

A Critical Review of Literature on Human Resource Information Systems in Developing Countries: Trends, Gaps, and Future Directions

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Abstract: *The increasing adoption of Human Resource Information Systems (HRIS) in organizations has significantly transformed HR functions worldwide. Although HRIS research has been extensively conducted in developed countries, studies in developing economies remain limited and mostly unexplored. This review paper aims to identify the key trends, gaps, and future research directions by critically analyzing the published literature on HRIS particularly in developing countries. Following the PRISMA 2020 guidelines, this study identified and analyzed 90 peer-reviewed studies published between 2007 and 2025 from the Scopus and Web of Science databases. The bibliometric analysis highlights an upward trend in HRIS research, with authors and sources databases. Thematic synthesis uncovers four primary research domains, first, HRIS adoption factors and challenges, second, HRIS impact on organizational efficiency, third, HRIS and employee behavioral predisposition, and fourth, HRIS improves HR functions. Moreover, HRIS research in developing countries has mostly relied on cross-sectional surveys. Therefore, the review underscores the need for longitudinal and comparative studies, multi-level analyses, and exploration of the strategic roles of HRIS. Accordingly, this study contributes to the academic discourse by providing a structured synthesis of HRIS literature in developing countries and proposing a future research agenda to address existing knowledge gaps.*

Keywords: *Human Resource Information Systems (HRIS), developing countries, HR technology, adoption challenges, organizational efficiency, bibliometric analysis.*

1. Introduction

Recent trends in academia postulate that Human Resource Information Systems (HRIS) are indispensable tools for organizations to manage Human Resources (HR) due to the exponential increase in social, local, and global use of Information Systems (IS) (Kavanagh

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& Johnson, 2017; Srivastava et al., 2021; Srivastava & Bagga, 2014). HRIS has thus become a requirement to ensure daily operational activities and capabilities for efficient HR data management, HR decision-making, and strategic HR planning. A plethora of studies conducted on HRIS adoption and HRIS implementation has supported the performance of HRIS in improving responses to workforce challenges, productivity, and employee performance, mostly conducted in developed countries (Begum et al., 2020; Normalini et al., 2012; Noutsu et al., 2017; Quaosar & Rahman, 2021; Srivastava et al., 2021; Suwaji et al., 2024).

Such a paucity of research on HRIS in developing countries is for several reasons, first, developing country has poor IT awareness, HRIS specialists, and HRIS enabled-IT infrastructure which restrict actual data to the IS researcher to conduct research on HRIS in developing countries (Matimbwa & Masue, 2019; Alam et al., 2016; Dilu et al., 2017). Second, Azam (2015) elucidated that sophisticated technologies are often defined and implemented by a small group of specialists which limits the number of studies in this context. Additionally, many organizations in developing countries lack the necessary technological infrastructure, financial resources, and employee expertise required for effective HRIS adoption and implementation (Kanini et al., 2019).

However, in recent years, HRIS research has grown significantly due to the rise of Industry 4.0 and HRM 4.0. Upon searching for the Scopus database and Web of Science, compared to studies in developed countries, there were a few but an upward trend in the number of research endeavors has been observed. For instance, Rahman et al. (2016) and Quaosar et al. (2018) explored the factors influencing HRIS adoption in developing countries, identifying compatibility, complexity, trial ability, and visibility as significant determinants of HRIS use. Similarly, Morrison et al. (2020) and Alzghoul et al. (2023) highlighted the functional and performance-related impacts of HRIS.

Despite the growing significance of HRIS, most prior studies are limited in three critical ways. First, there is an over reliance on cross-sectional survey designs, which restrict understanding of long-term HRIS impacts and causal relationships. Second, individual-level insights, particularly the perspectives of HR professionals and employees, are largely absent. Third, current research primarily emphasizes the administrative functions of HRIS, with insufficient exploration of its strategic role in talent development, analytics, and competitive positioning. Given these limitations and the growing academic interest in HRIS within developing countries, there is a clear need for a comprehensive critical review that not only synthesizes existing findings but also identifies emerging trends, exposes research gaps, and outlines a forward-looking agenda to guide future investigations in this context.

The urge for a critical review is essential because a critical literature review is defined as a rigorous analytical process that identifies patterns, critiques theoretical and methodological approaches, and synthesizes insights to uncover knowledge gaps and shape future inquiry (Karunaratna et al., 2024). Critically evaluating literature helps researchers identify recurring themes, limitations, and inconsistencies in current findings, and proposing avenues

for future directions (Karunaratna et al., 2024). Specifically, the identification of trends reveals the evolution of scholarship, gaps highlight areas that are underexplored or inconsistent, and future directions propose pathways to address those limitations. Therefore, these three elements, i.e., trends, gaps and future directions, are fundamental to the critical reviews, a comprehensive understanding of existing knowledge and its prospects. Moreover, critical review also evaluates the theoretical framework and methodologies, culminating new approaches and captivating the complexities of the subject matter from contextual perspectives (Banerjee, 2024). However, few studies have contextualized HRIS research. Therefore, conducting critical literature reviews on HRIS within developing country contexts is essential to advance academic discourse and contribute meaningfully to the body of knowledge.

Based on the identified literature gaps, this study adopts a critical review approach to address two key research questions (RQs): *what are the current trends in HRIS research within developing countries? Which methodological and contextual gaps exist in HRIS research in developing countries?* To systematically explore these questions through a critical synthesis of existing studies, the following research objectives (ROs) are formulated:

RO1: To examine the current trends and themes in HRIS research within developing countries.

RO 2: To identify the key gaps and limitations in existing studies in developing countries.

RO 3: To propose future research directions that can help comprehend the understanding of HRIS in developing countries.

Therefore, the objective of this research is to address the literature gap by conducting a critical review of studies on HRIS in developing countries. Rather than merely summarizing existing studies, this critical review applies a rigorous evaluative lens to examine recurring themes, assess methodological strengths and weaknesses, and uncover contextual and theoretical gaps. It provides a much-needed synthesis to bridge the knowledge gap and inform policymakers, HR leaders, and researchers.

There are several contributions this study expects. First, it provides a critical examination of HRIS applications and adoption trends, highlighting not only what has been studied but also what remains underexplored in emerging economy contexts. Second, it synthesizes and categorizes diverse streams of HRIS research, critically analyzing their contributions, limitations, and methodological approaches. Third, it advocates the future directions of HRIS studies to enhance research perimeter in the case of HR technology to foster HR 4.0 and sustainability. This critical review is structured in the following pattern. The first section is the introduction and in the second section, the methodology has been outlined in section 2. Bibliometric analysis has been depicted in section 3. After that in section 4, the synthesis and discussion of the studies have been illustrated. At last, the review ends with conclusions with future research directions.

2. Methodology

The natural optimism of a researcher lies in writing a critical review by employing a systematic approach that identifies, analyzes, and synthesizes pertinent literature (Spicer & Alvesson, 2025). Therefore, this review process follows the PRISMA guidelines widely used by the research community, as postulated in Figure 1 (Banerjee, 2024; Gill et al., 2024; Karunarathna et al., 2024).



Figure 1: The Critical Review Process (Gill et al., 2024)

Particularly, the PRISMA 2020 framework has been followed where the relevant literature is systematically identified, selected, and synthesized to examine HRIS in developing countries. The structured methodology allows for a comprehensive analysis of HRIS in developing countries facilitates critical appraisal. Additionally, the PRISMA checklist (Annex 2) provides a standardized approach to evaluating the included studies, ensuring rigor and consistency of this review.

This review process starts with a systematic approach employed to ensure the inclusion of high-quality published papers from the Scopus database. The search strategy is carefully designed to maximize the selection of relevant studies while excluding unrelated and unpublished works. Table 1 shows the inclusion and exclusion criteria of the search strategy.

Table 1

Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Publication Type	Published articles, reviews, book chapters and conference proceedings	Unpublished works, conference reviews
Language	English	Non-English languages
Relevance	Directly related to Human Resource Information Systems	Articles that explore other unrelated information systems or HR technologies not categorized as HRIS
Accessibility	Peer-reviewed and publicly available sources till 2025	Restricted or non-peer-reviewed materials

This review involves retrieving the relevant earlier studies conducted on HRIS from the context of developing countries. The search used the Web of Science (WoS) and Scopus database with selective keywords¹:

- “Human Resource Information System” OR “Human Resource Information Systems”
- AND
- “developing countries” OR “emerging economies” OR “low-income countries” OR “third-world countries” OR “Bangladesh ”OR “India” OR “Pakistan” OR “Nepal” OR “Sri Lanka” OR “Afghanistan” OR “Myanmar” OR “Vietnam” OR “Philippines” OR “Indonesia” OR “Thailand” OR “Malaysia” OR “Cambodia”²

Upon searching, a total of 90 peer-reviewed journal articles published between 2007 and 2025 were identified, with the first paper in this cohort published in 2004.

The next step involved systematically extracting data according to RQs and ROs. Key data points, including research objectives, methodologies, findings, and contextual arguments, were documented using a structured data extraction template. The analysis followed a thematic synthesis approach to identify recurring themes and trends across the studies. The quality of the selected studies was evaluated using the PRISMA checklist to ensure methodological rigor and relevance to the research topic.

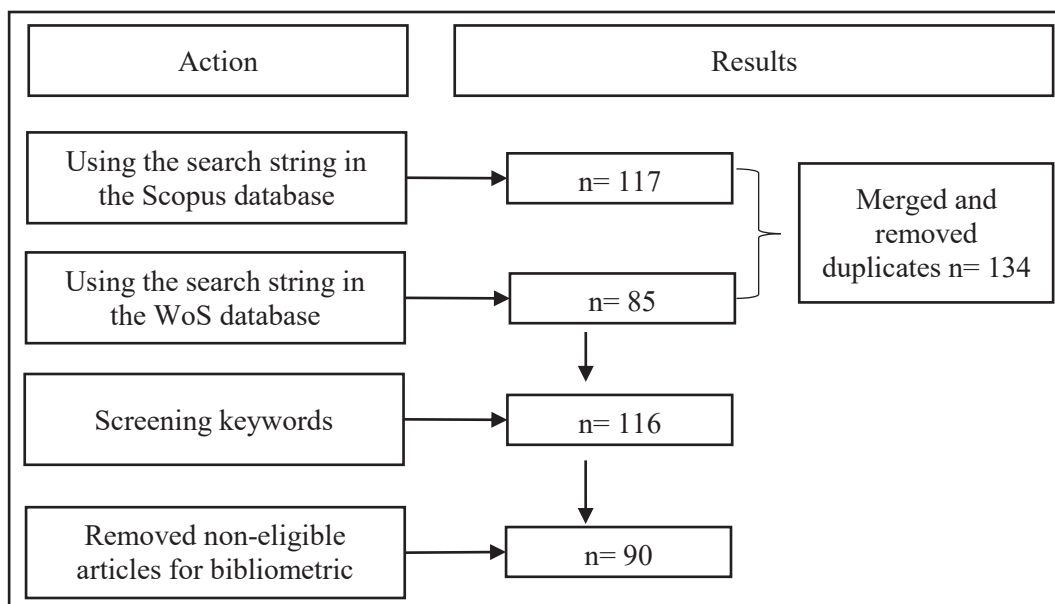


Figure 2: Article Selection Process

¹UN M49 classification has been used to define developing country.

² Search string uses 144 developing countries to identify the literature of HRIS in developing countries.

3. Theoretical and Conceptual Framework

The critical review of HRIS literature in developing countries warrants a theoretical lens to synthesize HRIS-related research outcomes. Many theoretical lenses such as the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Technology-Organization-Environment (TOE), Task-technology fit (TTF), and Diffusion of Innovation (DOI) framework frequently underpinned studies in this domain. However, these models are often applied without critical evaluation of their contextual fit. For example, TAM's emphasis on individual perceptions may be less relevant where structural and infrastructural constraints dominate technology adoption. Similarly, UTAUT overlooks macro-level factors such as regulatory barriers and digital readiness.

Additionally, theory explains the spread and integration of HRIS based on innovation and adoption characteristics. Few studies integrate HR-specific constructs like strategic HRM alignment, talent management, or employee behavioral outcomes. This theoretical fragmentation limits the development of a holistic understanding of HRIS in these settings. Therefore, this review critically examines the literature through a multi-theoretical lens to uncover patterns, gaps, and opportunities for more contextually grounded theory building.

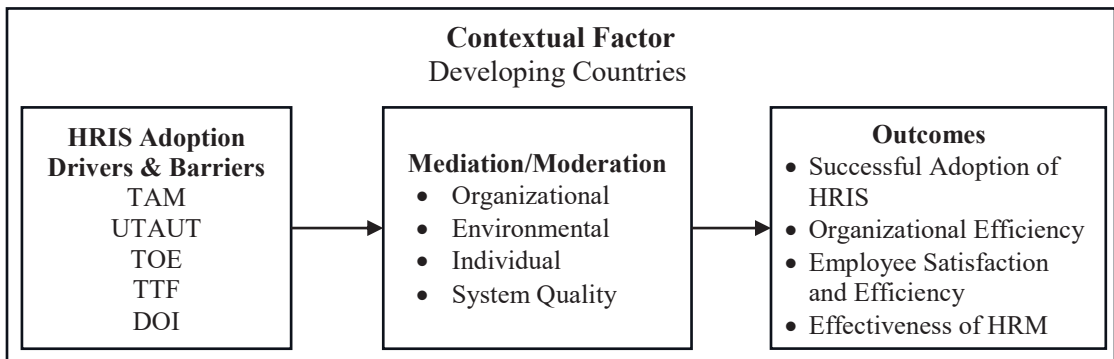


Figure 3: Conceptual Framework

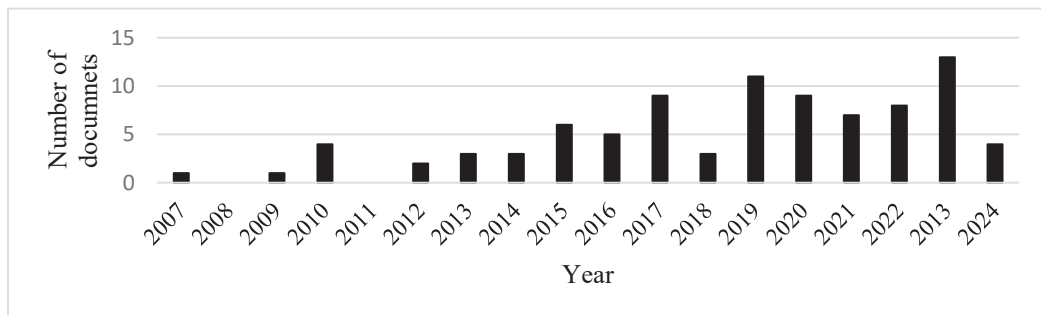
4. Bibliometric Analysis

4.1 Annual Publication Trends

This study covered literature based on the data set spans from 2007 to 2025, encompassing 74 sources and 90 documents employing inclusion and exclusion criteria. The dataset reflects a moderate level of research activity with an average document age of 6.44 years and an average of 7.678 citations per document. Authorship analysis indicates 270 contributing authors, with only 16 single-authored documents, and a significant international collaboration rate of 27.78%. Most documents are journal articles (74), followed by conference papers (24), and book chapters (4).

Table 2**Basic Bibliometric Information**

Timespan	2007:2025
Sources (Journals, Books, etc)	74
Documents	90
Document Average Age	6.44 years
Average citations per doc	7.678
References	3759
Keywords Plus (ID)	422
Authors	270
Single-authored docs	16
Co-Authors per doc	3.22
International co-authorships %	27.78
Article	62
Book chapter	4
Conference paper	24

**Figure 4: Annual Publication Trends****4.2 Most Relevant Publication Sources**

Understanding the key publication sources is crucial for assessing the current research landscape and its interdisciplinary nature (Alzyoud et al., 2025). Figure 4 highlights the most prominent journals that published articles on HRIS from the developing country contexts. Human Resources for Health (5 articles), Cogent Business and Management (3), and International Journal of Business Innovation and Research (3). Other major contributors include the International Journal of Asian Business and Information Management, and Problems and Perspectives in Management, highlighting the role of HRIS in institutions in advancing research in this domain.

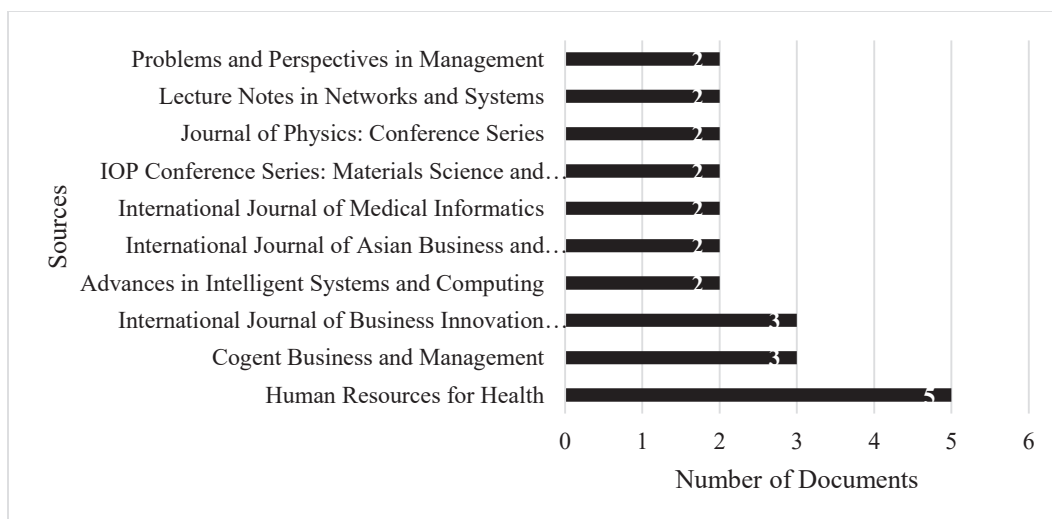


Figure 5: Most Relevant Sources

4.3 Leading Institutions

In the case of producing research papers on the HRIS from the developing country context, the leading institutions are the Graphic Era Deemed To Be University (8 articles), Brunel University (6 articles), and the Emory University Kenya Health Workforce Project (6 articles). Other significant contributors are the Center for Global Health (5 articles), International Centre for Diarrhoeal Disease Research (5 articles), and the University of Cape Coast (5 articles). Institutions such as Bina Nusantara University, Covenant University, and Khadim Ali Shah Bukhari Institute of Technology have each contributed 4 articles.

Table 3

Leading Institutions

Affiliation	Articles
Graphic Era Deemed To Be University	8
Brunel University	6
Emory University Kenya Health Workforce Project	6
Center for Global Health	5
International Centre for Diarrhoeal Disease Research	5
University of Cape Coast	5
Bina Nusantara University	4
Covenant University	4
Khadim Ali Shah Bukhari Institute of Technology	4
International Centre for Diarrhoeal Disease Research	5

4.4 Most Relevant Authors

The most relevant authors who have conducted studies on HRIS from the developing country contexts are Kirinya R leads with 5 publications, followed by Al-Dmour RH, Riley PL, and Waters KP, each with 4 publications. Several other authors, including Love S, Oluoch T, and Rakuom C, have contributed 3 publications each. This distribution highlights key researchers shaping the field, with some authors playing a more central role in advancing knowledge in the domain.

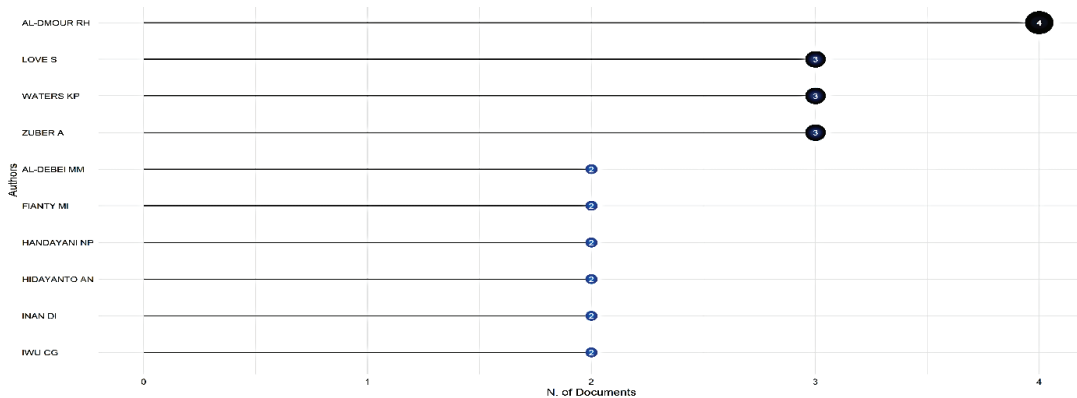


Figure 6: Most Relevant Authors

4.5 Three-field Plot

Figure 7 presents a three-field plot illustrating the relationships among authors (left), countries of collaboration (middle), and research keywords (right) using a Sankey diagram. Many bibliometric studies have used a Three-field plot to provide a visualization of how authors are connected to specific countries and key thematic areas, such as in this study, HRIS research (Dhingra et al., 2024). The analysis reveals that Kenyan researchers have a strong association with topics such as HRIS and Human Resources for Health. Similarly, authors from the USA, India, and other nations are linked to various HR and information system-related subjects. The figure highlights existing research collaborations while identifying potential areas for future interdisciplinary and cross-border studies.

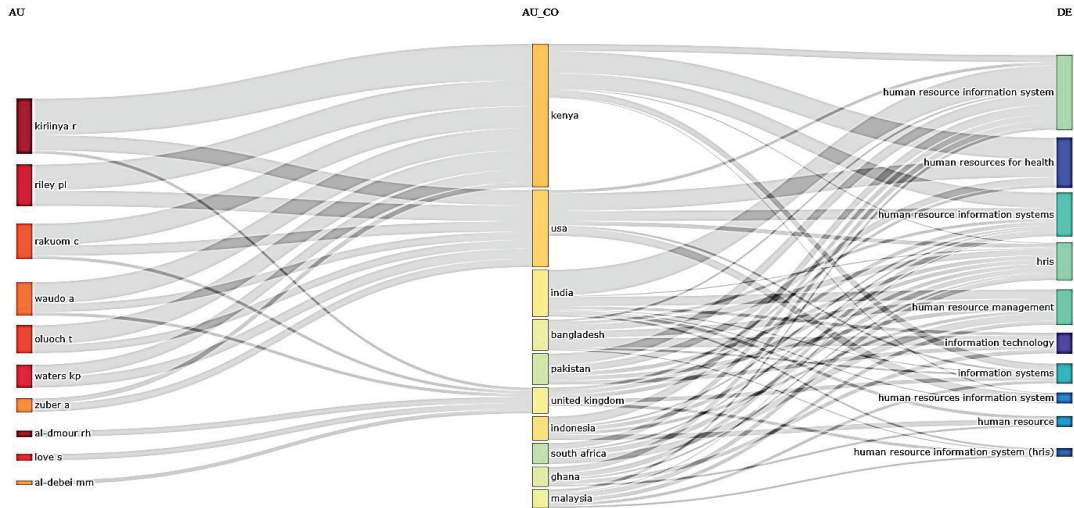


Figure 7: Three-field Plot

5. Synthesis and Discussion

In order to provide a comprehensive overview of the research progress on HRIS in developing country contexts, this review is sorted by thematic categories based on the pertinent research focus. There are four primary themes found in that research from this geographical context, such as HRIS adoption factors and challenges, HRIS and organizational efficiency, HRIS and employee behavioral predisposition, and HRIS and HR functions. A comparison of the selected articles is presented in Annex 3.

5.1 HRIS Adoption Factors and Adoption Challenges

Studies on HRIS in developing countries focus on factors influencing HRIS adoption, the intention to use HRIS, and the actual utilization of these systems. Various technology acceptance models, including the TAM, TOE, UTAUT, and DOI theory, have been used to understand the HRIS adoption dynamics (Alam et al., 2016; Dilu et al., 2017; Normalini et al., 2012; Noutsu et al., 2017; Quaosar et al., 2018; Roach & Davis-Cooper, 2016; Shahreki & Lee, 2024). Table 4 sheds light on the HRIS adoption factors found in the existing literature.

Table 4

HRIS Adoption Factors

Adoption Factors	References
Relative advantage, Compatibility, Complexity, Trial ability, Visibility, Extent of HRIS use, Information responsiveness, Information autonomy, External professional link	Normalini et al. (2012)

IT infrastructure, Top management support, IT capabilities of staff, Perceived cost, Competitive pressure	Alam et al. (2016)
Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Behavioral intention, Use behavior	Rahman et al. (2016)
Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Behavioral intention, Use behavior, Job satisfaction, Turnover intention	Quaosar et al. (2018)
Performance expectancy, effort expectancy, social influence, facilitating conditions	Noutsa et al., (2017)
Relative advantage, compatibility, complexity, visibility	Handayani et al. (2021)
Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Task technology fit, Behavioral intention	Shahreki and Lee (2024)

The adoption factors outlined in Table 4 reflect constructs from theoretical underpinnings such as TAM, UTAUT, DOI, and TOE. However, these models are often limited to end user-level acceptance and disregard broader organizational realities. For example, Rahman et al. (2016) found that performance expectancy and social influence significantly affect HRIS adoption. However, their use of a cross-sectional survey with managerial self-reports introduces risks of social desirability and common method bias. Normalini et al. (2012) emphasized relative advantage and complexity as critical adoption factors using DOI theory. Yet, their methodological approach does not account for cultural or organizational readiness, key variables in resource-constrained settings.

Moreover, studies on the adoption of HRIS in developing countries cannot be generalized due to the limited consideration of contextual factors. For instance, the sample used by Rahman et al. (2016) was restricted to banks, which may not reflect the broader diversity of SMEs or public organizations in developing countries. Although Normalini et al. (2012) tested DOI constructs quantitatively, the absence of qualitative insights constrains the understanding of how these factors function in practice. Furthermore, few studies have attempted to integrate HR-related outcomes, such as workforce analytics, strategic agility, or long-term talent development into these frameworks. Such theoretical fragmentation results in a partial understanding of HRIS adoption in the context of developing countries.

Many studies have also attempted to find out the challenges that organizations face in implementing HRIS in developing countries. Many of them found lack of digital infrastructure, outdated IT systems, and insufficient training among employees are the prime barriers to adopting HRIS in the organization (Li et al., 2020; Osei Nyame & Boateng, 2015; Sarker et al., 2019). Additionally, the lack of technical expertise within organizations prevents effective system utilization, leading to inefficiencies and underuse of HRIS functionalities (Li et al., 2020; Were et al., 2019). Resistance to change among employees further complicates adoption, as many may be hesitant to transition from traditional HR

practices to digital solutions (Bamel et al., 2014; Driessen et al., 2015; Handayani et al., 2021). Beyond the resistance, limitation of funds, data security, and privacy, lack of standardized policy are also major impediments to adopting HRIS in developing countries (Chakraborty & Khan, 2019; Haeruddin, 2017; Osei Nyame & Boateng, 2015). Most importantly, especially for SMEs in developing countries, unawareness and low priority of HRIS are the main barriers to adopt HRIS (Osei Nyame & Boateng, 2015).

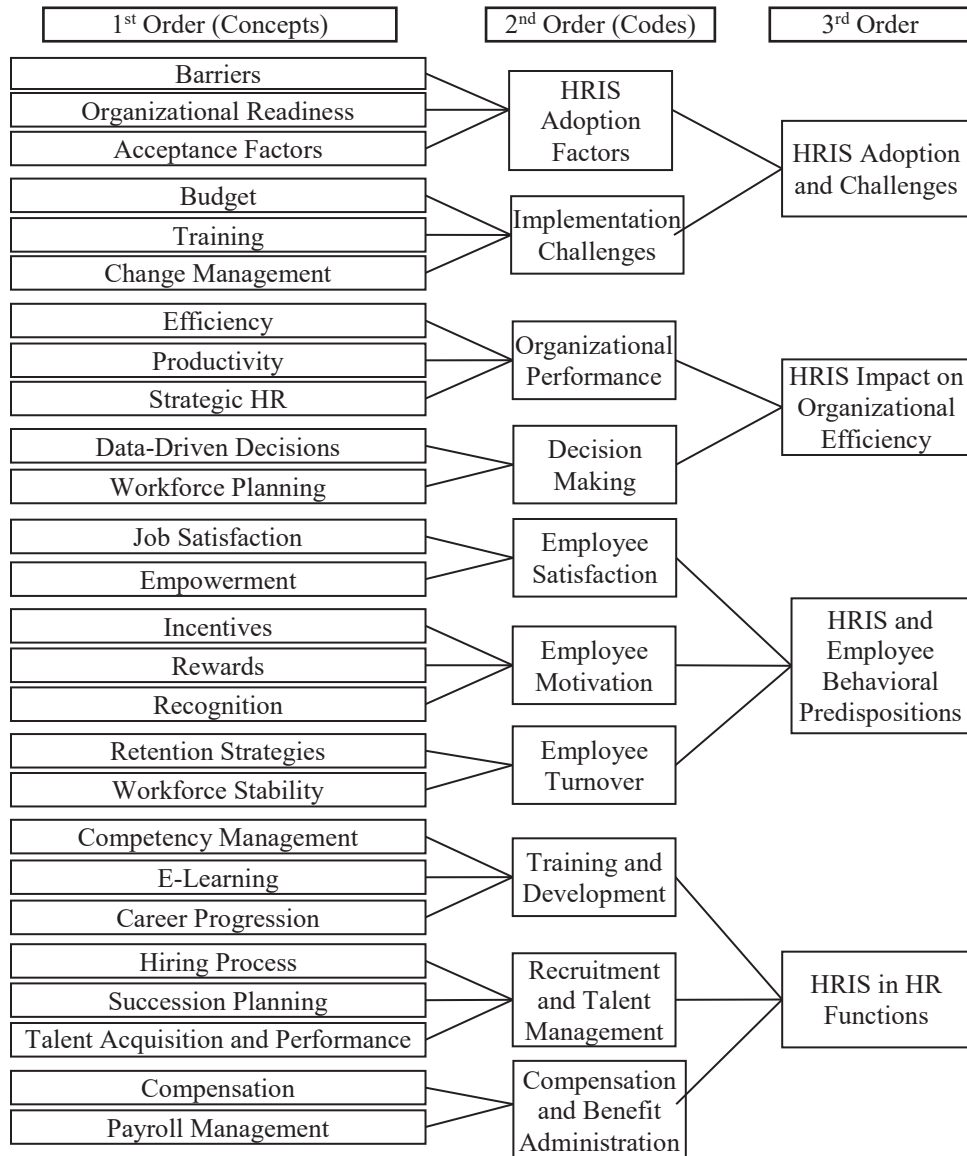


Figure 8: Themes of HRIS Studies in Developing Countries

5.2 The Impact of HRIS on Organizational Efficiency

A plethora of studies prove the relationship between HRIS and organizational performance, i.e., operational performance, relational performance, and transformational performance (Alam & Kashem, 2022; Bamel et al., 2014; Beulen, 2009; Chakraborty & Khan, 2019; Driessen et al., 2015; Handayani et al., 2021; Ismail et al., 2023; Kaur et al., 2024; Morrison et al., 2020; Normalini et al., 2012; Spero et al., 2011; Udekwe et al., 2024). Regarding operational performance, HRIS improves data accuracy and manual errors, facilitates faster information processing, better administrative performance, and reduces HR-related costs (Dmour, 2020; Dmour et al., 2015, 2016; Driessen et al., 2015; Gupta et al., 2022; Udekwe et al., 2024). The integration of HRIS has also facilitated better data management, reducing errors and redundancies that often arise in manual HR processes. Noutsu et al. (2017) highlight that HRIS adoption in organizations improves workflow efficiency and communication among employees, fostering a more coordinated approach to human resource management. Morrison et al. (2020) applied mixed methods on the selected banks in Ghana and found three applications of HRIS, such as administrative, tactical, and strategic, and found a strong positive relation to the bank performance. Similarly, Alzghoul et al. (2023) found that HRIS positively impacts organizational success in Jordanian banks, with a significant moderating effect on organizational citizenship behavior (OCB). Furthermore, the successful adoption of HRIS is an important ingredient for the competitive strength of an organization (Alam & Kashem, 2022).

Regarding relational performance among employees, HRIS impacts employee engagement, reduces response time, and enhances workforce planning (Dmour, 2020; Driessen et al., 2015; Handayani et al., 2021; Spero et al., 2011; Waters et al., 2017). Zimbabwe's CDC-supported HRIS largely aligned with WHO MDS but had critical data gaps causing poor HR planning and hence public health outcomes (Waters et al., 2017). This analytical capability enables organizations to make informed strategic decisions that align HR functions with broader business goals. Furthermore, Iwu & Benedict (2013) argue that HRIS enhances decision-making by providing data-driven insights into employee performance and workforce trends, hence not financial overpromise even in the economic recession. At the level of transformational performance, HRIS provides HR analytics for better measurement and calculations of HR predictions, indulges strategic initiatives, and promotes talent management and succession planning (Dmour, 2020; Normalini et al., 2012). Moreover, studies on information systems directly advocate using HRIS for the holistic preview of a country to reduce corruption, citizen hardship, faults, and poverty (Sarker et al., 2019).

5.3 The Impact of HRIS on Employee Behavioral Predisposition

Studies in developing countries also indicate that HRIS contributes to improved employee satisfaction by supporting decision making in the HRM functions (Shyaa, 2019). Such a participative empowerment of HRIS enables employees by fostering a sense of control over their employment-related processes (Maamari & Osta, 2021). Furthermore, HRIS facilitates efficient communication between employees and HR departments, ensuring the prompt

resolution of HR queries and concerns, ultimately leading to higher job satisfaction levels (Rajawat & Sharma, 2022). Similarly, Shayaa (2019) found that implementing HRIS in the hotel industry of Iraq enhances employee efficiency, reduces administrative costs, improves decision-making, and ultimately boosts customer satisfaction and service quality. Studies also conducted on the quality of HRIS applications and its association, such as Srivastava et al. (2021) found that HRIS service quality and perceived usefulness positively influence HRIS system use, while HRIS system quality and perceived usefulness enhance user satisfaction.

The application of HRIS impacts employee satisfaction by designing and managing payroll and creating a link between performance measures with the pay policy effectively, and hence enhances employee motivation (Morrison et al., 2020). Moreover, it is also supported by HRIS upscale reward management systems that significantly boost employee morale and motivation because employees perceive fair and systematic remuneration practices (Morrison et al. 2020). In addition, researchers have taken Organizational Citizenship Behavior (OCB) in the HRIS conceptual framework where they took OCB as a moderating effect (Alzghoul et al., 2023; Shahreki & Lee, 2024). However, Maamari and Osta (2021) found that HRIS enhances job satisfaction but has a limited impact on job involvement, which negatively correlates with HRIS success. On the contrary, HRIS has been leveraged to foster an innovation culture, enabling organizations to boost employee innovation outcomes (Satispi et al., 2023). Moreover, HRIS plays a crucial role in enhancing employee management by influencing psychological empowerment, organizational commitment, and overall workforce efficiency (Shahreki & Lee, 2024).

5.4 Implications of HRIS in HR Functions

HRIS plays a transformative role as well as administrative roles in HR functions such as recruitment, training, and talent management in developing countries (Gupta et al., 2023; Morrison et al., 2020). The recruitment and talent acquisition process has become more efficient with HRIS, allowing organizations to streamline candidate sourcing, track applications, and automate hiring workflows (Sarker et al., 2019). Research indicates that HRIS-enabled recruitment systems reduce hiring time, improve candidate selection accuracy, and enhance employer branding (Sarker et al., 2019). By leveraging AI-driven HRIS solutions, organizations can assess candidate competencies, predict job fit, and ensure a seamless onboarding experience, leading to a more productive workforce (Mohlala et al., 2024). Gupta et al. (2023) conducted a study in India and found that mobile-based biometric identification and GPS tracking, significantly enhance the efficiency, accessibility, and accuracy of attendance monitoring systems and HR management processes.

Key HR functions, including training and development, career planning, payroll management, performance management, and grievance handling, are effectively supported and executed through a well-implemented HRIS, ensuring efficiency and compliance (Likofata Esanga et al., 2017; Mbaidin, 2020; Rajawat & Sharma, 2022). HRIS has been implemented to facilitate effective payroll services and better compensation management. HRIS helps to identify ghost workers who are absent from their work but have taken payment

(Likofata Esanga et al., 2017). Studies suggest that HRIS-integrated learning management systems improve skill development, enhance knowledge retention, and support succession planning (Morrison et al., 2020). By analyzing training needs and monitoring employee development, HRIS ensures continuous learning opportunities, aligning workforce capabilities with business objectives. Furthermore, organizations utilizing HRIS for career progression planning can effectively nurture talent pipelines and foster leadership development within the company. Baswardono et al. (2019) conducted studies in Indonesian SMEs to find out the appropriate design because SMEs face problems in designing and implementing HRIS in the startup stage, relating the importance of HRIS in the HR function for the SMEs. Aloqaily (2022) highlights the significant role of HRIS in enhancing organizational creativity at Amazon, demonstrating a positive statistical impact on performance systems and recommending career advancement for creative employees.

5.5 Methodological Trends and Critique of HRIS Studies in Developing Countries

The analysis of research methods applied by the 90 studies reveals notable patterns and limitations in HRIS research within developing countries. Most studies, around 60%, have adopted quantitative approaches, utilizing cross-sectional surveys. A few studies employ longitudinal or experimental designs, restricting insights into the long-term effectiveness of HRIS. Furthermore, sampling strategies also pose critical limitations. Many studies rely on convenience or purposive samples from urban, large-scale organizations, thereby excluding SMEs and rural contexts. This sampling bias undermines the representativeness of findings. Measurement validity is also a concern. For instance, constructs such as employee satisfaction or HRIS effectiveness are frequently measured through self-reports without external validation that lead to inflated results.

Qualitative approaches, such as case studies and interviews, are underrepresented, although they offer deep contextual insights, especially relevant in resource-constrained environments. Furthermore, mixed-methods studies, which could enrich the understanding of both individual and organizational-level outcomes, remain limited. The prevalent use of models such as TAM, UTAUT, and TOE often aligns with survey designs but lacks integration with organizational and strategic HR constructs. Few studies triangulate data sources or validate instruments across contexts that question measurement validity.

6. Conclusion and Future Research Agenda

6.1 Conclusion

This critical review with bibliometric analysis synthesizes current knowledge of HRIS studies in developing countries, based on 113 documents from the Scopus and WoS database. Through thematic coding, four core areas emerged identified, such as HRIS adoption, organizational efficiency, employee behavioral outcomes, and HRM functions. The proposed conceptual framework integrates these themes and highlights how adoption factors and contextual moderators influence diverse HRIS outcomes. However, strategic HRM functions

and individual-level dynamics remain underexplored. By identifying these gaps, the review offers a roadmap for future research to build more accurate and context-specific insights that can guide effective HRIS implementation in emerging economies.

6.2 Future Research Agenda

Existing studies identify various antecedents and factors of HRIS adoption, however, there is a limited exploration of the mechanisms that connect HRIS use to broader organizational outcomes. Future research should take a more process-oriented approach to examine how HRIS adoption translates into strategic HR capabilities, to leverage data-driven insights for long-term workforce planning. Additionally, most research focuses on the positive impacts of HRIS, with limited attention to potential drawbacks or unintended consequences. For instance, Handayani et al. (2021) highlight mixed findings on job satisfaction and turnover intention, suggesting that HRIS may have both enabling and constraining effects on employees. Maamari and Osta (2021) reported that HRIS enhanced job satisfaction but had a negligible or negative impact on job involvement. A comprehensive investigation into the impacts of HRIS could provide a more balanced perspective on HRIS adoption studies.

This study also found the predominance of cross-sectional surveys of the HRIS studies in developing countries that limit causal inferences regarding HRIS effectiveness. This elucidates the necessity of conducting longitudinal research to capture the evolving impact of HRIS over time. Another key gap is the prime focus on organizational-level analyses, with minimal attention given to individual-level effects on HR professionals and HR executives. Multi-level studies could bridge this gap by providing insights into how HRIS adoption influences workforce productivity within organizations.

The existing studies demonstrate a strong geographical concentration, such as India, Jordan, and Bangladesh, and industries such as public health, banking, and educational institutions. This concentration limits the generalizability of findings. Moreover, HRIS dynamics in underrepresented in SMEs or government HR departments. Future research should address this sector to better capture the heterogeneity of HRIS implementation across developing countries.

Research on HRIS in developing countries is evident according to the global IT needs, however, more comparative studies and also exploratory studies are needed to explore how contextual factors, such as regulatory environments, digital infrastructure, and firm maturity, shape HRIS adoption and outcomes. Furthermore, there is a pressing need to investigate the role of HRIS beyond administrative efficiency, particularly in supporting strategic HR functions such as evidence-based decision-making, workforce analytics, and long-term talent development. Understanding how HRIS adoption varies across firms at different maturity levels, such as from startups to well-established corporations, and also from the organizational size and capabilities can provide critical insights into how organizations can maximize HRIS potential at various stages of growth.

6.3 Implications of the study

This study offers important implications for theory, practice, and policy in the field of HRIS within developing countries. Theoretically, it enriches the HRIS research agenda by critically synthesizing fragmented literature and contextualizing key themes such as adoption drivers, organizational efficiency, employee behavior and HR functions. This contributes to advancing models that reflect the unique institutional and technological landscapes of developing economies. Furthermore, the findings provide HR professionals and organizational leaders with insights into how HRIS can be tailored to improve administrative processes, employee engagement, and data-driven decision-making. From a policy perspective, the study underscores the need for enabling environments that support HR digitalization through investment in infrastructure, workforce training, and supportive regulations. Together, these implications help bridge the gap between academic research and real-world application, guiding stakeholders toward more effective and strategic HRIS implementation.

6.4 Limitations

This review has several limitations. First, it focused only on peer-reviewed journal articles, potentially missing insights from other sources, such as conference proceedings, industry reports, and grey literature. This study underscores examining HRIS research in the context of developing countries, incorporating such documents could provide a more comprehensive understanding of emerging trends, challenges, and growth patterns. Second, the review was limited to English-language publications, possibly overlooking relevant research in other languages. Finally, the review may be subject to publication bias, as studies with null or negative findings are less likely to be published. This study expects future research to include more diverse documents to create a more comprehensive review of the literature in this geographical context.

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Annex

Annex-1 Search String

("Human Resource Information System" OR "Human Resource Information Systems")

AND

("developing countries" OR "emerging economies" OR "low-income countries" OR "third-world countries" OR "Antigua and Barbuda" OR "Argentina" OR "Bahamas" OR "Barbados" OR "Belize" OR "Bolivia" OR "Brazil" OR "Chile" OR "Colombia" OR "Costa Rica" OR "Cuba" OR "Dominica" OR "Dominican Republic" OR "Ecuador" OR "El Salvador" OR "Grenada" OR "Guatemala" OR "Guyana" OR "Haiti" OR "Honduras" OR "Jamaica" OR "Mexico" OR "Nicaragua" OR "Panama" OR "Paraguay" OR "Peru" OR "Saint Kitts and Nevis" OR "Saint Lucia" OR "Saint Vincent and the Grenadines" OR "Suriname" OR "Trinidad and Tobago" OR "Uruguay" OR "Venezuela" OR "Algeria" OR "Angola" OR "Benin" OR "Botswana" OR "Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Cameroon" OR "Central African Republic" OR "Chad" OR "Comoros" OR "Democratic Republic of the Congo" OR "Djibouti" OR "Egypt" OR "Equatorial Guinea" OR "Eritrea" OR "Eswatini" OR "Ethiopia" OR "Gabon" OR "Gambia" OR "Ghana" OR "Guinea" OR "Guinea-Bissau" OR "Ivory Coast" OR "Kenya" OR "Lesotho" OR "Liberia" OR "Libya" OR "Madagascar" OR "Malawi" OR "Mali" OR "Mauritania" OR "Mauritius" OR "Morocco" OR "Mozambique" OR "Namibia" OR "Niger" OR "Nigeria" OR "Rwanda" OR "Sao Tome and Principe" OR "Senegal" OR "Seychelles" OR "Sierra Leone" OR "Somalia" OR "South Africa" OR "South Sudan" OR "Sudan" OR "Tanzania" OR "Togo" OR "Tunisia" OR "Uganda" OR "Zambia" OR "Zimbabwe" OR "Afghanistan" OR "Armenia" OR "Azerbaijan" OR "Bahrain" OR "Bangladesh" OR "Bhutan" OR "Brunei" OR "Cambodia" OR "China" OR "Cyprus" OR "Georgia" OR "India" OR "Indonesia" OR "Iran" OR "Iraq" OR "Israel" OR "Japan" OR "Jordan" OR "Kazakhstan" OR "Kuwait" OR "Kyrgyzstan" OR "Lao People's Democratic Republic" OR "Lebanon" OR "Malaysia" OR "Maldives" OR "Mongolia" OR "Myanmar" OR "Nepal" OR "North Korea" OR "Oman" OR "Pakistan" OR "Palestine" OR "Philippines" OR "Qatar" OR "Saudi Arabia" OR "Singapore" OR "South Korea" OR "Sri Lanka" OR "Syria" OR "Thailand" OR "Timor-Leste" OR "Vietnam" OR "United Arab

Emirates" OR "Uzbekistan" OR "Yemen" OR "Albania" OR "Bosnia and Herzegovina" OR "Bulgaria" OR "Montenegro" OR "Belarus" OR "Moldova" OR "Russia" OR "Ukraine")

Annex 2 PRISMA Checklist for the Current Study

Item	Item Number	Checklist Item	Location Where the Item is Reported
Title	1	The title must identify the articles as systematic reviews	Title page
Abstract	2	The abstract offers a clear overview of what we will cover in the study	Abstract page
Introduction	3	Comprehensively covers the topic of the current study, including the basic definitions	Introduction and background
Rationale and objectives	4	Illustrate the reasoning behind the study and the context of the current knowledge. Offers an explicit objective statement the review will address	Scope and thesis statement (Introduction)
Eligibility criteria	5	Explain the inclusion and exclusion criteria for the study and how the identified literature will be grouped	Methods
Information sources	6	States the primary data sources, including the databases. Examples of the databases include Scopus and WoS	Methods
Search strategy	7	Presents a comprehensive search strategy for the databases and websites and includes the filters and limits used, for example, keywords in each database	Methods
Selection process	8	The selection criteria should specify the techniques used to determine whether the studies met the inclusion/exclusion criteria for the review	Methods
Data collection process	9	The item checks the method used to collect data in each review	Methods
Data items	10a	The current study's essential data items included any survey aligned with the keywords	Methods

Study risk bias assessment	11	Selection bias is among the highest risks in the systematic review	Methods
Effect measure	12	Examined for each outcome the impact of the measures used in the result presentation	Results
Synthesis method	13	The CASP tool was used to determine the eligibility of each synthesis	Results
Certainty assessment	15	GRADE tool had various certainty ratings ranging from very low to high	Results
Study selection	16a	The author will describe the search results and the selection process	Results
Study characteristics	17	The author will cite each included study and indicate its features	Results
Risk of bias	18	For qualitative studies, we will examine the risk of researcher bias	Results
Results of individual study	19	The author will present the characteristics of each group	Results
Result synthesis	20	We will present the assessment for the risk of bias resulting from the missed results	Discussion
Reporting biases	21	The author will state the certainty within the body of evidence	Discussion
Certainty of evidence	22	We will present the general interpretation of the results	Discussion
Discussion	23	We will examine the limitations of the evidence included in the review	Discussion

Notes: CASP = Critical appraisal skills programme; GRADE = grading of recommendations assessment, development and evaluation

Annex 3 Comparative Studies of Selected Studies

SI	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
1	Alam et al. (2016)	Bangladesh	Empirical, Journal article	TOE and HOT-Fit	HRIS Adoption Factors & Challenges	Human, technological, organizational and environmental factors
2	Dilu et al. (2017)	Ethiopia	Empirical, Journal article		HRIS Adoption Factors & Challenges	HRIS readiness is low; skills, attitudes of HR employees can improve the readiness
3	Normalini et al. (2012)	Malaysia	Empirical, Journal article	DOI and Remenyi's and Zuboff's IT framework	HRIS Adoption Factors & Challenges, Employee Behavioral Predisposition	Compatibility, complexity, trialability and visibility positively influence HRIS adoption
4	Noutsu et al. (2017)	Cameroon	Conference proceedings	UTAUT	HRIS Adoption Factors & Challenges, Organizational Efficiency	Performance expectancy and internal social influence positively influence HRIS adoption
5	Noutsu et al. (2019)	Cameroon	Book Chapter	UTAUT	HRIS Adoption Factors & Challenges	Performance expectancy and internal social influence positively influence HRIS adoption
6	Quaosar et al. (2018)	Bangladesh	Empirical, Journal article	DOI and Remenyi's and Zuboff's	HRIS Adoption Factors & Challenges,	DOI construct positively affect HRIS adoption intention

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
				IT framework	Employee Behavioral Predisposition	
7	Roach and Davis-Cooper (2016)	Trinidad and Tobago	Empirical, qualitative, Journal article	TOE TRIAD Model	HRIS Adoption Factors & Challenges	A complex interaction fo TOE framework for HRIS adoption and barriers
8	Rahman et al. (2016)	Bangladesh	Empirical, Journal article	UTAUT	HRIS Adoption Factors & Challenges	All constructs are supported with social influence as a partial mediation of HRIS adoption
9	Alkhwaldi et al. (2022)	Jordan	Empirical, Journal article	UTAUT and TTF	HRIS Adoption Factors & Challenges	All constructs of UTAUT and TTF except effort expectancy are positively influence HRIS adoption
10	Haeruddin (2017)	Indonesia	Empirical, qualitative, Journal article		HRIS Adoption Factors & Challenges	Budget constraints are the major impediments for adoption of HRIS in public organization
11	Shahreki and Lee, (2024)	Malaysia	Empirical, Journal article	UTAUT and TTF	HRIS Adoption Factors & Challenges, Organizational Efficiency	All constructs support HRIS adoption intention with moderating effect of OCB
12	Li et al. (2020)	China	Qualitative Conference proceedings		HRIS Adoption Factors & Challenges,	HRIS plays an important role in recruitment

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
					Organizational Efficiency	
13	Sarkar et al. (2019)	Bangladesh	Qualitative Conference proceedings		HRIS Adoption Factors & Challenges, HRIS Functions	Importance of HRIS for recruitment, selection, training.
14	Were et al. (2019)	Zambia and Kenya	Case study, Journal article		HRIS Adoption Factors & Challenges, Organizational Efficiency	Effective communication strategies, collaborative planning, teamwork, willingness to learn, and having minimum technical skills are essential for HRIS adoption
15	Bamel et al. (2014)	India	Empirical, Journal article		HRIS Adoption Factors & Challenges, HR Functions	Administrative perspective of HRIS, lack of commitment of top management, budget, and skills are the main barriers of HRIS adoption
16	Driessen et al., 2015	Uganda	Case study, Journal article		HRIS Adoption Factors & Challenges	Employee skills are essential for adopting HRIS
17	Handayani et al. (2021)	Indonesia	Empirical Conference proceedings		HRIS Adoption Factors & Challenges, Organizational	Examines HRIS influence on employee engagement, retention, and job

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
					Efficiency, Employee Behavioral Predisposition	satisfaction.
18	Spero et al. (2011)	Uganda	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS helps employee planning
19	Chakraborty and Khan (2019)	India	Qualitative Conference proceedings		HRIS & Organizational Efficiency	HRIS enhances quality customer service in hospitals
20	Beulen (2009)	Argentina, Brazil, China, India, Latvia and Slovakia	Empirical, Journal article	Comparative study	HRIS & Organizational Efficiency	HRIS is positively associated with staff retention
21	Ismail et al. (2023)	Jordan	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	Inappropriate data structure of HRIS largely causes poor HR planning and customer service
22	Kaur et al. (2024)	Developing nations	Book Chapter		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	The development of organizational efficiency lies in HR technology
23	Udekwe et al. (2024)	South Africa	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS influences workforce performance
24	Iwu and Benedict (2013)	South Africa	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS is not a financial overpromise for

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
						organization even in the economic recession
25	Morrison et al. (2020)	Ghana	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition, HRIS in HR Functions	The application of HRIS is administration, tactical and strategic, HRIS is positively associated with the performance of banks
26	Gupta et al. (2023)	India	Empirical, Conference proceedings		HRIS in HR Functions	HRIS helps HRM administrative functions
27	Maamari and Osta (2021)	Lebanon	Empirical, Journal article	Theory of innovation and TRA	HRIS & Employee Behavioral Predisposition	HRIS boosts job satisfaction but has a limited impact on job involvement, which negatively correlates with HRIS success.
28	Rajawat and Sharma (2022)	India	Empirical, Journal article		HRIS & Employee Behavioral Predisposition, HRIS in HR Functions	HRIS significantly enhances accuracy, transparency, decision-making, and cost efficiency in HR practices, HRIS improves job satisfaction
29	Satispi et al. (2023)	Indonesia	Empirical, Journal article	Ability-Motivation - Opportunity (AMO) framework	HRIS & Employee Behavioral Predisposition	HRIS has been leveraged to foster an innovation culture, enabling organizations to

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
						boost employee innovation outcomes
30	Waters et al. (2017)	Zimbabwe	Journal article		HRIS & Organizational Efficiency	Inappropriate data structure of HRIS largely causes poor HR planning and customer service
31	Shyaa (2019)	Iraq	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	HRIS significantly contributes to the operational efficiency and employee satisfaction
32	Srivastava et al. (2021)	India	Empirical, Journal article	UTAUT	HRIS Adoption Factors & Challenges, Employee Behavioral Predisposition	HRIS service quality and perceived usefulness positively influence HRIS system use, while HRIS system quality and perceived usefulness enhance user satisfaction
33	Alzghoul et al. (2023)	Jordan	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	HRIS positively impacts organizational success in Jordanian banks, with significant moderating effect of OCB.
34	Baswardono et al. (2019)	Indonesia	Empirical, Journal article		HRIS in HR Functions	Appropriate design of HRIS for the SMEs

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
35	Dmour (2020)	Jordan	Empirical, Journal article	HRIS Usage & Employee Performance	HRIS & Organizational Efficiency	HRIS usage in hotels enhances employee engagement and performance.
36	Dmour (2016)	Jordan	Empirical, Journal article		HRIS Adoption Factors & Challenges	Develop a conceptual framework for HRIS adoption
37	Dmour (2015)	Jordan	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS has transformational/strategic, operational/administrative and relational outcomes to the organization.
38	Dmour (2017)	Jordan	Empirical, Journal article		HRIS Adoption Factors & Challenges	Internal and external environmental factors influence HRIS adoption and implementation differently
39	Likofata Esanga et al. (2017)	Congo	Journal article		HRIS in HR Functions	HRIS in the DRC helped identify ghost workers, enabling fund reallocation to properly compensate thousands of underpaid health workers
40	Hasan et al. (2021)	Ethiopia	Article		HRIS & Organizational Efficiency	Explores how HRIS improves health workers efficiency

Sl	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
41	Kuknor et al. (2022)	India	Conference proceedings		HRIS & Organizational Efficiency	Explores how HRIS improves organizational processes and performance outcomes.
42	Chammaa (2016)	Lebanon	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS is crucial for decision-making and modernization.
43	Imron et al. (2019)	Indonesia	Conference paper	TOE Framework	HRIS & Organizational Efficiency	Cloud-based HRIS system can enhance employee development of SMEs.
44	Nyame and Boateng (2015)	Ghana	Empirical, Journal article	TOE Framework	HRIS Adoption Factors & Challenges	Unawareness and low priority of HRIS are the main barriers to adopt HRIS
45	De Alwis et al. (2019)	Sri Lankan	Conference proceedings		HRIS Adoption Factors & Challenges	The impact of the internal environment on the adoption of HRIS.
46	Mamun (2022)	Bangladesh	Empirical, Journal article	UTAUT	HRIS Adoption Factors & Challenges	Performance expectancy, social pressure, and facilitation conditions significantly influence the intention to use and the actual use of HRIS, but that user's effort expectancy had no significant impact.

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47	Alam and Kashem (2022)	Bangladesh	Empirical, Journal article		HRIS & Organizational Efficiency	HRIS is positively associated with competitive strategy of the organizations.
48	Attatsitsey & Osei-Bonsu (2021)	Ghana	Empirical, Journal article		HRIS & Organizational Efficiency	Explores how HRIS improves organizational processes and human development.
49	Al-Mutawa and Manuel (2022)	Kuwait	Empirical, Journal article		HRIS & Organizational Efficiency	Identification of functional and non-functional HRIS application, HRIS impact on quality health care service.
50	Wibawa et al. (2018)	Indonesia	Conference paper	UML and waterfall model	HRIS & Organizational Efficiency, HRIS in HR Functions	HRIS using UML and the waterfall model improved HR management, standardizing HR processes and enhancing business growth,
51	Bhattacharyya et al. (2020)	Bangladesh	Empirical, Journal article		HRIS Adoption Factors & Challenges	General discussion on HRIS adoption in Bangladeshi hospitals
52	Ololade et al. (2023)	Nigeria	Empirical, Journal article		HRIS Adoption Factors & Challenges	HRIS implementation in Nigerian manufacturing firms faces barriers such as management apprehension, privacy concerns,

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						organizational opposition, and conversion costs.
53	Khan et al. (2017)	Pakistan	Empirical, Journal article		HRIS Adoption & Employee Performance	Employee position and organizational size affect HRIS adoption success.
54	Ngwenya et al. (2019)	South Africa	Conference proceedings		HRIS & Organizational Efficiency, HRIS in HR Functions	HRIS in a large South African construction company enhances compliance with labor laws, provides business insights, saves time, and reduces human errors.
55	Mohamed et al. (2023)	Iraq	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	HRIS adoption significantly enhances SMEs' innovation capability and affective commitment.
56	Masele and Kagoma (2023)		Empirical, Journal article		HRIS in HR Functions	HRIS is essential for payroll management
57	Seo et al. (2019)	South Korea	Empirical, Journal article	UTAUT	HRIS Adoption Factors & Challenges	Compatibility, complexity, and shareability influence performance and effort expectancy and CHRO support and competition

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						impacted social influence and facilitating conditions influence intention to adopt cloud HRIS.
58	Ouaghlidi et al. (2023)	Morocco	Empirical, Journal article		HRIS in HR Functions	HRIS enhances the performance of Moroccan public administration by modernizing HR functions, aligning with the country's digital strategies
59	Mbaidin (2020)	Jordan	Book Chapter		HRIS in HR Functions	HRIS moderately impacts performance evaluation at Jordan Telecom,
60	Begum et al. (2020)	Bangladesh	Empirical, Journal article		HRIS & Organizational Efficiency, Employee Behavioral Predisposition	HRIS improves employee productivity and reduces HR costs in Bangladeshi banks
61	Davarpanah and Mohamed (2020)	Malaysia	Empirical, Journal article		HRIS & Employee Behavioral Predisposition	Trust enhances user satisfaction, which, along with situational normality, predicts perceived HRIS benefits in a Malaysian higher education institution

SI	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
62	Elayan and Sleimi (2021)	Jordan	Empirical, Journal article		HRIS & Organizational Efficiency, HRIS in HR Functions	HRIS directly and indirectly enhances competitive advantage in Jordanian higher education institutions, with dynamic capability mediating this relationship
63	Irawan (2022)	Indonesia	Empirical, Journal article		HRIS Adoption Factors & Challenges	Owners and technology vendor support significantly influence the intention to use a new HRIS
64	Al-Khowaiter et al. (2015)	Saudi Arabia	Empirical, Journal article	UTAUT	HRIS Adoption Factors & Challenges	Social influence, perceived usefulness, and ease of use significantly impact the mandatory use and user satisfaction of HRIS in Saudi ministries.
65	Razali and Vrontis D (2010)	Malaysia	Empirical, Journal article		HRIS Adoption Factors & Challenges	Top management involvement and organizational commitment were the strongest factors influencing employees'

SI	Authors (Year)	Focused Country	Type of Study	Applied Theory	2nd Order Coding (Themes)	Main Findings
						acceptance of the new HRIS at Malaysian Airlines
66	Bhatnagar (2007)	India	Case study, Journal article		HRIS in HR Functions	Some organizations use advanced HRIS for decision-making, but most still use it for basic tasks.
67	Hosnavi Ramezan (2010)	Iran	Empirical, Journal article		HRIS & Employee Behavioral Predisposition	User satisfaction level of using HRIS in Iranian oil company