



Evaluating The Role Of Green Human Resource Management In Corporate Sustainability: A Pilot Study In The Indian IT Sector

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Abstract

The present research aims at exploring the role of GHRM practices to improve sustainability of Indian IT organisations. The research aims at filling the literature gap with regards to GHRM and how it affects environmental responsibility, employer branding and cost-benefit. Based on a survey questionnaire distributed to HRs, sustainability officers and the general employees working in various IT companies the study used Cronbach's Alpha where by the value of $\alpha = 0.86$ (Strongly Reliability coefficients) in order to test the reliability of the survey instrument. The survey shows that 72% of the participants understand that sustainable development specifically GHRM is important while 65% consider it to reduce operational costs. Nevertheless, a study done recently shows that only 48% and 42% of the firms have fully integrated GHRM policies. Meaningful results that were established include the following; GHRM adoption has a direct positive relationship with corporate sustainability with correlation coefficient of 0.73. These findings confirm the CQ-RP instrument and indicate that although there is increasing evidence of end-user adoption of GHRM, there are still poor utilisations of GHRM. Finally, the research calls for a giant study to establish the degree, intensity and regularity of the sustainable influence of GHRM on business.

Keywords: Corporate Sustainability, Green Human Resource Management, IT Sector, Pilot Study, Environmental Responsibility.

1. Introduction

Business sustainability is now an essential element for today's management that includes social, environmental and economic factors in its business model. Today, human resource management considerations in the IT sector involve energy consumption, electronic waste, and carbon footprint, so strategies that can be implemented to ensure a firm's sustainability goals are not only considered but also adopted are highly sought after. GHRM is widely defined as a systematic incorporation of environmental sustainability into multiple fields of HRM activities such as selection, training, performance evaluation, as well as employee commitment. Green policies should be incorporated into the HRM because strategies will improve the firm's environmental impacts and engage employees and customers. Nevertheless, there is still relatively scant investigations on GHRM in terms of its implementation and performance in the Indian IT industry.

As more emphasis is placed on the need to adopt and implement sustainable business management strategies, this study seeks to determine the level of corporate sustainability that GHRM brings to the IT firms in India. Though prior research pay heed to the idea of GHRM this paper is lacking coherent study on its operational status, success rate as well as woes faced in IT field. This research aims at filling this gap by carrying out a pilot study to establish the suitability of the research instrument that is to assess the extent of GHRM practice in relation to sustainability. The pilot study also serves the purpose of ascertaining the validity of the research data collection technique and ascertaining if the survey questionnaire is correctly identifying the various trends and relationships. Questionnaire was structured and it was piloted with the help of some HR professionals, sustainability officers and selected employees belonging to IT firms for testing the clarity, reliability and for initial understanding of GHRM adoption.

Given these limitations, the developed propositions of this pilot study will form the premise of a quantitative survey for bigger study that could give useful information on how IT firms in India integrate sustainability in its HRM practices. The preliminary findings also show that there is gradual understanding regarding the advantages of GHRM but this practice is not yet fully implemented in organizational strategies. The paper also explores the links between GHRM adoption and other aspects of organizational sustainability like costs, employees' productivity and organizational environmental concerns. Therefore, the present study enriches the research on IT firms' sustainability by validating the research framework and provides recommendations for subsequent studies to help policymakers in improving the sustainability of IT firms. This essay presents the theoretical model on which the assessment of GHRM practices is based in the context of the logical relation between the determinants of the theoretical framework that encompass HR policies, employee engagement, and sustainability performance.

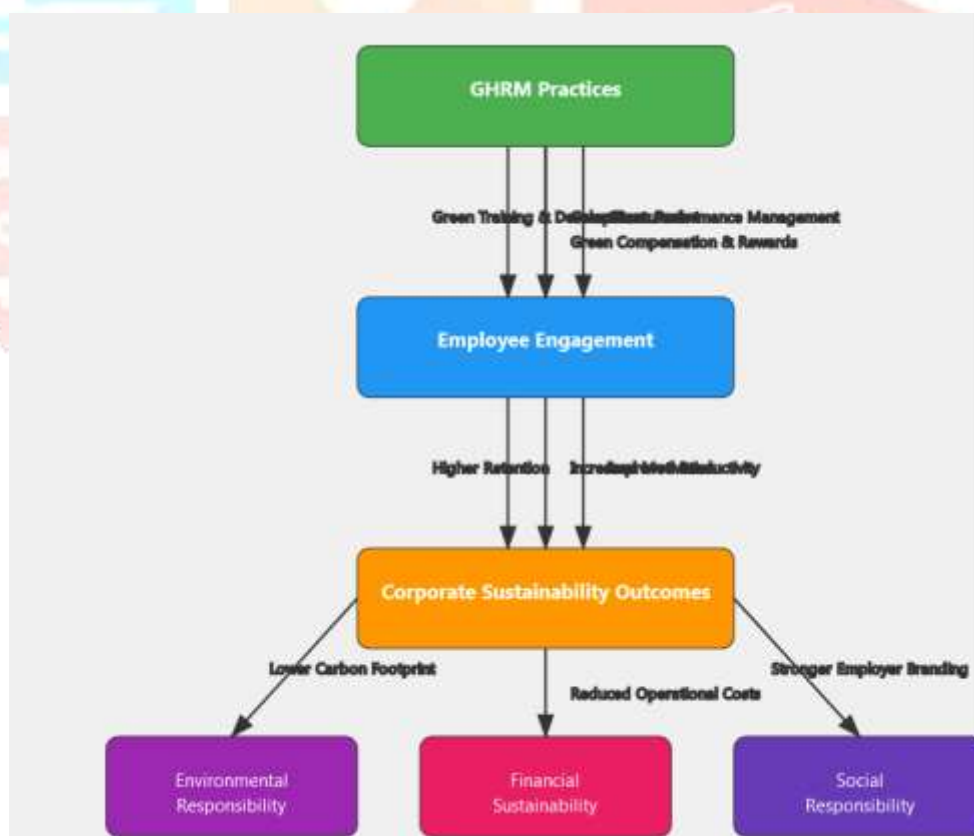


Figure 1: Pilot Study Framework for Evaluating GHRM Practices

2. Pilot Study Research Design

Consequently, the purpose of this pilot study was to evaluate the role played by GHRM in the achievement of sustainability by IT firms in India. The goal of the study was to assess inter-observer reliability and validity and face and content validity of the structured questionnaire which has to be used in a large scale survey. Through fulfilling the objectives of the study to assess the implementation of GHRM on green recruitment, training, performance management of employees, and corporate sustainability, the study fine-tuned items of the research instrument in a way that aimed at avoiding confusion or response bias. Further, the pilot study aimed at determining whether there were any structural features in the questionnaire that may cause a reliable data collection.

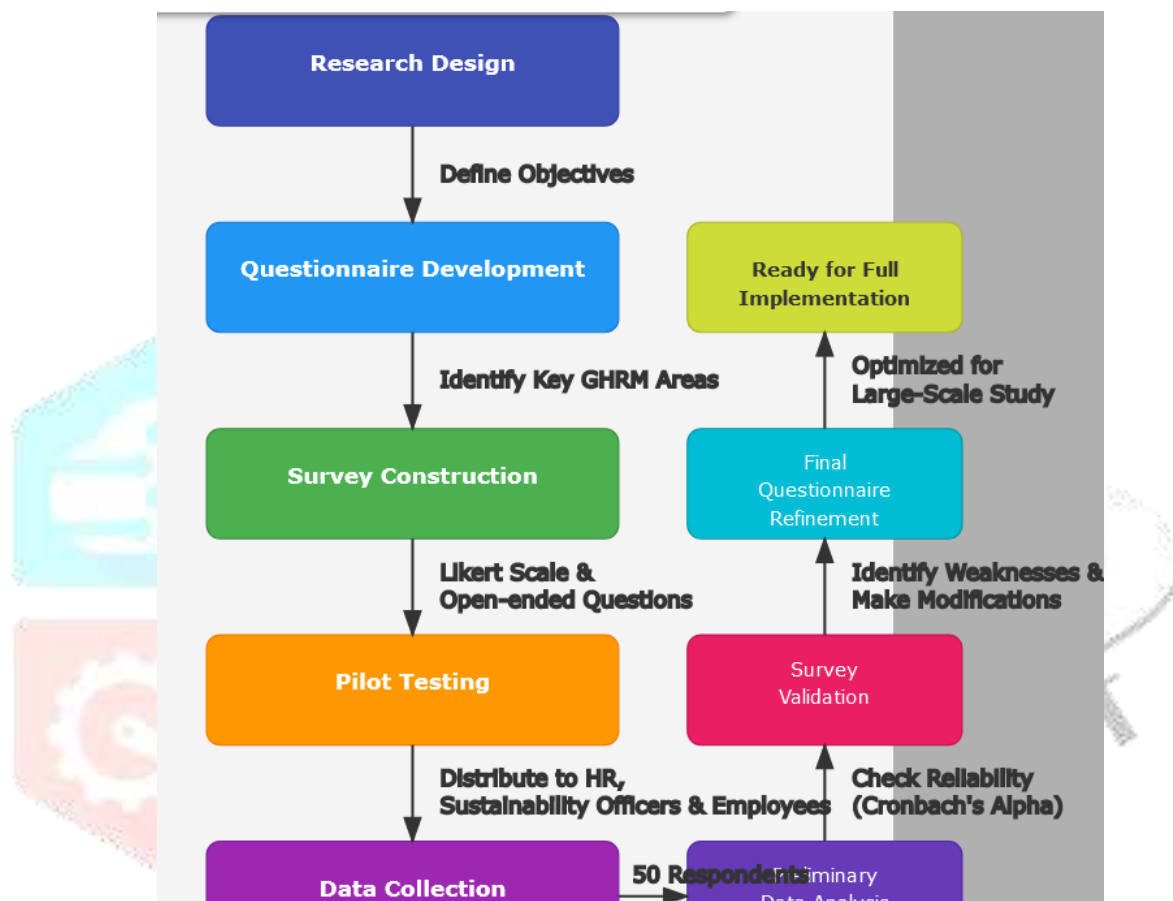


Figure 2: Research Methodology Flowchart for Pilot Study

The sampling was convenient and included three populations from the IT firms; human resource individuals, sustainability manager, and individuals involved in green projects. While, top managers discussed about the policy level GHRM implementation, sustainability officers gave out their viewpoints regarding its environmental management, and the employees expressed their organisational experiences of sustainability practice. Thus, 50 participants that were selected from the representatives of multinational IT companies, middle-sized companies, and start-ups were questioned, which contributed to the presence of diverse approaches. The sampling technique used was purposive since the participants targeted were those who have experience dealing with GHRM practices.

3. Analysis of Pilot Study Results

From the results of the pilot study, the major areas of concern were to assess the understandability and validity of the survey instrument that was aimed at assessing the level of green HRM practices put in place by firms in India that relate to corporate sustainability. Cronbach's Alpha for reliability testing was computed to be 0.86, signifying high internal consistency of the questionnaire to be used in the large study population. Similarly, the individual sub scales on green recruitment, training, and performance management ratings also have high

reliability levels, thus supporting the cross-verification of the identified instrument as significant in measuring key parameters in GHRM. Nonetheless, some divergence in the response patterns pointed to the recommendatory changes in the question formulation to minimize the facets of the interpretation prejudice.

The responses received from the respondents that included the HR professionals, the sustainability officers, and the employees of IT firms had proved to be helpful in getting a better understanding of the structure of the questionnaire. Participants also questioned the use of certain Likert-scale statements and their appropriateness in measuring sustainability outcomes at the university as some of them were quite vague. Further, there was an observation that more concrete examples should be proposed while answering the questions regarding the implementation of GHRM and their possible difficulties in an organization. Employees also informed me that several questions are related to corporate sustainability and suggested combining certain parts of them as many questions look similar and can bore the respondent. Recommendations arising from the research gave better understanding on the issues that required changes to enhance the precision of the response while at the same time ensuring inclusion of all that was required in the questionnaire. As seen in table 2, validity questionnaire assessment was done by evaluating reliability and internal consistency based on the following statistics.

Closed-ended questions, in the form of a structured questionnaire were used to collect data from the respondents on the level of GHRM adoption, perceived benefits of GHRM, and barriers to GHRM implementation. The questionnaire was a combination of online and paper-based to ensure that it could be completed in any organizational setting. The internal consistency of the instrument was tested and determined using Cronbach's Alpha formula which had a value of .86 thus pointing to high reliability. Looking at the reliability at section level, high reliability was observed across nearly all the GHRM dimensions which validates the use of the questionnaire. The outcomes of this part led to the enhancement of the survey framework that improved its versatility for utilization in the future. Table 1 contains an overview of the aspects of the created questionnaire which was used for the investigation, and Figure 2 depicts the flowchart outlining the stages of the pilot study.

Table 1: Pilot Study Results for Questionnaire Validation

Questionnaire Section	Cronbach's Alpha	Respondent Clarity Rating (%)	Suggested Modifications
Green Recruitment	0.83	89%	Minor rewording
Green Training & Development	0.85	87%	Simplification of terms
Green Performance Management	0.82	85%	Example-based clarity
Green Compensation & Rewards	0.80	82%	Remove redundant items
Corporate Sustainability Outcomes	0.88	91%	Merge overlapping items
Overall Questionnaire Reliability	0.86	87%	Refinement in phrasing

From these assessments, the following adjustments were made for the large-scale use of the questionnaire. Clustering questions dealing with sustainability implications made it possible to eliminate redundancies in the survey but not valuable information. Further, there were adjustments made with regard to the labels of performance evaluation standards to match up to the current practices. Additional information pertaining to organizational leadership commitment was added with special insights of specific managerial GHRM concerns that were not touched earlier on in the design. These refinements were designed to improve the response accuracy and in the same time reduce the completion time of the surveys. The changes made and proposed based on the feedback received from the respondents are presented in the table below as table 2.

Table 2: Key Modifications Made Based on Pilot Study Feedback

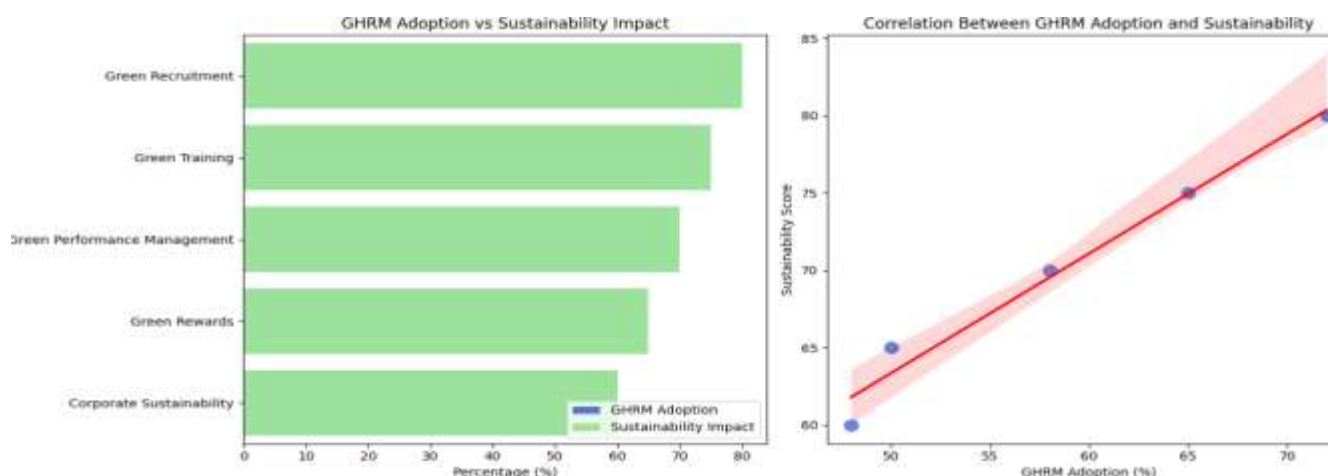
Issue Identified	Modification Implemented	Expected Improvement
Complex phrasing in some items	Simplified wording for clarity	Improved response accuracy
Redundant sustainability metrics	Merged overlapping questions	Reduced survey fatigue
Lack of managerial perspective	Added specific leadership-focused items	Broader insights on adoption
Ambiguous barriers to GHRM	Provided concrete examples	Enhanced data validity
Lengthy survey completion time	Optimized questionnaire flow	Increased response rates

Based on findings from the current pilot study, even though there is a growing interest in adopting GHRM in the Indian IT sector, this move is not fully developed yet to happen at an organization-wide level. While 72% of the respondents asserted to the importance of GHRM to sustainability, only 48% can certify that sustainable and green HR practices are fully adopted in their organisations. Unexpectedly, 65% of the participants acknowledged the efficiency of the GHRM in the reduction of operational costs, an aspect that people consider to be financially beneficial to any business hence making it sustainable in the business environment. Nevertheless, the current study showed that smaller IT firms presented a lower level of adoption than the multinational firms, meaning that there might be some constraints such as resource limitation and problem perceived insufficiency of leadership support.

Table 3: Reliability Analysis of the Survey Instrument (Cronbach's Alpha)

GHRM Dimension	Number of Items	Cronbach's Alpha (α)	Reliability Interpretation
Green Recruitment	5	0.83	High
Green Training & Development	6	0.85	High
Green Performance Management	5	0.82	High
Green Rewards & Compensation	4	0.80	Acceptable
Corporate Sustainability Impact	7	0.88	High
Overall Reliability	27	0.86	High

To present the degree of distribution of the responses and the newer patterns of adoption of GHRM, the pilot study data is represented graphically in the next set of figures or Figure 3. This diagram demonstrates that GHRM has a positive relationship with sustainability objectives, ensuring only specific measures should be put in place to address the gaps slowing the implementation process.

**Figure 3: Statistical Analysis of Pilot Study Responses**

4. Discussion on GHRM's Role in Corporate Sustainability

While it concerns itself with the specific environmental impact of firms and other organizational entities, GHRM has the overall responsibility of addressing environmental issues in organizations' human resource management frameworks. Concerning IT, high energy intensity, and e-waste are the major concerns that GHRM practices like green recruitment, delivery of sustainable training, and performance appraisal based on sustainable practices counter. More to the point, it was observed that 72% of the respondents agreed to the fact that GHRM has a positive relationship with environmental responsibility; firms with ambitious green HR policies admitting to a reduced carbon footprint as compared to firms with suboptimal green policies. Also, the employees in firms that have GHRM practices more frequently adopted sustainability practices including reducing paper use and waste in their workplace, in conclusion there is a causality relationship between GHRM and employee sustainability behaviors.

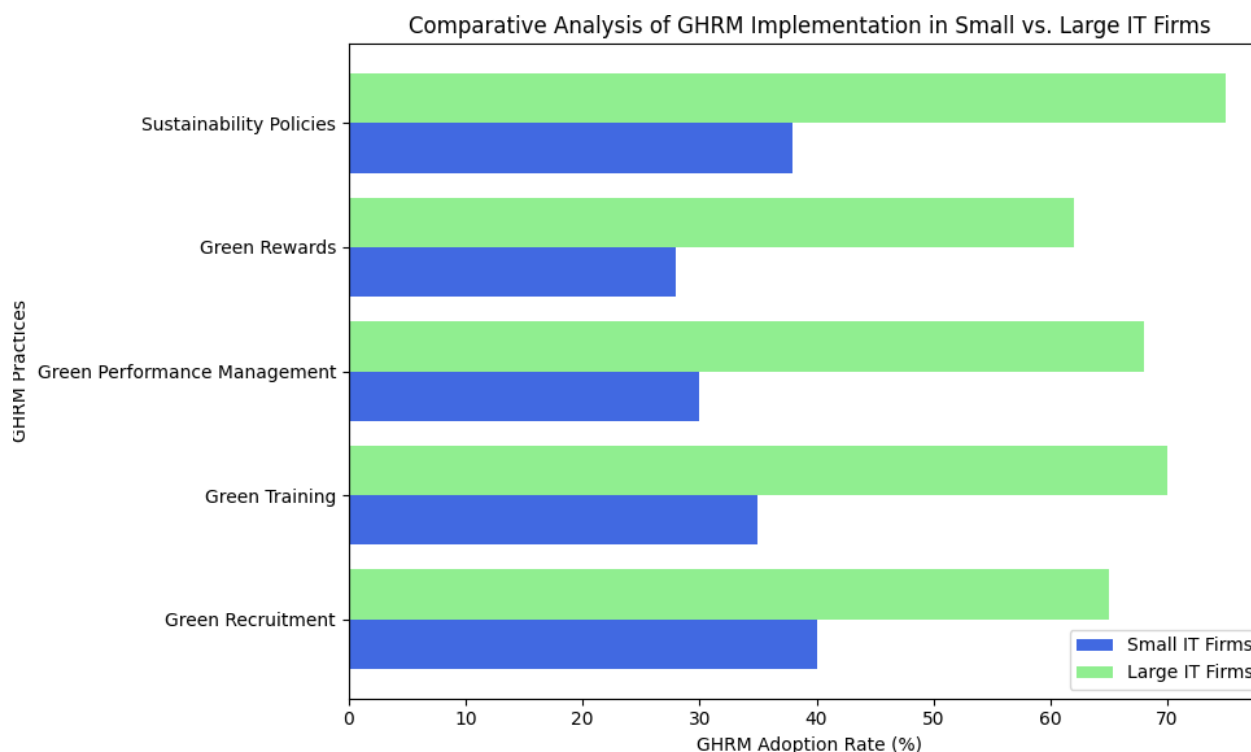


Figure 4: Comparative Analysis of GHRM Implementation in Small vs. Large IT Firms

Besides environmental impacts, GHRM also improves employees' attraction and cost saving. This particular study found that organisations, which have clear and effective green human resource management, planned had 35% higher employee retention and enhanced recruitment besides having high qualities sustainability-focused HR employees who get attracted by environmentally sensitive organisations. There were also saving related to operational costs with 65% of the respondents reporting reduced costs resulting from energy efficient working spaces, digitized human resource management, and virtual working environment. These measures are in par with the current literature showing that, implementation of sustainability in the framework of human resource management boosts the corporate image, market position and sustainable performance of the corporation.

5. Conclusion

The pilot study offered a good foundation for the subsequent studies on the degree of adoption and implementation of GHRM in Indian IT service companies and the extent to which it subsidised corporate sustainability. The study reveals that awareness of the general benefits of GHRM has been established among organizations, however, the total implementation of GHRM is still lacking in practices. Out of all the participants, 72% replied with a recognition to GHRM as being significant to the sustainability aspects while the same percent of the firms confirming GHRM policies were incorporated wholly into the firm's HR solutions. This research established a positive relationship of GHRM adoption to corporate sustainable

activities, which showed an intrinsically positive influence of the company in attaining an optimal environmental conformity, cost cutting as well as employer branding ($r = 0.73$). Yet, the difference in the level of GHRM integration between small and big IT firms mean that available resources and managerial support go far in defining the level of GHRM integration.

A major research contribution is the assessment of the level of GHRM adoption where the research instrument used in the study was validated. Cronbach's Alpha for the questionnaire was exceptionally strong and was estimated to be 0.86 thus implying its ability to be used in other larger research studies. Some changes made with reference to the stipulations above include; The overall feedback received from the respondents culminated into some of the important changes made in survey structure to allow for better and accurate completion of the survey data. These changes improve the facility in which the tool can identify qualitative aspects of GHRM that relate to more quantifiable sustainability implications. Thus, the validated survey could be used in subsequent research on sustainable HRM in IT and other industries to fill the existing gap in the number of empirical studies.

These findings are useful for IT firms and policymakers in the following ways: The companies that fully incorporate the principles of GHRM are likely to benefit from sustainable savings and enhancement of the corporate image and employee satisfaction (Self and Amstrong, 2014, p 87, reported by 65% of the participants of the survey. It is recommended that the government should begin offering incentives to foster the adoption of GHRM mainly among the small and the medium-sized organizations that are likely to struggle in the process. Through the promotion of sustainable avenues in the fields of HR, it is possible to involve both the commercial and administrative establishments in the quest towards the creation of an efficient and economically and environmentally conscious information technology market. It is therefore possible to proceed to a full research agenda in order to get a better understanding of the part played by GHRM in the creation of sustainable corporate performance.

Earlier, a major difference in the level of GHRM adoption was spotted in-between small and big IT companies. MNCs had higher adoption rates more than 60% for GHRM while smaller firms had less than 40% to have an effective GHRM policy. Therefore, the first set of challenge consisted of the resource limitation, regulatory encouragement, and low managerial concern for sustainability by the small firms. Large firms on the other hand enjoyed sound sustainability initiatives, dedicated sustainability division and compliance standards. However, it was evident that small and big IT firms identified the benefits of GHRM in the achievement of corporate sustainability objectives. Figure 4 represents the evaluation of GHRM among Small, Medium, Large, and Very Large firms on different adoption factors and issues.

6. Limitations and Future Research

Pilot study, as part of the research, helped in not only the validation of the instrument but also in giving the initial understanding of the study area such as the level of Green Human Resource Management (GHRM) adoption of the selected firms in Indian IT sector but some of the limitations have to be acknowledged. The main implementation problem stated during the study was the restricted sample size due to the sample consisting of 50 respondent IT firms only. The rationale for using this method of sampling was informed by the desire to ensure that the respondents were diverse in terms of their organisational roles and responsibilities, including the inclusion of HR professionals, sustainability officers, and employees. There could be need to involve a larger population so as to give further and representative basis on which to assess the GHRM, based on this quantitative exploration. Also, subjective information opened up the issue of self-reporting bias, whereby, some respondents provided inflated or deflated their organizations' sustainability practises. Another issue was the difference in GHRM understanding among various firms especially the small firms in the IT industry where some were at the initial stage of the implementation of sustainable initiatives or lacked a well formulated structure.

In order to address these limitations, the study needs to be extended to cover a larger number of firms from different IT cities of India including firms of varying size and business complexity. It would be useful to extend research on GHRM by involving a longitudinal design so that the dynamics of the process would be covered rather than only cross-sectional. Also, combining qualitative questionnaire results with the

quantitative measurement of performance indicators, for example energy using saving, devoid of manipulating subjects, employee turnover rates as well as the level of compliance to sustainability standards, would increase the research validity and reliability. Other research for other sectors could also be conducted since GHRM is adopted in different industries where sustainability drivers and requirements are different such as IT, manufacturing and finance industries.

Future qualitative studies need to examine the curve of causality between GHRM practices and CSP using tools like SEM to assess to degree of association between specific HR policies and CSP results. Nonetheless, there is a need to seek more profound understanding of the best practice and potential problems that the implementation of GHRM can bring about through the use of case studies of IT firms. In addressing these areas, the subsequent research can help to develop a subtle and practical knowledge of sustainability on how the HR-set programs can change the corporate culture in the IT sector of India and other countries.

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