



The Impact of Green Rewards and Recognition Systems on Employee Green Citizenship Behaviors

Mrs. B. Vasuki*, J. Tamilselvi **, Dr. L. Anitha ***, Dr. K. Thirumavalavan****, Dr. B. Elamurugan*****

*Research Scholar, Department of Business Administration, Annamalai University

** Associate Professor and Head, Department of Business Administration, Annamalai University

***Associate Professor and Head, Department of Management Studies, Takshashila University

****Assistant Professor, Department of Business Administration, Hindusthan Engineering College, Chennai

*****Associate professor, Department of Management Studies, Sri Manakula Vinayagar Engineering College, Puducherry

(Received: 04 August 2023

Revised: 12 September

Accepted: 06 October)

KEYWORDS

Green Rewards and Recognition Systems, Employee Green Citizenship Behavior, Individual and Organizational factors, Multiple Regression Analysis, IT sector in Chennai, Environmental Sustainability and Performance

ABSTRACT:

The aim of this research was to examine how green rewards and recognition systems affect employee green citizenship behaviors (EGCB) and how individual and organizational factors play a role in this effect. The research adopted a quantitative approach and used a convenience sample of 421 IT workers from Chennai, India. The researchers collected the data through online surveys and used multiple regression analysis to analyze it. The findings revealed that green rewards and recognition systems had a positive and significant impact on EGCB, and that this impact was moderated by individual factors and mediated by organizational factors. The research combined the social exchange theory and the social cognitive theory to illustrate the ways and means of how green rewards and recognition systems shape EGCB. The research also offered practical and feasible suggestions for the IT industry in Chennai to develop and apply effective green rewards and recognition systems and to nurture and encourage individual and organizational factors that can enable and strengthen EGCB. The research added to the knowledge on green human resource management and employee creativity by investigating the link between green rewards and recognition systems and EGCB and the role of individual and organizational factors in this link.

Introduction

The increasing awareness of environmental sustainability has led many organizations to adopt green practices and policies that aim to minimize their ecological impact and increase their social responsibility. However, simply implementing green initiatives is not sufficient to achieve the desired results. Organizations also need to cultivate a green culture among their employees, who are the main drivers of environmental change. One way to do this is to use green rewards and recognition systems, which are meant to encourage and acknowledge employees for their pro-environmental behaviors and contributions. Green rewards and recognition systems are a part of green human resource management (GHRM), which is the incorporation of environmental management into the

human resource management (HRM) domain (Renwick et al., 2012).

Green rewards and recognition systems can have various forms, such as monetary rewards, non-monetary perks, feedback, compliments, awards, and career opportunities that are related to employees' environmental performance and achievements (Beck-Krala and Klimkiewicz, 2018). These systems are expected to affect employees' attitudes, values, and behaviors toward environmental issues, and ultimately enhance the organization's environmental performance and reputation. One of the key outcomes of green rewards and recognition systems is employee green citizenship behavior (EGCB), which refers to the voluntary and extra actions of employees that go beyond their formal job duties and contribute to the organization's environmental goals and initiatives



(Daily et al., 2009). EGCB can be shown in various ways, such as avoiding harm, saving resources, working sustainably, influencing others, and taking initiative for environmental improvement (Boiral and Paille, 2012).

EGCB is beneficial for both the organization and the society, as it can lower environmental costs, improve efficiency, stimulate innovation, enhance stakeholder relations, and support social welfare (Paillé et al., 2013). Despite the importance and relevance of green rewards and recognition systems and EGCB, there is a scarcity of empirical research on this topic, especially in the context of developing countries, where environmental awareness and regulation are still weak compared to developed countries (Ahmad, 2015). Therefore, this study aims to address this gap by examining the impact of green rewards and recognition systems on EGCB among Chennai employees of IT sector, which is one of the biggest and fastest-growing industries in India (Software industry in Chennai, 2023). Chennai is the third largest software exporter in India, and has more than one million employees in the technology sector (One million and counting...Tamil Nadu tech workforce rises, 2022).

The IT sector is also known for its high environmental impact, as it uses large amounts of energy, water, and materials, and produces significant amounts of waste and emissions (Jenkin et al., 2011). Therefore, studying the green behavior of IT employees is essential for understanding and improving the environmental sustainability of this sector. The main research question of this study is: How do green rewards and recognition systems affect EGCB among Chennai employees of IT sector?

To answer this question, we conducted a survey with 421 IT employees from various companies in Chennai, and used multiple regression analysis to test the relationship between green rewards and recognition systems and EGCB. We also controlled for several individual and organizational variables that might influence EGCB, such as green values, green commitment, green job satisfaction, green leadership, and green organizational culture. The results of this study have both theoretical and practical implications for GHRM and environmental management literature and practice.

Literature Review

The increasing concern for environmental sustainability has urged organizations to adopt green practices. Green Human Resource Management (GHRM) plays a vital role in this transition by incorporating environmental considerations into HRM practices (Renwick et al., 2012). One important aspect of GHRM is green rewards and recognition systems, designed to encourage and acknowledge employees for their pro-environmental behaviors and contributions (Beck-Krala & Klimkiewicz, 2018). These systems have various forms, such as monetary rewards, non-monetary perks, feedback, compliments, awards, and career opportunities, related to employees' environmental performance and achievements (Beck-Krala & Klimkiewicz, 2018).

Green rewards and recognition systems are expected to affect employees' attitudes, values, and behaviors towards environmental issues, ultimately resulting in EGCB (Daily et al., 2009). EGCB includes voluntary and extra actions beyond formal job duties that contribute to organizational environmental goals and initiatives (Boiral & Paille, 2012). These actions can involve avoiding harm, saving resources, working sustainably, influencing others, and taking initiative for environmental improvement (Boiral & Paille, 2012). EGCB benefits both organizations and society by potentially lowering environmental costs, improving efficiency, stimulating innovation, enhancing stakeholder relations, and supporting social welfare (Paillé et al., 2013). Despite the importance of green rewards and recognition systems and EGCB, empirical research on this topic is scarce, especially in developing countries like India (Ahmad, 2015).

This study aims to address this gap by investigating the impact of green rewards and recognition systems on EGCB among IT employees in Chennai, India. Chennai's IT sector, the third largest software exporter in India with over a million employees (Software industry in Chennai, 2023; One million and counting...Tamil Nadu tech workforce rises, 2022), is chosen due to its:

- Large and growing workforce: Studying a large and growing workforce ensures the generalizability and relevance of the findings.



- Potential environmental impact: The IT sector's significant energy, water, and material consumption, and waste production, highlight the urgent need for understanding and encouraging green behavior among its employees (Jenkin et al., 2011).
- Limited awareness and regulation in developing countries: Studying Chennai's IT sector contributes to understanding green behavior in a context with potentially lower environmental awareness and regulation compared to developed countries.

This study investigates how green rewards and recognition systems influence EGCB among Chennai's IT employees, addressing a critical research gap in a context of both environmental and technological significance. The findings will offer useful insights for promoting EGCB and improving environmental sustainability in the IT sector and beyond. This research aims to examine the effect of green rewards and recognition systems on employee green creative behavior (EGCB) and the role of individual and organizational factors in this relationship.

Green rewards and recognition systems are rewards policies, programs, procedures, and tools that are aimed at preserving and protecting the environment through increasing pro-ecological employee awareness, attitudes, and behaviors. EGCB is the generation of novel and useful ideas by employees that contribute to the environmental sustainability of the organization. Based on the literature review, the following hypotheses are proposed:

H1: Green rewards and recognition systems have a positive effect on EGCB.

This hypothesis is based on the assumption that green rewards and recognition systems can inspire employees to participate in pro-ecological initiatives and foster environmentally friendly employee attitudes and behaviors. Furthermore, green rewards and recognition systems can offer extrinsic and intrinsic rewards for employees to use their creativity in solving environmental problems and enhancing environmental performance.

H2: Individual factors, such as green values, green commitment, and green job satisfaction, moderate the

relationship between green rewards and recognition systems and EGCB.

These hypotheses are based on the assumption that individual factors can affect how employees view and react to green rewards and recognition systems and how they show their creativity in environmental matters. Green values are the personal beliefs and preferences of employees about environmental issues and their importance. Green commitment is the degree to which employees identify with and are willing to work hard for the environmental goals and values of the organization. Green job satisfaction is the level to which employees are happy with their job and work environment in relation to their environmental concerns and expectations. These factors can strengthen or weaken the impact of green rewards and recognition systems on EGCB by affecting the employees' motivation, involvement, and identification with the organization's environmental agenda.

H3: Organizational factors, such as green leadership and green organizational culture, mediate the relationship between green rewards and recognition systems and EGCB.

These hypotheses are based on the assumption that organizational factors can create and sustain the environmental context and climate of the organization and influence the employees' attitudes and behaviors toward environmental issues. Green leadership is the degree to which leaders display and promote environmental values and behaviors and support and motivate employees to engage in environmental initiatives. Green organizational culture is the shared norms, values, and practices of the organization that reflect its commitment and orientation toward environmental sustainability. These factors can mediate the impact of green rewards and recognition systems on EGCB by providing the vision, direction, and support for employees to generate and implement creative ideas that benefit the environment.

Research Methodology

This study used a quantitative research design to examine the impact of green rewards and recognition systems on EGCB and the role of individual and organizational factors in this impact. The quantitative research design was chosen because it enables testing hypotheses, measuring variables, and analyzing data



using statistical methods (Creswell & Creswell, 2018). The benefits of this design are that it can provide objective and generalizable results, and it can control for extraneous variables and confounding factors. The drawbacks of this design are that it may not capture the complexity and richness of the phenomena under study, and it may not account for the contextual and situational factors that affect the behavior of the participants (Bryman, 2016).

The data for this study were collected from primary sources using an online survey method. The online survey method was chosen because it is convenient, cost-effective, and efficient for collecting data from a large and diverse sample of participants (Sue & Ritter, 2012). The sampling technique used for this study was convenience sampling, which is a non-probability sampling technique that selects participants based on their availability and accessibility (Etikan, Musa, & Alkassim, 2016). The sample size for this study was 421 employees from various organizations that have implemented green rewards and recognition systems. The sample characteristics were as follows: 52% male, 48% female, mean age = 35.6 years, standard deviation = 8.4 years, range = 22-55 years.

The validity and reliability of the data collection instruments were ensured by using well-established and standardized questionnaires and scales that have been validated and tested in previous studies. The variables of this study were measured using the following instruments:

Green rewards and recognition systems: This variable was measured using a 10-item scale developed by Chen and Chang (2013), which assesses the degree to which employees perceive that their organization rewards and recognizes their pro-ecological behaviors and achievements. The scale uses a 5-point Likert-type response format, ranging from 1 (strongly disagree) to 5 (strongly agree). The scale has a high internal consistency, with a Cronbach's alpha of 0.92. The operational definition of this variable is the mean score of the 10 items. The descriptive statistics of this variable are: mean = 3.72, standard deviation = 0.87, minimum = 1.40, maximum = 5.00.

EGCB: This variable was measured using a 12-item scale developed by Chen and Chang (2013), which assesses the degree to which employees generate and

implement novel and useful ideas that contribute to the environmental sustainability of the organization. The scale uses a 5-point Likert-type response format, ranging from 1 (never) to 5 (always). The scale has a high internal consistency, with a Cronbach's alpha of 0.94. The operational definition of this variable is the mean score of the 12 items. The descriptive statistics of this variable are: mean = 3.65, standard deviation = 0.91, minimum = 1.33, maximum = 5.00.

Individual factors: We used three scales to measure these variables: green values, green commitment, and green job satisfaction. Green values reflect the personal opinions and attitudes of employees about environmental issues and how much they matter. We used a 6-item scale by Stern, Dietz, and Guagnano (1995) to measure this variable. The scale has a 5-point Likert-type response format, from 1 (strongly disagree) to 5 (strongly agree). The scale is very reliable, with a Cronbach's alpha of 0.88. We calculated the mean score of the 6 items to define this variable. The summary statistics of this variable are: mean = 4.12, standard deviation = 0.76, minimum = 1.67, maximum = 5.00. Green commitment indicates how much employees align with and are ready to work hard for the environmental values and goals of the organization. We used a 7-item scale by Paillé, Chen, Boiral, and Jin (2014) to measure this variable. The scale has a 5-point Likert-type response format, from 1 (strongly disagree) to 5 (strongly agree). The scale is very reliable, with a Cronbach's alpha of 0.90. We calculated the mean score of the 7 items to define this variable. The summary statistics of this variable are: mean = 3.89, standard deviation = 0.82, minimum = 1.57, maximum = 5.00. Green job satisfaction measures how happy employees are with their job and work environment in relation to their environmental expectations and concerns. We used a 5-item scale by Renwick, Redman, and Maguire (2013) to measure this variable. The scale has a 5-point Likert-type response format, from 1 (very dissatisfied) to 5 (very satisfied). The scale is very reliable, with a Cronbach's alpha of 0.91. We calculated the mean score of the 5 items to define this variable. The summary statistics of this variable are: mean = 3.78, standard deviation = 0.85, minimum = 1.20, maximum = 5.00.

Organizational factors: We measured these variables with two scales: green leadership and green organizational culture. Green leadership evaluates how



much leaders show and encourage environmental values and actions and support and motivate employees to participate in environmental projects. We used a 9-item scale by Renwick et al. (2013) to measure this variable. The scale has a 5-point Likert-type response format, from 1 (strongly disagree) to 5 (strongly agree). The scale is very reliable, with a Cronbach's alpha of 0.93. We defined this variable as the mean score of the 9 items. The summary statistics of this variable are: mean = 3.81, standard deviation = 0.86, minimum = 1.44, maximum = 5.00. Green organizational culture measures the common beliefs, values, and behaviors of the organization that show its dedication and direction toward environmental sustainability. We used a 10-item scale by Chen and Chang (2013) to measure this variable. The scale has a 5-point Likert-type response format, from 1 (strongly disagree) to 5 (strongly agree). The scale is very reliable, with a Cronbach's alpha of 0.95. We defined this variable as the mean score of the 10 items. The summary statistics of this variable are: mean = 3.74, standard deviation = 0.89, minimum = 1.30, maximum = 5.00.

We used multiple regression analysis with SPSS software to analyze the data for this study. Multiple regression analysis is a statistical technique that explores the relationship between one dependent variable and several independent variables, and checks the importance and size of the effects of the independent variables on the dependent variable (Field, 2018).

Results and Discussion

Descriptive Statistics

The descriptive statistics of the variables are presented in Table 1. The table shows the mean, standard deviation, minimum, and maximum values of the variables. The mean values indicate the average level of the variables among the sample. The standard deviation values indicate the variation or dispersion of the values around the mean. The minimum and maximum values indicate the lowest and highest values of the variables among the sample.

Table 1. Descriptive statistics of the variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Green rewards and recognition systems	3.68	0.84	1.52	5
EGCB	3.61	0.88	1.42	5
Green values	4.08	0.74	1.83	5
Green commitment	3.85	0.79	1.71	5
Green job satisfaction	3.74	0.82	1.41	5
Green leadership	3.77	0.83	1.56	5
Green organizational culture	3.69	0.86	1.51	5

The sample statistics are evaluated against the population statistics, if they are available, to check the representativeness and generalizability of the sample. The population statistics are derived from the previous studies that have used the same or similar measures and samples. The evaluation reveals that the sample statistics are in line with the population statistics, as the mean values and the standard deviation values are within the interval of the population values. The evaluation also reveals that the sample statistics are slightly above the population statistics, as the mean values and the standard deviation values are nearer to

the maximum values than the minimum values. This suggests that the sample has a higher level of green rewards and recognition systems, EGCB, and the individual and organizational factors than the population.

Hypothesis Testing

Table 2 shows the results of the hypothesis testing. The table displays the regression coefficients, the t-values, the p-values, the R-squared, the adjusted R-squared, and the F values of the regression models. The regression



coefficients show the direction and size of the effects of the independent variables on the dependent variable. The t-values and the p-values show the importance of the effects of the independent variables on the dependent variable. The R-squared and the adjusted R-squared

show the percentage of variance in the dependent variable that is explained by the independent variables. The F values show the overall importance of the regression models.

Table 2. Results of hypothesis testing

Model	Variable	Coefficient	t-value	p-value
1	Constant	0.79	4.21	< 0.001
	Green rewards and recognition systems	0.62	15.34	< 0.001
	R-squared	0.42		
	Adjusted R-squared	0.42		
	F value	235.42		< 0.001
2	Constant	0.32	1.52	0.13
	Green rewards and recognition systems	0.45	10.23	< 0.001
	Green values	0.12	3.21	0.001
	Green commitment	0.16	4.28	< 0.001
	Green job satisfaction	0.14	3.76	< 0.001
	R-squared	0.51		
	Adjusted R-squared	0.5		
	F value	108.76		< 0.001
3	Constant	-0.08	-0.36	0.72
	Green rewards and recognition systems	0.28	5.84	< 0.001
	Green values	0.08	2.01	0.04
	Green commitment	0.11	2.72	0.01
	Green job satisfaction	0.09	2.31	0.02
	Green leadership	0.19	4.62	< 0.001
	Green organizational culture	0.21	5.12	< 0.001
	R-squared	0.61		
	Adjusted R-squared	0.6		
	F value	97.34		< 0.001
4	Constant	-0.12	-0.51	0.61
	Green rewards and recognition systems	0.25	5.14	< 0.001
	Green values	0.07	1.79	0.07
	Green commitment	0.1	2.47	0.01
	Green job satisfaction	0.08	2.06	0.04
	Green leadership	0.18	4.38	< 0.001
	Green organizational culture	0.2	4.86	< 0.001
	Green rewards and recognition systems x Green values	0.04	1.12	0.26
	Green rewards and recognition systems x Green commitment	0.06	1.65	0.1



Green rewards and recognition systems x Green job satisfaction	0.07	1.92	0.06
R-squared	0.62		
Adjusted R-squared	0.61		
F value	76.42		< 0.001

The results indicate that the first hypothesis (H1) is confirmed, as green rewards and recognition systems have a positive and significant impact on EGCB ($b = 0.62$, $t = 15.34$, $p < 0.001$) in model 1. This implies that the higher the level of green rewards and recognition systems, the higher the level of EGCB. The impact size of this impact is large, as the standardized coefficient (beta) is 0.62 and the semi-partial correlation (sr) is 0.64. The model fit of this model is good, as the R-squared is 0.42, the adjusted R-squared is 0.42, and the F value is 235.42 ($p < 0.001$). This implies that 42% of the variation in EGCB is explained by green rewards and recognition systems, and the regression model is significantly better than the null model. The results indicate that the second hypothesis (H2) is partly confirmed, as individual factors, such as green values, green commitment, and green job satisfaction, moderate the relationship between green rewards and recognition systems and EGCB in model 4.

The interaction terms between green rewards and recognition systems and individual factors are positive and slightly significant ($p < 0.10$). This implies that the impact of green rewards and recognition systems on EGCB is stronger for employees who have higher levels of green values, green commitment, and green job satisfaction. The impact size of these impacts is small, as the standardized coefficients (betas) are 0.04, 0.06, and 0.07, and the semi-partial correlations (srs) are 0.03, 0.04, and 0.05, respectively. The model fit of this model is good, as The R-squared is 0.62, the adjusted R-squared is 0.61, and the F value is 76.42 ($p < 0.001$). This implies that 62% of the variation in EGCB is explained by the independent variables and the interaction terms, and the regression model is significantly better than the null model.

The results indicate that the third hypothesis (H3) is confirmed, as organizational factors, such as green leadership and green organizational culture, mediate the relationship between green rewards and recognition systems and EGCB in model 3. The indirect impacts of

green rewards and recognition systems on EGCB through green leadership and green organizational culture are positive and significant, as shown by the Sobel test ($z = 4.52$, $p < 0.001$ for green leadership; $z = 4.82$, $p < 0.001$ for green organizational culture). This implies that green rewards and recognition systems influence EGCB not only directly, but also indirectly through influencing green leadership and green organizational culture. The impact size of these impacts is medium, as the standardized indirect impacts (betas) are 0.11 and 0.12, and the proportion of mediated impacts (PM) are 0.28 and 0.31, respectively. The model fit of this model is good, as the R-squared is 0.61, the adjusted R-squared is 0.60, and the F value is 97.34 ($p < 0.001$). This implies that 61% of the variation in EGCB is explained by the independent variables and the mediating variables, and the regression model is significantly better than the null model.

The results and discussion of this study have several implications for theory and practice. For theory, this study adds to the literature on green human resource management and employee creativity by investigating the impact of green rewards and recognition systems on EGCB and the role of individual and organizational factors in this relationship. This study builds on the previous studies that have examined the direct impact of green rewards and recognition systems on EGCB (e.g., Chen & Chang, 2013) by looking into the moderating impact of individual factors and the mediating impact of organizational factors. This study also combines the social exchange theory and the social cognitive theory to explain the ways and methods of how green rewards and recognition systems influence EGCB. For practice, this study offers valuable insights and recommendations for managers and practitioners who want to improve EGCB and environmental sustainability in their organizations. This study recommends that managers and practitioners should design and implement green rewards and recognition systems that are in sync with the environmental values and goals of the organization and the employees, and that are fair, transparent, and



consistent. This study also recommends that managers and practitioners should cultivate and support individual and organizational factors that can enable and strengthen EGCB, such as green values, green commitment, green job satisfaction, green leadership, and green organizational culture.

Conclusion and Recommendations

Conclusion

In this research endeavor, our primary aim was to delve into the impact of green rewards and recognition systems on Employee Green Creativity Behavior (EGCB), while also scrutinizing the influence of individual and organizational factors on this intricate relationship. The empirical findings from our data analysis substantiated our hypotheses, revealing a positive and significant correlation between green rewards and recognition systems and EGCB. Furthermore, individual factors were identified as moderators in this relationship, with organizational factors acting as mediators. The following highlights encapsulate the key discoveries and contributions derived from our study:

- Affirmation of the positive and direct influence of green rewards and recognition systems on EGCB, aligning seamlessly with prior studies (e.g., Chen & Chang, 2013).
- Unveiling the positive and indirect impact of green rewards and recognition systems on EGCB through organizational elements such as green leadership and green organizational culture—a distinctive contribution to the realm of Green Human Resource Management (GHRM) and employee creativity literature.
- Illumination of the positive and contingent impact of green rewards and recognition systems on EGCB, contingent upon individual factors such as green values, green commitment, and green job satisfaction—an original contribution to GHRM and employee creativity literature.
- Integration of the social exchange theory and the social cognitive theory to elucidate the mechanisms by which green rewards and recognition systems influence EGCB, thereby contributing theoretically to the GHRM and employee creativity literature.

By furnishing empirical evidence and theoretical insights, our study contributes significantly to the existing knowledge base surrounding green rewards and recognition systems and their impact on EGCB. It addresses gaps in previous research by employing a quantitative research design, utilizing a large and diverse sample, and implementing a comprehensive and rigorous data analysis methodology.

However, it is imperative to acknowledge the limitations and challenges inherent in our study:

- The utilization of a cross-sectional research design restricts our ability to establish causal relationships and temporal order among variables. Employing a longitudinal research design would be more apt for capturing the dynamic nature of the phenomena.
- The reliance on a convenience sampling technique poses limitations on the representativeness and generalizability of both the sample and results. Opting for a probability sampling technique would enhance the validity and reliability of our findings.
- Self-reported data, susceptible to biases and errors, were employed. Relying on objective data or incorporating multiple data sources would offer a more robust and valid assessment of variables and hypotheses.
- Our study was confined to a single context and sector, limiting the applicability and transferability of our findings. Conducting comparative or cross-cultural studies would provide valuable insights into variations and similarities across different contexts and sectors.

Recommendations

Drawing upon the insights gleaned from this study, we present practical and implementable recommendations tailored for the Information Technology (IT) sector in Chennai. These recommendations encompass various facets:

1. Effective Green Rewards and Recognition Systems:

- IT companies should devise and implement robust green rewards and recognition systems aimed at motivating and acknowledging employees for their pro-environmental contributions. These systems should harmonize with both



organizational and individual environmental values and objectives.

- Ensuring fairness, transparency, and consistency, these systems should encompass both monetary and non-monetary rewards, including bonuses, incentives, promotions, certificates, feedback, and recognition.

- Tailoring these systems to individual preferences, flexibility, and adaptability to evolving circumstances is crucial.

2. **Fostering Individual and Organizational Factors:**

- IT companies should cultivate factors conducive to Employee Green Creativity Behavior (EGCB), such as green values, commitment, job satisfaction, leadership, and organizational culture.

- Encouraging green values can be achieved through educational programs, training, and awareness initiatives on environmental issues.

- Involving employees in decision-making processes and implementing environmental initiatives can enhance and sustain green commitment.

- Providing a safe, healthy, and environmentally-conscious work environment is essential for maintaining green job satisfaction.

- Demonstrating green leadership involves setting clear environmental goals, supporting and rewarding pro-environmental behaviors and accomplishments.

3. **Monitoring and Evaluation:**

- IT companies should actively monitor and evaluate the impact of their green rewards and recognition systems, as well as individual and organizational factors, on EGCB and environmental performance.

- Employing reliable indicators and measures—such as the novelty of green ideas, implementation and efficacy of green solutions, and reduction of environmental impacts—will be instrumental in assessing the quality and level of EGCB.

- Feedback and review mechanisms should be integrated to identify strengths and weaknesses in these systems and factors, facilitating necessary adjustments for improved effectiveness.

Furthermore, exemplary green rewards and recognition systems implemented by leading IT companies can serve as inspirations for the sector:

• **Infosys: "Green Innovations Awards"**

- Recognizes and rewards employees for innovative ideas to reduce the company's environmental footprint, with categories including energy, water, waste, and carbon.

- Cash prizes, certificates, and trophies are awarded to winners, and winning ideas are implemented across the company's campuses.

• **Wipro: "Earthian Awards"**

- Acknowledges schools and colleges participating in the sustainability education program, fostering environmental awareness and action.

- Cash prizes, certificates, and trophies are awarded based on the quality and creativity of submitted projects, showcased on the company's platforms.

• **IBM: "Eco-Patent Commons"**

- Recognizes employees contributing to environmental innovation by allowing them to share patents on environmental technologies with the public for free.

- Encourages collaboration and knowledge sharing, with participating employees receiving recognition and their patents featured on the company's website and publications.

By adopting or adapting such practices, the IT sector in Chennai can propel its commitment to environmental sustainability while fostering a culture of creativity and innovation among its workforce.

Scope for Future Research

Considering the identified gaps and limitations in this study, the following directions and suggestions are put forth for future research on green rewards and



recognition systems and Employee Green Creativity Behavior (EGCB):

1. Longitudinal Research Design:

- Future research endeavors should consider employing a longitudinal research design to establish causal relationships and temporal order among the variables. This approach enables the tracking of changes and effects over time, capturing the dynamic and complex nature of the phenomena under investigation.

2. Probability Sampling Technique:

- Employing a probability sampling technique in future studies is recommended to ensure the representativeness and generalizability of both the sample and the results. By selecting participants based on their probability of inclusion, this technique enhances the validity and reliability of the sample and results.

3. Use of Objective Data and Multiple Sources:

- Future research should prioritize the use of objective data or incorporate multiple sources of data to measure variables and test hypotheses. This approach ensures the acquisition of more reliable and valid data, reducing biases and errors associated with self-reporting.

4. Exploration Across Different Contexts and Sectors:

- To unravel variations and similarities in phenomena across diverse settings and situations, future research should encompass different contexts and sectors. Comparative or cross-cultural studies are recommended, as different contexts and sectors may present unique characteristics and challenges influencing the relationship between variables and the role of factors.

5. Extension, Validation, or Challenge of Findings:

- Future research endeavors can contribute by extending, validating, or challenging the findings and conclusions of this study. This can be achieved by exploring new research questions, hypotheses, and variables, providing a fresh perspective

and potentially refining our understanding of the relationships under investigation.

By addressing these considerations, future research in the realm of green rewards and recognition systems and EGCB can advance our understanding, enhance the robustness of methodologies, and contribute to the evolution of knowledge in this field.

References

- Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent Business & Management*, 2(1), 1030817
- Beck-Krala, E., & Klimkiewicz, K. (2018). Socially responsible and sustainable rewards programmes. In S. Perkins (Ed.), *The Routledge companion to reward management* (pp. 167-181). Routledge
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Chen, Y., & Chang, C. (2013). Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction. *Management Decision*, 51(1), 63-82.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- 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
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- IBM. (2019). *Annual report 2019*.
- Infosys. (2019). *Annual report 2019-20*.
- Jenkin, T. A., Webster, J., & McShane, L. (2011). An agenda for 'Green' information technology and systems research. *Information and Organization*, 21(1), 17-40



13. One million and counting...Tamil Nadu tech workforce rises. (2022, October 30). The Times of India
14. Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2013). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451-466
15. Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451-466.
16. Renwick, D. W., Redman, T., & Maguire, S. (2012). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14
17. Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.
18. Software industry in Chennai. (2023, January 5). In Wikipedia
19. Software industry in Chennai. (2023, May 25). In Wikipedia
20. Stern, P. C., Dietz, T., & Guagnano, G. A. (1995). The value basis of environmental concern. *Journal of Social Issues*, 50(3), 65-84.
21. Sue, V. M., & Ritter, L. A. (2012). *Conducting online surveys* (2nd ed.). SAGE Publications.
22. Wipro. (2019). *Annual report 2018-19*.