policymakers consistently compel businesses to implement environmentally friendly management policies and procedures. In response, businesses are making efforts to implement the green initiative and to encourage employees to join in creating environmentally friendly working environments. In order to achieve this objective, businesses may implement green HRM practises in order to mould the actions of employees in the workplace so that they are more friendly to the environment. It is possible for green HRM practises to play a significant part in encouraging employees to behave in a more environmentally conscious manner. A substantial body of research suggests that there is a correlation between the sustainable-oriented behaviour of employees and organisation citizenship behaviour for environment (OCBE) (Organ, 1988).

Volunteer efforts that are not mandated by job requirements but that are subsidised to enhance environmental requirements are the primary type of sustainable-oriented behaviour that employees engage in. These efforts help an organisation meet its sustainability goals. This condition may only be satisfied by the employees of the company voluntarily participating in activities that are good for the environment and, as a result, promoting the environmental performance of the organisation. When employees engage in sustainable-oriented behaviour, they go the additional mile in environmental protection and voluntarily conduct green actions aimed at enhancing the organization's environmental performance (Norton et al., 2015; Boiral et al., 2015; Robertson and Barling, 2017; Yuriev et al., 2018). This is according to research published by Norton et al., Boiral et al., Robertson and Barling, and Yuriev et al.

In emerging nations such as Pakistan, human capital plays a significant role in the growth and development of the economy. The state of the nation's human capital in terms of its health should be considered a significant criterion for evaluating the economy. People who are in good health are able to work more effectively and efficiently, devoting themselves to productive pursuits. This study's population was comprised of people who were employed in the health care sector in the District Multan area of Pakistan. People tend to make private hospitals their first choice, but recently, reform programmes have been initiated in public hospitals, and these institutions are now subject to more stringent inspection and more frequent daily visits. The personnel who were working in the hospital industry in District Multan, Pakistan were the subjects of this study's population. People tend to make private hospitals their first choice, but recently, reform programmes have been initiated in public hospitals, and these institutions are now subject to more stringent inspection and more frequent daily visits.

For the purpose of validating the study model, we carried out a survey among those who are employed in the healthcare sector in the District of Multan in Pakistan. There are a number of reasons why the healthcare industry makes a particularly fascinating case study for researching how employees feel about their responsibilities to the environment in terms of sustainability. First, the healthcare industry is responsible for a significant number of negative environmental effects (Ryan-Fogarty et al., 2016) because it makes extensive use of potentially hazardous products and generates outputs that pollute the environment (Pasqualini Blass et al., 2017; Gharaei et al., 2018). Second, it might be challenging to encourage personnel in the healthcare industry to engage in environmentally responsible behaviours for the sake of the environment because the primary focus of most healthcare facilities is on the wellbeing of their patients rather than the environmentally responsible behaviours of their staff (Currie et al., 2012). Last but not least, the nature of the health care profession is one that is emotionally taxing, and authorities tend to be more concerned with providing high-quality care to patients than they are with green HRM practises or the well-being of their workforce. Within this framework, the results of our research will make a contribution to the existing body of literature on green HRM practises and the ways in which employees in the health business behave in a way that is sustainable for the environment.

The remaining parts of this article will be organised in the following way. In the following part, a literature review and the creation of a hypothesis are presented. In the third section, the research methodology is described. The discussion of the findings takes place in the following section (section 4), and the final portion (section 5) wraps up the research.

## **2. Literature review and development of hypotheses**

Employees demonstrate a varied assortment of ethical actions within the workplace, as stated by Hunt and Vitell (1986). There are two primary categories of ethical behaviours that can be distinguished here: routine and remarkable. Normal ethical behaviours are those that are in accordance with the moral standards that have been established in both society and the workplace. Extraordinary ethical behaviours, which are frequently associated with behaviours that are geared towards sustainability, go beyond these standards and are typically of a discretionary character.

According to Ocampo et al. (2018), the field of organisational behaviour research witnessed the birth of the notion of organisational citizenship behaviour (OCB) during the 1980s. This was first brought up in their publication. According to Thoni et al. (2021), organisational citizenship behaviour (OCB) is usually understood to be an expression of individual altruism or a sort of unconditional dedication to one's work. According to the definition provided by Deery et al. (2017), it is behaviour that is beneficial to customers, coworkers, or the leaders of an organisation. It is important to note that OCB is not expressly defined in employment contracts because it is seen as a voluntary and unplanned contribution by workers. According to Nadeem et al. (2019), some people say that organisational citizenship behaviour (OCB) is an unconditional feature of an individual's behaviour. However, OCB is separate from behaviours that are recognised through the incentive system of an organisation and may not immediately boost organisational efficiency. Nevertheless, the fundamental focus of OCB rests in affirming positive employee behaviour, which contributes to the overall performance of the organisation, even though the majority of workplace manuals do not provide a concrete description of employee behaviour (He and Kim, 2021).

In its most basic form, organisational citizenship behaviour (OCB) refers to an action that is undertaken voluntarily by individuals, unprompted by external demands or mandates issued by their respective organisations. The alignment of OCB's actions with those that maximise the organization's

interests has the potential to have a substantial impact on the level of satisfaction experienced by customers. (Yuan et al., 2020) Several research on organisational citizenship behaviour (OCB) have shed light on the significant contribution it makes to organisations, notably in terms of improving service quality. According to Hongbo et al. (2021), when employees demonstrate OCB, they have a tendency to give a degree of service that exceeds the official expectations of their organisation. This finding was made by Hongbo et al.

The quality of service provided by immigration officers is of the utmost significance for organisations like the National Immigration Agency (NIA), which is tasked with managing activities related to foreign nationals in Taiwan as well as overseeing the entry and exit procedures for both Taiwanese and foreign passengers (Elche et al., 2020). The NIA is also responsible for managing activities related to foreign nationals in Taiwan. It is necessary to sustain the NIA's duties of border control in an effective manner, and one of those duties is to ensure that immigration officers properly complete their responsibilities. According to Brown et al. (2020), any slip-ups in an employee's attitude towards their work have the potential to give the public a poor impression of the company. As a result, boosting the performance of immigration officers and improving the quality of the services they provide is essential to the NIA's ability to successfully carry out its purpose and complete its duties.

The Ability-Motivation-Opportunity (AMO) hypothesis was developed by Renwick and colleagues (2008, 2013) as a foundational paradigm that sheds light on the critical role of Green Human Resource Management (GHRM) practises. The significance of this theory has grown in recent years, and researchers are now delving into the complexities of the three fundamental components of green human resource management (GHRM): (1) the cultivation of green abilities, as exemplified by initiatives such as green training; (2) the motivation of employees to undertake environmentally responsible actions, including the implementation of green performance management strategies; and (3) the creation of opportunities for active green involvement with internal and external stakeholders. In the current research that we have conducted, we utilise green training, green performance management, and green employee participation as the primary indicators for determining how effective GHRM practises are. These three fundamental components are known as green training, green performance management, and green employee involvement. Our investigation into the connection between Green HRM and environmentally responsible behaviour in individuals is situated within the context of the traditional Ability-Motivation-Opportunity (AMO) theory, which was described by Appelbaum et al. (2000). This is in accordance with the recommendation made by Renwick, Redman, and Maguire (2013).

The AMO theory is based on the primary concept that an individual's environmentally responsible behaviour is considerably increased by HRM practises that contribute to reinforcing an individual's ability, motivation, and opportunity. This is the central premise of the AMO theory. This enhancement materialises as the possession of relevant skill competencies, the cultivation of positive attitudes towards environmentally responsible actions, and the nurturing of a willingness to engage in environment-related tasks, all while providing the opportunity for employees to actively participate in the development and decision-making processes associated with green initiatives. Therefore, effective Green HRM practises are distinguished by their capacity to do the following: a) enhance employee ability through strategies such as greening recruitment and selection, as well as training and development initiatives; b) bolster employee motivation through the implementation of remuneration and incentive schemes aimed at rewarding environmentally responsible behaviour; and c) create a conducive environment in which employees are afforded ample opportunities to actively engage in environmentally responsible behaviour. This all-encompassing approach highlights the varied character

of effective GHRM practises in organisations, which is necessary in order to encourage environmentally responsible behaviour among employees.

Paille and Boiral (2013) found that a multitude of previously conducted studies have investigated Organisational Citizenship Behaviours for the Environment (OCBE) in a variety of different industries. These studies are all embedded within their own unique philosophical frameworks and cultural contexts, and they cover a wide range of service departments as well as the healthcare industry in Canada. In addition, these studies have been conducted with participants hailing from a variety of backgrounds, such as business graduate students in France (Raineri & Paille, 2015), undergraduate students in Switzerland (Terrier, Kim, & Fernandez, 2016), public sector employees in the United States of America (Tsai et al., 2016), and professionals working across industries in South Korea (Kim, Kim, Han, Jackson, & Ployhart, 2014). Nevertheless, in spite of the vast study landscape, there is still a significant hole. There is a dearth of research that undertakes a comparative investigation of OCBE across a variety of business sectors in order to shed light on the complex mechanisms that are responsible for the formation of these behaviours within particular settings. In addition, the research does not provide any insights into the ways in which various fields may be more receptive to the development of specific kinds of OCBE.

According to Trevino et al. (2014), at one end of the spectrum of ethical behaviour is a plethora of basic, routine behaviours that correspond to the minimal moral requirements of society and align with prevalent ethical norms in the workplace. At this end of the spectrum, we come across a wide variety of ethically responsible actions. These behaviours include essential activities such as abstaining from accepting bribes, abstaining from dishonesty and deceit, utilising firm resources for legitimate reasons, and, fundamentally, sticking to principles of honesty and integrity, as shown by Fu (2014). These behaviours are described in more detail below. On the other end of this ethical spectrum, Trevino et al. (2014) describe "extraordinary ethical behaviours" that go beyond society's moral baseline. These behaviours include things like volunteering for an organisation that does questionable things. Even if they are frequently up to an individual's decision, the actions described here belong to a category of deeds that surpass even the most fundamental ethical requirements of a society. Some examples of organisational citizenship behaviours include making charitable donations, blowing the whistle on unethical behaviour, and, on a broader scale, participating in Organisational Citizenship Behaviours (OCB). These exceptionally ethical behaviours demonstrate a dedication to enhancing the ethical fabric of the workplace and society as a whole, and they exhibit a willingness to actively contribute to the organization's and its stakeholders' well-being.

There is a wide variety of "extraordinary ethical behaviours," but the ones that are most relevant to our study include a group of sustainability-focused actions that have been investigated as employee green behaviours (Francoeur et al., 2021). According to Ones and Dilchert (2012, page 87), these behaviours show a commitment to acts that are inextricably linked with and have the potential to either support or hinder attempts to maintain environmental sustainability. To be more particular, we turn our attention to Organisational Citizenship Behaviours for the Environment, or OCBE for short. This is a notion that was originally proposed by Boiral et al. (2015, 2018). The intrinsic ethical complexities of these sustainability-oriented behaviours, such as green behaviours, OCBE, and the broader category of environmentally sustainable behaviours (ESB), are what set them apart from one another. They do not just abide by the relatively straightforward and objective ethical codes and programmes that are usually found in organisations (which are frequently referred to as "rules," as Zoghbi-Manrique-de-Lara, 2010 emphasises). Instead, they are profoundly affected by the larger ethical climate that predominates inside an organisation (Lu & Lin, 2014). This climate incorporates employees' impressions of the formal

ethical procedures, rules, and management systems that are in place. According to Kibert et al. (2011), the decision to engage in these behaviours is more complicated than just making a selection between what is acceptable and what is wrong. Instead, it requires negotiating a complex ethical landscape in which numerous competing ethical concerns are at play.

In addition, actions that prioritise sustainability are inextricably bound up with the responsibility that an organisation bears towards succeeding generations. Because of this, people are forced to adopt an abstract and longer-term ethical perspective, one in which gains in the immediate term for one stakeholder group may demand trade-offs with benefits in the longer term for another stakeholder group. This ethical complexity highlights the multiple character of sustainability-oriented behaviours, as they require individuals to make nuanced judgements that account for the well-being of stakeholders in the present as well as stakeholders in the future. In their most fundamental form, these behaviours are symbolic of a genuine ethical commitment that goes beyond the pursuit of short-term gains and embraces a broader sense of responsibility towards future generations as well as the environment. The Ability-Motivation-Opportunity (AMO) hypothesis was presented by Renwick et al. (2008, 2013) as a basic framework that assists to explicate the function of Green Human Resource Management (GHRM) practises. In recent years, there has been a burgeoning interest in the investigation of the practical applications of the three fundamental components of GHRM, which have evolved into the focus points of the research being conducted today. These components include: (1) the cultivation of green abilities, which can be seen in programmes such as green training; (2) the motivation of employees to engage in environmentally responsible activities, which can be seen in the implementation of green performance management strategies; and (3) the creation of opportunities for employees to actively participate in green initiatives, which can be seen in green employee involvement programmes (Guerci et al., 2016; Masri & Jaaron, 2017; Pinzone et al.). (Guerci et al.

In the current research that we have conducted, we use "green training," "green performance management," and "green employee involvement" as the primary measures for determining the efficiency of green HRM practises. In accordance with the recommendations that were presented by Renwick, Redman, and Maguire (2013), we examine the relationship between green HRM and individuals' environmentally responsible behaviour through the lens of the traditional Ability-Motivation-Opportunity (AMO) theory, which was elucidated by Appelbaum et al. (2000). This approach is in line with the recommendations that were presented by Renwick, Redman, and Maguire (2013).

An individual's propensity for environmentally responsible behaviour is significantly amplified by the role of HRM practises in enhancing three critical factors, according to the core premise of the AMO theory. These three critical factors are ability (the possession of relevant skill competencies), motivation (the cultivation of positive attitudes and a willingness to engage in environment-related tasks), and opportunity (the provision of chances for employees to actively participate in the development and implementation of environmental policies and programmes). Therefore, effective Green HRM practises can be identified by their ability to: a) improve employee capability through strategies such as incorporating environmental considerations into recruitment and selection processes, as well as training and development initiatives; b) boost employee motivation through the adoption of remuneration and incentive structures that reward environmentally responsible behaviour; and c) create a conducive environment in which employees are encouraged to be environmentally responsible. This holistic approach highlights the complex character of effective GHRM practises in organisations, which is necessary in order to encourage environmentally responsible behaviour among employees.

**3. Research design**

**3.1 Sample and data collection**

The research was carried out in the health sector of District Multan, Pakistan, with the employees of that sector serving as the primary population focus of the study. Although patients have traditionally shown a greater preference for private hospitals, recent reform measures inside government hospitals have generated interest in the latter. The quality of healthcare services would be improved by these improvements, which include severe inspection and daily visits.

The information was collected from a select group of workers employed by government hospitals. These workers were individuals who held administrative and supervisory positions in the waste management department, Infection Control Officers, Heads of Administration, and Head Nurses. Data was obtained from a total of sixteen different government hospitals that are situated within the Multan District.

Using a Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree), the study collected a total of 309 responses from staff working in the hospitals that were the focus of the investigation. Based on the distribution of the sample, which is presented in Table-I, it was determined that male participants contributed 80.3% of the responses, while female participants contributed 19.7% of the responses. In addition, the study discovered that 32.7% of respondents had acquired more than 5 years of work experience in their respective professions, and 50.2% of the responses were within the age bracket of 30-39 years.

<b>Characteristics</b>	<b>Data</b>	<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>	Male	248	80.3
	Female	61	19.7
<b>Designation</b>	DMS	53	17.2
	WMM	32	10.4
	SWM	46	14.9
	ICO	33	10.7
	Head of Admin	38	12.3
	Head Nurse	54	17.5
<b>Age</b>	Others	53	17.2
	20-29	87	28.2
	30-39	155	50.2
	40-49	56	18.1
<b>Tenure</b>	Above 50	11	3.6
	Below 1 Year	20	6.5
	1-3 Years	60	19.4
	3-5 Years	128	41.4
	5 and Above	101	32.7

### **3.2 Variables measurement**

#### **3.2.1 Organization Citizenship Behavior for Environment (OCBE)**

Individual actions that contribute to the enhancement of environmental conditions are comprised of the organisational citizenship behaviour for environment (OCBE). This kind of behaviour is voluntary, in the sense that it is neither required by the organisation (Daily, Bishop, & Govindarajulu, 2009) nor mentioned in job descriptions; yet, it can assist organisations and society in moving in the direction of sustainable development (Lamm, Tosti-Kharas, & Williams, 2013). The OCBE was measured using Boiral and Paillé (2012)'s seven-item scale, which was developed for this purpose.

#### **3.2.2 Green Human Resources Management (GHRM)**

Green Human Resources Management (GHRM) is the development of human resources management practises with a focus on sustainability (Jabbour, Jugend, De Sousa Jabbour, Gunasekaran, & Latan, 2015; Jackson & Seo, 2010). GHRM was developed by Jabbour, Jugend, De Sousa Jabbour, and Gunasekaran. This study utilised a six-item scale for measuring green training, which was adopted by Daily et al. (2012) and Jabbour (2015). In addition, this study utilised a five-item scale for measuring green performance, which was adopted by Jabbour et al. (2010) and Masri and Jaaron (2017). (2017) and Pinzone et al. (2016), as well as three items for evaluating green reward and compensation (Arulrajah, A.A., Opatha, H.H.D.N.P., & Nawaratne, N.N.J. (2016)

## **4. Results and Discussion**

### **4.1 Uni-variant analysis**

Table II gives a complete descriptive analysis of the variables that were utilised within the conceptual framework. It also offers crucial statistical insights into the primary tendencies and dispersion of the variables. This study shows several summary statistics in the form of a univariate chart, including the mean, median, minimum, and maximum values, as well as the standard deviation for each variable that is being looked at. With the help of these statistical measures, we are able to get a more nuanced comprehension of the properties and distribution of the data.

The central point around which the data points have a tendency to cluster is denoted by the mean value, which is also sometimes referred to as the average. It offers a measurement of the typical or expected value for each variable that is being considered. When the data are presented in descending order, the median indicates the value that falls exactly in the middle of the range of values. It is a reliable measurement of central tendency, which is especially helpful when working with data that does not follow the normal distribution.

The amount of variance or dispersion that exists within the dataset can be quantified using the standard deviation. If the standard deviation is low, then the data points are tightly packed around the mean, whereas a high standard deviation shows that there is more variability in the data. The minimum and maximum values draw attention to the range that the data points fall within by defining the lowest and highest possible values, respectively. This helps to illustrate the range that the data points fall within.

Table II is an extremely helpful resource, not only for researchers but also for readers, as it provides a concise summary of the fundamental aspects of the data. These summary statistics provide the groundwork for a more in-depth investigation of the variables and facilitate an initial comprehension of the distribution patterns of their values. As a result, they set the stage for additional statistical analyses and interpretations to be made within the research study.



<b>Table-II Descriptive Analysis</b>				
<b>Variables</b>	Minimum	Maximum	Mean	Std. Deviation
<b>GTS</b>	2.50	5.00	3.9256	.22878
<b>GPM</b>	2.00	4.60	3.6770	.34210
<b>GEI</b>	2.40	4.60	3.5437	.28796
<b>GRC</b>	1.00	4.67	2.3754	.58790
<b>OCBE</b>	2.86	5.00	3.9602	.35482

*Note:* N=309. GTS: Green Training System, GPM: Green Performance Management, GEI: Green Employee Involvement, GRC: Green Reward and compensation, OCBE.: Organizational Citizenship Behavior for environment

**4.2 Bi-variant analysis**

The results of the bivariate analysis are presented in Table III. This table highlights the significant and positive associations that were found between Organisational Citizenship Behaviours for the Environment (OCBE) and several key variables, including Green Employee Involvement (GEI), Green Performance Management (GPM), and Green Rewards and Compensation (GRC). The fact that these associations are statistically significant at the 5% level demonstrates the importance of the factors in question to the OCBE and the impact they have on it.

In addition, the evaluation of multicollinearity, as shown by the correlation matrix and the Variance Inflation Factor (VIF), finds no meaningful evidence of multicollinearity among the variables that are incorporated into the model. This is the case despite the fact that the correlation matrix and the VIF both imply that there is multicollinearity. This lack of multicollinearity is significant because it ensures that the independent variables that are included in the analysis are not highly connected. If they were, then the findings of the regression could potentially be interpreted in a way that is not accurate.

The findings that are shown in Table III not only highlight the positive connections that exist between OCBE and the main variables that have been described, but they also provide assurance in the dependability of the model's predictors by confirming that there is no multicollinearity present in the data. In summary, these findings show that there is a relationship between the two. These findings provide an essential basis for the upcoming multivariate analysis and highlight the significance of the variables that were chosen to be examined in terms of their ability to explain differences in OCBE.

<b>Table III: Correlation table</b>						
	<b>GTS</b>	<b>GPM</b>	<b>GEI</b>	<b>GRC</b>	<b>OCBE</b>	<b>VIF</b>
<b>GTS</b>	1	.501**	.117*	-.158**	.247**	1.058
<b>GPM</b>	.501**	1	.197**	-.205**	.349**	1.127
<b>GEI</b>	.117*	.197**	1	-.035	.096	2.666
<b>GRC</b>	-.158**	-.205**	-.035	1	-.096	2.840
<b>OCBE</b>	.247**	.349**	.096	-.096	1	

**4.3 Multivariate Analysis**

In the framework of multivariate analysis, the present investigation made use of regression analysis, more specially making use of the PROCESS model that Hayes (2018) had constructed. The major purpose of this research was to evaluate the effect that Green Human Resource Management (GHRM) practices have on Organisational Citizenship Behaviors for the Environment (OCBE). In order

to accomplish this goal, regression analysis was carried out, and Table IV contains the estimated outcomes of this analysis.

The results of the regression analysis are presented in Table IV. These findings shed light on the correlations that exist between various components of GHRM practises and OCBE in the hospital industry of District Multan, Pakistan. Notably, the research concentrated on Green Employee Involvement (GEI), Green Performance Management (GPM), Green Rewards and Compensation (GRC), and Green Training and Development (GTS) as important aspects of Green Human Resource Management (GHRM).

According to the findings, there are statistically significant connections between OCBE and GTS ( = 0.203, t = 5.108), GPM ( = 0.473, t = 12.457), GEI ( = 0.215, t = 5.522), and GRC ( = 0.211, t = 5.603) in the healthcare industry of District Multan, Pakistan. These findings highlight the significant significance that these GHRM practises have in influencing and promoting environmentally responsible behaviours among personnel working in the healthcare industry.

In addition, the scope of this investigation extends well beyond the simple detection of individual correlations; it also investigates the ways in which GPM, GEI, and GRC interact with, or moderate the impacts of, GTS. The study provides a more nuanced view of how the many aspects of GHRM practises interact to collectively influence OCBE since it takes into consideration the moderating effects.

In general, the multivariate analysis that was carried out as part of this study reveals insightful information regarding the intricate relationships that exist between GHRM practises and OCBE within the parameters of the hospital industry in District Multan, Pakistan. These findings highlight the significance of adopting and developing green human resource management practises within the healthcare industry in order to cultivate a culture of environmental responsibility and sustainability.

<b>Predictors</b>	<b>OCBE</b>			
	<b><math>\beta</math> value</b>	<b>S. E</b>	<b>t value</b>	<b>Decision</b>
<b>Green Training</b>	0.203	.040	5.108	Supported
<b>Green Performance</b>	0.473	.038	12.457	Supported
<b>Green Employee Involvement</b>	0.215	.039	5.522	Supported
<b>Green Reward</b>	0.211	.038	5.603	Supported
<b>GT*GPM</b>	0.010	.016	0.638	Not-Supported
<b>GT*GEI</b>	0.004	.017	0.216	Not-Supported
<b>GT*GR</b>	.012	.017	0.710	Not-Supported
<b>GT*GPM*GEI*GR</b>	.016	.012	1.345	Supported

### 5. Conclusions

In summary, the purpose of this research was to investigate the significant influence that green human resource management (GHRM) practises have on organisational citizenship behaviours for the environment (OCBE) within the framework of the hospital industry in District Multan, Pakistan. The findings shed light on the urgent requirement for the healthcare industry as a whole, and hospital management in particular, to prioritise and put into practise GHRM practises in order to encourage OCBE within their workforce.

The findings of the investigation, which are presented in Table IV, shed light on a number of important realisations. To begin, it has been found that Green Performance Management (GPM) practises have a relationship that is statistically significant with OCBE. In order to encourage staff participation in environmental activities, hospitals should place a primary emphasis on defining clearly defined assessment criteria, environmental targets, and feedback channels. According to the findings of the previous research (Pham, Tuková, & Jabbour, 2019; Pinzone, Guerci, Lettieri, & Redman, 2016), robust assessment policies related to environmental performance can drive employees to begin and actively engage in environmentally responsible projects. This finding is in line with what has been found in the existing literature.

Second, the research underlines the role of Green Employee Involvement (GEI) in driving Overall Corporate Behavioural Excellence (OCBE). It is important for healthcare facilities to foster an inclusive environment in which all staff members are given the opportunity to take part in environmentally conscious activities and to contribute to the making of decisions concerning environmental problems and potential solutions. This is in line with previous studies, such as the study that Pinzone et al. (2016) carried out, which emphasises the significance of employee participation in the process of cultivating OCBE.

Thirdly, the research shows that there is a significant link between Green Training (GTS) and OCBE. It is important for hospitals to make investments in environmental training programmes in order to provide their staff members with the information and capabilities necessary to participate actively in environmental practises. According to the research that has been conducted (Boiral & Paillé, 2012; Pinzone et al., 2016), "green training" is considered to be an essential part of the GHRM process for OCBE.

In conclusion, the study highlights the significance of Green Reward and Compensation (GRC) in the process of driving OCBE. By providing financial rewards to staff members who participate in environmentally friendly activities, such as recycling and waste management, hospitals can encourage greater employee dedication to environmental best practises. It is possible to have a major impact on OCBE by enacting policies that inspire employees to take the initiative on environmental concerns and by providing green benefits, whether monetary or non-monetary. These findings are in line with other findings that have been proven to be constant throughout the research (Uddin, 2022).

On the basis of these findings, several suggestions can be made to various stakeholders in the hospital industry, including the following: It is strongly recommended that hospitals in the Multan district of Pakistan aggressively adopt GHRM practises, with a special emphasis on Green Performance Management, Employee Involvement, Training, and Reward and Compensation. These behaviours have the potential to behave as accelerants in the process of establishing OCBE. The administration of the hospital needs to set comprehensive evaluation policies in relation to the facility's environmental performance. In order to incentivise and reward employees for their engagement in environmental projects, these rules should include clear assessment criteria, environmental targets, and feedback channels. It is important for hospitals to cultivate workplaces that are welcoming to all employees and encourage them to take an active role in environmental protection efforts and in the decision-making processes pertaining to environmental concerns. The administration of the hospital should make an investment in environmental training programmes in order to provide staff members with the information and experience they need to engage in ecologically responsible behaviours. The training in question ought to be regarded as an essential component of GHRM. Implementing green reward and compensation systems can be an effective way for hospitals to inspire their staff. The recognition and

reinforcement of environmentally responsible behaviours can be accomplished through a variety of incentives, including monetary and non-monetary prizes, which can take on a variety of forms.

## **6. Limitations and future reach directions**

It is essential to acknowledge several inherent limitations that warrant consideration for future research endeavours. Even though this study has provided valuable insights into the relationship between Green Human Resource Management (GHRM) practises and Organisational Citizenship Behaviours for the Environment (OCBE) within the hospital industry of District Multan, Pakistan, it is important to note that these limitations should be taken into consideration when conducting research in the future.

The results of this study are context-specific, as they were gathered by concentrating solely on the healthcare industry in District Multan, Pakistan. As a result of this, extreme caution is required while attempting to extend these results to other fields or geographical areas. The existence of particular contextual elements in one place as opposed to another may have a variety of effects on the outcomes that are seen. To increase the findings' applicability to a wider range of contexts, researchers in the future should make an effort to conduct experiments that are comparable to current ones in a variety of industries and locales.

The use of a cross-sectional research methodology in this study allows for an efficient approach to data gathering; nevertheless, it does come with some inherent limitations when it comes to determining causality. In the interest of gaining a more in-depth understanding of the complex and possibly causal interactions that exist between GHRM practises and OCBE, it is recommended that future study take into consideration the use of longitudinal research methods. These kinds of longitudinal studies would make it possible to investigate the ways in which GHRM practises have evolved over time and the effects those changes have had on OCBE.

Self-reported responses from participants were the primary source of information used in the data gathering method for this study. Although this strategy is practical and effective, there is a possibility that response bias will be introduced as a result of using it. In future endeavours of research, there should be a deliberate attempt made to add objective measures and performance indicators, which will ultimately result in an increase in the reliability and quality of the data that has been acquired.

In this particular study, the focus was placed on particular GHRM practises as important factors of OCBE. On the other hand, it is possible that additional latent variables and contextual factors may have an effect on OCBE in the healthcare sector. In subsequent research, it may be worthwhile to investigate these additional components in order to develop a more all-encompassing model of OCBE determinants that takes into account a wider range of contributing factors.

The current investigation did not delve further into the potential impact of cultural and regional elements on GHRM practises and OCBE; as a result, these aspects were not thoroughly explored. In light of the fact that differences in culture and geographic location are known to have an impact on the dynamics of organisations, any future study ought to concentrate more closely on these factors. Investigating the ways in which cultural norms, values, and regional settings have an effect on the implementation and success of GHRM practises, as well as their subsequent impact on OCBE, may result in the discovery of useful information.

In light of these stated limitations, it is clear that there is considerable potential for future research endeavours to improve our understanding of the intricate interplay between GHRM practises and OCBE. This is because there is ample room for future research endeavours to investigate the relationship between GHRM practises and OCBE. Resolving these limitations and carrying out additional in-depth research will not only deepen our grasp of the topic at hand but will also make it possible to develop more specific recommendations that can be adapted to a diverse range of business settings and social environments. In turn, this can make it easier to devise efficient ways for fostering environmentally responsible behaviours within organisations.

## References

- Adams, J.S. (1965). Inequity in social change. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 83, pp. 247-260).
- Adcroft, A. and Willis, R. (2005), "The (un)intended outcome of public sector performance measurement", *International Journal of Public Sector Management*, Vol. 18 No. 5, pp. 386-400.
- Adler, N. J., Doktor, R., & Redding, S. G. (1986). From the atlantic to the pacific century: Cross-cultural management reviewed. *Journal of Management*, 12(2), 295-318.
- Adler, Paul. 1993. "The New Learning Bureaucracy." *Research in Organizational Behavior*. L. L. Cummings and B. Staw, eds. Greenwich, CT: JAI Press, 111-194.
- Agarwal, N. C. (1998). Reward Systems: Emerging Trends and Issues. *Canadian Psychology*, 39(1), 60-70.
- Aguinis, H., & Pierce, C. A. (2008). Enhancing the relevance of organizational behavior by embracing performance management research. *Journal of Organizational Behavior*, 29(1), 139-145. <https://doi.org/10.1002/job.493>
- Ahmad, S., (2015). Green human resource management: policies and practices. *Cogent Business & Management*, 2(1), 1030817.
- Ahmad. (2018). The Impact of Human Resources Practices Affecting Organization Citizenship Behaviours with Mediating Job Satisfaction in University. The 3th Annual International Seminar on Transformative Education and Educational Leadership-Unimed.
- Alonso-Almeida, M. del M., Fernandez Robin, C., Celemin Pedroche, M. S., & Astorga, P.S. (2017). Revisiting green practices in the hotel industry: A comparison between mature and emerging destinations. *Journal of Cleaner Production*, 140, 1415-1428.
- Alt, E., & Spitzack, H. (2016). Improving environmental performance through unit-level organizational citizenship behaviors for the environment: A capability perspective. *Journal of Environmental Management*, 182, 48-58.
- Altmann, S., Falk, A., & Wibral, M. (2012). Promotions and Incentives: The Case Of Multistage Elimination Tournaments. *Journal of Labor Economics*, 30(1), 149-174. Retrieved May, 2015, from <http://www.cens.uni-bonn.de>
- Armstrong M. and Baron A. (1998). *Performance Management: The New Realities*. London: CIPD.
- Artz, B. (2010). Fringe Benefits and Job Satisfaction. *International Journal of Manpower*, 31(6), 626-644. Retrieved June 4, 2015, from <http://dx.doi.org/10.1108//01437721011073346>
- Arulrajah, A.A., Opatha, H.H.D.N.P., & Nawaratne, N.N.J. (2015). Green human resource management practices: a review. *Sri Lankan Journal of Human Resource Management*. 15, 10-16.
- Arulrajah, A.A., Opatha, H.H.D.N.P., Nawaratne, N.N.J., 2016. Green human resource management practices: a review. *Sri Lankan J. Hum. Resour. Manag.* 5 (1).
- Bakker, B. & Schaufeli, W. B. (2008). Positive organizational behavior: engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29, 147-154.
- Bansal, P. & Roth, K. (2000). Why companies go green: a model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717-736.

- Bhananker SM, Culler BF. Resident work hours (2003). *Curr. Opin. Anaesthesiol.*, 16:603-619
- Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. *Research on Negotiations in Organizations*, 1, 43-55.
- Bin, Bilal Saeed, Bilal Afsar, Shakir Hafeez, Imran Khan, Muhammad Tahir, Muhammad Asim Afridi. (2018). "Promoting Employee's Proenvironmental Behaviour Through Green Human Resource Management Practices".
- Bissing-Olson, M.J., Iyer, A., Fielding, K.S., Zacher, H., 2013. Relationships between daily affect and pro-environmental behavior at work: the moderating role of pro-environmental attitude. *J. Organ. Behav.* 34, 156e175. <http://dx.doi.org/10.1002/job.1788>
- Black, S., Briggs, S. and Keogh, W. (2001), "Service quality performance measurement in public/private sectors", *Managerial Auditing Journal*, Vol. 16 No. 7, pp. 400-5.
- Blanche, M. T., Durrheim, K., & Painter, D. (2006). *Research in practice: Applied methods for the social sciences*. Juta and Company Ltd
- Bluestone, Barry, and Irving BLUESTONE. 1992. *Negotiating the Future: A Labor Perspective on American Business*. New York: Basic Books.
- Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221-236.
- Boiral, O., Paill\_e, P., 2012. Organizational citizenship behaviour for the environment: measurement and validation. *J. Bus. Ethics* 109, 431e445. <http://dx.doi.org/10.1007/s10551-011-1138-9>.
- Boiral, O., Raineri, N., & Talbot, D. (2016). Managers' Citizenship Behaviors for the Environment: A Developmental Perspective. *Journal of Business Ethics*, 1- 15.
- Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, 120, 235-255.
- Bunge, J., Cohen-Rosenthal, E., Ruiz-Quintanilla, A., 1996. Employee participation in pollution reduction: preliminary analysis of the toxics release inventory. *J. Clean. Prod.* 4, 9e16. [http://dx.doi.org/10.1016/S0959-6526\(96\)00006-6](http://dx.doi.org/10.1016/S0959-6526(96)00006-6).
- Bushardt, S. C., Glascoff, D. W., & Doty, D. H. (2011). Organizational culture, formal reward structure and effective strategy implementation: A conceptual model. *Journal of Organizational Culture Communication and Culture*, 15, 57-70.
- Buysse, K., Verbeke, A., 2003. Proactive environmental strategies: a stakeholder management perspective. *Strat. Manag. J.* 24, 453e470. <http://dx.doi.org/10.1002/smj.299>.
- Byrne, Z. S. (2005). Fairness reduces the negative effects of organizational politics on turnover intentions, citizenship behavior and job performance. *Journal of Business and Psychology*, 20, 175-200.
- Cardy, R. L. (2004). *Performance management: Concepts, skills, and exercises*. Armonk, NY: M. E. Sharpe.
- Carlin, T. (2004), "Output-based management and the management of performance: insights from the Victorian experience", *Management Accounting Research*, Vol. 15, pp. 267-83.
- Carollo, L., J., Guerci, M. 2018. Employee control, ethics and politics – GHRM in context. In: Renwick, D., M. (Eds.) *Contemporary Developments in Green Human Resource Management Research*, Routledge, London, pp. 97-115.
- Carvalho, J., Fernandes, M., Lambert, V. and Lapsley, I. (2006), "Measuring fire service performance: a comparative study", *International Journal of Public Sector Management*, Vol. 19 No. 2, pp. 165-79.
- Chan, E. S. W., & Hawkins, R. (2012). Application of EMSs in a hotel context: A case study. *International Journal of Hospitality Management*, 31(2), 405-418.
- Chan, E.S., Hon, A.H., Chan, W. and Okumus, F. (2014), "What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and

- ecological behaviour”, *International Journal of Hospitality Management*, Vol. 40 No. 2, pp. 20-28.
- Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & society*, 48(2), 243-256.
- Daniels, K., & Bailey, A. (1999). Strategy development processes and participation in decision making: Predictors of role stressors. *Journal of Applied Management Studies*, 8, 26-43.
- Darnall, N., Jolley, G.J., Handfield, R., 2008. Environmental management systems and green supply chain management: complements for sustainability? *Bus. Strategy Environ.* 17, 30e45. <http://dx.doi.org/10.1002/bse.557>
- De Groot, J. I. M., & Steg, L. (2010). Relationships between value orientations, self-determined motivational types and pro-environmental behavioural intentions. *Journal of Environmental Psychology*, 30(4), 368-378.
- Esty, D., & Winston, A. (2009). *Green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage*. John Wiley & Sons.
- Evans, J. (2004), “An exploratory study of performance measurement systems and relationships with performance results”, *Journal of Operations Management*, Vol. 22, pp. 219-32.
- Floyd, S. & Wooldridge, B. (1992). Middle management involvement in strategy and its association with strategic type: A research note. *Strategic Management Journal*, 13, 153-167.
- Freund A (2005). Commitment and job satisfaction as predictor of turnover intentions among welfare workers. *Adm. Soc. Work*, 29(2): 5- 21.
- Garavan, T. N., Costine, P., & Heraty, N. (1995), *Training and development in Ireland: context, policy, and practice*, Cengage Learning EMEA.
- George, J.M., & Bettenhausen, K. (1990). Understanding prosocial behavior, sales performance, and turnover: A Group-level analysis in a service context. *Journal of Applied Psychology*, 75, 698-709. <http://dx.doi.org/10.1037/0021-9010.75.6.698>.
- Hrebiniak, L. (2008). Making strategy work, overcoming the obstacles to effective execution. *Ivey Business Journal*, 72, 1-6.
- Huffman, A. H., Watrous-Rodriguez, K., Henning, J., & Berry, J. (2009). Working through environmental issues: The role of the Io psychologist. *The Industrial-Organizational Psychologist*, 47(2), 27.
- Ilgen, D.R., & Feldman, J.M. (1983). Performance appraisal: A process focus. In B. Staw & L. Cummings (Eds.), *Research in organizational behaviour* (Vol. 5). Greenwich, CT: JAI Press.
- Ismail Khan, Muhammad Shahid, Samina Nawab, & Syed Sikander Wali. (2013). Influence of Intrinsic and Extrinsic Rewards on Employee Performance: The Banking Sector of Pakistan. *Academic Research International*, 4(1), 282-291. Retrieved from <http://www.savap.org.pk>
- Lamm, E., Tosti-Kharas, J., & Williams, E. G. (2013). Read this article, but don't print it: Organizational citizenship behavior toward the environment. *Group & Organization Management*, 38(2), 163-197.
- Lu, H., While, A. E., Barriball, K. L., 2005. Job satisfaction among nurses: a literature review. *International journal of nursing studies*, 42, 2, 211-227.
- Madi, M., Pan Lee Ching & Yusliza, Y. (2015). Green training and development: a strategic approach for organizational sustainability. *Conference on Green Human Resource Management (CGHRM) 2015*, 108-124.
- Moorman, R. H., Blakely, G. L., & Niehoff, B. P. (1998). Does Perceived Organizational Support Mediate the Relationship Between Procedural Justice and Organizational Citizenship Behaviour? *Academy of Management Journal*, 41(3), 351-357.
- Mujtaba, B. G., & Shuaib, S. (2010). An equitable total rewards approach to pay for performance management. *Journal of Management Policy and Practice*, 11, 111-121.

- Murray A, Montgomery JE, Chang H, Rogers WH, Inui T, Safran DG (1986). Doctor Discontent A Comparison of Physician Satisfaction in Different Delivery System Settings, 1986 and 1997. *J. Gen. Int. Med.*, 16(7): 452-459(8).
- Nadia Sajjad Hafiza, Syed Sohail Shah, Humera Jamsheed, & Khalid Zaman. (2011). Relationship between Rewards and Employee's Motivation in the Non-Profit Organizations of Pakistan. *Business Intelligence Journal*, 4(2), 327-333. Retrieved April, 2015, from <http://www.saycocorporativo.com>
- Neely, A., Gregory, M. and Platts, K. (1995), "Performance measurement system design: a literature review and research agenda", *International Journal of Operations & Production Management*, Vol. 15 No. 4, pp. 80-116.
- Nejati, M., Rabiei, S., Jabbour, C.J.C., 2017. Envisioning the invisible: understanding the synergy between green human resource management and green supply chain management in manufacturing firms in Iran in light of the moderating effect of employees' resistance to change. *J. Clean. Prod.* 168, 163-172.
- Newman, A., & Sheikh, A. Z. (2012). Organizational rewards and employee commitment: A Chinese study. *Journal of Managerial Psychology*, 27, 71-89.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*: Lexington books/DC heath and com.
- Ornoy, H. (2010). 'Correlates and employees' attitudes towards participation in decisionmaking. *Journal of Organizational Behavior*, 9, 7-15.
- Ouchi, W. G. (1979). A conceptual framework for the design of organizational control mechanisms. *Management Science*, 25, 833-848.
- Ozutku, H. (2012). The Influence of Intrinsic and Extrinsic Rewards on Employee Results: An Empirical Analysis in Turkish Manufacturing Industry. *Business and Economics Research Journal*, 3(3), 29-48. Retrieved April, 2015, from <http://www.berjournal.com>
- Paillé, P., & Boiral, O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, 36, 118-128.
- Paille, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: A social exchange perspective. *International Journal of Human Resource Management*, 24(18), 3552-3575.
- Paill\_e, P., Mejía-Morelos, J.H., March\_e-Paill\_e, A., Chen, C.C., Chen, Y., 2015. Corporate greening, exchange process among co-workers, and ethics of care: an empirical study on the determinants of pro-environmental behaviors at coworkers-level. *J. Bus. Ethics*. <http://dx.doi.org/10.1007/s10551-015-2537-0>
- Paill\_e, P., Raineri, N., 2015. Linking perceived corporate environmental policies and employees eco-initiatives: the influence of perceived organizational support and psychological contract breach. *J. Bus. Res.* <http://dx.doi.org/10.1016/j.jbusres.2015.02.021>.
- Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, 72, 386-399.
- Pinzone, M., Guerci, M., Lettieri, E., & Redman, T. (2016). Progressing in the change journey towards sustainability in healthcare: the role of 'Green'HRM. *Journal of Cleaner Production*, 122, 201-211.
- Topcic, M., Baum, M., Kabst, R., 2015. Are high-performance work practices related to individually perceived stress? A job demands-resources perspective. *The International Journal of Human Resource Management*, 27, 1, 45-66
- Train, L. and Williams, C. (2000), "Evolution of quality management: British Benefit Enquiry Line", *International Journal of Public Sector Management*, Vol. 13 No. 6, pp. 526-39.
- Tremblay, M., Cloutier, J., Simard, G., Chenevert, D., & Vandenberghe, C. (2010). The role of HRM



practices, procedural justice, organizational support and trust in organizational commitment and in-role and extra-role performance. *International Journal of Human Resource Management*, 21, 405-433.

- Tsai, C.-C., Stritch, J. M., & Christensen, R. K. (2016). Eco-Helping and Eco-Civic Engagement in the Public Workplace. *Public Performance & Management Review*, 40(2), 336-360.
- Uddin, M. (2022). Leveraging Green Human Resource Management Practices towards Environmental Performance: An Empirical Evidence from the Manufacturing Context in Emerging Economy. *International Journal of Business and Society*, 23(1), 585-603.
- Unsworth, KL, Dmitrieva, A, Adriasola, E., 2013. Changing behaviour: Increasing the effectiveness of workplace interventions in creating pro-environmental behaviour change. *Journal of Organizational Behavior*, 34, 2, 211-229
- Usha Priya, & Shakti Eshwar. (2014). Rewards, Motivation and Job Satisfaction of Employees in Commercial Banks- An Investigative Analysis. *International Journal of Academic Research and Social Sciences*, 4(4), 70-78. Retrieved May, 2015, from <http://dx.doi.org/10.6007/IJARBSS/v4-i4/754>
- Uddin, M. (2022). Leveraging Green Human Resource Management Practices towards Environmental Performance: An Empirical Evidence from the Manufacturing Context in Emerging Economy. *International Journal of Business and Society*, 23(1), 585-603.
- Zoogah D. The dynamics of Green HRM behaviors: A cognitive social information processing approach. *Zeitschrift fur Personalforschung*, 2011; 25:117-139.
- Zutshi, A., & Sohal, A. S. (2004). Adoption and maintenance of environmental management systems: Critical success factors. *Management of Environmental Quality: An International Journal*, 15(4), 399-419. doi:10.1108/1477783041054014.