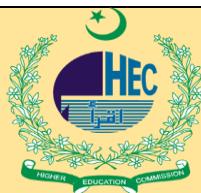




ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL

Available Online: <https://assajournal.com>

Vol. 05 No. 01. Jan-March 2026. Page# 1176-1186

Print ISSN: [3006-2497](https://doi.org/10.5281/zenodo.1863250) Online ISSN: [3006-2500](https://doi.org/10.5281/zenodo.1863250)Platform & Workflow by: [Open Journal Systems](https://openjournalsystems.org/)<https://doi.org/10.5281/zenodo.1863250>

Examining the Impact of Human Resource Information System on Organizational Performance: Mediating Effect of Employees Performance

Arfan Saeed

Ph.D. Scholar, Institute of Business Management and Administrative Sciences

arfansaeed@iub.edu.pk

Shanayyara Mahmood

Assistant Professor, Institute of Business Management and Administrative Sciences

shanayyara.mahmood@iub.edu.pk

Muhammad Shafiq Anwar

mshafiqanwar@iub.edu.pk

ABSTRACT

Human resource is the key that drive the organization towards the success but for this, personnel should be skilled, properly deployed and effectively controlled. SIS and HRMIS were introduced by the GOP for the said purpose. This study examined the impact of HRIS on the organizational performance with mediating effect of adaptive performance in the school education department. Stratified sampling technique was used to collect the data. Total 333 proper questionnaire were received for data analysis. Initially factorization was run on HRIS and in total 4 factors were derived. Smart PLS was used for further data analysis. It was found that operational efficiency & decision support has positive but insignificant impact on organizational performance. User engagement & satisfaction also have insignificant impact on organizational performance. Process optimization & cost reduction has positive and significant impact on organizational performance. Time & cost efficiency also has positive and significant impact on the organizational performance. It was observed a significant relationship between adaptive performance and organizational performance. Indirect effect of adaptive performance was found statistically insignificant between operational efficiency & decision support on organizational performance. Indirect effect of adaptive performance was also found statistically insignificant between User engagement & satisfaction on organizational performance. Adaptive performance mediates the relationship of Process optimization & cost reduction and organizational performance. Time & cost efficiency mediates the relationship of process optimization & cost reduction and organizational performance.

Keywords. HRIS, Adaptive Performance and Organizational Performance

Introduction

Businesses are reshaping rapidly due to swift change in the technology resultantly employees are now considered as an asset of any organization rather than its liability. The area of HRM is under the consideration of the researchers from decades and never loses its spark. Conversion of the common employee into proficient is now more tricky and almost unattainable in absence of technology. Modern enterprises are using artificial intelligence (AI) increasingly as a tool to digitize systems and reorganize important processes like human resource management (HRM) (Ali, A., Cichoń, D., & Abbas, A., 2026). This employee participation will result in the successful achievement of the technology implementation (Vilma, A., & Booshnam, D., 2025). Computerization of business processes with the aid of information technology reshape the businesses by cutting cost and enabling them more efficient. Organizations are having blessing

of IT in term of high productivity, low cost, quick decision making and efficient use of resources (Wahid et al., 2024). The field of human resource management gain a positive momentum in the presence of IT. The HR industry has been driven by the power of information technology and online communication, which has resulted in dynamic changes to the strategic management of human resources. In dynamic organizations situations, advanced MIS improves efficiency and agility by optimizing HR planning (Rusilowati et al., 2024).

Effective workforce management, particularly in the service industry, is now a crucial component of human resource information systems (HRIS), which are essential to the success of organisations. HRIS has become a vital instrument for supporting decision-making processes by supplying accurate, up-to-date, and fast data. HRIS has been more successful in today's business climate, especially after the COVID-19 epidemic forced organisations to adjust to remote work settings. HRIS emerged as the mainstay of business continuity, helping to manage a staff that is spread out geographically. Furthermore, the necessity of strong HRIS systems is further highlighted by the recent move towards artificial intelligence (AI) (Siddique et al., 2025).

Problem Statement

Pakistan stands among developing countries in the world. Education is a tool that drive the journey of prosperity. Punjab, by population is largest province of the country. The Government of Punjab (GOP) launched School Information System (SIS) and Human Resource Information System (HRIM) back in 2017 in School Education Department (SED) and GOP with the help of Punjab Board of Information Technology (PBIT) continuously trying to improve the system which providing help by instant availability of comprehensive data of schools for better control and administrative decisions. Therefore; it is important to check the impact of HRIS on organizational performance.

This is the reason that this research is being carried out to check the impact of HRIS on non-financial organizational performance with mediating effect of adaptive performance of employees serving in this segment. As Pakistan is a welfare state therefore government is charging no fee to students so non financial performance of organization is under consideration here.

Literature Review

In the past, the majority of HR management was administrative in nature, depending on manual procedures for duties like payroll and recordkeeping. But as information technology developed, businesses started implementing HRIS to automate these tasks. With the advent of HRIS, HR professionals were able to concentrate on organisational development and talent management, replacing transactional HR practices with more strategic ones. The development of HRIS has been impacted by a number of variables, such as globalization, the demand for data-driven decision-making, and regulatory compliance requirements. The use of HRIS has been further driven by the growth of cloud computing, which offers businesses adaptable and scalable systems that can be customised to meet their unique requirements (Chowdhury & Ahmed 2025).

Response of employees towards the changes varies in different ways, not all employees react in same manner. Some employees are very reluctant to adopt the change because they consider it as threat rather than as an opportunity. Usually such employees lack in productivity and have low level of agility that make it difficult for them to show a positive attitude according to requirements of contemporary work environment (Park & Park, 2021). It is observed that such employees are hesitant because of different factors, for e.g. fear of lose of control, low level of learning agility, lose of their personal interest (Khaw et al., 2023). Employees attitude can be positively influenced with the aid of transformational leadership, building a learning

environment and by removing the uncertainty (Khaw et al., 2023). Strong job embeddedness and individual connection are fostered by positive prior experiences with transition (Vardaman et al., 2024).

The literature has long recognised that human resources are a firm most valuable asset, helping in achieving its objectives. Businesses can operate more efficiently and achieve higher performance due to efficient HR procedures. Management must use HR as efficiently and effectively as possible in order to sustain success (Azizi et al., 2021). The complexity of human nature makes it difficult to manage a diverse workforce with varying levels of understanding, thinking, and emotional responses. As a result, human resources are regarded as a crucial component of the company that greatly affects performance (Bangura, 2024). Performance management is defined as the comprehensive system of data collecting and dissemination to personnel, supporting organisational improvement. When a firm successfully accomplishes its aims, it thrives (Tan & Harvey, 2016). Business performance is measured by a number of factors, including asset base, market share, quality, customer satisfaction, and profitability, according to another study (Sultan, 2022).

H1: Operational efficiency & decision support effect the adaptive performance

Effective learning outcomes are contingent on the education sector's ability to adapt and implement changes. Teachers must embrace external changes, such as changing the curriculum, program instructions, and successful educational policies. According to Dilekçi and Nartgün (2020), greater adaptability is necessary for classroom management, stakeholder collaboration, and satisfying a variety of shifting demands. It is necessary to create the right conditions to guarantee teachers adaptive performance, which can improve the outcomes of the education sector by guaranteeing student satisfaction (Alwi, & Mumtahana, 2023). Wang, (2024) argue that it is important to mention that in literature some studies didn't find any association between user satisfaction and management support.

H2: Adaptive performance is influenced by user satisfaction and engagement.

Education sector needs an urgent attention to improve efficiency via sound decision making to guarantee the standard of education and better administrative control (Kesim, Atmaca, & Turan, 2025). Due to limited and scarce resources, questionable resource allocation, slow and ineffective decision-making, and other issues that consistently affect quality, administrative failure and inefficiencies occurred (Ololube and Nwachukwu, 2024). HRIS is a key, if successfully implemented can play a vital role in provision of data in most cost-effective way (Basmantra & Wijaya, 2026). Additionally, using HRIS reduces human error, expedites processes, and gives managers and staff members more transparent access to information (Yunika & Anwar, 2025).

H3: Process Optimization & Cost Reduction effect Adaptive Performance

One significant HRIS component that tends to forecast adaptive performance is time and cost efficiency. Efficiency in terms of time and money was highlighted in this study since it has a big impact on performance-oriented results. Two crucial elements in lowering inefficiency are thought to be time and expense. Time must be safe, and business processes must be less expensive in order to become more efficient, which leads to adaptive performance (Vangala, 2025). Infrastructure, faculty development, and student support programs must be balanced in order to increase organizational process efficiency. To improve financial efficacy in educational institutions, the budget must be optimized, cost-benefit analysis must be included, and financial forecasting is frequently employed (Ezepue, 2025).

H4: Time and Cost Efficiency have impact on Adaptive Performance.

Adaptive performance refers to an individual's capacity to adapt to the circumstances, obstacles, and shifts in a dynamic environment. The ability to solve problems, learn new skills,

deal with uncertainty, and be flexible in order to maintain and improve performance in response to shifting circumstances and environments are all associated with adaptive performance (Bai et al., 2025). Employees must have the ability and desire to pursue durable learning because of the constant changes in technology and the ever-changing nature of different professions. It is imperative that they anticipate, be ready and enhance skills that will be essential in their professional life (Strielkowski et al., 2025). If a viable environment provided to the individuals in an organization, they can perform better that will be resulted in improved organization performance (Okaily et al., 2024).

H5: The adaptive performance can influence the organizational performance.

Study in hand introduce adaptive performance as mediator variable between factors of HRIS and organizational performance. The task-performance focused behaviours that people exhibit to anticipate changes pertaining to their job tasks are a manifestation of adaptive performance. An individual's behaviour has been seen to evolve over time as a result of a variety of skills, knowledge, and talents, as well as unanticipated changes brought about by the environment's attempts to better itself. These aspects make the adaptive performance more significant. Because of an externally demanding environment, the use of technology and the installation of a human resource information system also motivate employees to improve their knowledge, skills, and talents. It is a behaviour rather than a tendency, and the researchers have articulated the locus of change in accordance with proactive and adaptive performance. It may happen in response to change or in anticipation of it (Abri & Alam, 2022).

Accordingly, hypothesis H6-H9 are developed that adaptive performance can mediate the relation of factors of HRIS and organizational performance.

Research Model

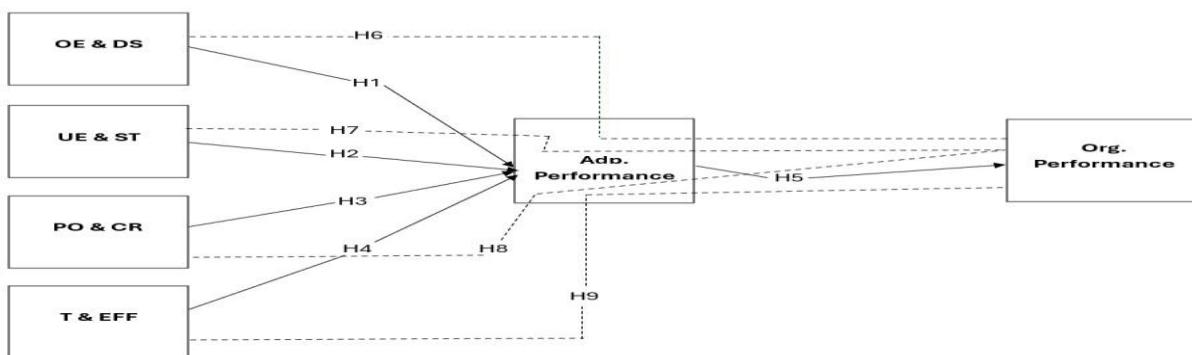


Figure 1.1

Research model has been displayed under the figure 1.1. Operational efficiency & decision support (OE& DS), User engagement & satisfaction (UE & ST), Process optimization & cost reduction (PO & CR), Time & cost efficiency (T & EFF), adaptive performance (Adp. Performance) and non-financial performance (Org. Performance).

Research Methodology

This study is quantitative in nature and cross-sectional data was collected. Adaptive questionnaire was used from the study of (Beadles et al, 2005) for HRIS, (Koopmans et al., 2012) for employees' performance and (Mohammed & Nadarajan, 2016) for organizational performance. Stratified sampling technique was used for the collection of data. Strata were desigend as Upper Punjab, Central Punjab and Southern Punjab and data was collected accordingly from head teachers, AEO's, DEO's and CO's. Total 700 questionnaire were distributed among them 357 responses were received whereas 333 were found considerable for proper data analysis. Smart PLS was used for the analysis of data. Bootstrapping method was used.

Analysis and Results

Convergent validity is defined as the degree to which the items of one variable correlate with the items of other variables and relate to a suggested latent variable. According to the recommended criteria, the cutoff point for acceptability is 0.50, and the Average Variance Extract (AVE) value is established for the convergent validity (Jnr et al., 2007). The AVE value must continue to be greater than 0.50 for acceptability in order to achieve convergent validity.

Constructs	Items	Loading	Cronbach	CR	AVE
OE&DS (Operational Efficiency & Decision Support)	OE&DS1	0.654	0.926	0.928	0.501
	OE&DS2	0.734			
	OE&DS3	0.74			
	OE&DS4	0.702			
	OE&DS5	0.622			
	OE&DS6	0.646			
	OE&DS7	0.699			
	OE&DS8	0.769			
	OE&DS9	0.752			
	OE&DS10	0.682			
	OE&DS11	0.679			
	OE&DS12	0.718			
	OE&DS13	0.694			
	OE&DS14	0.714			
	OE&DS15	0.671			
UE&ST (User Engagement & Satisfaction)	UE&ST1	0.73	0.93	0.933	0.642
	UE&ST2	0.802			
	UE&ST3	0.846			
	UE&ST4	0.826			
	UE&ST5	0.773			
	UE&ST6	0.861			
	UE&ST7	0.812			
	UE&ST8	0.825			
	UE&ST9	0.726			
PO& CR (Process Optimization & Cost Reduction)	PO&CR1	0.786	0.906	0.915	0.616
	PO&CR2	0.607			
	PO&CR3	0.571			
	PO&CR4	0.833			
	PO&CR5	0.887			
	PO&CR6	0.868			
	PO&CR7	0.862			
	PO&CR8	0.796			
TMS (Top Management Support)	TMS1	0.713	0.911	0.918	0.584
	TMS2	0.734			

	TMS3	0.703			
	TMS4	0.749			
	TMS5	0.682			
	TMS6	0.811			
	TMS7	0.835			
	TMS8	0.827			
	TMS9	0.807			
Ad_Per (Adaptive Performance)	Ad_Per1	0.726	0.904	0.917	0.605
	Ad_Per2	0.69			
	Ad_Per3	0.639			
	Ad_Per4	0.678			
	Ad_Per5	0.851			
	Ad_Per6	0.883			
	Ad_Per7	0.87			
	Ad_Per8	0.84			
Org_Per (Organizational Performance)	Org_Per1	0.661	0.884	0.905	0.505
	Org_Per2	0.661			
	Org_Per3	0.663			
	Org_Per4	0.6			
	Org_Per5	0.255			
	Org_Per6	0.605			
	Org_Per7	0.848			
	Org_Per8	0.849			
	Org_Per9	0.873			
	Org_Per10	0.863			
T & C_Eff (Time and Cost Efficiency)	T&C_Eff1	0.798	0.707	0.745	0.625
	T&C_Eff2	0.719			
	T&C_Eff3	0.849			

Table 1.1

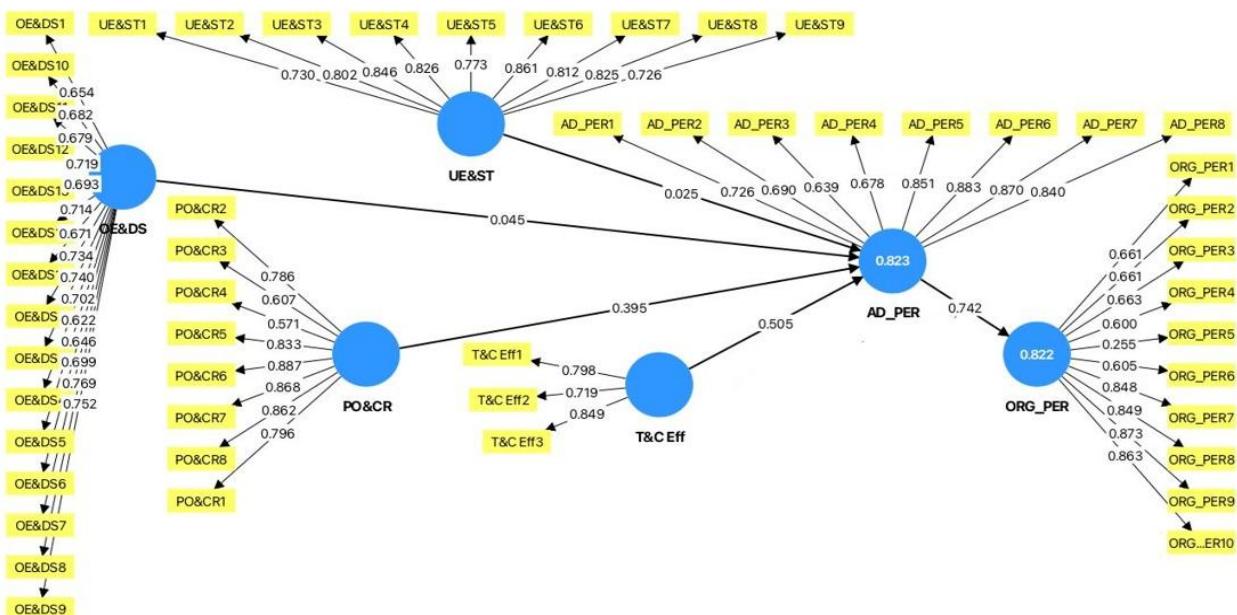
Using the PLS technique, the degree to which one variable correlates to its own items and differs from items of other latent variables is evaluated and called discriminant validity. It can be done in two ways. The first is by comparing the correlational values with other variables and using the criteria of Fornell and Larcker (1981). In comparison to other correlational values of the same column, the square root of AVE must be greater (Chin et al., 1997). The results of discriminant validity are shown in Table 1.2.

Construct	Ad-Per	OE&DS	ORG-PER	PO&CR	T&C Eff	UE&ST
AD-PR	0.778					
OE&DS	0.716	0.700				
ORG-PER	0.488	0.575	0.711			
PO&CR	0.325	0.498	0.535	0.785		
T&C Eff	0.329	0.522	0.564	0.546	0.790	
UE&ST	0.606	0.631	0.558	0.519	0.519	0.801

Table 1.2

Results in the table 1.2 show discriminant validity; the intersectional value shows how the construct correlates with other latent variables and with itself. Other correlational values must continue to be lower than the intersectional values. Values of the diagonal should be greater than those of other variables. According to the criterion of (Fornell & Larcker, 1981), the results demonstrate that a discriminant value is attained and acceptable.

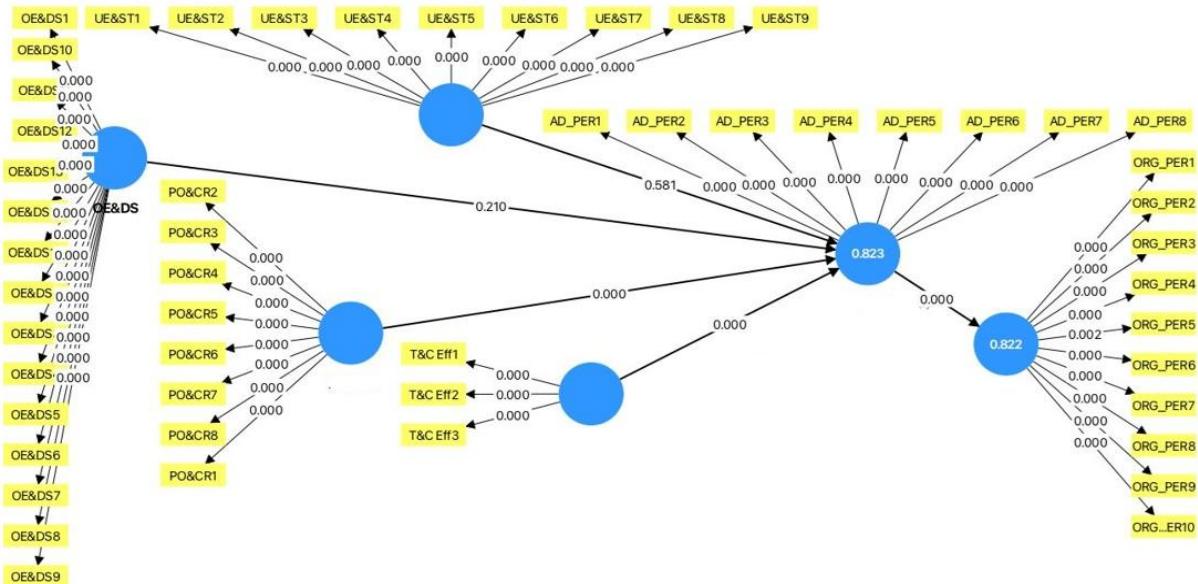
The evaluation of the measurement model taken from Smart-PLS is shown in Figure 1.2. The framework's constructions and the suggested connections between them are displayed. Figure 1.2 below shows the factor loading of every item in each construct.

**Figure 1.2**

S#	H#	Relationships	β	t-statistics	p-value	Remarks
1	H1	OE&DS \rightarrow Adp_PER	0.045	1.255	0.210	Rejected
2	H2	UE&Sat \rightarrow Adp_PER	0.025	0.552	0.581	Rejected
3	H3	PO&CR \rightarrow Adp_PER	0.395	5.653	0.000	Accepted
4	H4	T&C Eff \rightarrow Adp_PER	0.505	8.798	0.000	Accepted
5	H5	Adp_PER \rightarrow Adp_PER	0.742	14.614	0.000	Accepted

Table 1.3

The results of direct associations are shown in Table 1.3 and are evaluated by using the β -, t-, and p-values. H1 is being rejected as t value is $1.225 < 1.96$ and also p value is higher the 0.005 with coefficient value 0.045. H2 is being rejected as t value is $0.552 < 1.96$ and also p value is higher the 0.005 with coefficient value 0.025. On the other hand H3 is being accepted as t value $5.653 > 1.96$ and also significance level is 0.000 with coefficient value 0.395. H4 is being accepted as t value $8.798 > 1.96$ and p value is lower then 0.005 with coefficient value 0.505. H5 is being accepted as t value $14.614 > 1.96$ and p value is lower then 0.005 with coefficient value 0.742.

**Figure 1.3**

The structural Equation Model drawn through the smart PLS shown in figure 1.3 however further explanation is given in table no. 1.3 and 1.4.

The mediation effect of adaptive performance between the exogenous constructs operational efficiency and decision support, user engagement and satisfaction, process optimisation and cost reduction, and time and cost efficiency was studied in order to forecast adaptive performance, which in turn mediate organisational performance. In other words, adaptive performance intervenes in the relationship between operational efficiency & decision support, user engagement & satisfaction, process optimisation & cost reduction, and time & cost efficiency. The researchers argue that adaptive performance mediates the relationship

between HRIS components (operational efficiency & decision support, user engagement & satisfaction, process optimisation & cost reduction, and time & cost efficiency) and organisational performance. Table 1.3 below displays the outcome.

S#	H#	Relationships	β	t-statistics	p-value	Remarks
1	H6	OE&DS→Ad_Per→Org_PER	0.033	1.223	0.222	Rejected
2	H7	UE&Sat→Ad_Per→Org_PER	0.018	0.547	0.584	Rejected
3	H8	PO&CR→Ad_Per→Org_PER	0.293	5.733	0.000	Accepted
4	H9	T&C Eff→Ad_Per→Org_PER	0.375	6.695	0.000	Accepted

Table 1.4

As displayed in the table no. 1.4 hypothesis 6 and 7 are being rejected as they are statistically insignificant with t values < 1.96 and having p values higher than 0.005 whereas hypothesis 7, 8 and 9 are being accepted as they are statistically significant with t values > 1.96 p values 0.000 and they mediate the relationship.

Discussion and Conclusion

The education sector has failed to raise teaching quality, and the issue is impaired by a lack of awareness. The negligible correlation observed between operational efficiency and adaptive performance indicates that the respondents were unable to illustrate the necessary constructs' link. User engagement indicates a weaker association between employees and users of the information system; it indicates a lack of adoption and implementation of such an IT-based solution, which makes the relationship hollow because users are not properly interacting with such IT-based solutions that have the ability to change HR practices. Adaptive performance has been predicted by optimal utilization & cost reduction as literature claims that using of technology produced better results with less resource waste. Association between time & cost efficiency and adaptive performance found statistically significant. Given the significance of this relationship, digital applications certainly have the potential to save time and money and are necessary for making timely judgements while maintaining lower-than-normal operating costs. The relationship between adaptive performance and organizational performance is very clear in light of literature therefore it is suggested that such factors who influence and strengthen this relation may be encouraged. Adaptive performance can not mediate the relation of operational efficiency & decision support, user engagement and satisfaction with organizational performance however it significantly mediates the relation of process optimization & cost reduction, time & cost efficiency with organizational performance. It is evident that use of IT based HR system is valuable for the school education department, Punjab but seems that it can not be achieved its desire results unless each and every user involve equally with better understanding of system.

Future Recommendations

Performance in itself is very vast phenomenon therefore future research can be conducted by considering the task performance, contextual performance of employees. Open ended questionnaire can also be used for in depth investigation the phenomenon. Other factors that influence the organizational performance organizational culture can be considered. Concept of leadership inline with IT based HR particularly in school education department lack so it can be further investigated.

References

Ali, A., Cichoń, D., & Abbas, A. (2026). AI-driven HRM digitization in effect: Mechanisms, conditions, and employee outcomes. *Journal of Innovation & Knowledge*, 13, 100919.

AlAbri, I., & Alam, M. N. (2022). Human Resource Management (HRM) Practices And Employees' Adaptive Performance: The Moderating Role Of Transformational Leadership. *Webology*, 19(2).

Al-Okaily, M., Tarhini, A., Albloush, A., & Alharafsheh, M. (2024). Impact of organizational politics on organizational performance: the mediating role of individual performance. *Global Knowledge, Memory and Communication*.

Al Wahid, S. A., Mohammad, N., Islam, R., Faisal, M. H., & Rana, M. S. (2024). Evaluation of information technology implementation for business goal improvement under process functionality in economic development. *Journal of Data Analysis and Information Processing*, 12(2), 304-317.

Alwi, M., & Mumtahana, L. (2023). The principal's strategy in improving the quality of teacher performance in the learning process in islamic elementary schools. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, 2(1), 66-78.

Azizi, M. R., Atlasi, R., Ziapour, A., Abbas, J., & Naemi, R. (2021). Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. *Heliyon*, 7(6).

Beadles II, N. A., Lowery, C. M., & Johns, K. (2005). The impact of human resource information systems: An exploratory study in the public sector. *Communications of the IIMA*, 5(4), 6.

Bangura, S. (2024). Human Resource Information System (Hris): Navigating the Implementation, Challenges, And Benefits. *International Journal of Business & Management Studies*, 5(10), 25–32.

Basmantra, I. N., & Wijaya, D. T. (2026). The Impact of HRIS Technologies Adoption on Employee Satisfaction and Retention Rate. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(4), 7226-7241.

Bai, J. Y., Huan, T. C. T., Leong, A. M. W., Luo, J. M., & Fan, D. X. (2025). Examining the influence of AI event strength on employee performance outcomes: Roles of AI rumination, AI-supported autonomy, and felt obligation for constructive change. *International journal of hospitality management*, 126, 104111.

Chin, W. W., Gopal, A., & Salisbury, W. D. (1997). Advancing the theory of adaptive structuration: The development of a scale to measure faithfulness of appropriation. *Information Systems Research*, 8(4), 342–367.

Chowdhury, M. A. M., & Ahmed, R. (2025). The role of Human Resource Information Systems (HRIS) in decision-making effectiveness and organizational efficiency: Perceptual analysis on service sector employees. *Journal of Research, Innovation and Technologies*, 4(3), 309-321.

Dilekçi, Ü., & Nartgün, Ş. S. (2020). İş performansının bir boyutu olarak uyumsal performans: kuramsal bir çerçeve. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 53(1), 301–328.

Ezepue, E. I. (N.D.). *Integrating Industrial Process Optimization Models Into Higher Education Management: A Framework For Resource Efficiency, Decision-Making And Quality Assurance*.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. In *Journal of Marketing Research* (Vol. 18, Issue 1, p. 39).

Sage Publications Sage CA: Los Angeles, CA. <https://doi.org/10.2307/3151312>

Jnr, H. J. F., Money, A. H., Samouel, P., & Page, M. (2007). *Research Methods for Business, UK Edition*. John Wiley and Sons Ltd, West Sussex England.

Kesim, E., Atmaca, T., & Turan, S. (2025). Reshaping School Cultures: AI's Influence on Organizational Dynamics and Leadership Behaviors. *Leadership and Policy in Schools*, 24(1), 117-136.

Khaw, K. W., Alnoor, A., Al-Abrow, H., Tiberius, V., Ganesan, Y., & Atshan, N. A. (2023). Reactions towards organizational change: a systematic literature review. *Current Psychology*, 42(22), 19137-19160.

Koopmans, L., Bernaards, C., Hildebrandt, V., Van Buuren, S., Van der Beek, A. J., & De Vet, H. C. (2012). Development of an individual work performance questionnaire. *International journal of productivity and performance management*, 62(1), 6-28.

Ololube, P., & Nwachukwu, P. (2024). Enhancing Public Institutions in Nigeria through Effective Self-Leadership and Management Practices. *Enhancing Public Institutions in Nigeria through Effective Self-Leadership and Management Practices (November 28, 2024)*.

Mohammed, A. H., Taib, C. A. B., & Nadarajan, S. A. L. S. R. (2016). Quality management practices, organizational learning, organizational culture, and organizational performance in Iraqi higher education institution: An instrument design. *International Journal of Applied Business and Economic Research*.

Park, S., & Park, S. (2021). How can employees adapt to change? Clarifying the adaptive performance concepts. *Human Resource Development Quarterly*, 32(1), E1-E15.

Rusilowati, U., Narimawati, U., Wijayanti, Y. R., Rahardja, U., & Al-Kamari, O. A. (2024). Optimizing human resource planning through advanced management information systems: A technological approach. *Aptisi Transactions on Technopreneurship (ATT)*, 6(1), 72-83.

Siddique, M. S., Mohd Zin, M. L. B., & Ismail, S. A. B. (2025). Advancing sustainable digital transformations through HRIS effectiveness: Examining the role of information quality, executives' innovativeness, and staff IT capabilities via IS ambidexterity. *Sustainability*, 17(13), 5784. <https://doi.org/10.3390/su17135784>.

Strielkowski, W., Grebennikova, V., Lisovskiy, A., Rakhimova, G., & Vasileva, T. (2025). AI-driven adaptive learning for sustainable educational transformation. *Sustainable Development*, 33(2), 1921-1947.

Sultan, A. J. (2022). Aligning employees' work engagement and behavioral performance with internal branding: the missing link of employees' perceived brand authenticity. *Journal of Financial Services Marketing*, 27(1), 52-64.

Tan, H. T. R., & Harvey, G. (2016). Unpacking the black box: A realist evaluation of performance management for social services. *Public Management Review*, 18(10), 1456-1478.

Vardaman, J. M., Chew, S. L., Zhou, F., Hargrove, D. C., Raddatz, P. A., Datta, A., & Tabor, W. E. (2024). Yes, we can! A job embeddedness perspective on employee change acceptance. *Journal of Change Management*, 24(1), 69-82.

Vangala, V. (2025). Implementing Lean Principles in DevOps for Efficiency and Cost Savings.

Vilma, A., & Booshnam, D. (2025). Agility Toward the HRIS Advancement at the Organization and Its Impact on Performance in SMEs. *Journal of Small Business Strategy*, 35(3), 58-75.

Wang, A. (2024). Enhancing HR management through HRIS and data analytics. *Applied and Computational Engineering*, 64(1), 223-229.

Yunika, N., & Anwar, K. (2025). Analisis SWOT terhadap Implementasi Sistem HRIS (Human Resource Information System) Talenta di PT. Dealer Hayyu Pratama. *JIM: Jurnal Ilmu Multidisiplin*, 1(4), 138-145.