



Human Resource Management in Borderlands: Evolution, Digitalization, and Multidisciplinary Approaches

Eliyana Eliyana^{1*}, Maria Christiana Iman Kalis², Muhammad Irfani Hendri³

^{1,2,3} Universitas Tanjungpura, Indonesia

^{1*} eliyanamars@gmail.com, ² mariakalis@ekonomi.untan.ac.id, ³ muhammad.irfani@ekonomi.ac.id



*Corresponding Author

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ABSTRACT

This study aims to analyze the development of Human Resource Management (HRM) studies in borderland regions through a Systematic Literature Review (SLR) approach. The study is motivated by the increasing complexity of cross-border issues encompassing migration, digitalization, data governance, global health, artificial intelligence, and sustainability. The research employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, with Scopus serving as the primary database source covering publications from 2016 to 2026. A total of 49 articles met the inclusion criteria and were analyzed using thematic, comparative, and contextual approaches. The findings indicate that HRM studies in borderlands remain dominated by Strategic Human Resource Management (SHRM) perspectives oriented toward organizational performance through variables such as employee engagement, organizational culture, leadership style, training and development, and employee performance. However, recent literature has increasingly shifted toward issues of digital HRM, artificial intelligence, human rights-based HRM, cross-border health governance, and transboundary cooperation. From a theoretical perspective, the Resource-Based View, Institutional Theory, and Social Exchange Theory emerged as the dominant approaches, although they have not fully explained the psychological, cultural, digital ethical, and sustainability dimensions within cross-border contexts. This study concludes that HRM in borderlands requires a more multidisciplinary, holistic, and adaptive approach by integrating technology, culture, regulation, employee well-being, and global geopolitical dynamics.

INTRODUCTION

The study of Human Resource Management (HRM) in borderland regions has developed rapidly alongside increasing globalization, labor migration, economic integration, digital technological advancement, and the growing complexity of cross national relations. Borderlands are no longer understood merely as geographical administrative boundaries but rather as dynamic socio economic spaces that facilitate human mobility, knowledge exchange, cross jurisdictional regulations, technological interaction, and cultural encounters (Berkenbosch et al., 2025; Jin & Jakovljevic, 2023). The increasing interconnectedness of border regions has expanded the strategic role of HRM beyond organizational boundaries, requiring organizations to address workforce mobility, cultural diversity, regulatory complexity, and digital transformation simultaneously. Consequently, HRM in borderlands has evolved into a multidimensional phenomenon associated not only with organizational productivity but also with technology, sustainability, governance, and social justice (Xia et al., 2024; Chen et al., 2026).

Previous studies have examined cross border HRM from various perspectives, including Strategic Human Resource Management (SHRM), global talent management, employee mobility, international labor migration, organizational culture, leadership, and knowledge transfer. Research in multinational organizations consistently emphasizes the importance of employee engagement, talent development, and strategic leadership in enhancing organizational performance (Sekiguchi & Kasahara, 2026; Evangelia & Barbara, 2023; Zain et al., 2025). Likewise, language capability and multilingual competence have increasingly been recognized as strategic human capital that supports employee mobility and international career development in cross border organizations (Bhar & Chua, 2025). These findings demonstrate that HRM has become an essential strategic mechanism for managing organizational competitiveness within increasingly integrated regional and global labor markets.

The literature has also experienced a significant thematic shift toward digital transformation and technology enabled HRM practices. The emergence of artificial intelligence, digital humans, and cross border digital services has fundamentally transformed organizational interactions, workforce management, and service delivery systems (Hou, 2026). Similarly, ethical governance of artificial intelligence and digital decision making has become an important issue in contemporary HRM research, requiring organizations to balance technological innovation with accountability, transparency, and ethical responsibility (Ismail & Ahmad, 2025). In addition, studies on cross border health governance,





humanitarian supervision, and transnational data regulation demonstrate that HRM increasingly intersects with global public health, humanitarian management, and digital governance systems (Abujaber et al., 2024; Aldousari et al., 2025; Xia et al., 2024).

Beyond organizational perspectives, borderland research has expanded toward broader geopolitical and humanitarian dimensions. Studies on cross border logistics and pandemic management illustrate how global crises reshape workforce mobility and organizational resilience across national boundaries (Shao & Ye, 2022; Kuzmicz, 2022). Research concerning cross border surrogacy and human genetic data governance further demonstrates the growing importance of legal protection, ethical governance, and human rights within transnational HRM environments (Bracken, 2024; Valc, 2025; Chen et al., 2026). Moreover, geopolitical instability, war, and humanitarian emergencies have highlighted the necessity of supportive supervision systems and psychological resilience among workers operating in conflict affected border regions (Cosic et al., 2024; Abujaber et al., 2024). These developments indicate that HRM in borderlands should be understood through multidisciplinary lenses encompassing management, technology, law, public policy, psychology, and sustainability.

Despite these significant developments, previous studies remain fragmented across disciplinary boundaries and predominantly focus on organizational performance and Strategic Human Resource Management. Existing research rarely integrates employee well being, diversity and inclusion, digital ethics, workforce resilience, human rights, and geopolitical dynamics into a comprehensive conceptual framework. Furthermore, dominant theoretical perspectives such as the Resource Based View (RBV), Institutional Theory, and Social Exchange Theory have not fully explained the complex interactions among technology, regulation, culture, and sustainability within borderland HRM contexts. Existing review studies also tend to examine international HRM, digital HRM, or global talent management separately, resulting in limited understanding regarding the evolution of research themes, theoretical development, methodological trends, and multidisciplinary integration.

Addressing these limitations, the present study employs a Systematic Literature Review (SLR) based on the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) framework to synthesize previous studies on Human Resource Management in borderland contexts. Specifically, this study aims to map the development of research themes, theoretical foundations, methodological approaches, and emerging issues while constructing a multidisciplinary conceptual synthesis that integrates organizational, technological, cultural, ethical, geopolitical, and sustainability perspectives. By providing a comprehensive overview of the existing literature, this study contributes to advancing HRM scholarship in borderland settings and offers future research directions for developing more holistic, adaptive, and sustainable crossborder HRM models.

METHOD

This study employed a Systematic Literature Review (SLR) based on the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) guidelines to ensure that the review process was systematic, transparent, replicable, and scientifically rigorous. The PRISMA framework provides a structured procedure for identifying, screening, assessing eligibility, and selecting relevant studies for inclusion in systematic reviews.

Scopus was selected as the primary database because of its extensive coverage of peer-reviewed international publications and high indexing quality. The literature search was conducted using the keywords "Human Resource Management in Border," "HRM in Borders," "Human Resource Management in Borders," and "Cross Borders Human", covering publications from 2016 to 2026. The search strategy was designed to capture multidisciplinary studies related to human resource management in cross border and borderland contexts.

The article selection process followed four sequential stages based on the PRISMA framework: identification, screening, eligibility, and inclusion. During the identification stage, 79 articles were retrieved from the Scopus database. Duplicate records and articles that did not meet the predefined scope were removed during the screening stage, leaving 53 articles for further evaluation. Subsequently, full text eligibility assessment resulted in 24 articles that satisfied the inclusion criteria. To improve the comprehensiveness of the review, 25 additional relevant studies obtained from external scholarly sources were incorporated. Consequently, a total of 49 articles were included in the final analysis.

The inclusion criteria consisted of (1) articles discussing Human Resource Management, international HRM, cross border management, employee mobility, or related borderland issues; (2) peer reviewed journal publications; (3) articles published between 2016 and 2026; and (4) articles written in English with accessible full texts. Studies unrelated to HRM, conference abstracts, editorials, duplicate records, and publications without complete manuscripts were excluded from the review.

Data extraction and synthesis were conducted using thematic analysis, content analysis, comparative analysis, and contextual analysis. The extracted information included publication year, research context, geographical location, theoretical framework, research methodology, key variables, and principal findings. These analytical approaches enabled the identification of dominant research themes, theoretical developments, methodological trends, geographical distributions, and emerging multidisciplinary issues within Human Resource Management studies in borderland contexts.



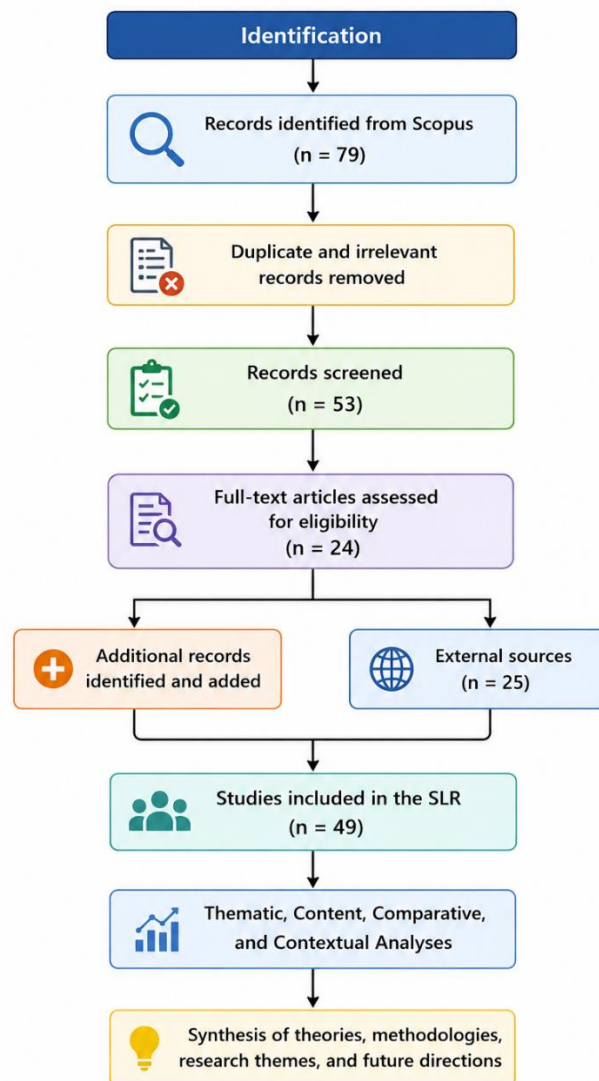


Figure 1. Research Flowchart Based on the PRISMA Framework

The PRISMA based research flowchart illustrates the systematic process of article identification, screening, eligibility assessment, inclusion, and data synthesis. The adoption of this framework enhances the transparency, reproducibility, and methodological rigor of the review while minimizing potential selection bias during the literature identification and selection process.

RESULT

The findings demonstrate that HRM studies in borderlands have evolved into a multidisciplinary field connecting organizational issues, migration, human rights, health, technology, and global governance. Recent studies indicate that cross-border HRM is increasingly influenced by digital transformation, humanitarian governance, and international regulatory systems rather than being confined solely to organizational performance (Abujaber et al., 2024; Aldousari et al., 2025; Xia et al., 2024). The analysis revealed that the most dominant variables in previous studies were employee engagement, organizational culture, leadership style, job satisfaction, training and development, employee performance, workplace diversity, and career development. Employee performance emerged as the most frequently examined dependent variable, whereas training and development constituted the dominant independent variable, consistent with findings reported by Zain et al. (2025), Evangelia and Barbara (2023), and Sekiguchi and Kasahara (2026), who emphasized the strategic importance of leadership and talent development in enhancing organizational effectiveness.

The geographical distribution indicates the dominance of studies conducted in Asia, particularly in China, Indonesia, India, Nepal, Thailand, and Malaysia. This finding suggests that borderland regions in developing countries have become important spaces for migration management, digital transformation, labor mobility, and socio economic complexity (Sekiguchi & Kasahara, 2026; Jin & Jakovljevic, 2023; Raghavendra et al., 2025). The rapid growth of cross-border digital services and international collaboration has further strengthened the strategic role of HRM in these

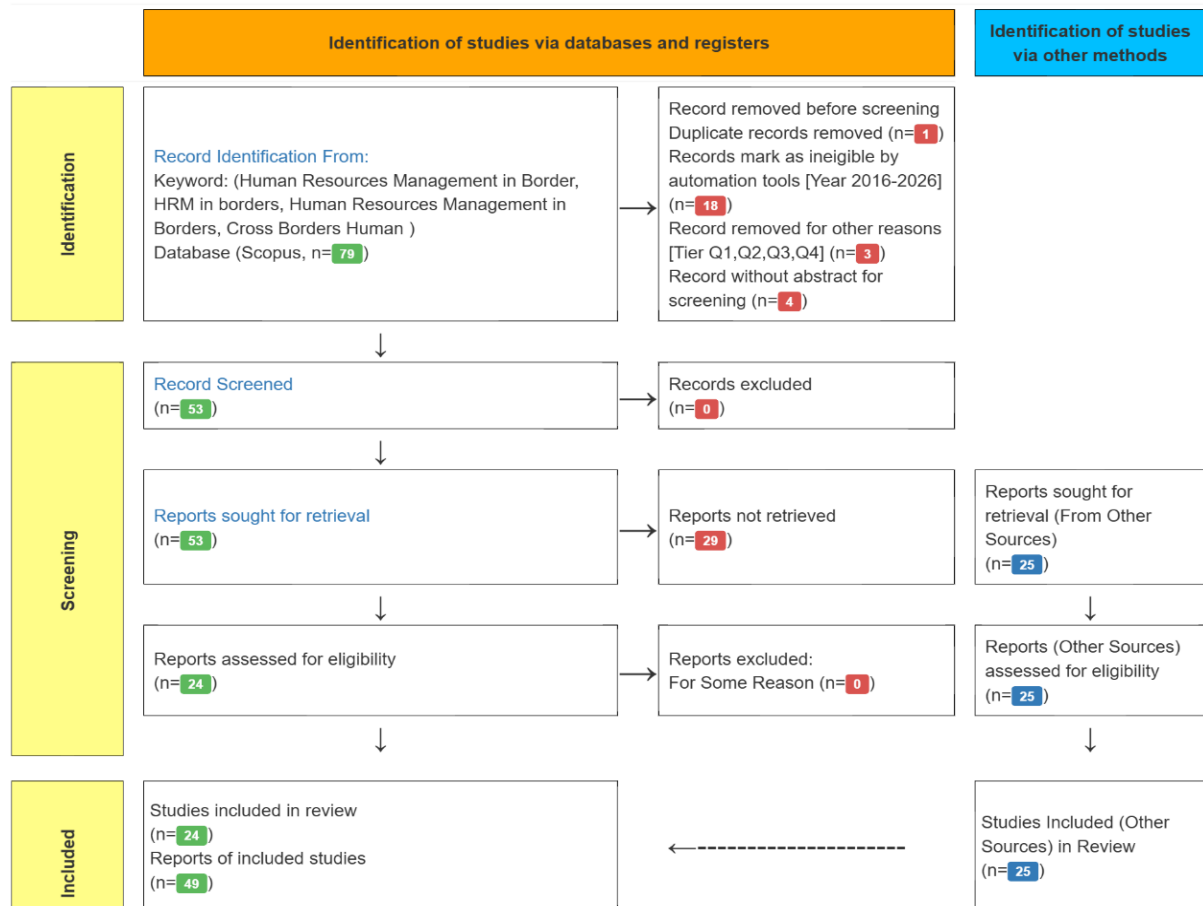




regions (Hou, 2026; Gao et al., 2026). From a methodological perspective, quantitative and qualitative studies demonstrated relatively balanced proportions, while the use of mixed methods remained limited. Quantitative studies predominantly employed Structural Equation Modeling (SEM), Partial Least Squares Structural Equation Modeling (PLS-SEM), Tobit regression, and negative binomial regression, whereas qualitative studies primarily adopted case study, thematic analysis, and document analysis approaches.

From a theoretical perspective, the Resource Based View (RBV), Institutional Theory, and Social Exchange Theory emerged as the dominant theoretical foundations explaining employee behavior and organizational competitiveness within borderland contexts. However, recent studies have expanded these perspectives by integrating Cultural Adaptation Theory, digital ethics, artificial intelligence governance, and human rights based approaches to explain the complexity of cross-border HRM in the digital era (Ismail & Ahmad, 2025; Hou, 2026; Chen et al., 2026; Xia et al., 2024). Humanitarian and geopolitical perspectives have also become increasingly prominent, particularly in studies addressing conflict management, psychological resilience, supportive supervision, and cross border humanitarian operations (Cosic et al., 2024; Abujaber et al., 2024).

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Figure 2. PRISMA Flow Diagram of Article Selection Process

Figure 2 illustrates the article selection process based on the PRISMA framework. An initial search conducted through the Scopus database identified 79 records. After removing duplicate records and studies that did not satisfy the predefined inclusion criteria, 53 records remained for screening. Full-text eligibility assessment resulted in 24 eligible articles, while 25 additional studies obtained from external scholarly sources were incorporated to improve literature coverage. Consequently, the final systematic review synthesized evidence from 49 studies. The adoption of the PRISMA framework ensured transparency, methodological rigor, and reproducibility throughout the article identification, screening, eligibility assessment, and inclusion processes.

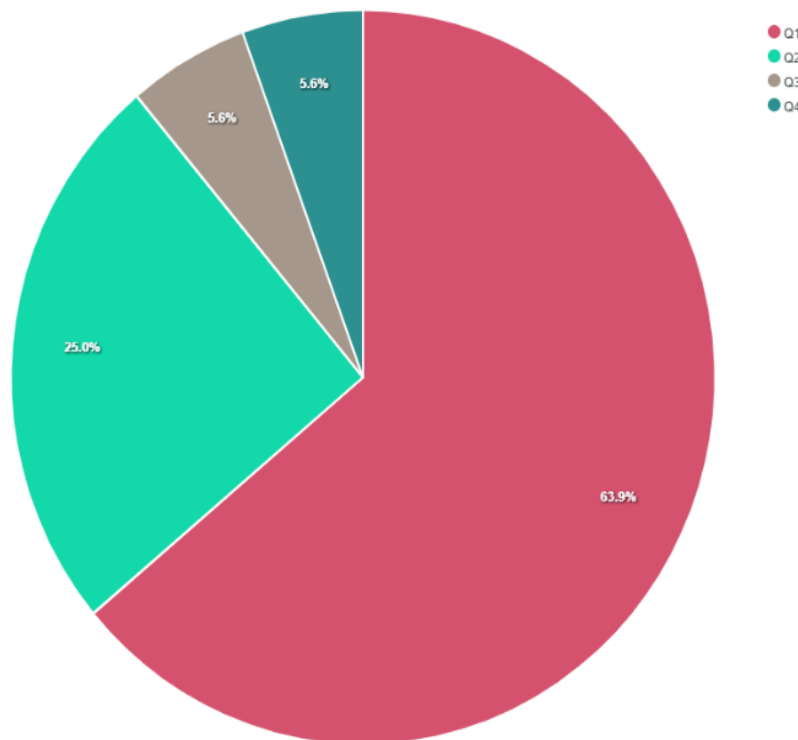


Figure 3. Distribution of Journal Quartiles

Figure 3 presents the distribution of journal quartiles among the selected studies. The majority of publications originated from Q1 journals (63.9%), followed by Q2 journals (25%), whereas Q3 and Q4 journals represented only a limited proportion. This distribution indicates that research on HRM in borderlands has gained increasing recognition within highly reputable international journals, reflecting the growing maturity and academic significance of this research domain. The increasing publication of borderland HRM studies in high-impact journals also demonstrates the expanding relevance of multidisciplinary perspectives that integrate organizational management, technology, governance, and sustainability issues Sekiguchi & Kasahara, 2026; Ismail & Ahmad, 2025; Xia et al., 2024).

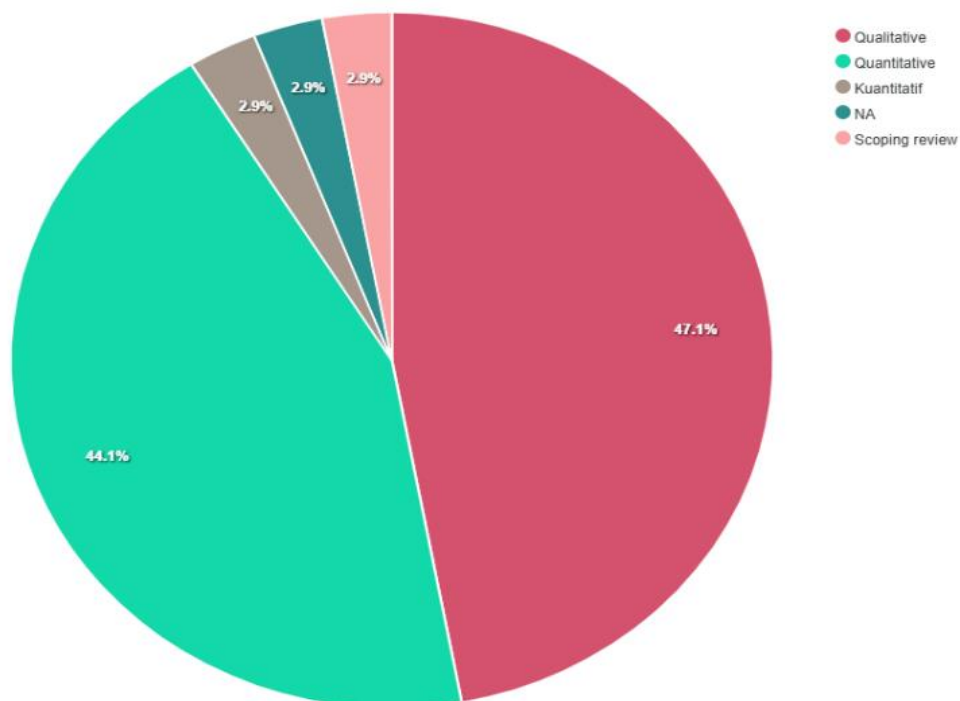


Figure 4. Distribution of Research Methodologies





Figure 4 illustrates the methodological approaches employed in previous studies. Quantitative and qualitative approaches were relatively balanced, whereas mixed-methods studies remained comparatively scarce. Quantitative research predominantly utilized regression analysis, Structural Equation Modeling (SEM), Partial Least Squares Structural Equation Modeling (PLS-SEM), Tobit regression, and negative binomial regression, as demonstrated by studies examining employee performance, international labor mobility, and cross-border organizational effectiveness (Raghavendra et al., 2025; Zain et al., 2025). Meanwhile, qualitative studies mainly employed case studies, literature reviews, thematic analyses, and document analyses to explore digital governance, humanitarian management, cross border ethics, and socio cultural adaptation (Bracken, 2024; Valc, 2025; Berkenbosch et al., 2025). This methodological diversity reflects the multidisciplinary nature of HRM research in borderland contexts and highlights the need for greater adoption of mixed methods approaches in future studies to provide more comprehensive explanations of cross border organizational phenomena.

DISCUSSION

The findings of this systematic literature review indicate that Human Resource Management (HRM) in borderlands remains predominantly oriented toward organizational performance and Strategic Human Resource Management (SHRM). Most empirical studies conceptualize HRM as a strategic mechanism for improving organizational productivity, efficiency, employee performance, and competitive advantage through leadership, talent development, and organizational culture (Sekiguchi & Kasahara, 2026; Evangelia & Barbara, 2023; Zain et al., 2025). This perspective is largely grounded in the Resource Based View (RBV), which considers human resources as valuable strategic assets capable of generating sustainable organizational performance. Nevertheless, the dominance of RBV and Institutional Theory suggests that existing research has not yet adequately integrated employee well-being, psychological resilience, diversity and inclusion, digital ethics, and humanitarian dimensions within cross-border organizational settings.

The review further reveals a significant thematic shift toward digital HRM, artificial intelligence governance, cross border health systems, digital service delivery, and transnational data governance. Recent studies argue that digital technologies have fundamentally transformed the interaction between employees, organizations, governments, and international institutions, requiring HRM practices to become more adaptive and technologically integrated (Hou, 2026; Ismail & Ahmad, 2025). Likewise, research on cross border data governance emphasizes that human rights protection, privacy, and ethical regulation have become central issues in managing digital workforces across national boundaries (Xia et al., 2024; Chen et al., 2026). These developments suggest that HRM in borderlands can no longer be sufficiently explained through classical organizational theories alone but requires multidisciplinary perspectives integrating technology, governance, and ethics.

Another important finding concerns the increasing intersection between HRM and humanitarian issues. Studies on humanitarian emergencies and cross border healthcare collaboration demonstrate that supportive supervision, workforce resilience, and international cooperation are essential components of HRM in crisis-affected border regions (Abujaber et al., 2024; Aldousari et al., 2025). Similarly, research on migration governance, cross border surrogacy, and legal protection illustrates that HRM increasingly intersects with international law, human rights, and ethical governance (Bracken, 2024; Valc, 2025). Geopolitical changes and cross border resource utilization have also broadened the scope of HRM research beyond organizational boundaries toward sustainability and regional governance perspectives (Berkenbosch et al., 2025).

From a methodological perspective, the dominance of quantitative approaches and secondary data indicates that HRM research in borderlands remains largely oriented toward hypothesis testing and measurement of causal relationships. Quantitative methods such as Structural Equation Modeling (SEM), Partial Least Squares Structural Equation Modeling (PLS-SEM), Tobit regression, and negative binomial regression continue to dominate empirical investigations of employee performance and organizational outcomes (Raghavendra et al., 2025; Zain et al., 2025). In contrast, qualitative and mixed methods studies remain comparatively limited, restricting the ability to capture the social, cultural, psychological, and contextual complexities experienced by cross border workers. Consequently, future research should employ mixed methods and longitudinal designs capable of integrating statistical evidence with contextual understanding to produce more comprehensive explanations of HRM phenomena in borderland environments.

The predominance of publications in Q1 journals further demonstrates that HRM in borderlands has evolved beyond a niche research topic and has become increasingly relevant to broader debates in international business, digital transformation, global governance, and sustainable development. The growing publication of studies addressing artificial intelligence, digital governance, cross border healthcare, migration, and humanitarian management reflects the emergence of HRM as a multidisciplinary field connecting management, technology, law, psychology, and public policy (Hou, 2026; Ismail & Ahmad, 2025; Xia et al., 2024). This evolution indicates that future theoretical development should move beyond traditional SHRM perspectives toward integrative frameworks that combine organizational strategy with digital innovation, ethical governance, cultural adaptation, and sustainability principles.





Overall, this review demonstrates that borderland HRM research is undergoing a paradigm shift from a performance oriented perspective toward a more holistic and multidisciplinary approach. Future studies should therefore develop conceptual models integrating organizational capabilities, digital transformation, cultural adaptation, psychological resilience, geopolitical dynamics, and human rights considerations to produce more inclusive, adaptive, and sustainable HRM frameworks capable of addressing the complexities of cross-border employment systems in an increasingly interconnected world.

CONCLUSION

This study concludes that HRM in borderlands has shifted from a narrow, performance-driven approach toward a multidimensional system shaped by humanitarian dynamics, technological transformation, and cross border governance complexity. Evidence from recent literature shows that HRM is increasingly influenced by crisis contexts and humanitarian coordination (Abujaber et al., 2024), global medical and service collaboration (Aldousari et al., 2025), as well as geopolitical and socio-environmental interactions (Berkenbosch et al., 2025).

In addition, the expansion of digitalization and artificial intelligence has introduced new ethical, governance, and organizational challenges in cross border HRM systems (Hou, 2026; Ismail & Ahmad, 2025; Gao et al., 2026), while issues of human mobility, brain drain, and global talent distribution further reshape workforce structures (Bhar & Chua, 2025; Raghavendra et al., 2025; Sekiguchi & Kasahara, 2026). Simultaneously, legal, human rights, and data governance concerns highlight the increasing importance of ethical HRM frameworks in global contexts (Bracken, 2024; Valc, 2025; Chen et al., 2026). Overall, HRM in borderlands should be reconceptualized as an integrated system that connects people, technology, regulation, and sustainability in addressing global complexity, rather than merely an instrument for organizational performance improvement.

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