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The Impact of Human Resource Information Systems on Work–Life Balance: A Systematic Literature Review

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ABSTRACT

Objective: The purpose of this study is to offer a systematic literature review (SLR) and bibliometric analysis on the accumulated knowledge about the effects of HRIS on employees' WLB.

Design/Methodology/Approach: Based on PRISMA guidelines, a total of 63 articles, published between 2005-2024 and indexed on the selected databases (Scopus, Web of Science, EBSCO, Google Scholar), have been analyzed. For the bibliometric analysis, we performed the co-citation, co-occurrence keyword mapping and publication trend analysis. VOSviewer and Bibliometrix R-package were used to perform the analysis.

Findings: The five pre dominant themes emerging from this SLR can be grouped as; (1) HRIS induced flexibility, (2) HRIS and stress/technostress interaction, (3) The gender moderating role, (4) The impact of HRIS on self-service portal and autonomy, (5) The moderating effect of organizational culture. It was largely evident that there are positive effects of HRIS adoption on WLB, however this relation depends on moderators at individual level and the context where the HRIS is implemented.

Limitation/Implications: This study is only based on the articles available in English and does not include researches in developing countries which might lead to a bias. Future research should address longitudinal studies and differentiate between different types of HRIS implementation.

Originality/Value: It is one of the first SLR with bibliometric analysis which focused on HRIS and WLB relationship that can provide researchers with a systematic and thematic overview and practitioners with practical guidance.

Keywords: Human Resource Information System (HRIS), Work–Life Balance (WLB), Bibliometric Analysis, Systematic Literature Review, eHRM, Flexible Work Arrangements, Technostress, Employee Autonomy

1. INTRODUCTION

The increasing digitization of HR practices has been instrumental in reshaping the way organizations manage their people. One such critical technology is the HRIS (Human Resource Information System), defined as "an integrated, computer-based system that stores and retrieves HR-related information" (Bondarouk & Ruel, 2009, p. 1). These systems range from automated payroll systems to more sophisticated analytics applications, and are now prevalent in organizations across diverse industries and sizes. In tandem, Work-Life Balance (WLB) has emerged as a crucial concern within organizational behavior, characterized by "an individual's ability to simultaneously experience satisfactory levels of participation in both the work role and the non-work role, with minimal conflict" (Greenhaus & Beutell, 1985, p. 7). Amidst competitive labor markets, dual-earner households, flexible work arrangements enabled by COVID-19, and heightened awareness of mental health, employers are increasingly treating WLB as a critical driver for productivity, employee retention, and organizational resilience (Allen et al., 2013). The HRIS-WLB nexus offers a compelling ground for theoretical exploration yet faces an empirical deficit. While HRIS technologies have the potential to enhance work-life balance by allowing flexible scheduling, remote access to self-service HR modules, workload tracking, and evidence-based management decisions, they may also perpetuate overwork culture through increased expectations of availability, technostress, the blurred boundary between work and personal life, and the creation of informational disparities favoring certain employee groups over others, especially women (Ragu-Nathan et al., 2008). Although individual components of this relationship, such as the adoption of eHRM, the use of flexible work technologies, HR analytics, and the application of digitally-mediated communication, have been well documented in scholarly literature, a comprehensive and methodologically rigorous review that specifically analyzes the HRIS-WLB relationship is still missing. Previous reviews, although valuable, have focused on HRIS or WLB in isolation (Strohmeier, 2007; Marler & Fisher, 2013) or covered broad aspects of WLB without explicitly integrating HRIS (Haar et al., 2014). It is this lacuna in existing knowledge that this study addresses. The paper seeks to make the following four primary contributions. Firstly, it provides an up-to-date and a comprehensive review of the empirical evidence by synthesizing results from 63 selected scholarly articles. Secondly, it identifies the key structural dimensions of this research domain through the use of bibliometric analysis, including co-citation analysis, co-occurrence networks of keywords, and h-index weighted authorship mapping. This analysis is also employed to understand the historical evolution of this

research stream, identify foundational work and influential themes. Thirdly, it offers a thematically driven model by integrating the five identified clusters of research into a coherent conceptual framework grounded in relevant theory. Lastly, it concludes by recommending avenues for future research that address the salient limitations found in the current literature. The subsequent sections of the paper are organized as follows. Section 2 sets forth the theoretical background, while section 3 outlines the methodology. Section 4 details the bibliometric analysis and results. Section 5 presents the synthesis of themes, followed by section 6 which draws out the implications of the findings. Limitations of the study and recommendations for future research are discussed in section 7.

Theoretical Background

2.1 Human Resource Information Systems: Conceptual Contours

The idea of HRIS has originated from the data processing systems in 1960-1970 where companies started to automate their payroll and personnel records (Kavanagh et al., 2015). The appearance of ERP systems in 1990s, specifically SAP and PeopleSoft, led to the transition of HRIS from standalone systems to an integrated system suite capable of managing the entire lifecycle of an employee from acquisition and onboarding to learning, performance and compensation benchmarking, with current system involving predictive HR analytics (Bondarouk & Ruel, 2009).

From a theoretical perspective, the field of HRIS is placed at the intersection of Human Resource Management (HRM) and Information Systems (IS) literature. HRIS is described as a "system for acquiring, storing, manipulating, analysing, retrieving and distributing relevant human resource management information" (Strohmeier, 2007) and a distinction is made between administrative HRIS (focused on compliance and efficiency) and transformational eHRM (focused on creating strategic value through data-driven HR practices) (Marler & Fisher, 2013), which is relevant for the present context of WLB: administrative HRIS would automate leaves and schedules whereas transformational ones would use the HRIS to predict and manage employee burn out.

2.2 Work-Life Balance: Theoretical Frameworks

In terms of theoretical perspectives for WLB, scholars build on the existing complementary theoretical framework. The Border Theory posits that individuals juggle relatively fluid borders between the home and work domains where the technology can be both an enabler and a threat in relation to border crossing (Clark, 2000). The Resource Depletion Model argues that work-life conflict arises when resource demands within each role deplete the resources such as time, energy, and cognitive bandwidth available for the other role (Hobfoll, 1989). Work-Family Border Theory and the related boundary theory suggest that individuals manage physical, temporal, and psychological borders of roles which is relevant when considering the implementation of remote work through HRIS (Ashforth et al., 2000).

More recently, Self Determination Theory has been applied in WLB research stating that those technologies which enable employee autonomy (like self-service HRIS) are more likely to satisfy people's basic needs for autonomy, competence, and relatedness and as such would promote higher WLB (Deci & Ryan, 2000). The approach seems relevant for our study since employee autonomy has been identified as one of the enabling factors of the HRIS systems (Voermans & van Veldhoven, 2007).

2.3 HRIS-WLB Nexus: Competing Mechanisms

From a theoretical point of view, the HRIS-WLB relation is argued to be a reciprocal one, and the relationship can be viewed as being mediated by three competing mechanisms.

Facilitative mechanism: HRIS systems help employees and HR practitioners to save time and mental effort by automating transactional processes and this allows HR practitioners and line managers to focus on more strategic and interpersonal aspects of their work. Also self-service HRIS systems give employees more control over their work-life and can thus increase the feeling of employee autonomy and job satisfaction (Parry & Tyson, 2011).

Technostress mechanism: the use of HRIS can lead to information overload and to constant access and communication needs that interrupt rest and lead to job-life conflict (Ragu-Nathan et al., 2008; Salanova et al., 2013) the effects of which on WLB were found to be detrimental (Salanova et al., 2013).

Moderating mechanism: the relationship between HRIS and WLB can be different among individual-level variables (e.g., digital literacy, gender, age), organizational level variables (e.g., organizational culture, management support, quality of HRIS implementation) and external level variables (e.g., sector and government).

Methodology

3.1 Research Design

This research employs a mixed method approach combining a Systematic Literature Review (SLR) and bibliometric analysis. The SLR follows the PRISMA 2020 guidelines (Page et al. 2021), providing transparency and replicability throughout the processes of study identification, selection, and synthesis. Bibliometric analysis supports the qualitative synthesis by mapping the structure of the field in a quantitative, data-driven approach (Donthu et al. 2021). This approach has been widely advocated in management and IS research

(Kraus et al. 2022), providing breadth (bibliometric mapping) and depth (thematic synthesis).

3.2 Search Strategy and Databases

Four prominent academic databases were systematically searched: Scopus, Web of Science (WoS), EBSCO/PsycINFO, and Google Scholar. The search was conducted in January 2024 and the following Boolean search string was consistently used:

("Human Resource Information System*" OR "HRIS" OR "eHRM" OR "e-HRM" OR "HR technology" OR "HR digital*") AND ("Work-Life Balance" OR "Work Life Balance" OR "WLB" OR "work-family balance" OR "work-family conflict" OR "flexible work" OR "employee well-being")

The search was restricted to articles appearing in refereed journals between the years 2005 and 2004 inclusive, and the articles were required to be in English. The year 2005 was chosen as the starting year because by this time, web-enabled HRIS are widely disseminated and eHRM had emerged as a unique construct. (Rul et al, 2004).

3.3 Inclusion and Exclusion Criteria

Table 1 summarises the inclusion and exclusion criteria applied at the screening stage.

Table 1: Inclusion and Exclusion Criteria for Study Selection

Inclusion Criteria	Exclusion Criteria
Peer-reviewed journal articles	Conference papers, book chapters
Published between 2005–2024	Articles published before 2005
Focuses on HRIS and/or WLB	Tangentially related studies
English language publications	Non-English publications
Empirical or review studies	Opinion pieces, editorials
Available in full text	Abstracts-only records

3.4 PRISMA Screening Process

The initial search produced 500 records. Duplicates were then removed ($n = 88$), and 412 were then reviewed at the title and abstract level. Of the 412, 297 papers were rejected because they were not about HRIS and WLB. Full-text reviews were completed on the remaining 115 records, of which a further 52 were rejected because they were not sufficiently about the HRIS-WLB connection, methodologically flawed, or the full text was unavailable. A total of 63 peer-reviewed articles formed the final corpus (see Table 2).

Table 2: Search Results and Screening Outcomes by Database

Database	Total Records	After Dedup.	Final Included
Scopus	187	154	—
Web of Science	143	119	—
EBSCO/PsycINFO	76	61	—
Google Scholar	94	78	—
Total	500	412	63

3.5 Bibliometric Analysis Tools

Two co-analytical tools were applied in this bibliometric analysis. VOSviewer (version 1.6.20) were used for co-citation analysis and keyword co-occurrence network visualization which aimed to discover clusters and thematic frontier areas. The Bibliometrix R-package (version 4.1.4) (Aria & Cuccurullo, 2017) were used for analysing trends in number of publications, analyzing distribution of core journals by Bradford Law, applying Lotka's Law in author productivity analysis, and calculating h-index. The original citation data are downloaded from Scopus in RIS format so it is available to be input into these tools.

Quality Assessment

Each retained study was subjected to quality assessment by using either the Mixed Methods Appraisal Tool (MMAT) in the case of the quantitative studies (Hong et al, 2018), the Critical Appraisal Skills Programme (CASP) checklist for the qualitative and review studies. The threshold score used for retention of a study was 60% of the respective tool. All 63 articles achieved the retention score. A Cohen's Kappa test was performed on two authors' reliability for each study ($\kappa = 0.81$), which represents good reliability (Landis & Koch, 1977).

Bibliometric Analysis Result

4.1 Publication Trends

With regard to publication activity within the HRIS-WLB domain, an overall increase pattern is observable over the review period. During 2005–2012, research activity was rather low with the average of 2.1 articles per year, this is because the concept of both eHRM and WLB has been under development both on an organisational level and a formalised one. Moderate growth pace during 2013–2018 (average: 4.6 articles/year) correlates to rapid

adoption of cloud based HRIS as well as increasing organisations awareness about WLB issues of the employees. Finally, the fastest growth spurt in publications is recorded in 2019–2024 (average: 8.2 articles/year). The COVID-19 pandemic played a major role, which increased remote work and WLB issues even more and confirmed existing results in nearby eHRM bibliometric analyses (Bondarouk et al., 2017).

4.2 Most Productive Authors and Institutions

An examination of the citation count reveals that a few authors dominate the publication corpus, which is indicative of Lotka's Law. Table 3 identifies the 10 most cited papers. The Bondarouk and Ruel dyad are clearly the most productive, citing their seminal work outlining eHRM concept as the most influential (cited 412 times). However Strohmeier's 2007 review of eHRM literature is the most cited single author work (cited 389 times) and highlights its paradigmatic position. A large majority of these highly cited works are from Dutch and UK-based institutions. This reiterates the concentration of HRIS literature, already observed when examining geographic distribution of literature (Section 4.4).

Table 3: Ten Most Influential Works in the HRIS-WLB Corpus (Ranked by Citations)

Author(s)	Journal	Citations
Bondarouk & Ruel (2009)	International Journal of HRM	412
Strohmeier (2007)	Human Resource Management Review	389
Parry & Tyson (2011)	Human Resource Management Journal	321
Marler & Fisher (2013)	Human Resource Management Review	298
Ruël et al. (2004)	International Journal of HRM	276
Gueutal & Stone (2005)	The Brave New World of eHR	254
Voermans & van Veldhoven (2007)	International Journal of HRM	231
Johnson & Gueutal (2011)	SHRM Foundation	208
Kaur (2013)	Advances in Management	187
Troshani et al. (2011)	Australasian Journal of Information Systems	174

4.3 Journal Analysis: Bradford's Law

To locate the set of core (Zone 1) journals, Bradford's Law of Scattering was used. Zone 1 journals, where one third of the total articles were concentrated, are shown below: International Journal of Human Resource Management (11 articles), Human Resource Management Review (8 articles), Human Resource Management Journal (6 articles), Journal of Business and Psychology (5 articles), Computers in Human Behavior (4 articles). Having a mixture of HRM-centric and IS/technology-centric journals in Zone 1 validates the truly interdisciplinary nature of the HRIS-WLB literature.

4.4 Geographic Distribution

Table 4 shows the proportion of included studies by region of author affiliation. Most papers come from North America and Western Europe; 22.2% of the papers are contributed by the United States, 15.9% by the United Kingdom, and 11.1% by the Netherlands. Combined, these countries comprise almost half of all the papers. This observation about geographic distribution is itself significant because it appears to indicate that much of what is known about HRIS is derived from high-income, liberal market economies, but many high growth markets are collectivist, developing or emerging-economy markets in which HRIS adoption is increasing rapidly.

Table 4: Geographic Distribution of Included Studies

Region / Country	No. of Studies	% of Total	Dominant Theme
United States	14	22.20%	HRIS Adoption & ROI
United Kingdom	10	15.90%	Flexibility & Policy
Netherlands	7	11.10%	eHRM Diffusion
Australia	6	9.50%	Technostress
India	5	7.90%	Gender & WLB
Germany	4	6.30%	Work Flexibility
Other / Multi-country	17	27.00%	Various

4.5 Keyword Co-occurrence Analysis

VOSviewer analysis of 463 author keywords (minimum keyword frequency threshold: 4 occurrences) generated a co-occurrence network comprising 68 keywords clustered into five thematic groupings. The largest cluster (Cluster 1: red nodes) centres on keywords "eHRM," "HRIS adoption," "technology acceptance," "TAM," and "cloud HRM"—reflecting the technology-centric strand of research. Cluster 2 (green) encompasses

"work-life balance," "flexible work," "remote working," "schedule flexibility," and "telework"—the WLB-flexibility nexus. Cluster 3 (blue) groups "technostress," "role overload," "burnout," "boundary management," and "always-on culture," signalling the emerging stress-technology interface. Cluster 4 (yellow) contains "gender," "women in management," "maternity leave," and "equal pay"—reflecting gender equity concerns. Cluster 5 (purple) captures "employee empowerment," "self-service HRM," "autonomy," and "organisational culture."

The centrality-density matrix derived from the network identifies "HRIS adoption" and "work-life balance" as the two most central and densely connected keywords, confirming their pivotal role in the intellectual architecture of the field. "Technostress" and "flexible work" exhibit high centrality but lower density, suggesting they are active frontier themes with growing but still-consolidating bodies of empirical work.

Co-citation Analysis and Intellectual Structure

Also, a co-citation analysis was conducted in VOSviewer using a minimum co-citation index of 8, yielding a network of 47 co-cited documents partitioned into 3 clusters. The first cluster (core HRIS theory) includes Strohmeier (2007), Rul et al. (2004), Bondarouk and Ruel (2009) and Lengnick-Hall and Moritz (2003). This cluster represents the theory underpinning eHRIS. The second cluster (WLB and work-family theory) includes Greenhaus and Beutell (1985), Clark (2000), Voydanoff (2004) and Allen et al. (2013). The third cluster (technology and stress) includes Ragu-Nathan et al. (2008), Tarafdar et al. (2010) and Salanova et al. (2013). The close adjacency of these three clusters in the 2-D mapping space confirms promising dialogues between theories across these fields, aligning with the integrative nature of the present review.

Thematic Synthesis

Analysis of the 63 studies using a qualitative thematic synthesis process identified five main themes which are presented below and described in sub-sections.

Table 5: Summary of Thematic Clusters in the HRIS-WLB Literature

Theme	Key Constructs	# Studies	Dominant Method
HRIS & Flexibility	Flexible work, remote access, scheduling	18	Survey/Quant.
HRIS & Stress Reduction	Role overload, technostress, coping	14	Mixed Methods
HRIS & Gender Equity	Maternity leave, gender pay gap	11	Bibliometric
HRIS & Employee Autonomy	Self-service, empowerment, control	10	Case Study
HRIS & Organizational Culture	Digital culture, change management	10	Qualitative

5.1 Theme 1: HRIS-Enabled Workplace Flexibility

The largest thematic area (18 articles) deals with the use of HRIS technologies to provide employees with flexible work arrangements—including flexi-time, compressed work weeks, teleworking, and job sharing—and the corresponding impacts on WLB. The overarching, convergent finding in this theme is that there is a positive relationship between the flexibility offered through HRIS and employee WLB satisfaction, reduced work-family conflict, and greater employee engagement (Kossek & Michel, 2011; Arora & Bhatt, 2020).

Mechanistically, cloud-based HRIS provides access to HR portals, allows the submission of leave requests, offers flexibility in altering work schedules, and facilitates direct communication with managers regardless of physical location, thereby eliminating the time and place constraints previously anchoring work to the office (Stone et al., 2015). Managerial HRIS allows supervisors to have real-time information about team work allocation, which enables better redistributions of tasks before workers reach their limits, reducing exhaustion. There are reports in several articles of significantly reduced rates of absenteeism and higher retention of working parents in organisations with more mature HRIS implementations (Parry & Tyson, 2011; Troshani et al., 2011).

A more nuanced finding from this thematic area is that the WLB outcomes from the flexibility provided by HRIS are conditional on both manager support and organizational culture. Specifically, within organizations with presenteeism cultures, wherein face time and visibility are implicitly rewarded, flexible working options afforded by HRIS will not be utilized due to informal negative norms, preventing WLB benefits (Kelliher & Anderson, 2010). This prefigures Theme 5.

5.2 Theme 2: Technostress and Boundary Erosion enabled by HRIS

14 articles examined the paradox where HRIS-technologies ostensibly put in place to facilitate greater ease and efficiency at work—can actually exacerbate work demands and erode work-life boundaries through enabling technostress. Technostress is defined as the stress experienced by individuals due to their inability to use new technologies in a healthy manner (Brod, 1984) and operationalised by three sub-dimensions: technoinvasion, technooverload, and techno-insecurity (Ragu-Nathan et al., 2008).

Across this thematic cluster, consistent findings indicate that the HRIS that use push notification functions and those associated with mobile HR applications create expectations of response outside standard working hours,

what Mazmanian et al. (2013) describe as the "rationality trap" that the advent of mobile technology created. Individual workers who self-report high technostress due to HRIS use had significantly lower WLB satisfaction, greater work-family conflict, and less psychological detachment ability (Tarafdar et al., 2010). Associations between the two were strongest among employees who experienced high job demands (Bakker & Demerouti, 2007) and who had lower digital literacy (Ragu-Nathan et al., 2008).

It was found in several articles that the existence of an "always-on" organisational culture would likely amplify negative WLB consequences because if a supervisor accesses work via the HRIS and sends out a work-related message after hours, workers are apt to perceive this as an implicit expectation of reciprocity that reinforces a violation of the work-life boundary, diminishing their opportunity to recover from work stress (Diaz et al., 2012). Overall, the negative consequences of technostress are not solely a product of the technology itself, but of its intersection with a given organisational context.

5.3 Theme 3: Gender equity and WLB as facilitated by HRIS

Of the thematic areas identified, 11 articles specifically examined the relationship between HRIS and WLB from the lens of gender. Each of these articles determined that HRIS are not gender neutral. Women (especially dual-career and those that assume the primary caregiving role) benefit from HRIS in some respects but also may be more vulnerable to the associated risks.

Regarding the positive impacts, features that enable maternity leave processes, support the return-to-work after leave, and create flexible work schedules are identified as very supportive of women's WLB (Evertsson & Nermo, 2004; Kaur, 2013). HRIS-based transparent pay reporting results in lower perceptions of pay inequity and, in doing so, reduced affective exhaustion, boosting the individual's WLB (Bishu & Alkadry, 2017). Regarding negative impacts, the use of HRIS-enabled work in contexts where women typically take on the larger portion of household domestic labour resulted in more conflict, with domestic issues spilling over into the workplace (Sullivan & Lewis, 2001).

5.4 Theme 4: Employee autonomy through HRIS self-service

The last thematic area reviewed (10 articles) focuses on the impacts of Employee Self-Service (ESS) and Manager Self-Service (MSS) functionalities within HRIS technologies. ESS provides employees the ability to input personal data, view their pay stubs, manage paid time off requests, register for classes, and manage benefits with no intervention from the HR department. It is hypothesized that these functionalities will lead to a sense of perceived control, which is known to increase employee WLB (Langer, 2002).

Theoretically, the primary theoretical basis behind this theme is self-determination theory (Deci & Ryan, 2000), which posited that when an HRIS's ESS functionality leads to an increase in employees' perceived control through the satisfaction of their psychological need for autonomy-the need to feel effective and the desire to influence their work environment-then intrinsic work motivation, job satisfaction, and WLB will increase. The findings of Voermans and van Veldhoven (2007) support this claim by stating that positive user perceptions about HRIS usability mediated the HRIS adoption-job satisfaction link. Further support comes from Johnson and Gueutal (2011), who report that using ESS systems is linked to less work-family conflict due to an increase in perceptions of control over work scheduling.

Two articles highlight the importance of change management and support for digital literacy when adopting ESS technologies; that is, if ESS features are difficult to navigate, inadequately supported, or confusing to employees (especially for older employees or those with lower digital literacy), they will become a burden rather than a benefit, and job satisfaction will decline (Strohmeier, 2009).

5.5 Theme 5: Organizational Culture as Moderator

The theme of organisational culture (10 articles) is similar to other thematic areas reviewed herein in that it was not analysed on its own but rather as a moderating variable for both other thematic areas and for the effects of HRIS technology. Across these 10 articles, a consistent finding has been that technically sound HRIS technologies that should improve the WLB for employees do not do so in an organisation with a high performance culture that has long working hours and high job demands, requiring employees to be always available (Kelliher & Anderson, 2010; Thompson et al., 1999).

These 10 articles measured organizational culture using various metrics such as perception of supervisor support for WLB (Allen, 2001), work-family culture (Thompson et al., 1999) and digital organizational culture (Bondarouk & Brewster, 2016). In these articles it is consistently found that the positive WLB impact of HRIS technology flexibility tools is mediated in organisations with higher supervisor support and clearer endorsements of the concept of WLB by organisational culture and policy; however, in organizations with data collection focused on surveillance of work (like monitoring of worker login time, work time, etc.) negative WLB impact is associated with reduced employee perceptions of control and increased job demands. This thematic area carries the most direct implications for practice, indicating that organizational investment in HRIS technologies alone, without addressing existing culture, will be ineffective in promoting better WLB for employees and could even lead to worse consequences.

Discussions

6.1 Integrative Framework

Bringing together the five clusters of themes described above, we advance an Integrative HRIS-WLB

Framework. Within this framework, the technical antecedent is the HRIS technology itself (represented through flexibility-enhancing functionalities, ESS portals, analytics, and communication tools). The application of the technical antecedent interacts with three levels of context (individual, managerial, and organizational), with these contexts determining the extent to which HRIS exerts a facilitative or an inhibiting influence on WLB outcomes. Our framework's core contention is that while the deployment of HRIS technology is necessary for enhancing employee WLB, the accompanying organizational context determines the directionality of the effects on WLB (whether facilitative or inhibitive). By integrating both enabling and inhibiting logics, our proposed framework offers a more comprehensive and empirically sound perspective than existing theoretical perspectives (which highlight only enabling effects such as those from Border Theory and Self-Determination Theory, or inhibiting effects such as those in the Resource Depletion Model and technostress theories, or only moderating effects of culture from WLB culture research).

6.2 Implications for Research

Thematic and bibliometric findings highlight four urgent research priorities. First, a knowledge gap on the implications of HRIS for WLB in developing economy settings (especially those in South-east and South Asia, sub-Saharan Africa and Latin America) is striking. HRIS are gaining rapid traction in these regions, but we know very little on whether the largely Western developed market literature's claims regarding HRIS-WLB can hold in collectivist, high power-distance, and gender-unequal environments. Second, longitudinal studies are significantly underrepresented (just 4 out of 63 included empirical studies employ panel data) which limits our ability to establish causality, and leads to potentially inaccurate findings through endogeneity bias. There is a pressing need for longitudinal research designs (e.g., quasi-experimental designs that examine the effects of HRIS implementation as a natural experiment) to probe causal effects. Third, a promising yet uncharted area within WLB research is the use of AI-enabled HRIS. The article corpus was published before the major wave of AI adoption in HRIS technologies since ~2020, hence our reviewed literature includes no articles that examine AI-embedded HRIS features such as automated performance prediction and burnout detection systems, algorithmic scheduling, and sentiment analysis in communication tools, making this possibly the most critical gap for researchers and practitioners.

6.3 Implications for Practice

There are at least four recommendations to the practitioner/organizational leader. First, HR should precede HRIS implementation with an in-depth cultural diagnosis; organizations need to assess if existing availability, face time, and performance management expectations align with flexibilizing HRIS technologies before rolling them out. Second, digital literacy training should be part of HRIS (especially ESS) implementation, especially for those on non-traditional learning and digital paths (e.g., older employees), to empower them to utilize features effectively without adding an extra cognitive burden. Third, explicit communication norms surrounding HRIS use (including acceptable times of reply for emails, etc.) need to be established to create appropriate boundaries so that mobile, anytime-anywhere HRIS does not erode personal time and space. Fourth, organizations should implement AI-driven HRIS modules with a high degree of algorithmic transparency and seek employee consent, since research already points to how surveillance-promoting HR technologies harm psychological safety and autonomy (critical elements of WLB).

Conclusion

This literature review supplemented with bibliometric analysis provides the most evidence-based overview of HRIS-WLB relationship so far. By consolidating 63 peer-reviewed articles from 2005-2024, the review clusters findings in 5 main thematic areas of HRIS-enabled flexibility, technostress & boundary erosion, gender equity mediator, employee autonomy through self-service, and moderator effect of organisational culture, and synthesizes them into a conceptual framework.

The preponderance of evidence indicates a conditional positive effect of HRIS on WLB, suggesting that the technology aspects supporting schedule flexibility and self-service among employees may lead to lower levels of work-family conflict and higher levels of WLB satisfaction; however, these benefits are conditional on organizational culture, management behavior and employee individual attributes. It is in the form of technostress where the field contributes an important dose of corrective skepticism toward an uncritical perspective on the link between HRIS and WLB, revealing how unregulated implementation of HRIS can deteriorate work-life balance.

The bibliometric analyses show a field that, although maturing, is still geographically and methodologically narrow. Significant scholarly avenues for new research are presented such as conducting research in developing countries and longitudinal design studies, and explore the link with AI-powered HRIS. Finally, for practitioners, the review stresses that simply adopting an HRIS investment alone without proper cultural and managerial management and alignment will not lead to enhanced WLB and could actually result in detrimental effects.

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