

Effects of Human Resources Information System (HRIS) Integration on Strategic HR Decision Making Quality in Bangladesh Small and Medium Enterprises (SMEs)

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Publication Date: 2026/07/06

Abstract: This qualitative case study investigates the influence of Human Resources Information System (HRIS) integration on the quality of strategic HR decision-making in Bangladeshi SMEs ShopUp and Shajgoj, employing TAM constructs (perceived usefulness, ease of use, attitude toward use). Thematic analysis of semi-structured interviews with HR leaders, mid-level managers, and executives was conducted using MAXQDA, resulting in one independent theme and five sub-themes. Research indicates that HRIS enhances operational accuracy (reducing payroll errors from 5-8% to less than 0.5%), improves timeliness through real-time dashboards, and increases strategic HR engagement (from 10% to approximately 30%), with API connectivity serving as the primary facilitator. Barriers for SMEs encompass infrastructural deficiencies, data discrepancies, managerial opposition, and a lack of analytical expertise. Constrained to two instances, it jeopardises generalisability, introduces cross-sectional bias, and elicits social desirability effects. Future research requires larger, longitudinal, multi-actor methodologies. SME leaders ought to prioritise API integration, skill development, top-down transformation, offline HRIS, and sophisticated metrics; policymakers should subsidise adoption and digital training.

Keywords: HRIS Integration, Strategic HR Decision-Making, Technology Acceptance Model (TAM), Bangladeshi SMEs.

How to Cite: M. N. N. Oyon; R. A. Shovua; F. J. Porshy; A. S. Arpi; Dr. A. K. M. Matiur Rahman; Dr. Akim M. Rahman (2026) Effects of Human Resources Information System (HRIS) Integration on Strategic HR Decision Making Quality in Bangladesh Small and Medium Enterprises (SMEs). *International Journal of Innovative Science and Research Technology*, 11(6), 2566-2578. <https://doi.org/10.38124/ijisrt/26jun1410>

I. INTRODUCTION

In Bangladesh's growing SME sector, strategic HR decision-making is essential for maintaining competitiveness in the face of swift economic growth and digital transformation. This study examines the impact of HRIS integration on the quality of decision-making, characterized by accuracy, timeliness, and alignment with organizational objectives (Jabber, 2025). HRIS integration enables SMEs to utilize data analytics for proactive HR strategies, transitioning from reactive administration to value-enhancing functions such as talent forecasting and retention planning. Despite global evidence indicating that HRIS enhances the strategic role of HR, SMEs in Bangladesh exhibit moderate adoption levels, hindered by financial limitations and skill

deficiencies (Syukur & Fachmi, 2025). This quantitative study addresses the gap by surveying HR managers of SMEs and employing structural equation modelling to evaluate the direct and mediated effects of HRIS integration on decision quality (B. Z. Karim, 2018). This research will provide useful information for SME leaders, policymakers, and HR professionals, advocating for HRIS as a tool for sustainable growth. Rooted in the Resource-Based View and the Technology Acceptance Model, the study enhances the literature on Human Resource Information Systems in emerging markets (Ammupriya et al., 2024).

The SME sector in Bangladesh contributes over 25% to GDP and employs millions, yet it encounters ongoing human resource challenges such as high turnover rates, skill

deficiencies, and ineffective talent management. Conventional manual HR processes restrict data accessibility, obstructing evidence-based strategic decision-making regarding recruitment, performance, and workforce planning. HRIS integration merging systems for payroll, analytics, and employee information offers real-time insights to transform HR from transactional to strategic functions (Sarkar & Sarmah, 2024). In developing economies such as Bangladesh, SMEs gradually implement HRIS due to financial constraints, inadequate technological infrastructure, and low digital literacy, despite increasing internet penetration. Research indicates that HRIS enhances operational efficiency by 30-50% via automation; however, its strategic implications in SMEs, where adoption is only moderate, are insufficiently examined. Globally, an integrated HRIS enhances decision-making quality through predictive analytics, aligning human resources with business objectives within frameworks such as the Technology-Organization-Environment model (Mwangala & Kelvin, n.d.).

➤ *Statement of the Problem*

The researcher identified an apparent knowledge gap in previous studies regarding the application of Human Resource Information Systems (HRIS) within small and medium enterprises (SMEs) in Bangladesh. Moreover, the subject pertains to the examination of HRIS capabilities in improving the quality of strategic HR decision-making. These unexplored aspects have recently garnered scholarly interest across multiple fields. A thorough examination of the current literature has identified opportunities and deficiencies for additional research in the field of technology adoption in SMEs (Rahman et al., 2016). A comprehensive analysis of the Technology Acceptance Model (TAM) evaluates the significance of perceived usefulness and perceived ease of use in elucidating technology integration, while also proposing numerous research challenges and potential avenues for future inquiry (Masum, 2017). These studies indicate that it is essential for further exploration of HRIS within Bangladeshi SMEs in order to determine the reasons behind the substandard quality of strategic HR decision-making, despite its potential advantages. The HRIS is currently producing more inquiries than resolutions regarding the enhancement of strategic workforce planning, talent management, and data-informed HR decisions within this sector. This research seeks to examine the impact of HRIS integration on the quality of strategic HR decision-making through a qualitative study, employing semi-structured interviews with HR leaders and managers at two notable Bangladeshi SMEs ShopUp and Shajgoj. This study will analyze how these organizations have utilized HRIS to enhance decision-making quality, employing the TAM model to comprehend perceived usefulness and ease of use, followed by thematic analysis to discern patterns, obstacles, and facilitators of effective HRIS integration in a digitally evolving economy.

➤ *Purpose of the Study*

This study aims to investigate the effect of HRIS integration on the quality of strategic HR decision-making in Bangladeshi SMEs, adopting ShopUp and Shajgoj as case studies. This study will analyze how these organizations

managed the HRIS to improve strategic HR outcomes, including workforce planning, talent analytics, and performance management, while effectively overcoming the challenges of HRIS implementation in a resource-limited, digitally transforming business landscape. The research is conducted by collecting primary data through comprehensive, semi-structured interviews and correspondence with HR head, mid-level supervisors, and senior executives of ShopUp and Shajgoj. These observations will be further validated through a comprehensive review of secondary data derived from literature on the adoption of HRIS and the Technology Acceptance Model (TAM) in SME contexts, both in Bangladesh and internationally. The gathered data will be subjected thematic analysis to discern recurring themes, challenges, and facilitators pertinent to the quality of strategic decision-making.

➤ *Research Goal and Questions*

The objective of the study is to examine how the integration of HRIS improves the quality of strategic HR decision-making in SMEs in Bangladesh. This involves a comprehensive analysis of TAM constructs perceived usefulness, ease of use, and usage intention as mediators, in conjunction with SME-specific obstacles and HR managers' views on enhanced decision-making timeliness, accuracy, and alignment with business objectives.

The main inquiry examines the specific conditions of SMEs in Bangladesh, aiming to uncover the benefits and challenges associated with HRIS adoption. Small and medium-sized enterprises prioritize efficient, precise, and prompt human resource decisions that are aligned with business goals. The research aims to:

- How does HRIS integration influence perceived usefulness and perceived ease of use among HR managers in Bangladesh SMEs?
- What specific barriers faced by SMEs influence HRIS adoption and its effect on decision quality in Bangladesh?
- What is the perception of HR managers in Bangladeshi SMEs regarding the role of HRIS in improving decision-making processes timeliness, accuracy, and alignment with business objectives?

II. LITERATURE REVIEW

The analysed literature collectively highlights the transformative, yet context-dependent, role of Human Resource Information Systems (HRIS) across diverse sectors and countries, particularly emphasizing Bangladesh. Mohammad Abdul Jabber (Jabber, 2026) discovered that in Bangladeshi SMEs, the adoption of HRIS is influenced by performance and effort expectancy, task-technology alignment, and facilitating conditions; however, price value was found to be insignificant, and social influence unexpectedly exhibited a negative impact. The maturity and size of the firm influenced various relationships, but the utilization of HRIS predominantly remained administrative instead of strategic. (Alam et al., 2016) identified five critical factors for HRIS adoption in private Bangladeshi hospitals: IT infrastructure, top management support, staff IT

capability, perceived cost, and competitive pressure, with the technological dimension being the most significant. (Z. Karim & Rahman, 2018) indicated that HRIS practices in Bangladeshi private enterprises are moderate, with the highest utilization for HR planning and job analysis, while strategic decision-making and training remain deficient; however, 93.26% of respondents asserted that HRIS improves competitiveness. In Ghana, (Ankrah & Sokro, 2012) established that HRIS significantly enhances cost and time efficiency as well as decision-making in the insurance sector, accounting for 67% of the variance in both areas, while also exerting moderate effects on information quality. In contrast (Patwary, 2016) demonstrated that although HRIS was implemented at United Commercial Bank Ltd in Bangladesh, essential functions such as payroll, performance appraisal, and succession planning continued to be managed manually, resulting in a user satisfaction rate of only 66.68%. (Wang, 2024) posited that HRIS improves operational efficiency and facilitates predictive analytics, while also warning of ethical concerns such as data privacy, security, and algorithmic bias. (Nawaz, 2017) discovered that in Indian software firms, the utilization of HRIS differs markedly by job title, with recruiters and HR personnel exhibiting greater strategic application than managers, thereby enhancing decision-making in recruitment, training, and evaluation. employed UTAUT in Bangladeshi manufacturing firms, demonstrating that facilitating conditions emerged as the most significant predictor of the intention to utilize HRIS, succeeded by social influence and performance expectancy, whereas effort expectancy exhibited no substantial effect. (Al Mamun, 2022) identified a significant positive correlation ($r=0.53$) between HRIS utilization and organizational performance in Bangladesh's service sector, noting that higher education and experience correlate with more favorable perceptions; however, measurement issues for certain constructs undermine reliability. These studies collectively emphasize that although HRIS provides significant operational and decision-making advantages, successful implementation depends on technological infrastructure, organizational support, user attributes, and contextual elements such as company size, industry, and national culture. Many studies depend on cross-sectional, self-reported quantitative data from restricted geographies or industries, highlighting the necessity for longitudinal, mixed-method research across varied organizational contexts to comprehensively grasp the strategic potential and implementation challenges of HRIS (Chowdhury & Ahmed, 2025).

➤ *Role of HRIS in Shajgoj*

A Bangladeshi beauty e-commerce and content-driven SME with around 150 core employees and a network of 300–500 gig-based influencers, the Human Resource Information System (HRIS) primarily serves operational and compliance functions, with minimal strategic integration. CEO Nazmul Huda stated that the organization implemented a cloud-based, entry-level HRIS in mid-2022 to rectify persistent payroll inaccuracies (which had escalated to a 5–8% monthly error rate), alleviate manual administrative tasks, and facilitate potential investor due diligence. Following adoption, the system effectively automated payroll processing, decreased

errors to under 0.5%, modernized employee records, and facilitated self-service leave management, thereby enhancing data accuracy, timeliness, and employee trust. Nonetheless, the HRIS is predominantly detached from strategic decision-making owing to various interconnected barriers specific to SMEs. The system does not possess any API-based integration with Shajgoj's operational platforms, such as Shopify (e-commerce), Asana (project management), and its customer support ticketing system. This fragmentation hinders the HR team from addressing strategic enquiries, such as which employees yield the highest revenue per salary unit, or whether productivity metrics correlate with attrition risk. The HR team of five possesses only basic report generation skills; they can generate headcount or turnover statistics but are incapable of developing predictive models or performing segmented survival analysis. Third, opposition from creative department managers (such as those in video production and influencer marketing) who favour informal, trust-oriented personnel management over digital systems leads to incomplete data entry and delays in approvals. Thus, although Shajgoj's HRIS is proficient in descriptive analytics (what occurred), it lacks capabilities in diagnostic (why it occurred), predictive (what will occur), and prescriptive (what actions should be taken) analytics. The CEO explicitly assesses the system's efficacy for succession planning at 1 out of 10 and for talent development at 2 out of 10. This case demonstrates that for creative SMEs in Bangladesh, the perceived utility of HRIS is limited not solely by software functionalities, but also by organizational competencies (analytical skills), cultural influences (managerial resistance), and infrastructural deficiencies (lack of integration). The constructs of perceived ease of use and perceived usefulness in the Technology Acceptance Model (TAM) are moderated by contextual variables, indicating that the adoption of HRIS does not inherently lead to enhanced strategic decision-making quality.

➤ *Role of HRIS in Shajgoj*

Rapidly advancing B2B e-commerce enabler and logistics platform in Bangladesh, employing around 850 core staff and more than 3,000 gig-based delivery agents, the HRIS fulfils a transformative yet incomplete dual function: serving as the operational foundation for payroll and compliance, and as an evolving strategic decision-support instrument. Co-founder and CEO Afeef Zaman stated that ShopUp implemented a tailored cloud-based HRIS in February 2021 after a nearly catastrophic payroll failure that undermined employee trust. Following implementation, the system decreased payroll reconciliation time from three days to two hours, eradicated duplicate employee records, and offered real-time headcount and attrition dashboards available to leadership. ShopUp has advanced beyond fundamental HRIS usage to leverage system data for strategic workforce decisions. A notable instance entailed the reorganization of the Redx logistics field management hierarchy: utilizing HRIS-generated span-of-control reports, the CEO discerned that specific zones possessed superfluous managerial tiers without equivalent productivity improvements. This data-driven intervention abolished the Area Manager position in low-density regions, decreased Zonal Head roles from six to four, and achieved an annual

savings of approximately BDT 8.7 crore while preserving delivery efficiency. Moreover, HRIS data regarding departmental cost-per-head and attrition trends directly prompted a hiring freeze in the Sales department and a budget reallocation towards retaining Tech personnel. Nonetheless, considerable obstacles influence the correlation between HRIS integration and the quality of strategic decisions. Initially, inadequate integration between the HRIS and ShopUp's operational dispatch systems (Redx, Mokam) results in data silos, necessitating manual reconciliation that incurs a 2–3-day delay. Secondly, the attendance of field staff depends on manual entry because of internet connectivity problems in rural Bangladesh, compromising the accuracy of real-time data. The HR team lacks advanced analytical skills, which restricts their capacity to transition from descriptive reporting to predictive workforce modelling. Fourth, opposition from non-HR managers, especially in operations, leads to incomplete data entry and postponed approvals. The barriers specific to SMEs—infrastructure constraints (unreliable 4G/load shedding), skill deficiencies (absence of people analytics capabilities), and cultural resistance (managers perceiving HRIS as solely 'HR's system')—diminish the TAM constructs of perceived usefulness and ease of use. ShopUp exemplifies a more sophisticated HRIS utilization model than Shajgoj, illustrating that the integration of HRIS data with managerial dedication and fundamental analytical skills can directly impact significant strategic decisions, including restructuring, outsourcing, and hiring freezes. The case establishes that HRIS integration, encompassing both technical and organizational aspects, is essential for strategic HR decision-making; however, it must be augmented by data literacy, leadership endorsement, and change management to fully achieve TAM-mediated advantages.

➤ *Research Gap*

The researcher identified a significant gap in acquiring knowledge regarding the application of Human Resource Information Systems (HRIS) in small and medium enterprises (SMEs) in Bangladesh in previous studies. Additionally, the study entails examining the efficacy of HRIS in enhancing the quality of strategic HR decision-making. The emergence of these previously unexplored aspects recently received scholarly attention from various academic disciplines.

III. METHODOLOGY

➤ *Type of Research*

This study uses a qualitative research design, specifically a two-firm case analysis. Exploring the complicated nature of the firm's integration of HRIS system and its influence on stakeholders is approached using a case study approach.

➤ *Method of Data Collection*

We have conducted a thorough literature review on the HRIS system in various industries. When applied to a broader context, this literature evaluation will bring out overarching structures, challenges, and benefits. Next, we will conduct an extensive interview with the HR Head, mid-level supervisors,

and senior executives of ShopUp & Shajgoj using semi-structured interviews. These interviews aim to gather insights on the advantages of HRIS system for decision making quality in Bangladesh SMEs, the barriers to its extensive adoption, and the general perceptions of ShopUp & Shajgoj services.

➤ *Thematic Analysis*

Thematic analysis is a qualitative method of analyzing data that involves examining a collection of data, such as transcripts from interviews or focus groups, and identifying recurring patterns in meaning across the data in order to identify themes.

- **Acquaintance:** Engage in repeated reading of the content and make notes on your initial observations to familiarize yourself with it.
- **Coding:** Allocate codes to data components that match to specific ideas or concepts. This can be achieved either through manual means or with the use of software.
- **Theme development:** Analyze the codes to identify recurring patterns and categories them into themes that represent the major ideas or concepts within the data. Analyze the themes to ensure they accurately represent the facts and that there are no redundancies or omissions in the coverage. Themes ought to be precisely defined and labelled in a manner that accurately reflects their substance.
- **Writing down:** Write the analysis, including an introduction that establishes the research question, objectives, and approach, along with a methodology section that elucidates the data collection process.

Thematic analysis can facilitate the implementation of HRIS technologies in SMEs in Bangladesh. Thematic analysis is a qualitative research method that involves identifying patterns or themes within data (Alam et al., 2016). HRIS technologies can aid in recognizing the processes, benefits, and challenges related to the implementation of HRIS in organizational management. HRIS integration provides advantages including the ability to monitor employee performance, guarantee data transparency, avert payroll and recruitment errors, uphold information integrity, and ensure compliance in HR operations within SMEs. Research indicates that the integration of HRIS technology in human resource management can enhance decision-making quality and improve organizational performance (Jabber, 2026).

➤ *Data Processing and Data Analysis*

Initially, all interviews were transcribed to facilitate content analysis. The transcripts were meticulously examined, and detailed notes were recorded. After a comprehensive assessment, the research initiative identified five principal themes. The analysis of qualitative data was performed utilizing MAXQDA Analytics Pro software. Subsequent to identifying the primary topics, the sub-themes were addressed next.

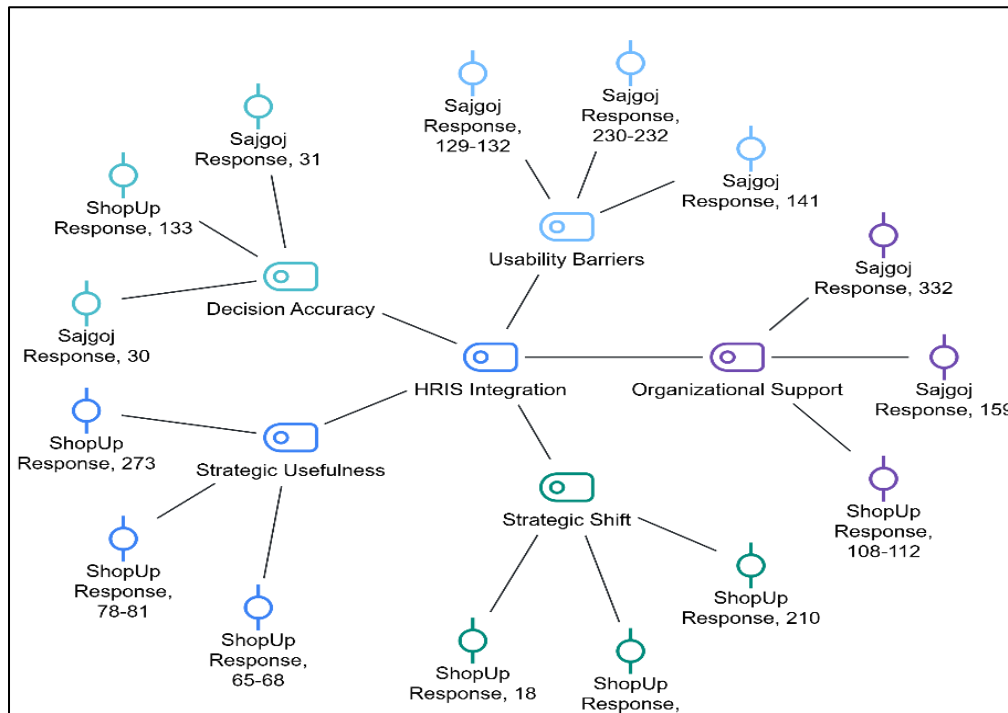


Fig 1 Main Theme & Sub Theme Subjective Codes

IV. DATA ANALYSIS AND FINDINGS

➤ *Word Cloud*

The authors applied the word cloud functionality of MAXQDA software to visually represent the data by

analysing the percentage and frequency of words. Figure 2 illustrates a word cloud that visually depicts the frequency of terms derived from interview-based research data.

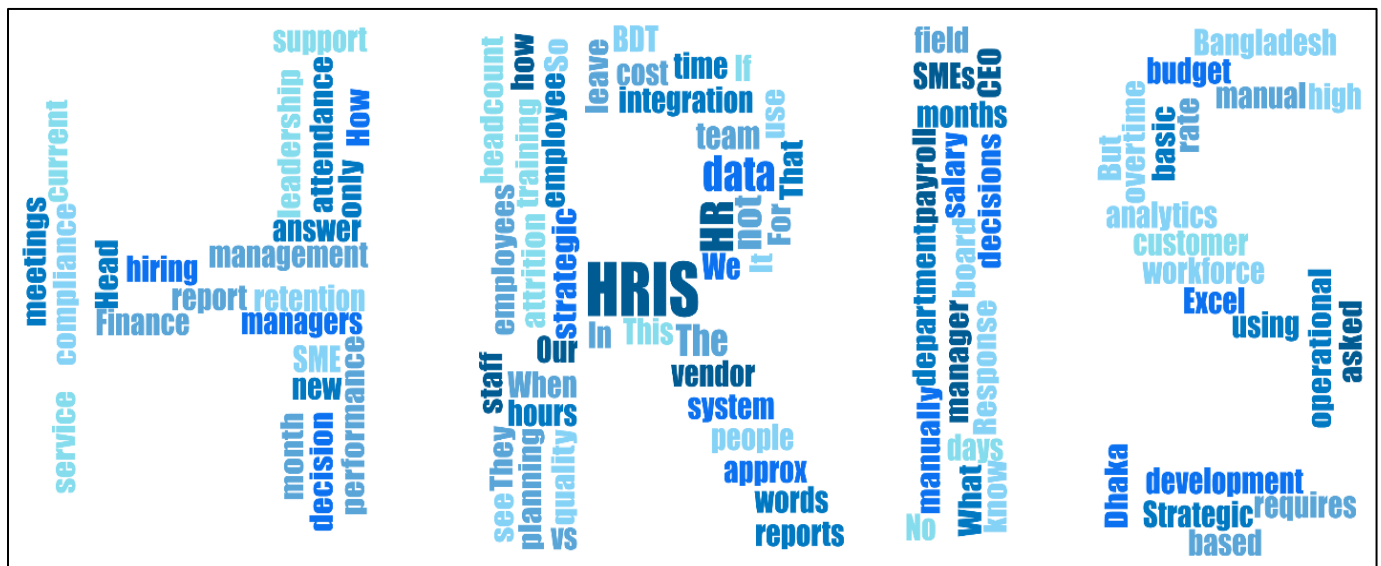


Fig 2 Word Cloud Based on Analysis of Interview Transcripts

➤ *Themes and Sub-Themes Study*

The objective of the data analysis was to examine, through interviews, the incorporation of HRIS systems in SMEs in Bangladesh. We performed a comprehensive evaluation and analysis of the transcripts and the gathered data, assessing their interrelations. Figure 3 depicts the coding process involved in the analysis of the transcripts. A theme serves as a vital component of information to communicate a meaningful analogy in qualitative research.

This study utilizes thematic analysis to investigate the behaviours, reflections, and perspectives of interviewees concerning the implementation of HRIS systems in small and medium-sized enterprises. Themes can be developed by analysing data, defining domains, and interpreting transcriptions from interviews. The authors utilized coding techniques to validate pre-existing themes of the collected data and to uncover new themes not previously recognized during the data collection phase.

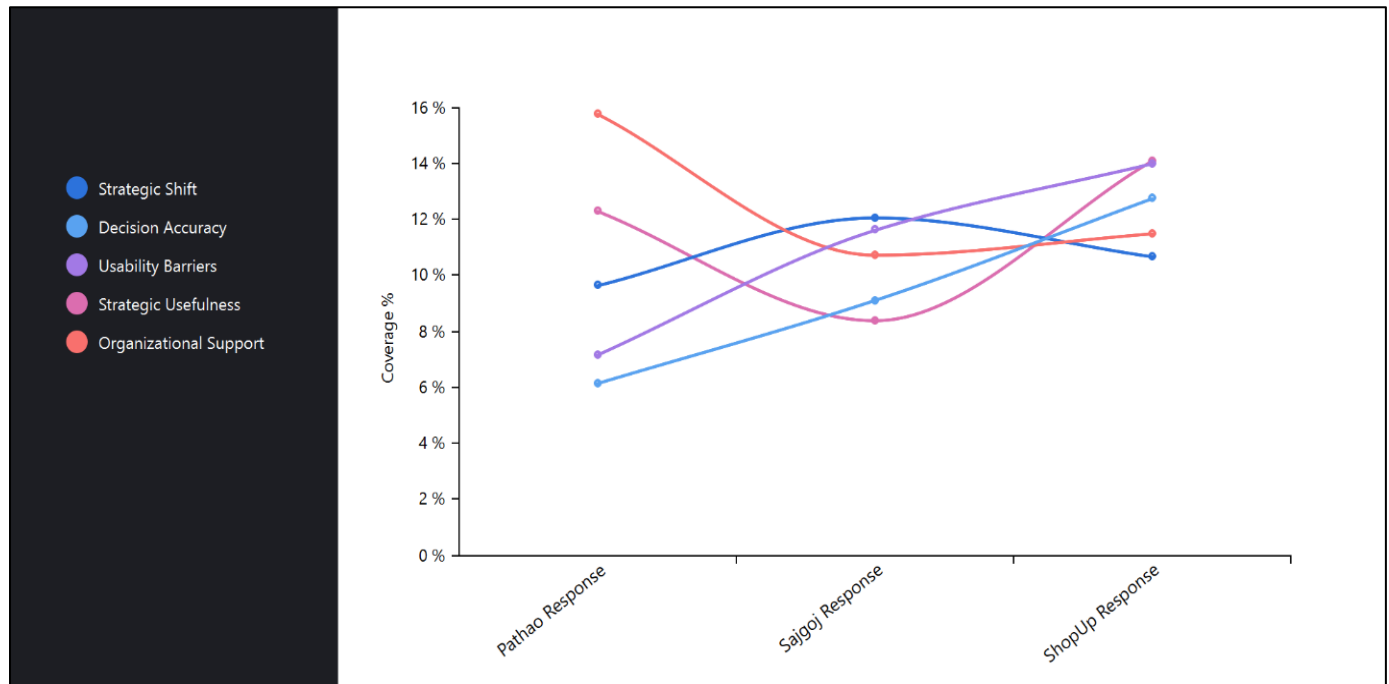


Fig 3 The Coding Trade of Analyzing the Transcripts.

V. DISCUSSION

The researchers identified one principal theme and five inductive sub-themes using thematic analysis methodology. The interview process resulted in four inductive sub-themes derived from comprehensive discussions with the interviewees. Consequently, the authors concentrated on five principal themes, which included a total of five sub-themes. The interviews produced valuable insights that the authors had not anticipated during the literature review, leading to the discovery of four new sub-themes.

The authors commenced their research on The Effect of HRIS Integration on Strategic HR Decision-Making Quality in Bangladeshi SMEs, incorporating the TAM model along with its three aspects:

- Perceived Usefulness (PU)
- Perceived Ease of Use (PEOU)
- Attitude Toward Using (ATU)

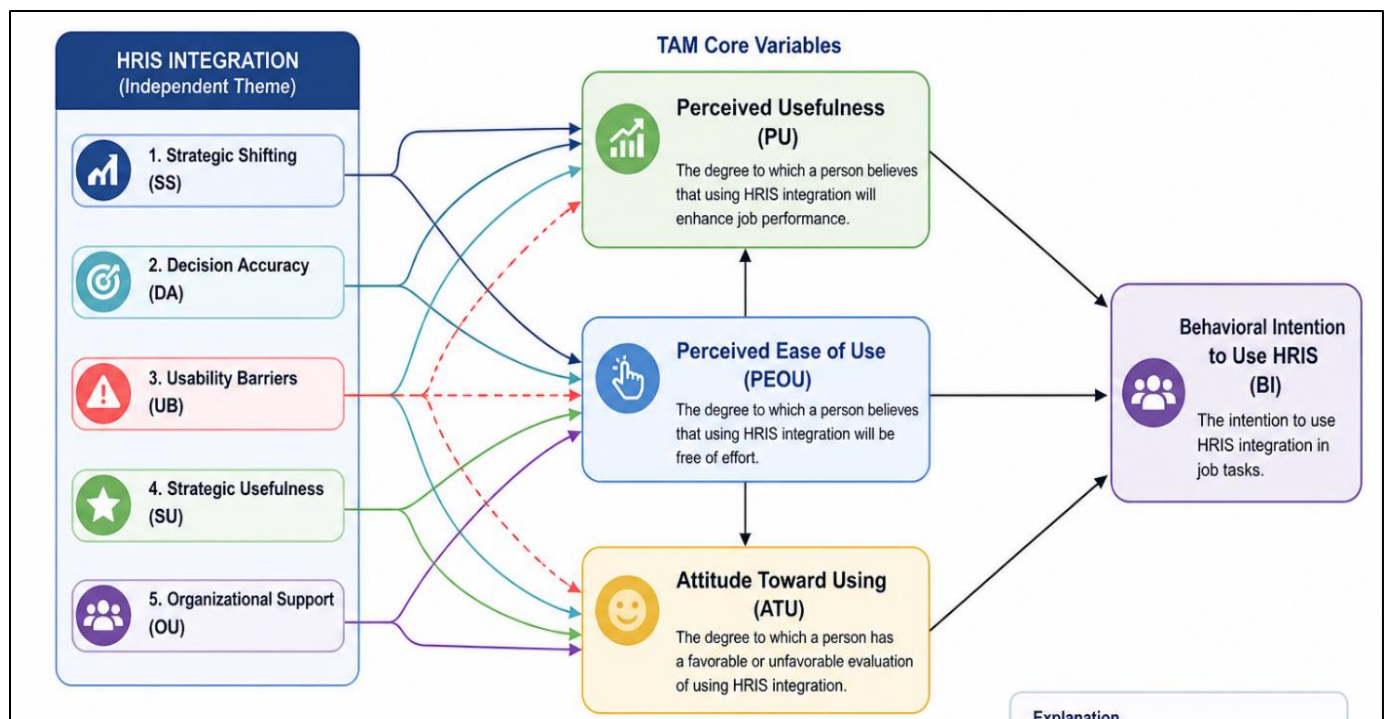


Fig 4 TAM Model

All the interviews adhered to the 15 questions as a foundation, but were not exclusively limited to them. The questions had the purpose of delineating the concepts among the experts and subsequently assessing their viewpoint based on their personal expertise. This study delineates the aforementioned themes.

Below, the analysis of interview data and interview viewpoints is presented, incorporating both inductive approaches. Furthermore, all the themes are depicted using TAM model and the comments of the interview.

- Strategic Shifting (SS)
- Decision Accuracy (DA)
- Usability Barriers (UB)
- Strategic Usefulness (SU)
- Organizational Support (OU)

The subsequent sections provide a description and evaluation of the codes that identify the Perceived Usefulness (PU) aspects of HRIS Integration, as supported by the transcripts of the interviews.

➤ *Perceived Usefulness (PU)*

The respondents clearly differentiated between the usefulness of HRIS for operational or transactional decisions and for strategic or diagnostic decisions. This distinction is crucial because the Technology Acceptance Model (TAM) generally assesses Perceived Usefulness (PU) as a one-dimensional construct; however, our data indicate that in small and medium-sized enterprises (SMEs), PU is multidimensional: elevated for certain tasks and diminished for others.

• *ST1: Strategic Usefulness (SU)*

Both respondents clearly differentiated between the utility of HRIS for operational or transactional decisions and for strategic or diagnostic decisions. This distinction is crucial because the Technology Acceptance Model (TAM) generally assesses perceived usefulness (PU) as a unidimensional construct; however, our data indicate that in small and medium-sized enterprise (SME) contexts, PU is multidimensional: elevated for certain tasks and diminished for others.

The HR Head of ShopUp mentioned that “The HRIS helps me with workforce planning (moderately, 6/10) but is almost useless for succession planning and talent development. (ShopUp Response (Interview), Pos. 20-21)”

Interpretation: Employees recognized a significant perceived utility for descriptive decisions “What is the aggregate salary expenditure per department?” and for financial or accuracy determinations (payroll error rates decreased from 5-8% to below 0.5% in both organizations). Nonetheless, predictive utility was consistently low for forecasting decisions and for diagnostic decisions necessitating root cause analysis

This discovery corresponds with the research conducted by (Chowdhury & Ahmed, 2025), which indicated that

perceived usefulness is most pronounced when technology directly and visibly enhances particular job related outcomes. Shajgoj and ShopUp achieved discernible results in payroll precision and workforce transparency. The absent or overlooked outcomes retention metrics, succession frameworks, return on investment of training constituted PU's shortcomings.

According to Research Question 1 (How does HRIS integration influence perceived usefulness and perceived ease of use among HR managers in Bangladesh SMEs?):

The interviews indicate that integration, or its absence, is the principal factor influencing PU for strategic decisions. Neither company possessed API-level integration between their HRIS and operational platforms, such as Shopify, Asana, dispatch systems, and customer support ticketing. The senior executives of Shajgoj remarked, “I cannot ascertain whether employees who utilize project management software more actively experience lower attrition without integration.” That would require two days of manual labor. The mid-level manager of ShopUp remarked, “We are unable to construct a predictive retention model utilizing operational workload as an input due to the absence of real-time integration.”

Consequently, integration directly influences perceived usefulness. When HRIS data is isolated from productivity, revenue, or customer satisfaction data, the potential for strategic workforce analytics is inherently constrained. This discovery expands the Technology Acceptance Model by proposing that perceived usefulness is not solely dependent on system attributes but also on the system's integration with other data sources.

• *ST2: Decision Accuracy (DA)*

Both companies reported significant enhancements in decision accuracy for structured, rule-based data, yet continued to encounter challenges with unstructured or relational data.

Mid-level managers of ShopUp also mentioned, “Before HRIS, our monthly payroll had an error rate of approximately 5-8%. After HRIS, the error rate dropped to less than 0.5%.” (ShopUp Response (Interview), Pos. 9)”

Nonetheless, the precision for unstructured text fields (job titles, department names, manager-employee relationships) continued to be inadequate. ShopUp identified 47 distinct variations of 'Software Engineer' due to HR personnel utilizing free text input rather than dropdown menus. Shajgoj discovered that "manager-employee relationships are not historically recorded (only the current reporting line)," rendering historical attrition analysis by manager unfeasible.

HR managers regard perceived usefulness (PU) for accuracy as elevated when the system implements validation rules, such as unique national IDs and date consistency. They regard perceived usefulness for accuracy as diminished when the system permits unregulated data entry. This indicates that the PU construct of TAM should be divided into "PU for

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➤ *Perceived Ease of Use (PEOU)*

Perceived Ease of Use denotes the extent to which an individual believes that utilizing a specific system would require minimal effort (Davis, 1989).

• *ST3: Usability Barriers (UB)*

The most notable discovery from both interviews was the pronounced disparity in perceived ease of use (PEOU) between executive or casual users and HR staff or power users. This role-based distinction is insufficiently emphasized in traditional TAM literature, which generally regards PEOU as an individual-level perception, neglecting the influence of organizational role.

According to HR staffs of Shajgoj "They utilize the mobile application to verify headcount and authorize leave requests. I have never required formal training". "(Shajgoj Response (Interview), Pos. 33-34)"

The HR staffs of ShopUP "There is no 'undo' option for errors. Suboptimal performance at month-end (page loading times range from 15 to 20 seconds). Burdensome approval processes (employee to team leader to department head to human resources to payroll for a straightforward sick day)". "(ShopUp Response (Interview), Pos. 78-79)"

✓ *Interpretation:*

The perceived ease of use (PEOU) is elevated for executives engaged in straightforward, infrequent monitoring activities, such as viewing dashboards and approving leave for direct reports. Perceived Ease of Use (PEOU) is low to moderate for Human Resources personnel engaged in complex, frequent, batch-oriented activities, such as entering 50 new employees, rectifying misspelled names, and generating custom reports. This engenders a usability paradox: the individuals responsible for strategic decisions (executives) perceive the system as user-friendly, leading them to presume it is equally accessible for all users. Simultaneously, the personnel responsible for data entry and maintenance (HR staff) encounter difficulties, resulting in data deficiencies, resistance, and alternative solutions.

Linking to Research Question 2 (What specific barriers faced by SMEs influence HRIS adoption and its effect on decision quality in Bangladesh?):

Integration typically enhances Perceived Ease of Use (PEOU) by automating manual data entry (e.g., biometric attendance to Human Resource Information System). Nonetheless, integration is entirely lacking for field personnel in both organizations. Shajgoj's field personnel communicate attendance through WhatsApp, which HR subsequently inputs into the HRIS with a delay of 24 to 48 hours. ShopUp's rural personnel utilize an offline mode that synchronizes solely once per day. Consequently, the absence of integration necessitates supplementary manual procedures, thereby diminishing perceived ease of use (PEOU). The low perceived ease of use (PEOU) for HR personnel mediates the relationship between the adoption of Human Resource Information Systems (HRIS) and the quality of strategic decisions. Due to the frustration experienced by HR personnel, they refrain from utilizing the system for non-mandatory strategic tasks, such as analyzing attrition by manager and monitoring training ROI. As a result, the data required for strategic decisions fails to enter the system, leading executives to make decisions based on incomplete or obsolete information. This exemplifies a quintessential mediation failure: despite the acknowledgment of PU at the executive tier, inadequate PEOU at the operational level obstructs the behavioral intention to strategically utilize the system.

➤ *Attitude Toward Using (ATU)*

Attitude Toward Using denotes the extent to which an individual holds a positive or negative assessment of utilizing a specific system.

• *ST4: Organizational Support (OU)*

The attitude towards HRIS was predominantly positive among both HR Heads, while line managers and certain HR personnel exhibited ambivalence to negativity. This variation was primarily attributed to organizational support specifically, enforcement by top management, adequacy of training, and cultural norms.

"One manager (the Head of Video Production) told his team, 'Just text me your leave requests; don't use that system.'

I had to threaten to withhold his department's budget. That was uncomfortable and harmed my relationship with him. (Shajgoj Response (Interview), Pos. 93)”

“In Bangladeshi SME culture, many managers come from family-run businesses with informal HR. They see digital systems as bureaucratic overhead rather than strategic tools. “Changing this mindset requires top-down enforcement.” (ShopUp Response (Interview), Pos. 109)”

Both companies indicated that the HRIS enhanced employee trust by enabling self-service capabilities, allowing employees to access pay slips, verify leave balances, and update bank information. The HR Head of Shajgoj remarked, “Self-service autonomy is significant for a predominantly young female workforce.” The HR Head of ShopUp remarked, “Employees have confidence that their compensation will be accurate.” Trust is the cornerstone of any strategic HR initiative.

✓ Interpretation:

Attitude is influenced by two contrasting forces. Beneficial impact: Operational advantages (precision, promptness, self-service) foster positive perceptions among employees and executives. Adverse influence: Perceived bureaucracy (excessive data entry, inflexible workflows) and cultural resistance (“we have always adhered to this method”) foster negative sentiments among line managers and certain HR personnel.

Linking to Research Question 2 (What specific barriers faced by SMEs influence HRIS adoption and its effect on decision quality in Bangladesh?):

The interviews identified four unique barriers specific to SMEs that influence the relationship between HRIS adoption and decision quality:

Table 1 Barrier for HRIS Integration

Barrier	Shajgoj	ShopUp	Moderating Effect
Infrastructure	Exclusively cloud-based, lacking offline functionality. Internet outages occurring once or twice monthly render the HRIS inaccessible.	Remote personnel operate in offline mode; however, sluggish 4G connectivity and power outages result in synchronization delays.	Weakens PEOU - BI link for field staff.
Data Quality	Discrepant job titles (22 variations for content positions). Absence of historical data prior to 2022.	Forty-seven variations of "Software Engineer." Unstructured text fields generate reporting distortion.	Weakens PU - decision accuracy link.
Manager Resistance	Innovative managers decline to utilize the system. The CEO must implement enforcement through budgetary threats.	The Chief Technology Officer asserts, "I do not require a dashboard to understand my engineers."	Weakens ATU - BI link; requires top-down enforcement.
Analytical Skills Gap	The HR team is unable to construct pivot tables or compute survival curves. The CEO conducts the analysis personally.	The HR team exhibits deficiencies in data analysis. Recruiting a "People Analytics Manager" in Bangladesh poses significant challenges.	Weakens BI - actual strategic usage link.

These barriers serve as moderators within the TAM framework, diminishing the associations among perceived usefulness (PU), perceived ease of use (PEOU), attitude toward use (ATU), and actual strategic behavior. For instance, despite a manager's strong perceived usefulness of HRIS (believing it would enhance decision-making), inadequate infrastructure (absence of offline functionality) or insufficient skills (inability to generate reports) hinders the realization of that belief into action.

Linking to Research Objective 3 (What is the perception of HR managers in Bangladeshi SMEs regarding the role of HRIS in improving decision-making processes timeliness, accuracy, and alignment with business objectives?):

Objective 3 is comprehensively endorsed. Support from top management (OU sub-theme) emerged as the most significant moderator. Both CEOs unequivocally asserted that without their direct intervention mandating HRIS data for headcount approvals and imposing budgetary constraints for non-compliance adoption would have been unsuccessful.

This indicates that in SME contexts, organizational support is not a secondary variable but a fundamental moderator that should be incorporated into TAM models.

• ST5: Strategic Shifting (SS)

The final sub-theme examines whether HRIS has transformed the HR function from administrative to strategic roles, a crucial indicator of ATU's organizational implications.

"Before HRIS, HR was 90% administrative. After HRIS, HR is 70% administrative, 30% strategic. HR now attends monthly leadership meetings and presents a People Dashboard. But HR is still not seen as a business driver equal to Sales or Product.” (ShopUp Response (Interview), Pos. 149-151)"

✓ Interpretation:

Both companies realized a 20%-point transition from administrative to strategic HR functions. This represents significant advancement, yet it significantly deviates from the

"80% strategic" frequently assured by HRIS vendors. The transition was facilitated by the automation of payroll, leave, and attendance monitoring, which liberated HR resources. Nevertheless, the liberated time was partially allocated to new responsibilities: overseeing the HRIS, data cleansing, troubleshooting, and pursuing non-compliant managers.

Linking to Research Question 3 (What is the perception of HR managers in Bangladeshi SMEs regarding the role of HRIS in improving decision-making processes timeliness, accuracy, and alignment with business objectives?)

- **Promptness:** Both firms reported significant enhancements. Shajgoj: "Real-time headcount, attendance, and leave balances accessible on my phone while commuting in a taxi." ShopUp: "Leadership meetings now commence with consensus as we all review the identical HRIS dashboard."
- **Accuracy:** Both companies indicated that error rates fell below 0.5% for payroll. Nevertheless, the precision of strategic data concerning managerial efficacy and the underlying causes of attrition remains inadequate.
- **Alignment with business objectives:** Mixed. ShopUp's HRIS directly facilitated a logistics reorganization that resulted in annual savings of BDT 8.7 crore. Shajgoj's HRIS directly impacted an outsourcing decision that decreased customer service expenses by 25%. Nevertheless, neither organization was able to utilize HRIS to address inquiries such as "Should we initiate a new product line based on personnel capacity?" or "What

is the return on investment of our training programs?" Consequently, alignment with the business strategy is fragmented and insufficient.

➤ *Integration as the Principal Mediator and Essential Connection*

Attitude Toward Using denotes the extent to which an individual holds a positive or negative assessment of utilizing a specific system.

• *T1: HRIS Integration (HI)*

Both CEOs independently and emphatically asserted that API-level integration with operational platforms is the paramount enhancement required to render HRIS strategically beneficial. This finding is compelling enough to warrant the elevation of integration from a sub-theme to a principal theoretical construct in SME-oriented TAM research.

✓ *"One Improvement:*

API-based integration with our operational platforms (Shopify, Asana, customer support ticketing). Not better dashboards. Not predictive AI. Not mobile app improvements. Integration. Without integration, the HRIS is a payroll tool with a prettier interface." (Shajgoj Response (Interview), Pos. 158-159)"

"I would trade every 'AI feature' and 'fancy graph' for one reliable, real-time integration pipeline between HRIS and operations platforms. Integration determines whether HRIS becomes a strategic platform or just a payroll tool." (ShopUp Response (Interview), Pos. 169-170)"

➤ *Justification for Integration Mediating all TAM Constructs*

Table 2 Justification for all TAM Constructs

TAM Construct	No/Low Integration	Full Integration
Perceived Usefulness (PU)	Elevated payroll or headcount diminished ROI per employee, attrition forecasting, managerial efficacy	Increased for strategic decisions (productivity-attrition correlations, cost-per-output evaluation, flight risk forecasting)
Perceived Ease of Use (PEOU)	Minimal (manual exports, Excel consolidation, data sanitization, duplicate entry)	Increased (automated dashboards, singular data entry, real-time synchronization)
Attitude Toward Using (ATU)	Ambivalent perceptions (HR personnel perceive additional workload; managers perceive bureaucracy)	Beneficial (HR recognizes strategic significance; managers perceive actionable insights)
Behavioral Intention (BI)	Minimal for strategic tasks; elevated solely for obligatory transactional tasks.	Enhanced for both operational and strategic analytics

➤ *Theoretical Implications: Extending TAM for SME Contexts:*

The results indicate three significant enhancements to the traditional TAM framework for investigating HRIS in SMEs within nations that are developing:

- In the original Technology Acceptance Model (TAM), external variables such as system design, training, and organizational support affect perceived usefulness (PU) and perceived ease of use (PEOU). This study posits that integration capability—particularly, API-level

connectivity between HRIS and operational platforms—is a distinct and significant external variable warranting its own consideration in SME-oriented TAM models. In the absence of integration, the potential utility for strategic decisions remains inherently limited, irrespective of system usability or training.

- The classic Technology Acceptance Model (TAM) regards Perceived Ease of Use (PEOU) as a subjective perception. In SMEs, the CEO's perceived ease of use (PEOU) may be rated at 8/10, while the HR team's PEOU

is rated at 6/10; however, the strategic utilization of the organization relies on the latter. Future TAM research should either (a) assess PEOU at the team or role level instead of the individual level, or (b) conceptualize PEOU as a multilevel construct in which executive PEOU and operational PEOU interact to forecast system-wide strategic utilization.

- **Organizational Support as a Moderator Rather Than Merely an Antecedent** TAM generally regards organizational support as a precursor to perceived usefulness (PU) and perceived ease of use (PEOU). Our data indicate that in SME contexts, top management support (OU) functions as a moderator of the relationships between perceived usefulness (PU) and behavioural intention (BI), as well as attitude toward use (ATU) and behavioural intention (BI). Specifically, even with elevated PU, in the absence of top management enforcement (e.g., budgetary restrictions for non-compliance), line managers will exhibit resistance, resulting in the failure of strategic implementation. The moderating function must be clearly delineated in SME-TAM research.

VI. RECOMMENDATIONS

This study presents recommendations for Bangladesh SMEs, administrators, HRIS vendors, and HR practitioners, derived from the thematic analysis of HRIS integration at Shajgoj and ShopUp, along with the extensions of the Technology Acceptance Model (TAM) identified herein.

➤ *Priorities API-Level Integration Rather Than Feature Augmentation:*

Both case studies demonstrated that the most significant enhancement for strategic decision-making is not advanced analytics or mobile dashboards, but rather real-time, bidirectional integration between HRIS and operational platforms (e.g., Shopify, Asana, dispatch systems, customer support ticketing). In the absence of such integration, HRIS functions solely as a payroll instrument with restricted strategic significance. Small and medium-sized enterprises should implement cloud-based Human Resource Information Systems that provide open APIs and emphasize integration strategies during the vendor selection process.

➤ *Allocate Resources for Role-Specific Training and Analytical Skill Enhancement:*

A significant obstacle was the "usability paradox": executives perceived the system as user-friendly, whereas HR personnel encountered difficulties with batch operations, error rectification, and report generation. Small and medium-sized enterprises must deliver role-specific training—fundamental navigation for managers and advanced data management, pivot table, and survival analysis training for human resources staff. Recruiting or enhancing a "People Analytics" position, even on a part-time basis, can address the deficiency in analytical skills.

➤ *Enforce Top Management Mandate as a Change Management Strategy:*

Organizational support emerged as a moderator rather than merely an antecedent. Senior management must mandate HRIS utilization through definitive measures: correlating headcount approvals with HRIS data, necessitating HRIS-generated reports for budget evaluations, and imposing repercussions for non-compliance (e.g., departmental budget restrictions). Cultural resistance from managers rooted in informal family businesses must be confronted through top-down directives accompanied by visible leadership support.

➤ *Tackle Infrastructure Limitations Specific to SMEs:*

Due to inconsistent 4G connectivity, power interruptions, and offline field operations, SMEs ought to implement HRIS platforms featuring strong offline capabilities, regular synchronization functions, and streamlined mobile interfaces. Vendors ought to develop solutions suitable for low-bandwidth conditions, commonly found in rural Bangladesh.

➤ *Transition from Descriptive to Diagnostic and Predictive Human Resources Metrics:*

Both companies excelled in descriptive analytics (e.g., headcount, payroll accuracy) but encountered difficulties with diagnostic ("why did attrition increase?") and predictive ("who is at risk of departure?") analytics. Small and medium-sized enterprises should progressively adopt standardized data validation protocols, such as dropdown menus and unique identifiers, to enhance the quality of unstructured data and test predictive models for employee retention and high performer identification.

➤ *Support at the Policy Level:*

Industry associations, such as the Bangladesh SME Foundation, and development partners should establish subsidized HRIS adoption initiatives, encompassing shared cloud licenses, centralized training center, and peer-learning networks. Government-supported digital literacy programs ought to incorporate HRIS modules customized for the requirements of SMEs.

VII. LIMITATION

This study has several constraints that require attention. The study focused exclusively on two Bangladeshi SMEs, Shajgoj and ShopUp, thereby constraining the generalizability of its findings to the wider SME population, which includes manufacturing, textiles, and traditional retail sectors. Secondly, the qualitative interview method entails intrinsic subjectivity, as the data represents the retrospective perceptions, memories, and possible biases of CEO respondents rather than objective system records or independent validation. The cross-sectional design fails to analyses long-term impacts; it provides a mere snapshot of HRIS adoption without evaluating sustained outcomes such as multi-year ROI, persistent attrition reduction, or the development of strategic HR capabilities over time. Fourth, response bias—especially social desirability bias may exist, as executives might have exaggerated strategic advantages while downplaying implementation failures or managerial

opposition. The research ultimately fails to compare various HRIS platforms or vendors, resulting in unresolved enquiries regarding whether the observed effects stem from system characteristics, organizational contexts, or their interplay. Considering these constraints, the results ought to be regarded as illustrative and hypothesis-generating rather than conclusive or widely generalizable. Subsequent research ought to utilize larger, diverse samples, longitudinal methodologies, multi-actor data acquisition, and comparative vendor assessments to enhance and corroborate these preliminary findings.

VIII. CONCLUSIONS

This qualitative study investigated the impact of HRIS integration on the quality of strategic HR decision-making in two Bangladeshi SMEs Shajgoj and ShopUp utilizing the Technology Acceptance Model (TAM) as a theoretical framework. The results indicate that HRIS markedly enhances the precision of operational decisions (e.g., decreasing payroll inaccuracies from 5–8% to under 0.5%) and expediency (real-time dashboards, mobile approvals). The shift from administrative to strategic HR is incomplete and inconsistent: HR's strategic function rose from 10% to roughly 30% of total activities, significantly lower than vendor claims of an 80% strategic transformation.

Four thematic sub-themes emerged as essential mediators and moderators: Strategic Usefulness (SU), Decision Accuracy (DA), Usability Barriers (UB), Organizational Support (OU), and Strategic Shifting (SS). The most significant theoretical extension is that integration capability—specifically API-level connectivity between HRIS and operational platforms—mediates all TAM constructs. In the absence of complete integration, Perceived Usefulness remains elevated solely for structured, rule-based decisions, while it diminishes for predictive or diagnostic decisions. Perceived Ease of Use presents a role-based paradox, as executives assign it a high rating while HR personnel rate it poorly, thereby diminishing the behavioral intention for strategic analytics. Organizational support acts as a moderator rather than merely a precursor, especially in mitigating cultural resistance from informal, family-business-oriented line managers.

Significantly, the study reveals that the mere adoption of HRIS does not ensure the quality of strategic decision-making. Infrastructure deficiencies (offline field operations, sluggish 4G), data quality challenges (inconsistent free-text entries, absent historical relationships), analytical skill deficiencies (inability to calculate survival curves or training ROI), and managerial opposition collectively undermine the connections from PU to BI and from BI to the actual utilization of the system for strategic objectives. Therefore, future SME-focused TAM research should disaggregate PU into structured vs. unstructured decisions, measure PEOU at the role level, and formally incorporate integration capability as a primary external variable.

For practitioners, the message is unequivocal: HRIS is a requisite yet inadequate condition for strategic HR decision-

making in Bangladeshi SMEs. Recognizing strategic value necessitates simultaneous investments in integration infrastructure, role-specific training, executive enforcement, and a gradual transition from descriptive to predictive analytics. In the absence of these supplementary investments, HRIS will continue to function merely as an effective payroll and record-keeping instrument, rather than evolving into a strategic decision-support system. This study provides empirical, context-specific insights into the burgeoning literature on digital HR transformation in SMEs within developing economies and presents actionable strategies for SME leaders, HRIS vendors, and policymakers seeking to improve workforce analytics and strategic competitiveness.

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