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Human Resource Management in Education: A Systematic Review

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Systematic Review Article

ABSTRACT

Encountering hurdles in managing human resources is an inherent aspect of educational institutions. In dealing with these problems, human resource management plays a vital role in controlling and directing resources to perform school operations effectively. Thus, this systematic review explored the various literature on resource management, specifically on human resources through the PRISMA framework. Studies included in this review are focused on the challenges, strategies, and impact of resource management in educational institutions written in the English language and conducted between 2020 and 20224 from the Google Scholar. Out of 152 records identified from database searching, 10 articles from eight countries revealed three themes for the challenges of human resource management, namely: recruitment and retention challenges, workforce diversity and inclusion, and professional development and training. In terms of the strategies, the analysis showed three themes for human resource management, namely: talent acquisition and retention, performance management and evaluation, and change management and adaptation. Finally, the three themes about the impact of human resource management are

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educational quality and student outcomes, organizational performance and efficiency, and innovation and adaptation. These findings necessitate the application of effective human resource management strategies to improve educational organization. However, schools experienced obstacles in dealing with human resources. Therefore, future researchers may explore more strategies to overcome the said problems. They can also delve into issues, perspectives, and techniques of school leaders in managing other resources not covered in this study like financial, physical, and technological resources.

Keywords: Human resource management; PRISMA framework; challenges; strategies.

1. INTRODUCTION

1.1 Background of the Study

Resource management is a critical aspect of educational administration, encompassing the planning, allocation, and utilization of resources to achieve academic goals efficiently and effectively. In the realm of education, where human capital plays a pivotal role, effective resource management is essential for optimizing teaching and learning outcomes [1]. Among the various dimensions of resource management, human resource management (HRM) stands out as a cornerstone, given its profound impact on the quality of education delivery and institutional [2]. HRM in education involves the recruitment, development, retention, and support of qualified educators and staff, making it indispensable for fostering a conducive learning environment [3].

Human resource management in education holds paramount importance due to its multifaceted contributions to academic institutions. Firstly, HRM ensures the recruitment and retention of competent teachers, which are fundamental to the provision of quality education [2]. Moreover, HRM facilitates staff development through training and professional growth opportunities, enhancing educators' pedagogical skills and instructional effectiveness [3]. Additionally, HRM promotes workplace diversity and inclusion, environment that celebrates fostering an differences and supports equitable access to education [1]. Furthermore, effective HRM practices contribute to employee satisfaction and morale, leading to improved productivity and organizational performance [4].

However, despite its significance, human resource management in education is fraught with various challenges that hinder its optimal implementation [5-7]. One prominent challenge is the recruitment and retention of qualified teachers, particularly in remote or underserved areas [3]. Additionally, inadequate funding and

resource constraints pose barriers to the provision of competitive salaries and professional development opportunities, exacerbating teacher shortages and turnover rates [1]. Moreover, bureaucratic procedures and administrative burdens often impede HRM practices, leading to inefficiencies and delays in decision-making processes [2]. Addressing these challenges requires the adoption of coping mechanisms and effective strategies tailored to the unique context of educational institutions.

In response to the challenges faced in HRM, educational authorities and policymakers have implemented various strategies and policies aimed enhancing human resource management practices in education. instance. initiatives to improve teacher recruitment and retention often involve offering competitive salaries, incentives, and career advancement opportunities to educators [4]. in Moreover, investment professional development programs, mentoring, and coaching schemes can help build teachers' capacity and expertise, ultimately improving teaching quality and student outcomes [3]. Additionally. streamlining administrative processes, reducing bureaucracv. and promoting decentralized decision-making can enhance HRM efficiency and effectiveness in educational institutions [8]. By implementing these strategies and policies, educational stakeholders can mitigate challenges associated with HRM and foster an environment excellence conducive to academic and organizational success.

Given the mentioned challenges and relevance of human resource management in education, it is crucial to conduct a literature review about it. Hence, this literature review aimed to offer the strategies of human resource management from various studies and reviews to examine how other schools or educational organizations supervise their human resources for better reflection and understanding of the steps. These strategies were derived from the experiences,

interviews, survey results, perspectives, and viewpoints of educational leaders, teachers, and other involved individuals based on the screened journals. In addition, this systematic review also presented the impact of human resource management for everyone's guidance and awareness.

1.2 Research Questions

This systematic review focused on the following research questions:

- 1. What are the existing pieces of literature about the challenges of human resource management in educational institutions?
- 2. What are the available works of literature about the strategies of human resource management in educational institutions?
- 3. What proof in the literature is there for the impact of human resource management in educational institutions?

2. METHODOLOGY

This paper adhered to the systematic process as it followed the five steps in a systematic review as suggested by Khan, Kunz, Kleijnen, and Antes [9]. These steps involved framing questions for a review by clearly specifying the problems to be addressed before beginning the review work; identifying relevant work through determining the selection criteria based on the review questions and recording the reasons for inclusion and exclusion; assessing the quality of studies by considering the quality of the searched journals; summarizing the evidence by synthesizing the gathered data; and, interpreting the findings by exploring answers to the research questions.

2.1 Inclusion and Exclusion Criteria

This paper reviewed the relevant journals of human resource management in educational institutions to examine its challenges, process, and impact. Given the various sources

that needed to be screened and filtered according to the eligibility criteria, this paper utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to identify relevant works and improve the quality of reporting. According to Park, Suh, Woo, Kim, and Kim [10], this PRISMA checklist promoted transparency in the study selection process. In addition, this also encouraged authors to provide reasons for excluded studies. Thus, this was used to evaluate completeness of the reporting of systematic reviews and meta-analyses.

To find relevant reviews, we launched Google Scholar, clicked the "advance search" option, and set the inclusion criteria to "in the title of the article" and the use of keywords like "human resource management" were applied in the search and browsing of valid literature, that generated one hundred and fifty-two (152) results. We then set the publication year between 2020 and 2024, which was narrowed to seventy-five (75).

Furthermore, there were several duplicates, as we saw. To quickly eliminate the ten duplicates, we exported the articles using Microsoft Excel and sorted them from A to Z. As a result, sixtyfive (65) items were still available. These were examined based on language, with only articles written in English included, leading to the identification of forty-nine (50) sources and the exclusion of 35 articles. Because the thirty-five eliminated publications could not be accessed, the researchers only kept fifteen (15) sources. The researchers then reduced the number of papers to twelve (12), excluding three that needed to be published in a journal format. To ensure that every paper the researchers review is in qualitative format, we removed two using quantitative methods, which left eight (10) qualified articles to be included.

Moreover, we screened the articles by concentrating on the key elements of human resource management. The inclusion and

Table 1. Inclusion and exclusion criteria of the systematic review

Eligibility Criteria	Inclusion	Exclusion
Time Frame/ Years	2020-2024	Below 2020
Language	English	Other Languages
Methodology	Qualitative Method	Quantitative/Mixed Method
Electronic Databases	Google Scholar	Other Sources/ Inaccessible Studies
Publication Status	Published in Journals/Books	Unpublished

exclusion standards for this review are shown in Table 1, which shows the eligibility criteria that determine which articles were included and excluded.

2.2 Search Strategy

This paper followed the guidelines in documenting the analysis method and inclusion criteria. In searching for relevant works, we utilized Google Scholar. In using it, we navigated the "advance search" icon and set up the inclusion criteria like "in the title of the article" and the year between 2020-2024 to easily gather relevant and latest articles. We carefully screened the searched articles by examining the title, reading the abstract to systematically include relevant works, and even downloading

the full texts for complete details. During the data collection process, we searched varied sources to satisfactorily support the existing reviews. All references were documented accordingly for better search.

2.3 Data Extraction

This systematic review extracted the names of the author, year of publication, country, study design, participant characteristics, study aim, definition, results and discussion, conclusion, recommendations, implications, and human resource management in education for easy reference, navigation, and citation. Table 2 shows the reviewed studies related to human resource management in education. These all came from Google Scholar.

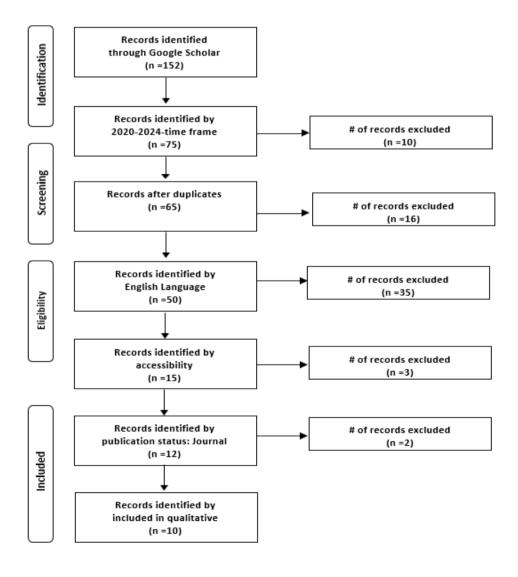


Fig. 1. PRISMA flow diagram of the systematic review

Table 2. Reviewed studies on human resource management

ID	Author/s Year	Country	Discipline	Sample Size	Research Focus
1	Sudarmo [11]	Indonesia	Education	15	Examined the importance of human resource management and leadership in public organizations in the 21st century, emphasizing their role in the progress or withdrawal of such organizations.
2	Neamat [12]	Iraq	Education	12	Discussed the importance of managing human resources for growth and creativity, the role of strategic management and innovation, the use of ICT for organizational performance improvement, and the impact of associations on HRM and TM.
3	Edvardsson et al. [8]	Iceland	Education	N/A	Focused on more recent publications, particularly in 2020-2021, reflecting the interest in recent crises like the COVID-19 pandemic.
4	El-Dirani et al.[13]	Lebanon	Education	30	Highlighted the role of HR in change management and calls for further research to validate the findings and explore organizations' awareness of change management approaches involving HR.
5	Crawshaw et al. [14]	USA	Education	10	Focused on preparing students for successful careers in Human Resource Management by emphasizing employability, core curriculum, skills, international perspectives, and contemporary issues like ethics and CSR.
6	Hidir et al. [15]	Indonesia	Education	N/A	Discussed the importance of human resource development strategies in good governance service practices, emphasizing the significance of HR governance strategy in public service organizations, the need for improving the quality of human resources, and the role of HRM in achieving excellence and dealing with human problems in the public service sector.
7	Phiri et al. [16]	Zambia	Education	N/A	Discussed the impact of strategic human resource management practices on organizational performance, presents findings from a study at the National Assembly of Zambia, and provides recommendations for improving HR practices. The authors declare no conflicts of interest.
8	Nugroho (2022)	Indonesia	Education	16	Emphasized the importance of human resource management in achieving organizational goals by effectively

ID	Author/s Year	Country	Discipline	Sample Size	Research Focus
					managing employees and their contributions.
9	Marler et al. [17]	USA	Education	N/A	Provided a summary review of existing literature on human resource management in family businesses and suggests future research directions, categorizing research into different topic areas and highlighting gaps in the literature.
10	Tolstyakova et al. [18]	Russia	Education	30	Discussed the importance of human resources, the principles of HR management, the need for effective motivation systems, and the call for further research to enhance human resource management in Russian enterprises.

2.4 Data Analysis

Given the findings and reviews from different systematic reviews, this paper carefully analyzed the data. Using the table that contained systematic reviews with respective focus, data about human resource management in educational institutions were analyzed through thematic analysis. Thus, themes for the challenges, strategies, and impact of human resource management in education were formulated.

3. RESULTS AND DISCUSSION

The 10 reviewed articles in this paper came from eight countries. These were distributed properly according to the following: Indonesia (3), Iraq (1), Iceland (1), Russia (1), Lebanon (1), Canada (1), Zambia (1), and United States of America (1). Five studies (50%) concentrated on basic education while four studies (40%) focused on higher education. On the other hand, only one study (10%) was not identified (see Table 3).

3.1 Human Resource Management Challenges in Education

Based on the 10 reviewed articles, the human resource management challenges are conveyed in three themes which are recruitment and retention challenges, workforce diversity and inclusion, and professional development and training. Table 4 presents the challenges of human resource management in education.

Recruitment and Retention Challenges. This theme encompasses the obstacles faced in attracting and retaining qualified educators, addressing issues such as competition for talent, changing demographics, and the importance of fostering a supportive work environment to ensure long-term commitment and effectiveness. This has created two characteristics, namely: high turnover rates and talent shortages.

Regarding the *high turnover rates*, Sudarmo [11] suggested that human resources management and leadership play crucial roles in addressing

Table 3. Distribution of the reviewed studies by country and by educational level

Place of Publication/ Study	Educational Level			Total
	Basic Education	Higher Education	Not Identified	
Indonesia	1	2		3
Iraq		1		1
Iceland	1			1
Russia	1			1
Lebanon	1			1
Canada		1		1
Zambia	1			1
USA			1	1
Total	5	4	1	10

turnover challenges in public services, including education. Effective HRM practices, such as robust recruitment strategies, comprehensive onboarding processes, and ongoing support and development opportunities, can help mitigate turnover rates by fostering employee engagement and satisfaction.

Similarly, Neamat [12] emphasized the importance of strategic development in HRM to tackle turnover issues. Strategic approaches involve aligning recruitment and retention initiatives with organizational goals and values, identifying factors contributing to turnover, and implementing targeted interventions to address them. By adopting a strategic perspective, educational institutions can proactively manage turnover rates and cultivate a stable and committed workforce.

In terms of talent shortages, Sudarmo [11] underscored the critical role of human resources management and leadership in addressing talent shortages within public services, including education. Effective recruitment strategies, such as targeted outreach efforts, partnerships with educational institutions, and competitive compensation packages. are essential for attracting top talent to educational roles. Additionally, Sudarmo emphasized importance of leadership in creating a supportive and attractive work environment that encourages talented individuals to join and remain within the education sector.

Neamat [12] further highlighted the significance of strategic development in human resource management to tackle talent shortages. Strategic approaches involve forecasting future talent needs, identifying gaps in skills and expertise, and implementing proactive measures to address these gaps through recruitment, training, and development initiatives. By taking a strategic perspective, educational institutions can better anticipate and respond to talent shortages. qualified ensuring a steady supply of personnel to support their mission and objectives.

Workforce Diversity and Inclusion. This theme highlights the imperative of creating environments that embrace and celebrate differences, fostering a rich tapestry of perspectives and experiences to enhance learning outcomes and promote equity, this theme has two constructs: addressing bias and discrimination and accommodating diverse needs.

Concerning the addressina bias and discrimination. Phiri and Phiri [16] examined the importance of strategic human resource management practices in fostering organizational performance, emphasizing the need for inclusive practices to address bias and discrimination. They argued that promoting diversity and inclusion in recruitment and retention efforts not only enhances organizational effectiveness but also contributes to a positive organizational culture and reputation.

Moreover, Nugroho (2022) underscored the role of human resources management in shaping organizational perspectives, including those related to diversity and inclusion. implementing policies and procedures that actively combat bias and discrimination, educational institutions can attract and retain a diverse workforce that reflects the communities they serve, ultimately enhancing organizational effectiveness and student outcomes. On the other hand, Marler, Vardaman, and Allen [17] explored human resource management in family firms but their insights are applicable to broader organizational contexts, including education. They suggested that addressing bias and discrimination requires proactive measures such as diversity training, implementing fair hiring practices, and fostering a culture of inclusivity and respect.

Also, Tolstyakova and Batyrova [18] contributed to the discussion by examining strategic management of human resources in modern conditions. They highlighted the importance of aligning HRM practices with organizational values and goals, including those related to diversity and inclusion, to effectively address bias and discrimination in recruitment and retention processes.

Talking about the accommodating diverse needs, this challenge encompasses the necessity for educational institutions to address the diverse needs of employees, including those related to culture, ethnicity, gender, age, ability, and socioeconomic background, in their recruitment and retention strategies.

Phiri and Phiri [16] discussed the significance of strategic human resource management practices in enhancing organizational performance, emphasizing the importance of accommodating diverse needs. They argued that embracing diversity and implementing inclusive policies not only attracts a wider pool of talent but also

fosters a supportive work environment where all employees feel valued and respected.

Similarly, Nugroho (2022) highlighted the pivotal role of human resources management in shaping organizational perspectives, including those related to diversity and inclusion. By recognizing and accommodating diverse needs, educational institutions can create an environment that promotes employee engagement, satisfaction, retention. ultimately and contributing organizational success. In addition, Marler, Vardaman, and Allen [17] contributed to this discourse by reviewing human resource management in family firms, suggesting that accommodating diverse needs requires tailored approaches that consider the unique characteristics and preferences of individual employees. They emphasized the importance of flexibility in HRM practices to meet the diverse needs of employees across different roles and levels within educational institutions.

On the other hand, Tolstyakova and Batyrova [18] provided insights into strategic management of human resources in modern conditions, emphasizing the need for educational institutions to proactively address diversity and inclusion in their recruitment and retention strategies. By offering flexible work arrangements, providing access to resources and support services, and promoting a culture of respect and acceptance, organizations can effectively accommodate diverse needs and foster an inclusive workplace culture.

Professional Development and Training. This theme encompasses the ongoing process of equipping educators with the necessary skills, knowledge, and resources to continuously enhance their teaching practices, adapt to evolving educational needs, and ultimately improve student outcomes, this theme has two constructs: limited resources for development and balancing teaching and administrative duties.

In terms of *limited resources for development*, educational institutions often encountered constraints such as budget limitations and competing priorities, making it difficult to allocate sufficient resources for comprehensive professional development and training programs for their staff [12,17].

Neamat [12] discussed human resource management with a focus on strategic

development, emphasizing the need to align limited resources with organizational goals. Within the context of professional development and training, this alignment is crucial for maximizing the impact of available resources and ensuring that staff members receive the necessary skills and knowledge to excel in their roles.

Moreover, Marler, Vardaman, and Allen [17] explored human resource management in family firms but their insights are relevant to the broader organizational context, including educational institutions. They suggested that addressing limited resources for development requires innovative solutions and strategic prioritization of professional development and training initiatives. This prioritization involves identifying key areas for skill enhancement, leveraging internal expertise, and exploring external partnerships and resources to supplement internal efforts.

Discussing the balancing teaching and administrative duties, this challenge refers to the need for educators to effectively manage their time and responsibilities between classroom instruction and administrative tasks, which can often be overwhelming and demanding [19].

Additionally, Sudarmo [11] discussed human resources management and leadership in public highlighting the importance addressing the balancing act between teaching and administrative duties. Sudarmo suggests that educational institutions need to provide such as professional systems, development programs and time management strategies, to help educators navigate their dual roles effectively. Hidir, Zunaidi, and Pattiasina [15] also explore human resources management strategies in implementing good government practices. which can be extrapolated educational settings. They emphasized the significance of organizational support flexibility in enabling educators to balance administrative and duties while maintaining their professional development.

Meanwhile, Nugroho (2022) discussed the role of human resources management from an organizational perspective, underscoring the importance of addressing workload challenges faced by educators. Nugroho suggested that educational institutions should implement policies and practices that promote work-life balance and provide opportunities for professional growth and skill development.

Lastly, Tolstyakova and Batyrova [18] contributed to the discussion by examining strategic management of human resources in modern conditions. They highlighted the need for educational institutions to adopt innovative approaches to support educators in managing their workload effectively, such as leveraging technology and implementing flexible work arrangements.

3.2 Human Resource Management Strategies in Education

Based on the comprehensive review of the 10 articles, we have identified human resource management strategies. Three themes emerged for the human resource management strategies: talent acquisition and retention, performance management and evaluation, and change management and adaptation. Table 5 presents the different themes of the human resource management strategies in education.

Talent Acquisition and Retention. This theme pertains to the deliberate efforts in attracting, selecting, and fostering the development of high-quality educators, while concurrently implementing initiatives to create a conducive environment that encourages their long-term commitment and professional growth within the educational institution. Based on the reviewed journals, this theme has two constructs: targeted recruitment efforts and competitive compensation packages.

Regarding the *targeted recruitment efforts*, Sudarmo [11] discussed human resources management and leadership in public services, emphasizing the importance of targeted

recruitment efforts. Sudarmo suggested that educational institutions need to identify specific skill sets and competencies required for various roles within the organization and tailor their recruitment strategies accordingly. By targeting recruitment efforts towards individuals who possess the desired qualifications and attributes, educational institutions can enhance their ability to attract and retain high-quality personnel.

Similarly, Neamat [12] explored human resource management with a focus on strategic development, which included targeted recruitment as a crucial aspect. Neamat highlighted the need for educational institutions to align their recruitment efforts with strategic goals and organizational needs. This involved identifying key areas where talent acquisition is critical and implementing targeted recruitment campaigns to attract individuals who can contribute to the institution's success.

In addition, Edvardsson and Durst [8] contributed to the discussion by conducting a systematic literature review on human resource management in crisis situations. While their focus is broader, their insights are applicable to talent acquisition and retention in educational settings, especially during challenging times. They emphasized the importance of proactive recruitment strategies, including targeted efforts and engage with candidates, even in the face of adversity.

In terms of *competitive compensation packages*, Crawshaw, Budhwar, and Davis [14], in their book "Human Resource Management: Strategic and International Perspectives,"highlighted the importance of competitive compensation

Table 4. Themes on the human resource management challenges in education

Themes on the Human Resource Management in Education	Characteristics	Study ID	Number of Studies
Recruitment and Retention Challenges	High Turnover Rates	[1] [2]	2
	Talent Shortages	[7] [8] [9][10]	4
Workforce Diversity and Inclusion	Addressing Bias and Discrimination	[4] [6]	2
	Accommodating Diverse Needs	[3] [5] [8]	3
Professional Development and Training	Limited Resources for Development	[2 [9]	2
	Balancing Teaching and Administrative Duties	[1] [6] [8] [10]	4

packages in talent acquisition and retention Thev emphasized that offering competitive salaries and benefits is essential for attracting top talent to educational institutions and incentivizing them to stay in the long term. Pattiasina [15] and Hidir. Zunaidi, contributed to the discussion by examining human resources management strategies in implementing good government practices, which can be extrapolated to educational settings. They that competitive compensation packages play a crucial role in attracting and retaining skilled professionals in the education sector. By offering salaries and benefits that are commensurate with market rates and reflective of the value educators bring to the organization, educational institutions can enhance their ability to attract and retain talent.

Performance Management and Evaluation. This theme involves systematic processes to assess, support, and enhance the effectiveness of educators, ensuring alignment with organizational goals, continuous improvement, and ultimately, positive impacts on student learning outcomes. Based on the reviewed journals, this theme has three constructs: clear performance expectations, regular feedback mechanisms, and recognition and rewards programs.

Concerning the clear performance expectations, Nugroho (2022) discussed the role of human resources management from an organizational perspective, emphasizing the importance of clear performance expectations. Nugroho suggested that educational institutions need to communicate performance standards and objectives clearly to their employees, ensuring that they understand what is expected of them and how their performance will be evaluated.

Conversely, Marler, Vardaman, and Allen [17] explored human resource management in family firms but their insights are relevant to the broader organizational context, including education. They suggested that establishing clear performance essential expectations is for fostering accountability and performance improvement among employees. By providing employees with understanding of their responsibilities, and performance educational institutions can enhance productivity and effectiveness.

This was supported by Tolstyakova and Batyrova [18] through examining strategic management of

human resources in modern conditions. They emphasized the importance aligning of performance expectations with organizational goals and values. By setting clear achievable performance targets that are linked to broader organizational objectives, educational institutions can ensure that their employees are focused on activities that contribute organizational success.

Talking about regular feedback mechanisms, Edvardsson and Durst [8] explored human resource management in crisis situations, emphasizing the importance of regular feedback mechanisms, especially during challenging times. They suggested that educational institutions need to maintain open channels of communication and provide continuous feedback to employees to support their performance and well-being.

On the other hand, El-Dirani, Houssein, and Heiase [13] conducted an exploratory study on the role of human resources management in the process of change. They highlighted the significance of regular feedback mechanisms in organizational facilitating change and improvement. soliciting feedback from By employees and incorporating their input into educational decision-making processes. institutions can enhance performance management practices and foster a culture of continuous improvement.

Also, Hidir, Zunaidi, and Pattiasina [15] delved understanding human into resources management strategies in implementing good government practices. They emphasized the importance of regular feedback mechanisms in accountability promoting and performance enhancement among employees. By providing timely and constructive feedback, educational institutions can help employees identify areas for development and take proactive steps to address them.

Moreover, Phiri and Phiri [16] examined strategic human resource management practices and organizational performance, highlighting the role of regular feedback mechanisms in driving performance improvement. They suggested that educational institutions should establish structured feedback processes that enable managers and employees to engage in meaningful discussions about performance goals, expectations, and progress. Meanwhile, Nugroho (2022) discussed the role of human

resources management from an organizational perspective, emphasizing the importance of regular feedback mechanisms in enhancing employee engagement and performance. By providing ongoing feedback, educational institutions can empower employees to take ownership of their development and contribute effectively to organizational goals.

Finally, Marler, Vardaman, and Allen [17] reviewed human resource management in family firms and underscore the importance of regular feedback mechanisms in driving performance and fostering employee development. They suggested that educational institutions should implement formalized feedback processes that allow for constructive dialogue between managers and employees on a regular basis.

the recognition Regarding and programs, Phiri and Phiri [16] discussed strategic human resource management practices and organizational performance, emphasizing the role of recognition and rewards programs in motivating employees and driving performance. They suggested that educational institutions should implement formalized programs that recognize and reward employees for their outstanding performance, innovation, dedication to achieving organizational goals. By providing tangible rewards and acknowledgment for exemplary work, educational institutions can reinforce desired behaviors and foster a culture of excellence.

Moreover, Nugroho (2022) examined the role of management human resources from organizational perspective, highlighting the importance of recognition and rewards programs enhancing employee engagement satisfaction. Nugroho suggested that educational institutions should offer a range of incentives, such as monetary bonuses, public recognition, career development opportunities, to recognize and reward employees for their contributions. These programs not only motivate employees to perform at their best but also reinforce а positive organizational culture where employees feel valued and appreciated.

Change Management and Adaptation. This theme refers to the intentional approaches to navigate organizational shifts, cultivate a culture of flexibility, and empower stakeholders to embrace innovation, ensuring resilience and continuous improvement in response to evolving

educational landscapes and demands. Based on the reviewed journals, this theme has two constructs: agility and flexibility and stakeholder engagement.

In terms of agility and flexibility. Edvardsson and Durst [8] conducted a systematic literature review on human resource management in crisis situations, emphasizing the importance of agility and flexibility. They suggested that educational institutions need to be agile and flexible in their HRM approaches to navigate through crises successfully. This included quickly adjusting staffing levels, roles, and responsibilities to meet demands and ensurina changing employees are equipped with the necessary and resources to adapt to skills circumstances.

Further, El-Dirani, Houssein, and Hejase [13] conducted an exploratory study on the role of human resources management in the process of change. They highlighted the significance of agility and flexibility in facilitating organizational change and innovation. Educational institutions need to adopt flexible HRM practices that allow for rapid adjustment to evolving needs and priorities while also providing employees with the support and resources needed to cope with change effectively.

Crawshaw, Budhwar, and Davis [14] also provided strategic and international perspectives on human resource management, emphasizing the importance of agility and flexibility in responding to dynamic global trends and challenges. Educational institutions need to develop HRM strategies that are adaptable to diverse contexts and capable of accommodating changes in technology, demographics, and regulatory environments.

Discussing the stakeholder engagement, Neamat [12] explored human resource management with a focus on strategic development, which includes stakeholder engagement as а crucial aspect. Neamat highlighted the importance of building strong relationships with stakeholders and involving them in the formulation and implementation of HRM strategies. In the context of educational institutions, stakeholder engagement can facilitate smoother transitions durina periods of change and that the needs and concerns of all parties are addressed.

Similarly, Crawshaw, Budhwar, and Davis [14] provided strategic and international perspectives

on human resource management, emphasizing the role of stakeholder engagement in driving organizational change. They suggested that educational institutions need to adopt inclusive approaches that involve stakeholders from diverse backgrounds and perspectives in change initiatives. By engaging stakeholders throughout the change process, educational institutions can build trust, enhance communication, and increase the likelihood of successful outcomes.

Furthermore, Hidir, Zunaidi, and Pattiasina [15] delved into understanding human resources management strategy in implementing good government practices, which can be extrapolated to educational settings. They emphasized the importance of stakeholder engagement in fostering transparency, accountability, and participation in decision-making processes. Educational institutions should actively involve stakeholders in discussions about changes in HRM practices to ensure that their interests and concerns are taken into account.

On the other hand, Phiri and Phiri [16] examined strategic human resource management practices and organizational performance, highlighting the

role of stakeholder engagement in driving organizational success. They suggested that educational institutions should establish mechanisms for soliciting feedback and input from stakeholders, such as surveys, focus groups, and town hall meetings. By actively engaging stakeholders in HRM practices, educational institutions can build support for change initiatives and improve organizational performance.

Nugroho (2022) also discussed the role of human resources management from organizational perspective, emphasizing importance of stakeholder engagement in driving effectiveness. organizational Nugroho suggested that educational institutions should adopt collaborative approaches that involve stakeholders in the design and implementation By fostering HRM strategies. collaboration communication and with stakeholders. educational institutions can enhance their ability to adapt to changing needs and priorities.

Lastly, Marler, Vardaman, and Allen [17] reviewed human resource management in family

Table 5. Themes on the human resource management strategies in education

Themes on the Human Resource Management in Education	Characteristics	Study ID	Number of Studies
Talent Acquisition and	Targeted Recruitment Efforts	[1] [2] [3]	3
Retention	Competitive Compensation Packages	[5] [6]	2
Performance	Clear Performance Expectations	[8] [9] [10]	3
Management and	Regular Feedback Mechanisms	[3] [4] [6][7] [8] [9]	6
Evaluation	Recognition and Rewards Programs	[7] [8]	2
Change Management	Agility and Flexibility	[3] [4] [5]	3
and Adaptation	Stakeholder Engagement	[1] [2] [5] [6]	4

Table 6. Themes on the impact of human resource management in education

Themes on the Impact of Human Resource in Education	Characteristics	Study ID	Number of Studies	
Educational Quality and Student Outcomes	Teacher Effectiveness	[1] [3] [5]		
	Student Engagement	[6] [7] [8] [9]	4	
	Retention and Graduation Rates	[2] [4] [9] [10]	4	
Organizational Performance and Efficiency	Employee Satisfaction and Morale	[1] [3] [4] [5] [9]	5	
	Reduction in Staff Turnover	[2] [5] [9] [10]	4	
	Efficient Resource Allocation	[3] [4]	2	
Innovation and Adaptation	Adaptability to Change	[1] [3] [5]	3	
	Promotion of Lifelong Learning	[4] [6] [8]	3	

firms, highlighting the importance of stakeholder engagement in managing organizational change. They suggested that educational institutions should proactively involve stakeholders in change initiatives to build support and mitigate engaging stakeholders resistance. Βv meaningful dialogue and collaboration. educational institutions can create a shared vision for change and increase the likelihood of successful implementation.

3.3 Impact of Human Resource Management on Education

According to the 10 reviewed articles, the impact of human resource management is presented through three themes: educational quality and student outcomes, organizational performance and efficiency, and innovation and adaptation. Table 6 presents these impacts of human resource management in education.

Educational Quality and Student Outcomes. This theme reflects the profound influence of effective human resource management practices. of encompassing the cultivation skilled nurturing educators. supportive learning environments, and fostering a culture of continuous improvement to optimize student success and overall educational excellence. This theme has produced three characteristics: teacher effectiveness, student engagement, and retention and graduation rates.

Teacher effectiveness underscores the critical role teachers play in shaping the quality of education and the academic achievements of students through their instructional practices, pedagogical skills, and overall effectiveness in the classroom. Sudarmo [11] discussed human resources management and leadership for public services, highlighting the central importance of teacher effectiveness in educational quality and student outcomes. Sudarmo emphasized that effective management of teachers, including recruitment, training, and support, is essential for ensuring that educators possess the necessary skills and competencies to positively influence student learning and achievement.

In addition, Edvardsson and Durst [8] conducted a systematic literature review on human resource management in crisis situations, with implications for the educational sector. They stressed the critical role of teacher effectiveness in navigating crises and maintaining continuity of learning for students. During challenging times, effective

teachers are instrumental in adapting instructional methods, providing support to students, and fostering resilience, thereby contributing to positive student outcomes despite adverse circumstances.

Student Engagement refers to the extent to which students are actively involved and invested in their learning experiences, both inside and outside the classroom, leading to positive academic outcomes and overall educational success. Hidir, Zunaidi, and Pattiasina [15] explored human resources management strategies in implementing good government practices, which are applicable to educational settings. They emphasized the role of student engagement in driving educational quality and outcomes. Effective HRM practices, such as recruiting and retaining high-quality teachers, professional providina development opportunities, and fostering supportive school environments, can enhance student engagement contribute to improved academic performance.

Moreover, Phiri and Phiri [16] investigated strategic human resource management practices and organizational performance, highlighting the importance of student engagement educational settings. They argued that student engagement is a key determinant of educational quality and student outcomes. Educational institutions should implement HRM practices that promote student-centered learning approaches, personalized instruction, and meaningful studentinteractions to enhance student engagement and academic achievement.

Further, Nugroho (2022) discussed the role of resources management from organizational perspective, emphasizing impact of HRM practices on student engagement and educational quality. Nugroho suggested that educational institutions need to prioritize HRM strategies that foster a supportive and inclusive learning environment, where students feel valued, motivated, and actively engaged in their education. By investing in teacher professional development, curriculum innovation, extracurricular activities, educational institutions can enhance student engagement and ultimately improve student outcomes.

Marler, Vardaman, and Allen [17] also reviewed human resource management in family firms, highlighting the importance of student engagement in educational quality and outcomes. They suggested that HRM practices, such as teacher training and development, performance feedback mechanisms, and student support services, play a crucial role in promoting student engagement and academic success. Educational institutions should focus on creating opportunities for student involvement, participation, and collaboration to enhance engagement and maximize learning outcomes.

Retention and Graduation Rates refers to the ability of educational institutions to retain enrolled students and ensure their successful completion of academic programs, which directly contributes to the overall quality of education and student outcomes. Further, Neamat [12] discussed human resource management with strategic development, emphasizing the role of HRM practices in improving retention and graduation rates. Neamat suggested that effective HRM strategies. such as faculty development programs. student support services. academic advising, can positively impact student retention and increase graduation rates. By implementing proactive measures to support students throughout their academic journey, educational institutions enhance can educational quality improve student and outcomes.

Similarly, El-Dirani, Houssein, and Hejase [13] conducted an exploratory study on the role of human resources management in the process of change, which includes considerations for improving retention and graduation rates. They highlighted the importance of aligning HRM practices with student needs and expectations to foster a supportive learning environment conducive to student success. Educational institutions should implement HRM strategies that promote student engagement, motivation, and persistence, ultimately leading to higher retention and graduation rates.

Meanwhile, Marler, Vardaman, and Allen [17] reviewed human resource management in family firms, addressing the relevance of HRM practices in educational settings. They emphasized the significance RM practices such as faculty development, performance management, and organizational culture in influencing retention and graduation rates. Educational institutions should invest in HRM initiatives that prioritize faculty satisfaction, student engagement, and academic support to improve retention and graduation outcomes.

Nevertheless. Tolstvakova and Batvrova [18] discussed strategic management of human modern conditions, including resources in considerations for enhancing retention and graduation rates in educational institutions. They highlighted the importance of HRM strategies that focus on building strong relationships between faculty, staff, and students, fostering a sense of belonging and support within the educational community. By implementing targeted HRM interventions. educational institutions can address barriers to retention and graduation, ultimately improving educational quality and student outcomes.

Organizational Performance and Efficiency. This theme is directly impacted by the efficacy of human resource management practices, which aim to streamline processes, optimize resource allocation, and foster a culture of innovation, thereby enhancing overall institutional effectiveness and achieving educational goals efficiently. Three traits emerged from this theme: employee satisfaction and morale, reduction in staff turnover, and efficient resource allocation.

In terms of employee satisfaction and morale, Sudarmo [11] discussed human resources management and leadership for public services, emphasizing the significance of employee satisfaction and morale in enhancing organizational performance. He suggested that fostering a positive work environment, providing opportunities for professional growth, and recognizing employee contributions are essential HRM practices that can contribute to higher levels of employee satisfaction and morale in educational institutions. When employees feel valued and motivated, they are more likely to perform at their best, leading to improved organizational performance.

Likewise, Edvardsson and Durst [8] conducted a systematic literature review on human resource management, including its relevance during crisis situations, which can be applied to educational context. They highlighted importance of maintaining employee satisfaction and morale during crises as a means of ensuring organizational resilience and continuity. Effective HRM practices, such communication, employee support initiatives, and recognition programs, can help boost morale and foster a sense of stability and cohesion among employees during challenging times.

Meanwhile, El-Dirani, Houssein, and Heiase [13] the role of human resources management in the process of change. underscoring the importance of employee satisfaction and morale in facilitating successful organizational transformations. They suggested that involving employees in decision-making processes, providing adequate support and and addressing concerns resources. grievances are critical HRM strategies for maintaining high levels of satisfaction and morale during periods of change within educational institutions.

Crawshaw, Budhwar, and Davis [14] also provided strategic and international perspectives on human resource management, emphasizing the link between employee satisfaction and organizational performance. They advocated for strategies that prioritize employee well-being, engagement, and job satisfaction to organizational efficiency effectiveness. Educational institutions should invest in initiatives such as employee development programs, work-life balance initiatives, and supportive leadership practices to promote higher levels of satisfaction and morale among staff.

Whereas, Marler, Vardaman, and Allen [17] reviewed human resource management in family firms, addressing the relevance of HRM practices in educational settings. They highlighted the role of HRM practices such as performance management, compensation, and organizational culture in influencing employee satisfaction and morale. By implementing HRM strategies that promote a positive work environment and address the needs and concerns of employees, educational institutions can improve overall organizational performance and efficiency.

In terms of reduction in staff turnover, Neamat [12] discussed human resource management with strategic development, highlighting the importance of reducing staff turnover organizational performance. He emphasized that high turnover rates can disrupt organizational continuity, decrease productivity, and increase recruitment and training costs. Effective HRM strategies, such as talent management, career development, and employee engagement initiatives, can help turnover enhance mitigate rates and organizational efficiency in educational settings.

In addition, Crawshaw, Budhwar, and Davis [14] provided strategic and international perspectives on human resource management, addressing the relevance of reducing staff turnover in education. They suggested that high turnover rates can negatively affect the quality of education and student outcomes by destabilizing faculty teams disrupting institutional culture. practices such as employee retention programs, competitive compensation packages, supportive leadership can contribute to reducing turnover rates and improving organizational performance and efficiency in educational institutions.

Moreover, Marler, Vardaman, and Allen [17] reviewed human resource management in family firms, discussing the impact of turnover on organizational effectiveness. They highlighted the costs associated with turnover, including recruitment expenses, productivity losses, and knowledge drain. Marler et al. [17] suggested that educational institutions should invest in HRM practices that address the root causes of turnover, such as job dissatisfaction, lack of career advancement opportunities, and poor work-life balance, to improve organizational performance and efficiency. Also, Tolstyakova Batyrova explored strategic and [18] management of human resources in modern conditions, emphasizing the importance of staff turnover for organizational sustainability. They discussed the adverse effects of turnover on organizational stability and reputation and propose HRM strategies aimed at enhancing employee retention. By fostering a supportive work environment, providing opportunities for career growth, and recognizing employee contributions, educational institutions can reduce turnover rates and improve overall organizational performance and efficiency.

Moreover, for efficient resource allocation, Edvardsson and Durst [8] conducted a systematic literature review on human resource management, including its relevance during crisis situations, which can be applied to educational context. They emphasized the importance of efficient resource allocation in ensuring organizational resilience sustainability, particularly during crises. Effective HRM practices, such as budget planning, workforce optimization, and performance measurement, can help educational institutions allocate resources efficiently to maintain operational continuity and adapt to changing circumstances.

On the other hand, El-Dirani, Houssein, and Heiase [13] explored the role of human resources management in the process of change, underscoring the significance of efficient resource allocation in facilitating successful organizational transformations within education. They highlighted that HRM practices, such as strategic workforce planning, talent management, and cost-effective training programs, play a crucial role in optimizing resource utilization and enhancing organizational performance efficiency. By aligning resource allocation with organizational priorities and objectives. educational institutions can ensure that resources are allocated effectively to support teaching, learning, and research activities.

Innovation and Adaptation. This theme underscores the transformative role of human resource management in fostering a culture of creativity, continuous learning, and change, driving response to educational institutions towards sustainable growth and relevance in a rapidly evolving landscape. This subject is divided into two characteristics: adaptability to change and promotion of lifelong.

For adaptability to change, Sudarmo [11] explored human resources management and leadership for public services, emphasizing the importance of adaptability to change educational institutions. He suggested that HRM practices should foster a culture of innovation empowering and flexibility, employees embrace change, experiment with new continuously approaches, and improve and promoting processes services. Βv adaptability, educational institutions can better navigate challenges, seize opportunities, and enhance overall organizational performance.

Edvardsson and Durst [8] delved into human resource management in crisis situations, underscoring the critical role of adaptability in organizational resilience. They argued that during crises, such as natural disasters or pandemics, educational institutions must be adaptable to rapidly changing circumstances, such as transitioning to online learning or implementing remote work arrangements. Effective HRM practices, such as agile workforce planning, communication strategies. and emplovee support initiatives, can help educational institutions adapt to change and maintain continuity in their operations.

Further, Crawshaw, Budhwar, and Davis [14] provide strategic and international perspectives on human resource management, discussing the relevance of adaptability to change in education. They highlighted the dynamic nature of the landscape, characterized educational by technological advancements, demographic shifts, changing student expectations. HRM practices, such as training and development programs, change management strategies. collaboration initiatives, can educational institutions to anticipate and respond proactively to changes, driving innovation and adaptation.

Lastly, effective human resource management could impact *promotion of lifelong learning*. This entails fostering a culture and environment within educational institutions that encourages continuous learning, skill development, and knowledge acquisition among employees, students, and stakeholders.

In relation, El-Dirani, Houssein, and Heiase [13] conducted an exploratory study on the role of human resources management in the process of change, emphasizing the importance promoting lifelong learning in educational organizations. They suggested that HRM practices should support ongoing employee development initiatives, such as training programs, workshops, and mentorship opportunities. to enhance individual and organizational adaptability to change. learning. prioritizina lifelong educational institutions can equip their workforce with the necessary skills and competencies to thrive in a rapidly evolving landscape.

Also, Hidir, Zunaidi, and Pattiasina [15] delved understanding human resources management strategy in implementing good government practice, which has implications for education. They highlighted the significance of fostering a learning culture within educational institutions to promote innovation and adaptation. HRM strategies that emphasize continuous learning, knowledge sharing, and experimentation can enable educational organizations to respond effectively to emerging challenges and opportunities, driving sustainable growth and development.

Lastly, Nugroho (2022) discussed the role of human resources management in organizational perspective, stressing the importance of lifelong learning for organizational success. He argues that educational institutions must prioritize employee development and skill enhancement to remain competitive and relevant in the education sector. By investing in professional development initiatives, such as seminars, conferences, and online courses, educational organizations can empower their employees to adapt to changing trends and technologies, fostering a culture of innovation and continuous improvement.

4. CONCLUSION

This study aimed to provide a comprehensive review based on the various literature on the challenges, strategies, and impact of human resource management in educational institutions. To follow the systematic process, this paper utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). This serves as a guide in identifying the inclusion and exclusion criteria of relevant works.

In searching for relevant works, this paper utilized Google Scholar. The time frame was 2020-2024. During the data collection process, the authors searched varied sources to satisfactorily support the existing reviews and remove the duplicated ones. All references were documented accordingly for better search. Journals were carefully examined to extract data carefully.

Given the 10 reviewed articles from the eight countries, this paper carefully analyzed the data through thematic analysis. researchers formulated themes for the challenges, strategies, and impact of human resource management in education. Three themes emerged for the challenges human resource management, recruitment and retention challenges, workforce inclusion, and professional diversity and development and training. On the other hand, in management of human resource strategies, three themes appeared, namely: talent acquisition and retention, performance management and evaluation, and change management and adaptation. Finally. three themes about the impact of human resource management in education emerged educational quality and organizational performance outcomes. efficiency, and innovation and adaptation. These findings expressed the importance of human resource management in controlling and directing resources to perform school operations effectively.

With generated themes from the the journals, human resource management plays a significant part in governing educational institutions. However, challenges due to the recruitment and retention challenges, workforce and inclusion, and professional development and training hinder to the effective human resource management. Thus, systematic review offers the strategies and impact of resource management for educational key players' guides. This also serves as inspiration for every educational leader to apply appropriate human management strategies whenever needed. In addition, this paper opens more opportunities for future researchers to focus more on the strategies to actively overcome the challenges presented in this review, specifically in overcoming inappropriate management approaches. Moreover, can also delve into perspectives of school leaders with regard to the challenges they encountered to understand underlying causes, act on these as immediate as possible, and prevent these from occurring. Furthermore, it would also be interesting to delve into issues and techniques of school leaders in managing other resources not covered in this study like financial, physical, and technological resources which are equally vital in realizing educational goals and objectives.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative Al technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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