# Scientometric Study of Human Resource Excellence Models and Organizational Performance Sustainability

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## Abstract

**Purpose:** This study aims to map the scientific landscape of research on human resource excellence models and their relationship to organizational performance sustainability.

**Methodology:** An applied, descriptive approach was adopted, using bibliometric analysis with R software. The dataset comprised articles indexed in Scopus and Web of Science from 1998 to February 2024. The outputs from both databases were merged and analyzed in a bibliographic framework.

**Findings:** A total of 101 articles were reviewed, with over 80% published after 2020. Five journals accounted for 33% of these publications. Analysis revealed limited attention to the intersection of human resource management and organizational sustainability as a central research theme. Eight countries emerged as active contributors in terms of publication volume, citation impact, and research collaboration, while most others remained marginal. Co-occurrence analysis of 715 keywords identified five thematic clusters.

**Conclusion:** Research on human resources and organizational performance sustainability has grown significantly since 2020; however, the low citation rates suggest the absence of globally recognized thought leaders in this domain. Cluster analysis indicates that human resources remain the third priority within sustainability research, rather than a primary focus.

**Value:** This study offers critical insights into the evolution of research on human resource excellence models and organizational performance sustainability, providing a valuable reference for future investigations in this area.

**Key Words:** *Human Resources, Sustainability of Performance, Organizational Excellence, Scientific Measurement, Scientific Map*

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# Extended Abstract

**Introduction:** Organizations can achieve sustainable and professional performance when managers remain aware of environmental and social needs, as well as the expectations of consumers, potential customers, and governments. In this context, internal stakeholders—namely, human resources—play a critical role. Treating human resources as internal customers fosters an environment conducive to stability and organizational growth. Effective human resource management requires that managers first understand the current state of their workforce, which encompasses employee attitudes and related processes. This evaluation helps determine the organization's maturity level in human resource development, guiding managers in setting a clear path toward excellence. The Human Resource Excellence Model has been developed to support this process and align organizational strategies with sustainable performance objectives. Its primary goal is to enable higher performance and superior organizational outcomes. Empirical evidence suggests that improved implementation of management practices positively influences the sustainability of organizational performance. This study addresses the need to systematically analyze the evolution of research in this area by reviewing over 100 scholarly articles indexed in Web of Science and Scopus from 1998 to 2024. Using a scientometric approach and advanced bibliometric tools, this research explores patterns, trends, and gaps related to human resource excellence models and organizational sustainability. Ultimately, practical recommendations are offered to guide future studies.

**Purpose:** The primary objective of this research is to map the scientific landscape of the field, focusing on human resource excellence models and their impact on the sustainability of organizational performance.

**Methodology:** This study adopts an applied and descriptive research design, employing scientometric techniques for bibliometric analysis. Scientometrics enables the numerical analysis of published scientific literature, serving as an effective method for identifying emerging themes and intellectual structures within a field. Through this approach, the study identifies influential researchers, research clusters, and thematic trends.

The research process involved two main steps:

Structural Analysis: Determining the conceptual structure of research on human resource management and organizational sustainability.

Keyword Clustering: Identifying thematic clusters using co-occurrence analysis.

Data were collected from Scopus and Web of Science databases, covering the period from 1998 to February 2024. The datasets were merged, standardized, and analyzed using R software, which offers a wide range of statistical and graphical capabilities, including clustering, co-occurrence mapping, and network visualization. Additionally, VOSviewer was utilized to address limitations in the R software output and to enhance visualization quality. Where discrepancies occurred between database outputs, references were clearly documented.

**Findings:** The analysis included 101 articles authored by 345 contributors. The earliest article dates back to 1998, yet over 80% of the publications appeared after 2020, indicating a surge of interest in recent years. This trend demonstrates

that research on human resource excellence and sustainability is a relatively new and evolving domain.

**Chart 1. Number of documents per year from 1955 to 2024 (Source: R software)**
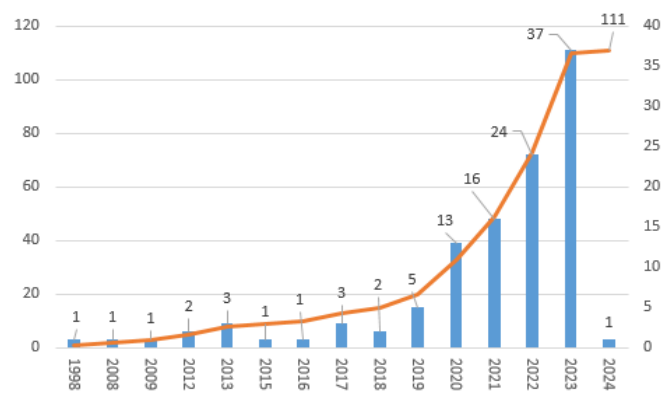
Approximately 33% of the reviewed articles were published in just five journals, representing 7% of the total number of journals in this field. However, the overall lack of concentrated research attention suggests that the intersection of human resource management and sustainability remains underexplored.

**Table 1. The Co-Authorship of organizations considering at least 3 documents**

| Researchers | Number of citations | Number of documents |
|---|---|---|
| National University of Science and Technology, Pakistan | 39 | 3 |
| University of Brescia, Italy | 0 | 13 |

The National University of Science and Technology, Pakistan and the University of Brescia, Italy, emerged as notable contributors, although their citation impact remains limited. Country-level analysis revealed eight active nations—China, Pakistan, Malaysia, England, Saudi Arabia, Italy, Indonesia, and Thailand—accounting for the majority of publications and citations. Most other countries showed negligible research activity.

**Table 2. Co-Authorship of countries considering at least 5 articles (taken from WOS output)**

| Rank | Country | TA/TS [1] | TA [2] | TS [3] | Power of communication |
|---|---|---|---|---|---|
| 1 | China | 24/23 | 630 | 26 | 28 |
| 2 | Pakistan | 5/45 | 137 | 25 | 37 |
| 3 | Malaysia | 26/95 | 539 | 20 | 22 |
| 4 | England | 16/66 | 150 | 9 | 2 |
| 5 | Saudi Arabia | 13/5 | 108 | 8 | 7 |
| 6 | Italy | 14/71 | 103 | 7 | 5 |
| 7 | Indonesia | 3/4 | 17 | 5 | 0 |
| 8 | Thailand | 3/4 | 17 | 5 | 0 |

1. Total Authorship /Total Study
2. Total Authorship
3. Total Study

A co-occurrence analysis of 715 keywords revealed five thematic clusters:

Business (e.g., strategy, competitive advantage, knowledge management, performance models)

Social Responsibilities (e.g., green HRM, CSR, sustainable performance, supply chain management)

Human Resources (e.g., HRM, employee behavior, commitment)

Environment (e.g., green innovation, environmental management)

Resources (focused on sustainability-related resource management)

The most prominent cluster was Business, underscoring a stronger research emphasis on organizational systems and strategies over human resources. In contrast, human resources ranked third, indicating that despite growing recognition, it is not yet a primary focus in sustainability research.

**Table 3. Thematic clusters in the study of human resource management and organizational sustainability**

| Rank | Cluster name | Number keywords | Keywords in the cluster |
|---|---|---|---|
| 1 | Business | 14 | Business; capabilities; competitive advantage; firm; performance; hrm; impact; innovation; knowledge management; model; organizational performance; pls-sem; strategy; system |
| 2 | Social responsibilities | 13 | Commerce; economic performance; environmental management; environmental performance; framework; green hrm; green innovation; organizational citizenship; pro-environmental behavior; social performance; supply chain management; sustainable business performance; sustainable performance |
| 3 | Human resources | 10 | Behavior; commitment; companies; corporate social responsibility; corporate social-responsibility; empirical-evidence; employee; financial performance; human resource management; human-resource management |
| 4 | environment | 9 | Creativity; environmental-management; green human green resource management; green human resource; supply chain management; hotel industry; management; na; sustainable; performance |
| 5 | Resources | 3 | human resource; resource management; sustainability |

The study confirms that research in this domain has grown considerably since 2020, albeit with relatively low citation rates, suggesting an absence of globally recognized thought leaders or cohesive research communities. Moreover, the dominance of clusters related to business and social responsibility highlights a tendency to prioritize financial and systemic considerations over human resources in sustainability discussions.

**Conclusion:** Given the increasing importance of human resource management in driving sustainable organizational performance, there is a pressing need for coordinated research efforts. In the Iranian context, it is recommended that leading institutions such as the University of Tehran spearhead initiatives to establish dedicated research groups, create accessible databases for Persian-language literature, and promote collaborative studies focusing on human resource excellence models. Such efforts could bridge current gaps and advance both theoretical and practical understanding in this field.

**Value:** This study provides a comprehensive scientometric analysis of the intersection between human resource excellence and organizational sustainability using advanced bibliometric tools. By identifying key trends, research gaps, and

thematic clusters, it offers actionable insights for scholars and practitioners, serving as a foundational reference for future research endeavors.

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