



Effectiveness, Challenges, and Opportunities of Human Resource Information Systems in Canning Companies in General Santos City

GENARO T. ROGAN JR.¹, KENNETH L. SANIDO¹

¹Mindanao State University-Genaral Santos City
General Santos City, South Cotabato, Philippines

Corresponding author: genaro.rogan@msugensan.edu.ph

Originality: 100% • Grammarly: 97% • Plagiarism: 0%

ABSTRACT

Article History

Received: 30 Sept 2025

Revised: 09 July 2026

Accepted: 23 Sept 2026

Published: 31 Oct 2026

Keywords— Human resource management, human resource information system, descriptive-correlational design, canning industry, General Santos City, Philippines

Human Resource Information Systems (HRIS) are increasingly vital to strategic human resource management because they improve information handling, service delivery, and managerial decision support. Using a descriptive-correlational design, this study examined HRIS effectiveness, implementation challenges, and associated opportunities among 75 HR personnel, department managers, and HRIS end-users from five canning companies in General Santos City, Philippines. Data were gathered through a validated, closed-ended questionnaire and analyzed using frequency

counts, percentages, weighted means, the Kolmogorov-Smirnov normality test, and Pearson's r correlation at the 0.05 level of significance. Results showed that



© Rogan, G. T., Jr., & Sanido, K. L. (2026). Open Access. This article published by JPAIR Multidisciplinary Research is licensed under a Creative Commons Attribution-Noncommercial 4.0 International (CC BY-NC 4.0). You are free to share (copy and redistribute the material in any medium or format) and adapt (remix, transform, and build upon the material). Under the following terms, you must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. You may not use the material for commercial purposes. To view a copy of this license, visit: <https://creativecommons.org/licenses/by-nc/4.0/>

HRIS implementation was highly effective ($M = 4.03$), especially in operational efficiency, data security, workload reduction, and overall HR operations. Challenges were moderate ($M = 3.19$), with data security concerns, financial limitations, training needs, and system customization emerging as the most visible constraints. Opportunities remained high ($M = 3.85$), particularly in centralized data management, automation, compliance, analytics, and strategic HR alignment. The relationship between HRIS effectiveness and opportunities was very strong and significant ($r = 0.8369$, $p = 0.0000$), whereas the relationship between challenges and opportunities was weak and not significant ($r = -0.1492$, $p = 0.2020$). The findings indicate that observable system effectiveness, more than implementation barriers, drives strategic opportunity. For HR managers, this underscores the value of prioritizing usable, secure, and integrated HRIS functions to expand organizational benefits.

INTRODUCTION

In increasingly data-intensive organizations, the Human Resources (HR) function is expected to move beyond transaction processing and contribute to workforce planning, compliance, service delivery, and strategic decision-making. Human Resource Information Systems (HRIS) support this shift by consolidating employee records, automating recurring transactions, and generating timely information for managers and employees (Aruna, 2014). Studies from North America and Europe describe HRIS as a backbone technology that improves information availability, reduces routine work, and helps reposition HR as a strategic partner (Ball, 2001; Hendrickson, 2003; Ruël & Bondarouk, 2018). More recent evidence likewise shows that HRIS can strengthen HR strategy execution, data quality, and organizational responsiveness when systems are aligned with business needs (Bah et al., 2022; Kumar & Parumasur, 2013).

These advantages are especially relevant in manufacturing organizations, where attendance control, payroll coordination, training records, compliance monitoring, and workforce deployment depend on accurate, timely data. Research links HRIS capabilities with better reporting, integration, and strategic value creation when the system is embedded in daily managerial routines (Beckers & Bsat, 2002; Kumar & Parumasur, 2013; Parry, 2011). In the Philippine context, digitalized performance-management systems have likewise demonstrated the administrative value of centralized employee information and monitoring for decision support (Raro, 2018).

Regional evidence also points to the growing relevance of HRIS across ASEAN settings. In Malaysia, employee acceptance of HRIS as a planned change

program depended on organizational climate and support mechanisms (Razali & Vrontis, 2010). In Indonesia, HRIS user satisfaction in public organizations has been linked to information quality and service quality (Sancoko et al., 2022). In emerging Asian SMEs, HRIS adoption has likewise been linked to creativity, work-life balance, and employee engagement (Shahreki & Lee, 2024). HRIS-based employee self-service has also been associated with improved user satisfaction, system usage, and acceptance of technology-enabled HR transactions (Konradt et al., 2006; Marler et al., 2009). Together, these studies suggest that in developing and emerging economies, HRIS value depends not only on technology availability but also on user acceptance, system fit, and organizational readiness.

At the same time, HRIS implementation is rarely frictionless. Prior studies identify recurring barriers, including inadequate training, financial constraints, privacy and data security concerns, limitations in vendor support, and difficulties integrating HRIS with legacy systems (Altarawneh & Al-Shqairat, 2010; Behera, 2016). The Technology Acceptance Model explains part of this dynamic by arguing that users are more likely to accept a system when it is perceived as useful and easy to use (Davis, 1989). Organizational culture and routines also shape implementation outcomes because technology is enacted within actual workplace practice rather than adopted in a purely technical vacuum (Dery et al., 2006).

Despite this growing literature, limited empirical work has examined HRIS effectiveness, implementation challenges, and resulting opportunities within the canning industry of General Santos City, an important Philippine center for tuna processing and canned food production. However, no prior study has examined within one local manufacturing setting how HRIS effectiveness and implementation challenges jointly relate to perceived opportunities. This study therefore highlights the novelty of linking effectiveness with opportunities despite moderate challenges, with the aim of generating context-specific evidence to guide HR modernization, capability development, and system improvement in labor-intensive manufacturing environments.

FRAMEWORK

Effectiveness in this study refers to the extent to which HRIS streamlines processes, improves accuracy, reduces workload, integrates with related systems, and strengthens HR operations. Challenges include implementation barriers encountered by organizations, such as training demands, user resistance, budget constraints, security concerns, customization problems, and interoperability issues. Opportunities refer to the strategic and operational gains that organizations may derive from HRIS, such as centralized data access, analytics, compliance

support, automation, talent management, and alignment of HR initiatives with business goals (Bah et al., 2022; Behera, 2016; Hendrickson, 2003).

The study was anchored in the Technology Acceptance Model (TAM) and the Resource-Based View (RBV). TAM explains that system usefulness and ease of use influence user acceptance and actual utilization (Davis, 1989). In parallel, the Resource-Based View suggests that when HRIS is effectively embedded in organizational processes, it can become a valuable capability that supports coordination, performance, and organizational effectiveness (Kumar & Parumasur, 2013). These perspectives imply that strong HRIS effectiveness should expand the range of opportunities organizations perceive and realize, whereas implementation challenges may weaken or delay their realization.

Figure 1
Conceptual Model Linking HRIS Effectiveness and Challenges to Opportunities

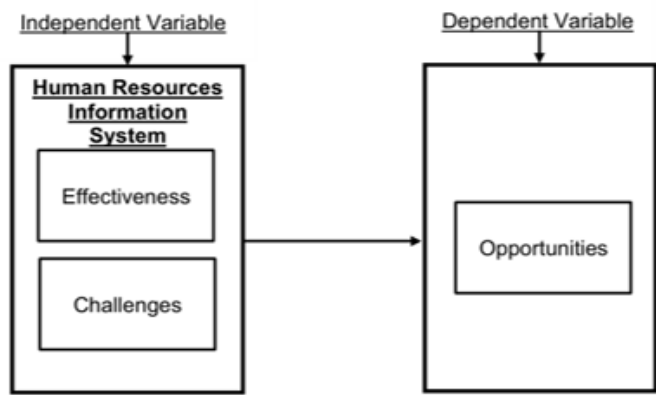


Figure 1 presents the conceptual framework of the study. It shows the effectiveness and challenges of HRIS implementation as independent variables, and the opportunities associated with HRIS adoption as the dependent variable. The model assumes that system performance and implementation barriers jointly shape how organizations understand the strategic and operational value of HRIS.

OBJECTIVES OF THE STUDY

Specifically, the study aimed to (1) describe the socio-demographic profile of the respondents in terms of age, job category, organization size, length of service, and HRIS experience; (2) determine the level of effectiveness of HRIS

implementation; (3) determine the level of challenges in implementing HRIS; (4) determine the level of opportunities associated with HRIS implementation; (5) test the significant relationship between HRIS effectiveness and opportunities; and (6) test the significant relationship between HRIS challenges and opportunities.

METHODOLOGY

Research Design

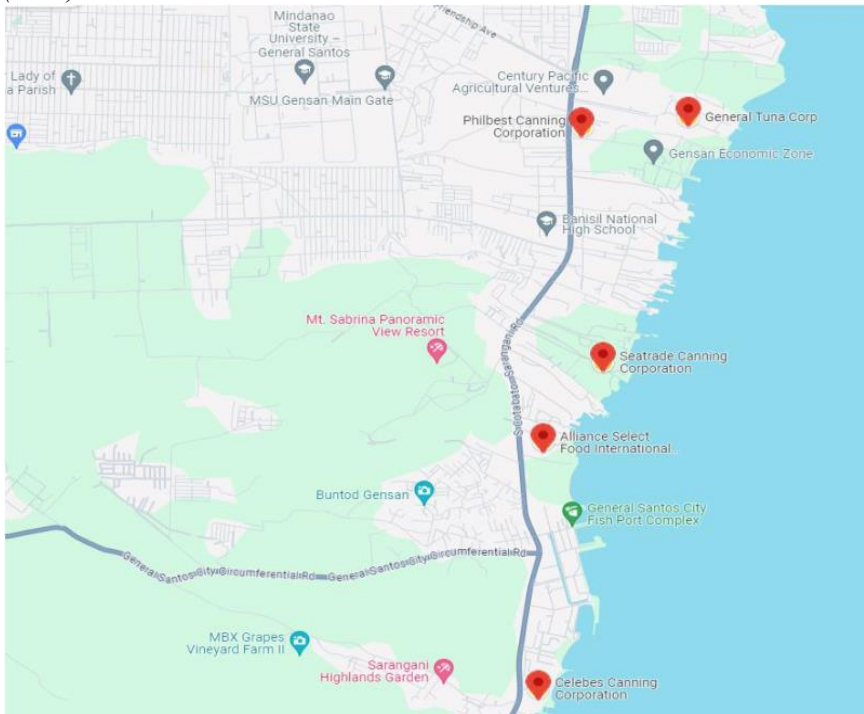
The study utilized a descriptive-correlational research design to determine the level of effectiveness and the challenges in implementing Human Resource Information Systems, and to examine their relationship with the opportunities associated with implementation. The descriptive component summarized respondents' perceptions of HRIS across the key study variables, while the correlational component examined whether statistically significant relationships existed among them. The design was appropriate because the study intended to describe conditions as they existed and to analyze associations among variables without establishing causation.

Research Site

The study covered five major canning companies operating in General Santos City, Philippines: Alliance Select Food International, Celebes Canning, General Tuna Corporation, Philbest Canning Corporation, and Seatrade Canning Corporation. General Santos City is a recognized tuna-processing center and remains an important hub for the Philippine canning industry. The site was selected because the scale and complexity of operations in these organizations make HRIS implementation particularly relevant for HR coordination, compliance, and workforce management.

Figure 2

Research Locale in General Santos City Note. Map adapted from Google Maps (2022).



Participants

The respondents were probationary and regular employees assigned to the Human Resources Department, as well as department managers identified as HRIS end-users. Non-probability purposive sampling was used because the study required respondents with direct and actual exposure to HRIS functions in their organizations; employees without such exposure would not have been able to assess effectiveness, challenges, and opportunities meaningfully. The sample consisted of 75 respondents. By company, the participants included 8 from Celebes Canning Corporation, 12 from Alliance Select Food International, 28 from General Tuna Corporation, 12 from Philbest Canning Corporation, and 15 from Seatrade Canning Corporation. The respondents included department managers, supervisors, and HR associates who used HRIS for functions such as performance evaluation, attendance monitoring, training and development, and incident tracking.

Instrumentation

The questionnaire was formulated from the study variables reflected in the manuscript and organized into a respondent profile section and three substantive dimensions: 10 indicators for effectiveness, 10 indicators for challenges, and 12 indicators for opportunities. Five-point Likert scales were used to capture the responses. Prior to field administration, the instrument underwent expert validation and refinement for content relevance, clarity, and construct alignment. As part of the internal consistency screening documented in the underlying thesis instrument development, item-total correlation was reviewed during pre-administration refinement, although only the final retained indicators are reported in this condensed article.

Research Ethics Protocol

The study obtained informed consent, maintained confidentiality, ensured anonymity, and obtained organizational permission throughout the research process. Prior to data collection, a Certificate of Exemption from Ethics Review was secured and cited in the thesis appendices. Participating organizations and respondents were informed of the purpose, procedures, and intended use of the study before participation. Respondent participation was voluntary, and all gathered information was handled only for research purposes.

AI tools were used only to help improve the grammar, clarity, and organization of the manuscript. The ideas, data, analysis, interpretation, and final content remain the full responsibility of the author. All AI-assisted parts were carefully reviewed and edited to ensure accuracy, originality, and ethical compliance.

Data Collection

After securing permission from the top management of the participating canning companies and coordinating with their Human Resources Departments, the researcher distributed the questionnaires to the identified respondents. The purpose of the study was properly explained before administration. Respondents were given five business days to complete the questionnaire, after which the researcher personally retrieved the completed forms with due diligence and confidentiality. Data gathering was conducted in April 2024.

Statistical Techniques

Frequency count and percentage were used to describe the socio-demographic profile of the respondents. A weighted mean was used to determine the level of effectiveness, challenges, and opportunities in implementing an HRIS. A Kolmogorov-Smirnov test of normality was performed to determine whether

the data were approximately normally distributed; because the datasets satisfied the normality assumption, parametric procedures were used in the inferential analysis. Pearson r Product-Moment Correlation was then applied to test the relationship between effectiveness and opportunities and between challenges and opportunities. All statistical tests were interpreted at the 0.05 level of significance.

RESULTS AND DISCUSSION

Socio-demographic profile of the respondents

Table 1
Respondent Profile Shows a Predominance of Supervisors from Large Firms with Early-to-Mid HRIS Experience

Variable	Category	Frequency	Percentage
Age	18-25 years old	9	12.00
	26-33 years old	20	26.67
	34-41 years old	19	25.33
	42-49 years old	16	21.33
	50-57 years old	11	14.67
	58 years old and up	0	0.00
Job category	HR manager/department manager	23	30.67
	Supervisor	28	37.33
	Rank and file	24	32.00
Organization size	100-200 employees	27	36.00
	201-300 employees	2	2.67
	301-400 employees	0	0.00
	401-500 employees	0	0.00
	501 and up	46	61.33
Length of service	1-5 years	36	48.00
	6-11 years	17	22.67
	12-17 years	12	16.00
	18-23 years	7	9.33
	24-29 years	0	0.00
	30 years and up	3	4.00

HRIS experience	1-5 years	39	52.00
	6-11 years	20	26.67
	12-17 years	9	12.00
	18-23 years	6	8.00
	24-29 years	0	0.00
	30 years and up	1	1.33

Note. $N = 75$.

Table 1 indicates a respondent base concentrated in the 26-33 and 34-41 age brackets, with supervisors forming the largest group and large firms accounting for most participants. The dominance of early-to-mid tenure and 1-5 years of HRIS experience suggests a respondent pool that was actively using HRIS but still close enough to adoption realities to perceive both operational gains and implementation frictions. This profile is analytically useful because supervisors, managers, and HR staff are among the primary users of HRIS-generated reports, compliance records, and workflow approvals (Ball, 2001; Ruël & Bondarouk, 2018).

Effectiveness of HRIS implementation

Table 2

HRIS Implementation Was Rated High across All Effectiveness Indicators

Statement	Mean	Description
HRIS system efficiently streamlines HR processes.	3.95	High
HRIS enhances data accuracy and minimizes errors.	3.99	High
Improves employee self-service functionalities (e.g., leave requests, personal information updates).	4.00	High
HRIS provides decision-supportive reports.	3.96	High
HRIS system increased HR departments' daily efficiency.	4.07	High
HRIS ensures data security and confidentiality.	4.12	High
HRIS integrates well with other systems (e.g., payroll, performance management).	4.03	High
HRIS is user-friendly.	3.99	High
HRIS reduces HR administrative workload.	4.05	High
Overall, HRIS positively impacts HR operations.	4.16	High

Weighted mean	4.03	High
---------------	------	------

Note. Interpretation based on the study’s weighted mean scale.

As shown in Table 2, all effectiveness indicators were rated high, indicating that HRIS was already embedded in routine HR operations rather than used only as a clerical repository. The strongest ratings clustered around overall HR operations, data security, daily efficiency, and workload reduction, suggesting that respondents valued HRIS most where it delivered visible operational control and time savings. This pattern is consistent with the literature that links effective HRIS use to better reporting, faster processes, and stronger administrative efficiency (Beckers & Bsai, 2002; Hendrickson, 2003; Kumar & Parumasur, 2013).

Challenges in implementing HRIS

Table 3
HRIS Implementation Challenges Were Moderate across Key Adoption Areas

Statement	Mean	Description
Challenges in providing adequate training for HRIS.	3.24	Neutral
Employee resistance to adopting HRIS.	3.09	Neutral
Financial limitations impacting HRIS implementing.	3.35	Neutral
Concerns over HRIS data security and privacy.	3.44	Neutral
Difficulty integrating HRIS with current systems.	3.19	Neutral
Customizing HRIS to meet any specific need is complex.	3.24	Neutral
Lack of adequate support from the HRIS provider.	3.04	Neutral
Existing hardware/software incompatibility with HRIS.	3.07	Neutral
Limited time and resources for HRIS deployment.	3.09	Neutral
Stakeholders’ low awareness of HRIS capabilities.	3.17	Neutral
Weighted mean	3.19	Neutral

Note. Interpretation based on the study’s weighted mean scale

Table 3 indicates that implementation challenges were moderate rather than severe. Security and privacy concerns, financial limitations, training needs, customization complexity, and integration difficulties emerged as the main pressure points, implying that the issue was not rejection of HRIS itself but the cost and effort required to optimize it. This pattern aligns with prior studies showing that organizations often realize HRIS benefits while still contending with budget, skills, and legacy-system constraints (Altarawneh & Al-Shqairat,

2010; Behera, 2016; Dery et al., 2006).

Opportunities associated with HRIS implementation

Table 4
 HRIS Opportunities Were Rated High, Especially for Data Access and Automation

Statement	Mean	Description
HRIS centralizes and simplifies access to employee data.	3.99	High
HRIS enables advanced reporting and analytics for data-driven HR decisions.	3.87	High
HRIS automates repetitive tasks such as payroll and attendance tracking.	3.99	High
HRIS offers user-friendly self-service options for employees.	3.84	High
HRIS enhances compliance with labor laws and policies.	3.91	High
HRIS supports effective talent acquisition, development, and retention.	3.69	High
HRIS results in cost savings through reduced administrative tasks.	3.81	High
HRIS scales with the company's growth and evolving needs.	3.89	High
HRIS aligns HR initiatives with business strategies through workforce insights.	3.77	High
HRIS promotes employee wellness and engagement.	3.75	High
HRIS standardizes HR processes across locations and culture.	3.83	High
HRIS leverages technology for innovative HR practices and competitive advantage.	3.92	High
Weighted mean	3.85	High

Note. Interpretation based on the study's weighted mean scale.

Table 4 shows that respondents associated HRIS with strong future-oriented opportunities, particularly centralized data access, automation, compliance, innovation, and analytics. The pattern suggests that respondents did not view HRIS merely as a tool for recording transactions; they also saw it as a platform for scaling HR capability and aligning HR decisions with organizational goals. For manufacturing firms, this matters because workforce size, schedule sensitivity, and compliance requirements increase the value of integrated HR data (Bah et al., 2022; Kumar & Parumasur, 2013; Ruël & Bondarouk, 2018).

Relationship between effectiveness and opportunities

Table 5
Effectiveness Had a Very Strong Positive Relationship with Opportunities

Variable 1	Variable 2	r	Degree of relationship	p-value	Remark
Effectiveness	Opportunities	0.8369	Very strong	0.0000	Significant

Note. Tested at the 0.05 level of significance; N = 75.

Table 5 confirms the central insight of the study: as HRIS effectiveness increases, perceived opportunities also increase at a very strong and statistically significant level. This suggests that respondents interpret system effectiveness as evidence of strategic usefulness. Once HRIS performs reliably in daily operations, it is more likely to be viewed as a resource for broader organizational coordination, performance, and HR-business alignment (Bah et al., 2022; Kumar & Parumasur, 2013).

Relationship between challenges and opportunities

Table 6
Challenges Had No Significant Relationship with Opportunities

Variable 1	Variable 2	r	Degree of relationship	p-value	Remark
Challenges	Opportunities	-0.1492	Very weak	0.2020	Not significant

Note. Tested at the 0.05 level of significance; N = 75.

Table 6 shows that challenges had a weak and statistically non-significant relationship with opportunities. This implies that respondents separated current implementation frictions from the longer-term value they expected from HRIS. In practice, training gaps, budget limits, or integration issues may slow optimization, but they do not necessarily overturn beliefs that the system can still generate strategic benefits once stabilized. This helps explain why opportunities remained high despite moderate barriers, and it suggests a staged adoption logic in which users tolerate manageable constraints while recognizing future value (Behera, 2016; Razali & Vrontis, 2010).

Taken together, the findings support the Technology Acceptance Model and the Resource-Based View more strongly than a barrier-dominance explanation. Perceived usefulness and visible operational gains appeared more decisive than the moderate frictions reported by respondents. Still, the descriptive-correlational

design, self-report data, and single-industry, single-city scope limit causal inference and broad generalization. Future research may strengthen this evidence through longitudinal, mixed-method, and multi-industry validation.

CONCLUSIONS

This study concludes that the main insight is not simply that HRIS is effective, but that effectiveness is the factor most strongly associated with opportunity realization. In the participating canning companies, HRIS was perceived as highly effective, challenges were moderate, and opportunities remained high, indicating that respondents valued the system most when it delivered visible gains in efficiency, security, workload reduction, and HR-business coordination. The findings therefore support the Technology Acceptance Model and the Resource-Based View by showing that usable and reliable HRIS functions expand perceived strategic value.

The study also concludes that moderate implementation barriers do not automatically erase HRIS potential in labor-intensive manufacturing environments. Instead, such barriers appear to delay optimization more than they diminish strategic promise. For future research, the framework should be tested across multiple manufacturing sectors and geographic settings, and preferably through mixed-method or longitudinal designs. The study's practical value lies in its translation into an HRIS toolkit and dashboard that managers can use to monitor system adoption, data quality, compliance, and service responsiveness.

TRANSLATIONAL RESEARCH

The findings of this study may be translated into a practical HRIS Adoption and Capability Toolkit for canning companies in General Santos City and similar manufacturing settings. Rather than functioning only as a conceptual package, the toolkit may be used by HR managers for immediate operational monitoring through a simple dashboard that tracks indicators such as leave-processing turnaround time, attendance and payroll exceptions, training completion, employee master-data accuracy, unresolved HRIS support issues, and compliance-related deadlines. This emphasis on centralized monitoring and decision support is consistent with evidence on web-based performance management systems in Philippine institutions (Raro, 2018). In application, the toolkit may combine a short policy brief on HRIS governance, a user orientation guide, a focused training matrix on data privacy, reporting, and self-service functions, and infographic reminders for employees and supervisors. Because the dashboard and

toolkit are modular, they may also be adapted for other manufacturing sectors such as packaging, food processing, and allied industrial operations.

ACKNOWLEDGMENTS

The author acknowledges the participating canning companies, the respondents, and Mindanao State University for the academic and organizational support that enabled this study.

Author Contributions: Genaro T. Rogan Jr.- Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis; Kenneth L. Sanido- DMHRM Supervision

Funding: This research received no external funding.

Institutional Review Board (IRB) Statement: Yes, 289-2025-MSUGSC-IERC

Informed Consent Statement: Yes, Written

Data Availability Statement: The data used in this study are not publicly available due to privacy and confidentiality considerations.

Conflicts of Interest: The authors declare no conflicts of interest.

LITERATURE CITED

Altarawneh, I., & Al-Shqairat, Z. (2010). Human resource information systems in Jordanian universities. *International Journal of Business and Management*, 5(10), 113–127. <https://doi.org/10.5539/ijbm.v5n10p113>

Aruna, M. (2014). Adoption of human resource information system in organisations. *Journal of Contemporary Research in Management (JCRM)*, 9(4). <https://jcrm.psgim.ac.in/index.php/jcrm/article/view/378>

Bah, M. P., Duramany-Lakkoh, E. K., & Udeh, E. (2022). Assessing the effect of human resource information systems on the human resource strategies of commercial banks. *European Journal of Business and Management Research*, 7(3), 304-312. <https://doi.org/10.24018/ejbmr.2022.7.3.1460>

Ball, K. S. (2001). The use of human resource information systems: a survey. *Personnel Review*, 30(6), 677-693. <https://doi.org/10.1108/EUM0000000005979>

- Beckers, A. M., & Bsai, M. Z. (2002). A DSS classification model for research in human resource information systems. *Information Systems Management*, 19(3). <https://doi.org/10.1201/1078/43201.19.3.20020601/37169.6>
- Behera, M. (2016). Emerging issues and challenges of HRIS: A review. *SSRG International Journal of Economics and Management Studies*, 3(9), 9–12. <https://doi.org/10.14445/23939125/IJEMS-V3I5P114>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Dery, K., Hall, R., & Wailes, N. (2006). ERPs as ‘technologies-in-practice’: Social construction, materiality and the role of organisational factors. *New Technology, Work and Employment*, 21(3), 229-241. <https://doi.org/10.1111/j.1468-005X.2006.00177.x>
- Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources. *Journal of Labor Research*, 24(3), 381. <https://doi.org/10.1007/s12122-003-1002-5>
- Konradt, U., Christophersen, T., & Schaeffer-Kuelz, U. (2006). Predicting user satisfaction, strain and system usage of employee self-services. *International Journal of Human-Computer Studies*, 64(11), 1141-1153. <https://doi.org/10.1016/j.ijhcs.2006.07.001>
- Kumar, N. A., & Parumasur, S. B. (2013). The impact of HRIS on organizational efficiency: random or integrated and holistic? *Corporate Ownership & Control*, 11(1-6), 567-575. <https://doi.org/10.22495/cocv11i1c6art4>
- Marler, J. H., Fisher, S. L., & Ke, W. (2009). Employee self-service technology acceptance: A comparison of pre-implementation and post-implementation relationships. *Personnel Psychology*, 62(2), 327-358. <https://doi.org/10.1111/j.1744-6570.2009.01140.x>
- Parry, E. (2011). An examination of e-HRM as a means to increase the value of the HR function. *The International Journal of Human Resource Management*, 22(5), 1146-1162. <https://doi.org/10.1080/09585192.2011.556791>

- Raro, E. R. (2018). Web-Based Strategic Performance Management System for State Universities and Colleges (SUCs). *JPAIR Institutional Research*, 11(1), 74–91. <https://doi.org/10.7719/irj.v11i1.593>
- Sancoko, S., Desta, A. F., Yuliyanto, H., & Alaufa, B. (2022). User satisfaction on utilization of Human Resources Information System (HRIS) in public organizations. *Proceedings*, 83(32). <https://doi.org/10.3390/proceedings2022083032>
- Razali, M. Z., & Vrontis, D. (2010). The reactions of employees toward the implementation of human resources information systems (HRIS) as a planned change program: A case study in Malaysia. *Journal of Transnational Management*, 15(3), 229-245. <https://doi.org/10.1080/15475778.2010.504497>
- Ruël, H. J., & Bondarouk, T. (2018). The intersection between information technology and human resource management from a cross-national perspective: towards a research model. In *Handbook of Research on Comparative Human Resource Management* (pp. 339–357). <https://doi.org/10.4337/9781784711139.00025>
- Shahreki, J., & Lee, J. Y. (2024). Adopting human resource information system and work-related outcomes in emerging market SMEs: Unified theory of acceptance and use of technology. *Cross Cultural & Strategic Management*, 31(1), 116-142. <https://doi.org/10.1108/CCSM-09-2022-0144>