



Sustainable Human Development and Human Resource Management Strategies in Building Sustainable Cities

Sürdürülebilir İnsani Kalkınma ve Sürdürülebilir Kentlerin İnşasında İnsan Kaynakları Yönetimi Stratejileri

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Öz

Günümüzde yaşanan hızlı kentleşme ve dünya çapında şehirlerin karşılaştığı zorlukların artması, İnsan Kaynakları Yönetiminin (İKY) sürdürülebilir kentsel kalkınmayı teşvik etmedeki rolünün daha önemli hâle gelmesine neden olmuştur. Bu doğrultuda araştırmada, sürdürülebilir kentler inşa etmeyi amaçlayan İKY stratejilerine ilişkin mevcut literatürün kapsamlı bir incelemesi sunulmaktadır. Bu bağlamda, Google Akademik, Web of Science (WoS) ve Scopus veritabanlarında "İnsan Kaynakları Yönetimi" ve "sürdürülebilir şehirler" üzerine yapılan çalışmalarda öne çıkan bulgular, detaylı bir literatür taramasıyla sunulmuştur. Araştırma, kentsel sürdürülebilirlik için İKY'deki temel temaları, eğilimleri ve en iyi uygulamaları belirlemek için akademik makaleler odaklı çeşitli kaynaklardan elde edilen bilgileri sentezlemekte ve etkili İKY stratejilerinin; nüfus artışı, çevresel sürdürülebilirlik, sosyal sorumluluk ve ekonomik dayanıklılık gibi kentsel zorlukların ele alınmasında çok önemli bir rol oynadığını ortaya koymaktadır. Ayrıca araştırma, İKY stratejilerini daha geniş kentsel gelişim hedefleri ve politika çerçeveleriyle uyumlu hâle getirmenin önemini vurgulamakta ve sürdürülebilir kentsel büyümeyi teşvik ederek şehir sakinleri adına yaşamın kalitesini artırmayı hedefleyen İKY yaklaşımlarını uygulamak için devlet kurumları, örgütler, akademi ve sivil toplum arasındaki iş birliği ihtiyacını vurgulamaktadır. Bu literatür incelemesinden elde edilen bulgular, aynı zamanda sürdürülebilir şehirler inşa etmede İKY'nin rolünün daha derinlemesine anlaşılmasına da katkıda bulunmaktadır. Bu nedenle araştırma, daha sürdürülebilir bir kentsel çevre yaratmayı amaçlayan insan kaynakları (İK) profesyonelleri, politika yapıcılar ve şehir planlamacıları için pratik çıkarımlarda ve geleceğe yönelik önerilerde bulunmaktadır.

Anahtar Kelimeler: İnsan Kaynakları Yönetimi, Sürdürülebilirlik, Sürdürülebilir İnsani Kalkınma, Kentleşme, Kentsel Sürdürülebilirlik, Literatür Taraması.

ABSTRACT

While the context of rapid urbanization and increasing challenges faced by cities worldwide, the role of Human Resource Management (HRM) in fostering sustainable urban development has garnered significant attention. This paper presents a comprehensive review of existing literature on HRM strategies aimed at building sustainable cities. Thus, a detailed analysis of the prominent findings of studies on "human resource management" and "sustainable cities" in Google Scholar, Web of Science (WoS) and Scopus databases was presented by a literature review. The review synthesizes insights from a range of sources including academic articles to identify key themes, trends, and best practices in HRM for urban sustainability and reveals that effective HRM strategies play a crucial role in addressing urban challenges such as population growth, environmental sustainability, social inclusion, and economic resilience. Furthermore, the review highlights the importance of aligning HRM strategies with broader urban development goals and policy frameworks and emphasizes the need for collaboration among government agencies, businesses, academia, and civil society to implement integrated HRM approaches that promote sustainable urban growth and enhance the quality of life for urban residents. The findings from this literature review also contribute to a deeper understanding of the role of HRM in building sustainable cities. Therefore, this paper concludes with recommendations for future

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research directions and practical implications for human resource (HR) professionals, policy makers, and urban planners seeking to create more sustainable urban environment.

Keywords: *Human Resource Management, Sustainability, Sustainable Human Development, Urbanization, Urban Sustainability, Literature Review.*

INTRODUCTION:

Throughout human history, the concepts of development and progress have been integral to human existence. To improve their lives, humans have made significant advancements in areas such as nutrition, shelter, security, and numerous others. One of the most pivotal developments was the transition from hunting and gathering to settled agriculture approximately ten thousand years ago (Kılıç & Atilla, 2024a, p. 508). This shift led to increased productivity and food production through the domestication of animals and the cultivation of crops. By addressing the fundamental challenge of food security, settled agriculture facilitated the concentration of humanity around fertile lands, laying the groundwork for the emergence of early cities (Schwab, 2017). The process of urbanization, which is where settled life has reached today, has played a crucial role in the development of human social structure (Hussain & Imitiyaz, 2018, p. 23513). For many years, human beings have interacted with each other by living in groups and communities. This social aspect is one of the most distinctive features that distinguish humans from other living beings (Tomasello, 2020, p. 2). For this reason, individuals are in constant interaction with the components of the social structure in which they live.

Today's industrial conditions have caused humans to experience one of the periods of greatest social interaction (Rahmawati et al., 2021, p. 151). The human factor is gaining more value every day as a resource of strategic importance from an organizational point of view, and this strategic importance leads human resource management (HRM) programs being considered vital for the success of organizations (Almashyakh, 2022, p. 543). Today, organizations use human resources as a strategic asset to achieve competitive advantage and sustainability (Iswan & Kihara, 2022, p. 47). This cause, especially in recent years, human-oriented approaches have increased, and the concept of "human" has started to take place as an important and inseparable factor in organizations. In this respect, HRM aims to achieve sustainable competitive power by integrating human resources with strategies that are appropriate to organizational goals and strategies which also shape the structure of cities that are one of the basic building blocks of society today.

The intersection of sustainable human development and human resource management has become increasingly pivotal in shaping the trajectory of contemporary cities (Bal & Brookes, 2022, p. 6). As urbanization accelerates and global challenges like climate change and economic inequality persist, the imperative for sustainable urban development has grown more urgent (Balogun et al., 2022, p. 19). This study delves into the intricate relationship between these two critical domains, exploring how effective HRM practices can contribute to the creation of more sustainable cities. Because today's modern cities shaped by the irresistible impact of industrial revolutions, have become much more important elements in social structures than before, the main purpose of this study is to contribute to the literature and raise the awareness of countries, governments, organizations, and individuals about the sustainability structures of cities and the human resource management strategies to be implemented. Additionally, the study aims to clarify some of the questions in the minds of other parties and facilitate their adaptation to changing urban conditions.

In this context, the first part of the study provides an overview to better understand the theoretical and conceptual background of the subject. Subsequent to, the second part includes a review of previous studies in the literature and explains how this study fills a gap in the existing research. Later on, the third part presents information about the applied methodology, followed by the presentation

of research findings in the fourth part. In the final part, the results are discussed in relation to the literature findings, and recommendations are made for future policies.

1. Theoretical Framework

This section of the study aims to provide a comprehensive exploration of the key concepts underpinning our research. By elucidating these concepts, we hope to offer readers a nuanced understanding of the theoretical foundations of our work. To this end, we have developed a robust theoretical and conceptual framework and also begin by defining the concept of sustainable human development, followed by a detailed examination of the relevant theoretical perspectives.

1.1. Sustainable Human Development

While developing theoretical framework, we delve into several key concepts to provide readers with a deeper understanding of the subject matter. One such concept is sustainable human development. This approach emphasizes the importance of meeting the needs of the present generation without compromising the ability of future generations to do the same (Davidson, 2021). It involves a holistic and progressive view of local development that focuses on sustainable livelihoods, well-being, and long-term environmental sustainability (Hopwood et al., 2005). This concept emphasizes the importance of linking social and environmental aspects to ensure human equity and well-being (Gözkaman, 2024) and aims to enhance human welfare by focusing on quality to foster sustainable progress (Mohanty, 2020). The 2030 Agenda for Sustainable Development, with its 17 Sustainable Development Goals (SDGs), serves as a framework to enhance human lives (Deng, 2023). Thus, it involves using both monetary and non-monetary indicators to determine the sustainable level of human development, emphasizing the importance of balancing economic growth with social and environmental considerations (Supriyatin, 2023).

Sustainable human development aims to integrate sustainability and human development goals, emphasizing the importance of ethical universalism and impartiality in claims within and between generations (Anand & Sen, 2000). Hence, human resource management plays a crucial role in enhancing the innovation potential of enterprises to achieve sustainable development principles. The sustainability of human development is vital for preserving and advancing human potential at both individual and societal levels (Klimovskikh et al., 2023) because human capital is acknowledged as a driver of sustainable development, underscoring the significance of human resources in achieving sustainable development goals (Purhani et al., 2022). And also, it involves operationalizing the notion of sustainable human development at the local level, which poses challenges and necessitates a comprehensive understanding of how to integrate sustainability and human development goals (Dewan, 2009).

Additionally, the concept of sustainable development recognizes both human rights and environmental rights, highlighting the interconnectedness of human well-being and environmental sustainability (Choondassery, 2017) and requires the integration of environmental responsibility and collective agency to generate sustainable outcomes (Pelenc et al., 2013). To achieve this sustainable outcomes, it is essential to integrate them into the capability approach, thereby promoting a vision that aligns with strong sustainability principles. This integration allows for a more comprehensive understanding of sustainable human development, emphasizing the role of responsible actions in generating sustainable outcomes (Fu et al., 2023).

Overall, sustainable human development is a comprehensive approach that aims to balance economic progress, social well-being, and environmental sustainability to ensure a better quality of life for present and future generations. By integrating principles of sustainability, human rights, and environmental responsibility, sustainable human development seeks to create a harmonious relationship between humans and their environment, fostering long-term prosperity while preserving natural resources for future use. The term, also, is a multifaceted approach that seeks to

balance the needs of current and future generations while promoting well-being, environmental sustainability, and social equity. To achieve this, it requires a clear focus on quality, innovation, human potential, and the integration of environmental responsibility into development frameworks. Having explained the significance of sustainable human development for the future of our world, we now turn to the role of human resource management strategies in building sustainable cities.

1.2. Human Resource Management Strategies in Building Sustainable Cities

Contemporary industrial conditions represent a period of unprecedented social interaction, highlighting the increasing strategic importance of the human factor as an organizational resource (Kılıç & Atilla, 2024b, p. 3144). Recognizing the human factor's pivotal role in organizational success, organizations have adopted a strategic approach to human resource management (HRM), transforming it into a macro-organizational function (Cingöz & Akdoğan, 2013, p. 93; Lepak & Snell, 1998; Martel & Carroll, 1995; Wright & McMahan, 1992). In addition, effective human resource management is essential for organizations to sustain their operations and achieve a competitive edge. While there are various avenues to competitive advantage, the strategic utilization of human resources is paramount. Therefore, organizations must adopt a strategic perspective on their existing human capital and implement well-organized human resources practices.

Human resource management is a set of practices designed to effectively manage and direct employees within an organization (Barutçugil, 2004). HRM, on the other hand, involves human resource (HR) planning that aligns with overall organizational strategies. To ensure this alignment, practitioners must interpret and adapt to changing environmental conditions (Çalışkan, 2010). The increasing emphasis on HRM is driven by factors such as competition, technological advancements, rising labor costs, diverse individual expectations, and evolving customer needs. Contemporary management philosophies prioritize a "human-oriented" approach, recognizing employees as valuable resources with emotional needs rather than mere cogs in the production process.

The increasing emphasis on human-oriented approaches has underscored the significance of the "human" element within organizations. In the contemporary production landscape, people are no longer solely viewed as production factors. HR plays a pivotal role in implementing organizational strategies, as these strategies are inextricably linked to the human factor. Human Resource Development and Management (HRDM) aims to integrate human resources with organizational goals, fostering sustainable competitiveness. Organizational goals and strategies, in turn, shape the structure of cities, which are the foundations of society. Therefore, the profound impact of industrial revolutions has elevated the significance of cities within social structures and the human factor, a key component of cities, has gained value, urban studies have become increasingly prominent in academic discourse. While numerous factors influence the structure of cities, these elements collectively shape the urban environment. The following table provides a systematic overview of these elements.

Table 1. Division of an Urban System

| Urban System | | | |
|--------------------------|-------------------------------|------------------|-------------------|
| <i>Buildings</i> | <i>Infrastructure</i> | <i>Community</i> | <i>Open Space</i> |
| Key Important Facilities | Transportation Infrastructure | People | Green Surfaces |

| | | | |
|-----------------|--------------------------------|---------------|----------------------|
| Other Buildings | Other Technical Infrastructure | Organizations | Built Surfaces |
| | | | Undeveloped Surfaces |

Source: Rus et al., 2018, p. 317

As illustrated in the aforementioned system, numerous factors influence the structure of cities. While each element is significant in its own right, the human factor, as emphasized throughout this chapter, is central to urban sustainability. Moreover, the community aspect, encompassing people and organizations, is the most critical element within the framework of this study. It will be possible to realize these practices with the human factor, a key driver of sustainability initiatives, is essential for realizing these practices. Only by prioritizing the human element can we create more sustainable urban systems and a more liveable world.

The primary objectives of this study are to contribute to the existing literature and to raise awareness among countries, administrations, organizations, and individuals regarding the sustainability structures of cities and the associated human resource management strategies. Given the increasing importance of sustainability in the context of Industry 4.0, the evolving nature of urban sustainability and its future structures remains a subject of interest and research for stakeholders. So, this study aims to address some of the uncertainties surrounding these issues, facilitating stakeholder adaptation to changing urban conditions.

In this regard, the study provides results that are discussed with the findings of the literature to stakeholders and interested parties. In addition, it provides guiding recommendations on where cities will be located in a changing world and the policies that can be implemented for the future by addressing their sustainability with a human-oriented approach. However, before moving on to the conclusions and recommendations it would be appropriate to take a look at the previous researches in the literature.

2. Literature Review

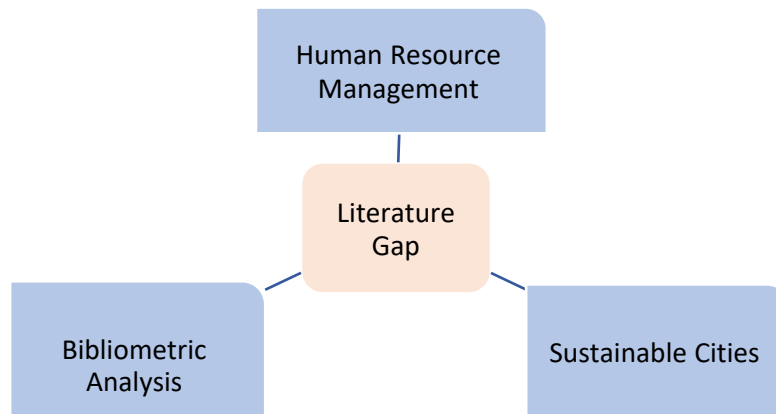
The literature on "human resource management" and "sustainable cities," the core concepts of this study, is extensive and diverse, encompassing various samples and research techniques. However, within the scope of this research, the studies in which bibliometric analysis applications were carried out for the topics preferred. Since these research technique is preferred as the research method, the existing literature review has been determined in this direction.

Considering the previous studies, some of these are stands out. Palumbo et al. (2021) conducted a literature review in order to organize a sustainable smart urban ecosystem. In another study (Fischer et al., 2024), a systematic literature review was prepared on sustainable cities through the Corona virus disease pandemic period. Similarly, in another study (Genari et al., 2018), the sustainability of cities was addressed from the perspective of smart cities and a literature review was conducted. In another literature review (Ben Rjab & Mellouli, 2019), an application was realized by addressing sustainable cities from the perspective of artificial intelligence. In another study (El-Kholei & Yassein, 2020), sustainable cities are discussed within the scope of Industry 4.0.

Apart from this, there are also studies related to HRM. The first of these studies (Madero-Gomez et al., 2023) is about sustainable human resource management discussed from a human centralized and environmental perspective. In another one (Tutar et al., 2023), the development of sustainable human resources in the period 2000-2021 is discussed. Jia et al. (2019), on the other hand, addressed sustainability within the scope of management and business administration issues, including human resources. These are the studies that could be reached as a result of the research filtering.

Thus, Roblek et al. (2020), addressed the issue of sustainability and Hajek et al. (2022) conducted a bibliometric analysis within the scope of sustainable cities. However, there is no evaluation within the scope of HRM in either study. Therefore, to the best of our knowledge, no existing study has simultaneously addressed sustainable human resource management and sustainable cities using bibliometric analysis. This distinguishes our research from previous literature. The figure below visually illustrates this gap.

Figure 1. Identifying the Gap in the Literature



Source: Created by the author(s) to visually represent the information.

Consequently, our study differs from previous research in its methodological approach and addresses a significant gap in the literature, thereby contributing to the study's originality and objectivity.

3. Methodology

Following the theoretical framework established and the information about the research in the literature, it was deemed appropriate to provide methodological information. Therefore, this section outlines the research purpose, sample limitations, data collection techniques, and data analysis methods. Whence, first of all, it is necessary to explain what the purpose of the study is and the question behind concluding this research.

3.1. Purpose of the Research

This part of the study analyzes the studies on human resource management strategies and sustainable cities identified in the literature according to certain criteria. In this direction, the studies identified through certain filtering and restrictions among the studies in Google Scholar, WoS and Scopus databases were discussed and a literature review was carried out. Thus, answers to the following questions were sought.

- How do human resource management strategies contribute to the development of sustainable cities?
- What are the key factors influencing the effectiveness of these strategies in urban environments?

Thus, these research questions encapsulate the core focus of this paper, which is to explore the role of HRM strategies in urban sustainability while also considering the contextual factors that shape their implementation and impact. In seeking answers to these questions identified within the scope of the research, previous studies in the literature have been utilized.

3.2. Universe and Sample

An analysis of the relevant databases shows that there are a large number of studies on both human resource management and sustainable cities. However, due to time constraints, it was not possible to define the sample for this study and to examine all the studies. In this context, studies were identified in which both the concepts of "human resource management" and "sustainable cities" and/or "sustainable city" were addressed together in the search terms.

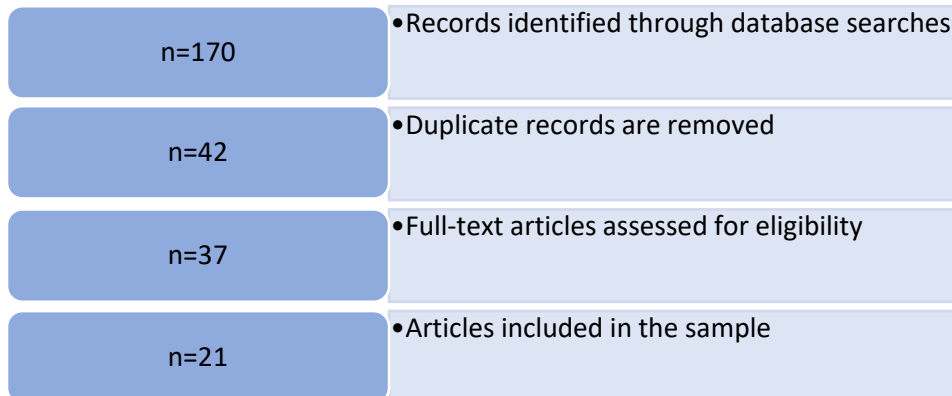
Table 2. Search String

| Database | Keywords Used | Number of Articles |
|----------------|---|--------------------|
| Google Scholar | Human Resource Management, Sustainable City(s) | 86 |
| WoS | (AB=((“human” OR “resources” OR “management”))) AND AB=((“sustainable” OR “city” OR “sustainable city” OR “sustainable cities” OR “human resource” OR “human resources” OR “human resource management” OR “human resources management”)) | 47 |
| Scopus | TITLE-ABS-KEY ((“human” OR “resources” OR “management”)) AND AB=((“sustainable” OR “city” OR “sustainable city” OR “sustainable cities” OR “human resource” OR “human resources” OR “human resource management” OR “human resources management”)) | 37 |
| Total | | 170 |

Source: Mohamed & Vadeveloo, 2023

This approach aimed to provide clearer answers to the research questions while ensuring the methodological soundness of the study. However, due to the extensive literature, it was not feasible to include all relevant studies. The figure below illustrates the process of finalizing the research sample.

Figure 2. Diagram of the Process in Selecting Articles



Source: Created by the author(s) to visually represent the data and information.

Another issue taken into consideration in determining the sample of the study is to make an evaluation in terms of the languages in which the studies are put forward. As it is known, there are many different languages in our world and studies are carried out in this field. However, in this study,

the studies conducted in English, which the author has mastered as a foreign language and which is the language of science in our world, were included in the sample. Studies in other languages were not included in the sample. On the other hand, the study exclusively included articles within the scope of the research.

To evaluate the content of the studies within the research sample and address the research questions, a comprehensive search evaluated by using Google Scholar, Web of Science (WoS), and Scopus databases. Through a rigorous filtering process, the articles included in the research sample were identified and shown in the table below.

Table 3. Inclusion and Exclusion Criteria

| Criterion | Inclusion | Exclusion |
|----------------------|--|---|
| Database | Google Scholar, WoS, Scopus | Other Databases and Indexes |
| Period | Published Until the First Half of 2024 | No time restrictions |
| Document Type | Articles | Other publications (Books, book chapters, conference papers and proceedings...) |
| Language | English | Non- English |

Source: Created by the author(s) to visually represent the information.

Thus, 21 studies published until June 2024, which met all the criteria and were included in the research constituted the sample of this study.

3.3. Data Collection Methods

To systematically compile and analyze the studies on the subject, a bibliometric analysis was preferred. This method was chosen for its effectiveness in providing both systematic compilation and a comprehensive analysis of the main findings of these studies. Thus, to inform readers, it is aimed to briefly explain the techniques used.

Basically based on counting, bibliometrics was first defined as the application of statistical and mathematical methods to scientific communication environments (Pritchard, 1969). However, the concept, which has changed over time, has been defined more comprehensively as "a method that gives clues about the scientific communication of the relevant field by examining and analyzing some features of journals, documents or other printed publications with statistical and mathematical techniques" (Büyükkelik & Afşar, 2023, p. 129; Sayın, 2024, p. 703; Temizkan et al., 2015, p. 395).

The main purpose of the method is to address the development in the relevant field of science in various aspects by addressing certain characteristics of scientific studies in a particular field and contribute to scientific development (Aydın & Geyik, 2021, p. 2094; Gürbüz & Şahin, 2014, p. 429; Haydaroğlu, 2022, p. 284). Bibliometric methods offer valuable insights into the quantity, quality, and publication venues of research within a specific field, facilitating the development of forward-looking science policies (Alkan, 2014, p. 42). Therefore, the study is constructed as a bibliometric analysis and the findings obtained as a result of this fictional structure are presented comprehensively in the next part of the study.

4. Findings

This section of the study presents the primary research findings and implications, culminating in an evaluation of the role of human resource strategies in fostering more sustainable cities. By addressing the identified research questions, a comprehensive framework have developed for understanding the relationship between human resource management and urban sustainability.

On the other hand, the main factors affects the effectiveness of human resources strategies in terms of sustainability in cities is another important issue addressed. The concept of sustainability is affected by many factors due to its nature. However, it is necessary to determine which of these factors are related to human resource strategies, which are more important than other factors, and which play an important role in terms of sustainable cities. Before proceeding with these assessments, it would be appropriate to systematically review the sources that have been found as a result of the criteria identified above and the basic information of the studies is visualized chronologically and collectively in the table below.

Table 4. Basic Information and Chronological Order of the Studies

| Author(s) | Title | Journal | Year |
|---|--|--|------|
| Jacobson, C. O., Kessler, E., & Reutersward, L. | The sustainable city: A contribution to habitat II: The second united nations conference on human settlements Istanbul 1996 | <i>Ambio</i> | 1996 |
| Drakakis-Smith, D. | Third world cities: Sustainable urban development III-basic needs and human rights | <i>Urban Studies</i> | 1997 |
| Moirongo, B. O. | Urban public space patterns: Human distribution and the design of sustainable city centres with reference to Nairobi CBD | <i>Urban Design International</i> | 2002 |
| Thite, M. | Smart cities: Implications of urban planning for human resource development | <i>Human Resource Development International</i> | 2011 |
| Cloutier, S., Larson, L., & Jambeck, J. | Are sustainable cities “happy” cities? Associations between sustainable development and human well-being in urban areas of the United States | <i>Environment, Development and Sustainability</i> | 2014 |
| Bettencourt, L. M. | Designing for complexity: The challenge to spatial design from sustainable human development in cities | <i>Technology Architecture+ Design</i> | 2019 |

| | | | |
|--|--|---|------|
| Clarke, R., Heitlinger, S., Light, A., Forlano, L., Foth, M., & DiSalvo, C. | More-than-human participation: Design for sustainable smart city futures | <i>Interactions</i> | 2019 |
| Rodzios, J. | The concept of human needs in sustainable development of cities | <i>Problemy Ekorozwoju</i> | 2019 |
| Al-Minhas, U., Ndubisi, N. O., & Barrane, F. Z. | Corporate environmental management: A review and integration of green human resource management and green logistics | <i>Management of Environmental Quality: An International Journal</i> | 2020 |
| Kramer, C., & Wagner, M. | Enhancing urban sustainable indicators in a German City-Towards human-centered measurements for sustainable urban planning | <i>World</i> | 2020 |
| MacDonald, A., Clarke, A., Ordonez-Ponce, E., Chai, Z., & Andreasen, J. | Sustainability managers: The job roles and competencies of building sustainable cities and communities | <i>Public Performance & Management Review</i> | 2020 |
| Mpabanga, D., & Sesa, L. | Imperatives: The five P's: People, planet, prosperity, peace and partnerships and sustainable development goals-the need to transform public administration and management | <i>African Journal of Public Administration and Management</i> | 2020 |
| Doan, K. M., Pham, V. H., & Doan, T. M. | Sustainable symbiotic relationship in the human ecosystem in the development of public spaces: Case of Hanoi historical inner-city area | <i>International Journal of Sustainable Construction Engineering and Technology</i> | 2021 |
| Moglia, M., Hopkins, J., & Bardoel, A. | Telework, hybrid work and the United Nation's sustainable development goals: Towards policy coherence | <i>Sustainability</i> | 2021 |
| Pukowiec-Kurda, K. | The urban ecosystem services index as a new indicator for sustainable urban planning and human well-being in cities | <i>Ecological Indicators</i> | 2022 |

| | | | |
|--|--|--|------|
| Tu, C., Ma, H., Li, Y., Fu, C., You, Z. J., Newton, A., & Luo, Y. | Transdisciplinary, co-designed and adaptive management for the sustainable development of rongcheng, a coastal city in China in the context of human activities and climate change | <i>Frontiers in Environmental Science</i> | 2022 |
| Wei, X., Ruan, M., Vadivel, T., & Daniel, J. A. | Human-centered applications in sustainable smart city development: A qualitative survey | <i>Journal of Interconnection Networks</i> | 2022 |
| Keshavarz, Y., Jervevani, M. T., & Maroufi, F. | Sustainable human habitats development: A review on concepts, trends and events based on the experiences of successful cities in the world | <i>RISUS - Journal on Innovation and Sustainability</i> | 2023 |
| Khan, M. T. I., Anwar, S., Sarkodie, S. A., Yaseen, M. R., Nadeem, A. M., & Ali, Q. | Natural disasters, resilience-building, and risk: Achieving sustainable cities and human settlements | <i>Natural Hazards</i> | 2023 |
| Mannan, M. M. J., Aiman, A. N., Saba, S. I., & Kiani, M. B. K. | In-depth review of green human resource management along with latest initiatives | <i>NUST Business Review</i> | 2023 |
| Wei, G. | Modelling a sustainable smart city based on human and user centred design | <i>Strategic Planning for Energy and the Environment</i> | 2023 |

As can be seen in the table above in a systematic and chronological manner, the studies on the subject are given in the sample of this research. When studies are examined, it is seen that many of them have been put forward since 1996 until today. However, it is noteworthy that the studies conducted after 2019 have shown a great increase. It can be said that the reason behind this situation is that sustainability studies have become more important especially in recent years and after the Industry 4.0 transformation. The reason for this increase can perhaps be understood when situations such as the increasing crowding of our world, technological developments and changes in transportation conditions, the increase in ecological problems daily and the increase in sustainability-oriented awareness raising in recent years are added to this transformation.

When the studies identified within the scope of the research and included in the sample are examined in terms of content, it is seen that important inferences are made on the subject. In this context, the studies were analyzed in terms of their content and their prominent points were evaluated. The first study that stands out is the study put forward by Drakakis-Smith (1997). In the study, third world cities are discussed within the scope of sustainable urban development and it is emphasized that the human factor and human resource practices are very important for the sustainable development of these cities. Another study by Wei and colleagues (2022) similarly emphasized the importance of human-centered practices in the development of sustainable smart

cities. Clarke et al. (2019), on the other hand, state that while governments are developing participatory approaches to sustainability challenges, the focus remains largely human-centered.

Apart from these studies, other studies have also made inferences and suggestions for the establishment of a human-centered sustainable smart city infrastructure (Wei, 2023). Similar to this study, Mpabanga and Sesa (2020) stated that sustainable development goals should be implemented in order to bring about the transformation needed in public administration. Emphasizing that people are among the most important of these goals, the authors state that human resources practices are therefore very important. In another study (Jacobson et al., 1996), a similar situation was emphasized. In a study by Thite (2011), examples of creative or smart cities around the world that aim to nurture a creative economy through investment in quality of life and attract employees to live and work in smart cities are discussed. The author emphasized the need and broad nature of human resource/talent development initiatives at the intermediate level, i.e. regional and city level, as opposed to the organizational and national level.

Moglia et al. (2021) argue that flexible, hybrid and remote working conditions have important implications for making cities safer, more resilient and sustainable. Rodzos (2019) also argues that working conditions are as important as people's social, cultural and economic conditions and that these conditions should be regulated within the framework of sustainability. Similarly, Kramer and Wagner (2020) state that human-centered measures should be given importance for sustainable urban planning and that human resources should be utilized in the most efficient way. MacDonald et al. (2020), on the other hand, state that building sustainable cities and communities is very important in terms of job roles and competencies and that it is necessary to train sustainability managers.

In a study conducted in Tehran, Iran (Keshavarz et al., 2023), it was emphasized that the world in the 21st century is characterized by high population mobility. The study emphasizes that as increasing numbers of people choose to leave their homelands and settle in a new country, one of the most prominent issues of concern to governments, academics and the general public worldwide is cities. The authors state that this emerging human density should be managed correctly and emphasize that making the best use of the existing human resources is very important for the structure of the city. In another study (Tu et al., 2022), an application was carried out in Rongcheng, China. The authors note that more than half of China's population lives in coastal areas and that intensive human activities pose significant environmental and ecological hazards for these cities, which are already vulnerable to natural hazards and climate change. So, the authors underline the importance of human and human resource activities in the long-term development of coastal cities in both national and international level.

Moirongo (2002), in his study on the city of Nairobi, the capital of Kenya, examined the human distribution of public spaces in cities and the design of sustainable city centers. As a result of the study, the author emphasized that human resources and the problem of managing this resource are very important in terms of sustainability. In addition, the author emphasizes that this situation is more difficult to manage in large and crowded cities. A similar study (Doan et al., 2021) was conducted in Hanoi, Vietnam. As a result of the study, the authors draw conclusions about the place and importance of people in the development of public spaces.

In a study conducted in the United States of America (Cloutier et al., 2014), an application was carried out to answer the question of whether sustainable cities are "happy" cities and the relationship between sustainable development and human well-being in urban areas was addressed. In the study, it was stated that there is a relationship between sustainable development and human well-being and that the management of human resources is also important in developing this relationship positively. Similarly, Khan et al. (2023) examined the creation of sustainable and human-oriented cities in the context of natural disasters, resilience and risk management. The authors emphasize the importance of HRM by stating that these factors can only be possible with a properly trained human resource.

Today, population growth, urbanization and technological changes in cities are pushing us all to design spaces in human societies in new and better ways and to aim for more environmentally sustainable and socially equitable human settlements (sustainable cities) (Bettencourt, 2019). In a study on green human resource management, which has shown significant developments in recent years and is frequently addressed in sustainability studies, sustainable cities are discussed on the basis of the concept of sustainable green logistics. In the study, a theoretical approach was carried out and an HRM assessment was carried out in terms of the attitudes, knowledge and skills of the management levels of organizations and employees (Al-Minhas et al., 2020). In another study, the importance of urban ecosystem services for sustainable urban planning and human well-being in cities was mentioned (Pukowiec-Kurda, 2022). Similar to these studies, Mannan et al. (2023) also emphasized the importance of green human resource management practices.

The key findings and prominent conclusions of the studies within the research sample can be summarized as follows: The studies have examined HRM and sustainable cities using diverse samples and methodologies. The following section presents a series of evaluations and inferences based on these findings, highlighting the key characteristics of the research. Furthermore, the study aims to offer local and global recommendations for the future, and to shed light on the issue for relevant stakeholders.

CONCLUSIONS:

Bibliometric analysis offers a valuable tool for qualitatively and quantitatively classifying studies within a specific scientific field, providing guidance for future research. By examining the patterns of scientific publications, bibliometric analysis can inform both the future planning of the field itself and the development of national science policies. This study employs bibliometric classifications to analyze a selected group of studies on HRM and sustainable cities. Through in-depth examination of these studies, we aim to contribute to the existing literature by providing insights into the subject matter.

During the research, the studies in the Google Scholar, WoS and Scopus databases that included the terms "human resource management" and "sustainable cities" together were reviewed and evaluated in many aspects. Although the initial searches of each database yielded more than this number of studies, the remaining 21 studies constituted the sample of the study after removing repetitive and inaccessible studies. When the studies on the subject were analyzed, it was seen that the oldest of the studies was dated 1996. In addition, it is seen that the studies put forward after 2019 have increased. This situation informs us that the awareness of sustainability and the studies on the concept have increased in recent years.

When the studies in the research sample are analyzed in terms of literature review, more extensive findings and implications are presented in the findings. This presentation provides a comprehensive assessment for those interested in the subject. However, it is also necessary to systematically evaluate and present these conclusions. In this part of the research, it is thought that it would be useful to present the outputs obtained within the scope of bibliometric analysis in a more systematic and itemized manner in the findings section. Thus, the recommendations developed based on the findings and practical implications of the research are as follows:

- **Developing Sustainable HRM Strategies:** It is important for city governments and government agencies to develop sustainability-oriented HRM strategies. These strategies should include training individuals on sustainability, promoting green business practices, and incorporating sustainability goals into performance evaluations.
- **Increasing Training and Awareness Programs:** Regular training and awareness programs can be organized to raise employee awareness on sustainability. These programs should include sustainability concepts, practices and sustainability goals of the company. In addition,

training and certification programs can also be organized to equip individuals with green business skills, and through these programs, individuals can become better equipped in areas such as energy efficiency, renewable energy sources and environmental management.

- **Importance of Population Planning:** One of the most important aspects of sustainability is population planning. In this context, individuals should be made aware of urban planning.
- **Job Creation and Incentives:** Consideration could be given to governments and states creating new employment opportunities in green jobs and offering tax breaks, grants and other incentives for those working in these fields.
- **Development of Participatory Mechanisms:** Sustainability-oriented participatory mechanisms can be created to ensure the active participation of individuals in sustainability processes in both the public and private sectors.
- **Increasing Human-Oriented Approaches:** Individual sustainability lies at the heart of organizational sustainability. Considering that the human element is the most important factor in organizations and cities, it is seen how important human-oriented approaches are.
- **Increasing Flexible, Hybrid and Remote Working Conditions:** By providing employees with more flexible working conditions, both sustainable contributions to the city (such as reduced public transportation, reduced exhaust emissions, reduced consumption...) and individual and organizational satisfaction can be increased. In this way, cities can become safer, resilient and sustainable.
- **Motivation and Rewarding:** Individuals who contribute to sustainability projects can be motivated with various rewards and recognition.
- **Digital Transformation and Innovation Incentives:** Digital transformation projects can be implemented to achieve sustainability goals. Existing human resources should be directed to support projects involving technologies such as energy management systems, smart buildings and data analytics for sustainable cities. Employees who develop innovative ideas and projects should be supported with innovation incentive programs.
- **Research and Development (R&D):** Invest in research and development on sustainability technologies and practices. This will improve the sustainability performance of companies and cities. It can also increase the sustainability awareness of individuals working in the organization.

As mentioned in here, several key factors influence the effectiveness of HRM strategies in urban environments. To achieve this effectiveness another points should be noticed. Firstly, strong leadership commitment to sustainable development is essential for creating a supportive environment for HRM initiatives. Secondly, a positive organizational culture that values sustainability and employee well-being can enhance the effectiveness of HRM strategies. Moreover, collaboration and partnerships with other stakeholders can strengthen the impact of HRM initiatives and adequate resources, including financial, human, and technological resources, are crucial for implementing effective HRM strategies. Finally, supportive policies and regulations can create a favorable environment for sustainable HRM practices. By addressing these factors, organizations can enhance the effectiveness of their HRM strategies and contribute to the development of more sustainable cities.

According to them and building upon these conclusions, several recommendations can be made. Governments should prioritize sustainable human development in their urban planning and development policies. Businesses should integrate sustainable development principles into their

HRM practices. Educational institutions should offer programs and courses that focus on sustainable human development and sustainable HRM. Research should be conducted to explore the long-term impacts of HRM practices on sustainable urban development. Partnerships between governments, businesses, and civil society organizations should be fostered to promote sustainable development and HRM initiatives.

The findings from this study also demonstrate that effective HRM strategies can play a pivotal role in fostering sustainable urban development. By cultivating a skilled, motivated, and engaged workforce, HRM can support sustainable initiatives in several ways. For example, to promote innovation and creativity, a well-managed workforce can drive innovation and creativity, leading to the development of new sustainable technologies and practices. Also, to enhance organizational performance, an effective HRM practices can improve organizational efficiency, productivity, and profitability, which in turn support sustainable development efforts. Besides, HRM can contribute to building social capital within communities by fostering positive relationships among employees, employers, and other stakeholders. And HRM practices can be designed to incorporate green initiatives, reduce waste, and conserve resources, thereby promoting environmental sustainability.

To further advance our understanding of the research topic and gaps in the literature, future researches should focus on several key points. By in-depth case studies of successful sustainable HRM initiatives can provide valuable insights into practical implementation strategies. Also, the role of technology in supporting sustainable HRM practices should be explored and the impact of sustainable HRM on organizational performance and competitiveness warrants further investigation. Accordingly, the challenges and opportunities associated with implementing sustainable HRM practices in developing countries should be examined and the long-term impacts of sustainable HRM on social equity and environmental sustainability should be explored. By addressing these research questions, future studies can contribute to a deeper understanding of the relationship between sustainable human development and HRM. These findings can inform the development of effective policies, practices, and initiatives for creating more sustainable and equitable urban environments.

Future research could also focus on several areas. Case studies of successful sustainable HRM initiatives in different urban contexts could provide valuable insights. The role of technology in supporting sustainable HRM practices is another area worth exploring. The impact of sustainable HRM on organizational performance and competitiveness could be further investigated. The challenges and opportunities associated with implementing sustainable HRM practices in developing countries could also be a focus of future research. Finally, the long-term impacts of sustainable HRM on social equity and environmental sustainability warrant further exploration. By continuing to investigate these areas, researchers can contribute to a deeper understanding of the relationship between sustainable human development and HRM and inform the development of effective policies and practices for creating more sustainable cities.

All of these implications, recommendations and suggestions are important for all stakeholders to consider for more sustainable cities and a more sustainable world. Indeed, it is not possible to apply all the conclusions and it is not possible to make valid conclusions under all circumstances. However, the findings of the research tell us that more sustainable cities are possible if these conditions are mostly met and those concerned should pay attention to these points and consider human resources practices and strategies. In this way it will be possible to achieve a more sustainable HRM structure for our future.

Compliance with Ethical Standard

Conflict of Interest: The author(s) declare that they do not have a conflict of interest with themselves and/or other third parties and institutions, or if so, how this conflict of interest arose and will be resolved, and author contribution declaration forms are added to the article process files with signatures.

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