Journal of Ecohumanism
2025
Volume: 4, No: 4, pp. 209 – 223
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i4.6725

Qualitative Study of Reasons for Effective Human Resource Information Systems in the Health Sector of a Southern African Country

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Abstract

Human Resource Information Systems (HRIS), as mechanisms for human resource management, are recognised to facilitate transformative change within organisations. In the context of the health sector, effective human resource performance is essential for organisational development and to achieve the United Nations (UN) Sustainable Development Goals (SDGs). It is noteworthy that, despite a focus on research and development regarding HRIS within the health sector, the precise mechanisms through which such systems can enhance sustainability in Southern African countries, such as South Africa, remain ambiguous. This research underscores the importance of implementing effective HRIS in the health sector. The research employed qualitative methodologies, utilising interviews as the primary data collection tool. Multiple hospitals expressed their interest in participation, and the Department of Health of the Southern African country granted the necessary approvals. A purposive sampling approach was employed to select the participants from the hospitals. The research adopted an inductive approach within an interpretive paradigm. To ensure the validity of the research instrument, psychometric property testing was conducted. The findings indicate that the implementation of HRIS within the health sector is partially comprehended. Furthermore, several reasons that hinder the effectiveness of HRIS were identified, including lack of familiarity, resistance, perception, guidance and issues related to security. The research provides recommendations for overcoming these barriers to enhance the efficacy of HRIS in the health sector, thereby fostering employee commitment and future research.

Keywords: *HRIS Reasons; Human Resource Information Systems; Workers' Commitment; System Compromise; Health Sector.*

Introduction

The United Nations Vision 2030 includes good health and well-being as one of its Sustainable Development Goals (SDGs) since health is crucial to economic progress, according to Fleming et al. (2017). The Sustainable Development Goals aim for social inclusion, long-term viability, progress, and personal well-being. To accomplish the third SDG would in part require the intentional deployment of functional information communication technologies (ICT) (WHO, 2018). Despite rising studies on ICT and the SDGs, several nations have fallen short (Nazar et al., 2022). Hone et al. (2018) and Tejativaddhana et al. (2018) emphasise the necessity for processes that support ICT to enhance healthcare systems' long-term efficiency via new technologies.

Mishra (2020) states that organisations must employ information technology as part of a comprehensive strategy to update their HRM procedures to achieve their objectives. This strategic approach would entail the integration of HRM with a human resource information system (HRIS) (Pieris and Preena, 2020). Ideally, numerous organisations are presently reinforcing their HRIS capabilities, while others have not acknowledged its significance due to uncertainty regarding its strategic value. Nevertheless, considering the vast potential of HRIS applications, the lack of sustained investigation into the factors contributing to the lack of effective HRIS implementation in Southern African health organisations is disturbing (Were et al. 2019; Udekwe and Iwu, 2025a), leading to the value of an inquiry into this nature. HRISs are conceptualised as transformative mechanisms that facilitate organisational competitiveness (Gopal et al., 2019; Mascariñas Jr et al., 2024). HRIS is further characterised as the processes of storing, collecting, and analysing data (Kavanagh and Thite, 2020:13), as well as the intricate procedures involved in managing personnel through systematic approaches (Saxena, 2015; Setiawan and Wakhyuni, 2024). Therefore, certain companies may

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see their HRIS as a strategic asset. Hence, HRIS is vital for enhancing healthcare efficiency (WHO, 2015; Udekwe et al., 2024).

Senthilkumar and Meena (2024) said successful companies may have good HRIS. According to Kiros (2018), the inability to employ HRIS may harm these sectors, however, multiple studies have demonstrated that successful HRIS affects various disciplines, including healthcare. Additionally, manual HR processes may limit HRIS efficiency, leading to theft and risky healthcare situations (Wahid and Kurnianda, 2021). Recent media reports indicate that the Life Esidimeni Healthcare Project (LEHP) in South Africa caused deaths by moving patients to unsecured facilities (Dhai, 2018; Timeslive, 2018). These deaths were partly caused by inadequate scrutiny and a lack of automated health management systems. Therefore, HRIS and other information technologies are needed to prevent misconduct in healthcare (Udekwe, 2022).

Alam et al. (2016) highlighted HRIS's importance and healthcare sector issues, focusing on its sustainability in rising African economies. However, Podolchak et al. (2024) showed that HRIS expertise considerably enhances HRM problem-solving. Haule and Muhanga (2021) state that HRIS-enabled sustainability, staff development, and management techniques may help many countries build successful healthcare organisations. Udekwe, Iwu, and de la Harpe (2023) emphasise the need for an effective HRIS in managing healthcare human capital for sustainability. To achieve growth and development goals using HRIS, the healthcare industry needs to improve (Iwu et al., 2019; Anglin, 2021).

Effective HRIS functioning is needed to assess skilled personnel (Al Shikhy et al., 2019). Thus, the healthcare sector is the group of people, organisations, and institutions that enhance and administer a nation's healthcare system. Healthcare processes may be considerably enhanced with an effective HRIS.

As HRIS affects healthcare and subsequently socio-economic development, more study is required to discover ways to achieve the UN's sustainable development Vision 2030 via efficient staff administration (Dilu et al., 2017). Lema (2018) also emphasises the necessity for effective HRIS systems to eliminate physical HR encounters in healthcare. Many feel that effective HRIS may help organisations like hospitals function more smoothly. Effectiveness requires well-planned finances, well-trained people, as well as effective people management (Valcik et al., 2021). This research aims to establish what elements lead to effective HRIS functioning in a Southern African country's health sector.

Literature Review

Underdeveloped and outdated systems threaten health data and record confidentiality, according to Udekwe et al. (2023). A lot of healthcare information system research supports this. Health studies indicate that inadequate information systems like HRIS cause work dissatisfaction (Mahlulo, 2020; Udekwe et al., 2021b). All nations' healthcare systems, regardless of finances, need to utilise HRIS and prioritise efficiency by providing staff access (Naveed et al., 2021; Hazim Majid, 2024).

The necessity for a health sector in a Southern African context

Inefficient healthcare systems, such as HRIS, could have an unresolved impact on economic advancement and national development. Deficits in skilled workers could motivate the resignation of several other employees (Dhai, 2018; Udekwe and Iwu, 2025a). The public believes that healthcare staff in low-income countries like Southern Africa work hard to provide patients with treatment. These workers are usually underpaid, have terrible working conditions, and lack sufficient training, which makes them dissatisfied (Rispel and Padarath, 2018; Valcik et al., 2021). As Al-Mutawa and Manuel (2022) noted, inadequate HRIS may hinder healthcare personnel's capacity to obtain jobs in other healthcare establishments.

According to Tursunbayeva (2019), healthcare organisations may benefit from a more efficient method of phasing out outdated personnel management. Changing this would assist in creating strong, modern efficiency strategies. Pasha and Priyanka (2021) and others have highlighted the necessity for tools regarding strategic human resource information management, performance monitoring, and evaluation. These

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strategies can only be applied if Southern African healthcare policy attempts to reduce staff migration by neglecting the effectiveness of healthcare workers.

The benefits of human resource information systems

There is an indication that at each level of installation, HRIS and other ICT may be measured as underused (Mauro and Borges-Andrade, 2020). To adopt such systems, one must identify, acknowledge, be aware of, be competent in, and be conscious of their organisation. Personnel were unprepared for HRIS training; hence, it failed (Prasad, 2020; Dang et al., 2024). To enhance workers' conditions, competence and HRIS knowledge, Dang et al. (2024) and Chukuigwe (2022) recommend training and other measures. It is, therefore, critical to regulate and observe effective HRIS processes within the health sector. Magagula (2020) posited that effective HRIS could enhance employee efficiency if they are well-acquainted with the system's requirements and capabilities, fostering confidence in its use. However, given the sensitive nature of employee information, security remains a paramount concern. Thus, the effectiveness of HRIS must be contingent upon robust system security to realise its benefits (Thite et al., 2011; Wandhe, 2020; Udekwe and Iwu, 2025b). Pouransari (2016) also highlighted that leveraging effective HRIS to strengthen the health sector necessitates data integrity and security, alongside enhanced information systems, such as HRIS software, which would facilitate task accomplishment.

Several barriers hinder the adoption of policies that support HRIS in the health sector, including resource deficiencies, a lack of skilled personnel, and inadequate backing from authorities (Tetteh, 2014; King, 2021). In this context, the health sector in Southern African countries exhibits a reluctance to embrace effective HRIS. There exists a recognition of the necessity for increased advocacy for information systems, such as HRIS, as a critical measure to improve the health sector (Ilorah et al., 2017; Udekwe et al., 2023). Riley et al. (2012) and Al Shikhy et al. (2019) similarly emphasised the urgent need for pronounced financial support from the government to facilitate the implementation of effective systems and to ensure the accuracy of employee data through HRIS within the health sector. Effective HRIS should connect across tech platforms without increasing complexity and assist in managing a diverse health workforce, according to Udekwe et al. (2023). Therefore, this research justifies efficient HRIS in the health sector.

The significance of effective HRIS in the health sector

Given the state of development in Southern Africa, particularly South Africa, there is a common understanding that health systems and the efficiency of the health sector need to be constantly monitored for socioeconomic development purposes (Begg et al., 2018). In this regard, several researchers have demonstrated the need for more research that is related to the reasons for effective HRIS in the health sector of a Southern African country. Martineau et al. (2018), Rees et al. (2021) and Mansour et al. (2022) suggested that improved workforce management can be achieved through consistent and intentional research. Dey and Saha (2020) assert that effective HRIS can streamline the management of healthcare professionals, ensuring optimal staffing levels and skill mix, which is vital for delivering quality patient care. Equally, data-driven decision-making for valuable data analytics that can inform policy decisions, workforce planning, and resource allocation, helping to address shortages and improve service delivery, is achievable through research.

Adong (2018) argues that enhanced recruitment and retention bring about a well-implemented HRIS that improves recruitment processes, making it easier to attract and retain skilled health workers, which is often a challenge in many Southern African countries. Several other reasons enhance the understanding of effective HRIS in the health sector of a Southern African country. These include training and development effectiveness (Adong, 2018; Udekwe et al., 2021a). Adong (2018) also emphasises that HRIS can help track employee training needs and manage professional development programs, ensuring that healthcare workers are guided with the necessary skills. Furthering the discourse on training and development effectiveness is the necessity for compliance and reporting, which the health sector, with its stringent regulatory requirements, needs to ensure compliance with labour laws and health regulations, simplifying reporting and audits. There is also the fact of cost efficiency, which is achieved by automating HR processes. HRIS

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can reduce administrative burdens and costs, allowing more resources to be directed towards patient care (Tursunbayeva, 2018).

A robust HRIS can enhance communication and engagement among healthcare staff, leading to higher job satisfaction and better patient outcomes, resulting in improved employee engagement (Bhattacharyya et al., 2020). In times of health crises, such as the recent COVID-19 pandemic, an effective HRIS can facilitate rapid response by managing workforce deployment and tracking health worker availability. Thus, understanding the specific needs and challenges of the Southern African context can lead to the development of tailored HRIS solutions that address local healthcare issues. Ultimately, effective HRIS contributes to the sustainability and resilience of health systems, ensuring they can adapt to changing needs and challenges. Overall, emphasising effective HRIS in the health sector is essential for enhancing the overall performance and sustainability of healthcare systems in Southern African countries. The above emboldens the necessity for intentional and sustained research into the reasons for effective HRIS in the health sector of a Southern African country. Therefore, a study of this kind is valuable since there has not been a consistent focus on reasons why Southern African health organisations fail to apply HRIS effectively (Were et al. 2019).

Methodology

Interpretative paradigm and qualitative research were employed (Saunders and Lewis, 2016; Hompashe, 2021). The collected data was analysed inductively to reach new findings. To ensure data validity, reduce bias, and adjust unpleasant questions, a pilot study and psychometric testing were conducted (Alam et al., 2016; Magagula, 2020). Many public hospitals interested in participating were canvassed, but only four participated (Figure 1). The interview questions were developed to explore the study subject (Sobeck and Agius, 2007; Richards, 2019). The interviewees were the participants shown in Figure 2. Atlas-ti provided frequency-based categorisation of replies after entering the data into an analytic tool (Scales, 2013; Smit, 2021).

A multiple-case research strategy was adopted Yin (2018) to identify the reasons hindering effective HRIS in the health sector. The methodological approach was inspired by the exploratory research designs of Troshani et al. (2011), Al-Dmour et al. (2015), and Butt (2020), focusing on HRIS research. Ethical approvals were obtained from the Department of Health of the Southern African country involved and the affiliated university. As emphasised by Stone (2015), ethics in research encompasses agreements with participants regarding justice, harm, deceit, voluntariness, concealment, beneficence, authorisation, and privacy. The researchers strictly adhered to these ethical principles throughout the study.

Reasons for the chosen methodology and limitations

The researchers estimated over 10 public hospitals to participate, however, only 4 indicated their interest and participated. Also, over 200 people were estimated to participate through various research methods, unfortunately, only 41 purposively selected people were interviewed. A semi-structured open-ended interview guide was used to allow the participants to express themselves on the subject without being influenced (Lisam, 2015). Atlas-ti was used to analyse the data to identify the response from the interview in frequency codes for better interpretation. It also assists in eliminating bias in researchers' judgment. (Smit, 2002; Bhattacharyya et al., 2020). The research had limitations due to shortfalls in the number of public hospitals and individuals who participated, due to the COVID-19 pandemic during the time of the research. This made several hospitals decline their participation.

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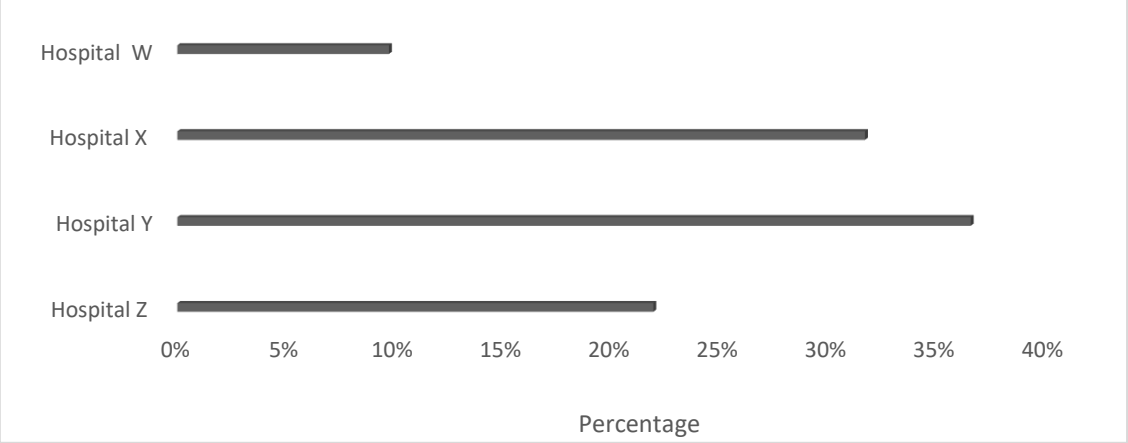

Figure 1. Breakdown of the hospitals.

Figure 1 shows that Hospital Y is 36%, and Hospital X is 32%. Hospital Z is 22%, and Hospital W is 10%.

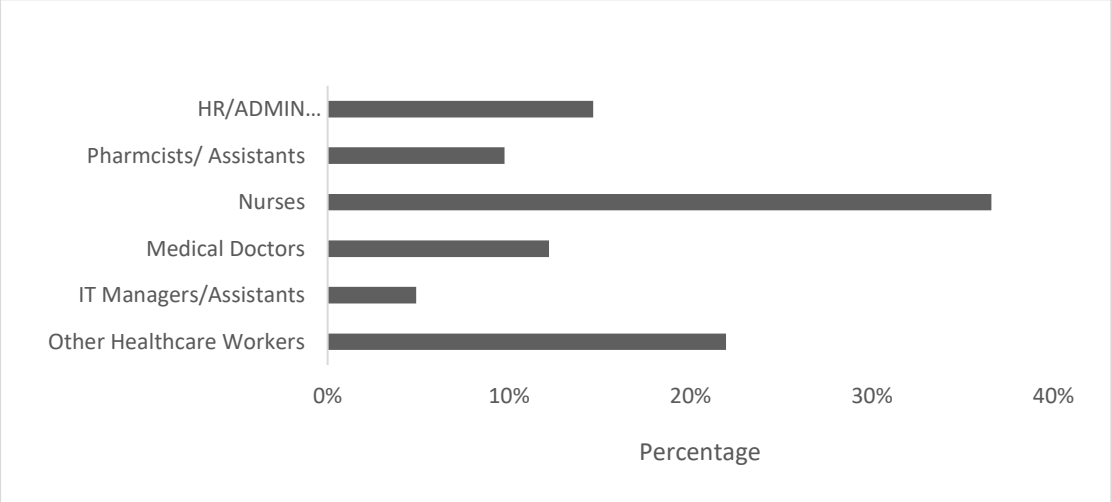

Figure 2. Breakdown of participants

Figure 2 shows that of the 41 participants, nurses were 36%, other healthcare departments 22%, HR and ADMIN 15%, and doctors 12%. Pharmacy 10%, and IT 5%.

Results

The sub-research questions were labelled from the literature gap and used to answer the research question. Table 1 shows the breakdown of the analysed data from the interviews, portrayed in frequency codes. The codes indicate the strength of the research.

Table 1. Breakdown of the findings

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An HR office at the facility	**Count**	**% Codes**	**Cases**	**% Freq**
A contact staff	3	0.9	3	7.3
Not sure	1	0.3	1	2.4
Yes, there is	24	7.5	19	46.3
Does not exist	14	4.4	14	31.4
Not well acknowledged	7	2.2	5	12.2
HR functionality in HRIS	**Count**	**% Codes**	**Cases**	**% Freq**
Don't know	18	5.6	18	43.9
Disagree	3	0.9	3	7.3
Agree	15	4.7	15	36.6
HRIS familiarity	**Count**	**% Codes**	**Cases**	**% Freq**
HRIS is in use	1	0.3	1	2.4
Lack of HRIS familiarity	17	5.3	14	34.1
Possession of HRIS familiarity	29	9.0	26	63.4
HRIS and HR security	**Count**	**% Codes**	**Cases**	**% Freq**
I believe there is a security	10	3.1	9	22.0
Yes, security codes	13	4.0	12	29.3
I believe it does	4	1.2	4	9.8
Not conscious	13	4.0	12	29.3
Lack security	4	1.2	4	9.8
Workforce dimension and HRIS	**Count**	**% Codes**	**Cases**	**% Freq**
I do not believe it does	4	1.2	4	9.8
A high number of employees with less interaction	29	9.0	28	68.3
I do not know	7	2.2	7	17.1
Perception of HRIS use	**Count**	**% Codes**	**Cases**	**% Freq**
I am not certain	3	0.9	3	7.3
Not informed of HRIS use	20	6.2	15	36.6
Inadequate perception of HRIS	22	7.3	17	41.5
Yes, HRIS is used but not ESS for leave	6	1.9	4	9.8
Aware of the use of HRIS	24	7.5	17	41.5
Other reasons	**Count**	**% Codes**	**Cases**	**% Freq**
No HRIS upgrade	10	3.1	9	22.0
Reluctant to change from the traditional HRM system	12	3.7	12	29.3
I do not know	4	1.2	4	9.8
The absence of a separate HR office	5	1.6	5	12.2
Lack of resources	1	0.3	1	2.4

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HRIS perception

Table 1 shows that 41.5% are cognisant of the HRIS in the health sector, and 9.8% mentioned the capturing of information such as leave in HRIS. Yet, 41.5% highlighted they were not conversant with the HRIS in their hospital, which is also in line with 36.6% indicating their denial of perception of HRIS used in health. Perhaps, the high rate of not conversant/perception (78.1%) was related to several reasons such as lack of access, manual support systems, and training. X12 and Y03 stated,

"Several government hospitals conduct HR work manually and not through an information system such as HRIS."

This indicates a lack of perception of HRIS in health; several HR practices are physically operated in the public hospitals.

HRIS familiarity

Table 1 shows that familiarity with HRIS in the health sector illustrates that 34.1% of negative responses are associated with their lack of idea of HRIS application in health. However, 63.4% do have an idea of HRIS but argue that the system does not assist their facilities in achieving the expected objective. In this regard, X02 and Y11 made similar comments that

"HRIS used in the health sector is, however, old and not as effective as expected."

This response demonstrates confusion regarding the familiarity of HRIS among the employees in the health sector.

HR office

This section highlighted the relevance of an HR office presence and its usefulness within health facilities. Table 1 shows that 34.1% mentioned the absence of an HR office in their hospital. Conversely, 7.3% and 46.3% emphasised they do have someone who does HR duties in their facilities. However, few participants (2.4% and 12.2%) made it known that they are not sure and are not well informed of an HR office presence because they usually visit HR in other branches. In this regard, W03 and X10 maintained that

"Most hospitals do not have HR offices due to poor infrastructure and a lack of government support."

This indicates that most health facilities in the southern African country of research lack an HR office, both physically and electronically.

HR Functionality

In Table 1, questions on HRIS assisting HR in performing its functions are identified. 7.3% and 43.9% maintained their disagreement, as well as not being aware of HRIS assisting in HR functions. This is perhaps due to their not being able to access the system. Also, 36.6% believe that HRIS can assist HR functionality in performance, but the ineffective use of such a system hinders efficiency in the sector. X08 and Y14 maintained that

"Most HR functions are not on HRIS in their facilities, and the issue of their visit to other branches to resolve HR issues is still revolving and problematic in the sector."

This shows that most health facilities in the country have HR functions that are not in HRIS, which could be attributed to a lack of support for technology usage in the sector.

Security

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In Table 1, the challenges concerning the security of information were identified in the research. In this regard, 9.8% and 29.3% maintained their lack of awareness, as well as not being informed of security in the HR system. However, 29.3% responded positively to existing security in HRIS access. These positive responses could be from Figure 2 (15% and 5%) of HR/ADMIN and IT staff, who perhaps have an idea of HRIS. Likewise, 22.0% and 9.8% maintained the belief in security in HRIS, but are not fully comfortable due to physical HR activities in their hospitals. X09 and Z05 mentioned

"The non-existence of an HR office in their hospital and no access to HRIS is a security mishap in the health sector."

This indicates a partial security awareness of information through HRIS; however, physical HR functions do not guarantee information security in the health sector.

Employee Dimension

In Table 1, the issue of whether employees' dimension impacts HRIS was emphasised in the research. Most of the participants, 68.3%, believe that a hospital with a huge number of employees could influence the effectiveness of HRIS. However, (17.1% and 9.8%) maintained that they do not think the employee's dimension is important; what matters is technology access. W01, X07 and Y14 mentioned that

"Most public hospitals have a huge number of employees, yet do not have HR offices due to the authorities' lack of seriousness in measuring the significance of health sector employees in the country."

This shows that most health facilities in the country with many employees do not use HRIS due to the authorities' negative impression of healthcare workers' importance.

Guidance and resources

Guidance on HRIS is portrayed in Table 1. In this regard, some participants, 22.0%, disagreed with the guidance on HRIS due to the lack of upgrades. Also, the fact that not everyone has access was a defect. This is perhaps due to non-sophisticated HRIS in the health sector. Y13 and Z01 believe that the

"Non-availability of guidance on HRIS due to poor infrastructure and technology availability, and the authorities not prioritising health employees."

Furthermore, 2.4% made mention of poor funding by the authorities as a significant reason that deprives effective HRIS in health. In this regard, W01 mentioned the

"Government failure to apportion sufficient resources in the health sector due to their not believing it would impact the economy."

This shows a high rate of disagreement regarding guidance and sufficient resources to support effective HRIS in the health sector of the Southern African country.

Resistance To Transformation

Table 1 highlights transformation resistance in the health sector as critical. Of the participants, 29.3% gave their observation that most employees and the government are not embracing resistance to technological transformation in the health sector. Most people prefer to continue doing things in the old ways. This deprives the effectiveness of HRIS and other information systems in the health sector. Y01 and Z09 mentioned that

"Most health employees prefer to have someone execute their HR duties while they focus on their primary healthcare assignment."

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This shows that most healthcare workers and the government are not fully in support and do not trust technology, such as HRIS initiation and changes in the workplace.

Discussion

The results reveal significant insights into the reasons that prevent effective HRIS implementation. However, key themes identified include deficiency in HRIS familiarity, perception, security, upgrades, guidance and financial support, number of employees and change resistance. The research showed that technical infrastructures need to be protected and improved due to their frequent intersection. A competent healthcare information system must address data security with sufficient resources for sustenance. It was noted that several individuals do not know what an HRIS is and do not trust the reports since most HR operations are not automated. Table 1 showed that 29.3% felt uncomfortable using HRIS, and 9.8% were unfamiliar with it. This is a concern as only a few individuals who participated are comfortable and aware of HRIS. This research aligns with Sharma et al. (2023), emphasising that effective HRIS for personnel data management would assist health organisations in accomplishing their expected outcomes. Hence, health workers want a simple and secure HRIS, according to Sharma and Meet (2024).

The research also noted that successful HRIS rollouts need structured instructions, compliance, functionality and familiarity. This research highlighted the effective adoption, implementation, and integration of HRIS, which requires employees' understanding and satisfaction with the system (Haleem and Ditsa, 2024). The research is in line with Wesolowski (2016), who mentioned that inexperience is a typical source of HRIS difficulties, which may render workers unaware of and unable to utilise the system, reducing its effectiveness. Thus, health institutions should prioritise HRIS through the education and coaching of workers (Dey and Saha, 2020).

In the research, most of the participants indicated that several health facilities lack HR offices and resource sufficiency. However, research by Juma (2018) and Divakar (2021) showed that robust HRIS systems could boost employee satisfaction and organisational performance. Hence, the research aligns with Mabaso (2020), highlighting that healthcare organisations would require an HRIS that provides data security, information management trust, and system excellence. An effective HRIS can enhance productivity, service delivery, and overall efficiency by improving employee accessibility (Hagan et al., 2022; Mbamba and Sanga, 2024).

The research also noted the negativity of resistance to transformation among public healthcare workers (29.3%). Thus, it is essential for employees to become proficient in the necessary capabilities and to adapt to transformation processes, such as the adoption of enhanced HRIS systems (Naveed et al., 2021; Hazim Majid et al., 2024; Priyana et al., 2024). Hence, with government support mechanisms within the health sector. The research is in line with Driessen et al. (2015) and Udekwe et al. (2024) who underscores the rationale for effective HRIS can assist healthcare employees in performing their core functions efficiently, with seamless system access. Hence, HRIS should be fully automated to eliminate traditional intervention in HR processes and report generation. Such systems would also support the health sector in attracting, identifying, training, and retaining skilled employees.

Summary

The researchers maximised their data by extracting relevant information that attends to their research problem and objectives through sensitive and regular contrast of data (Chopra and David, 2016). Figure 3 depicts significant key findings in the research.

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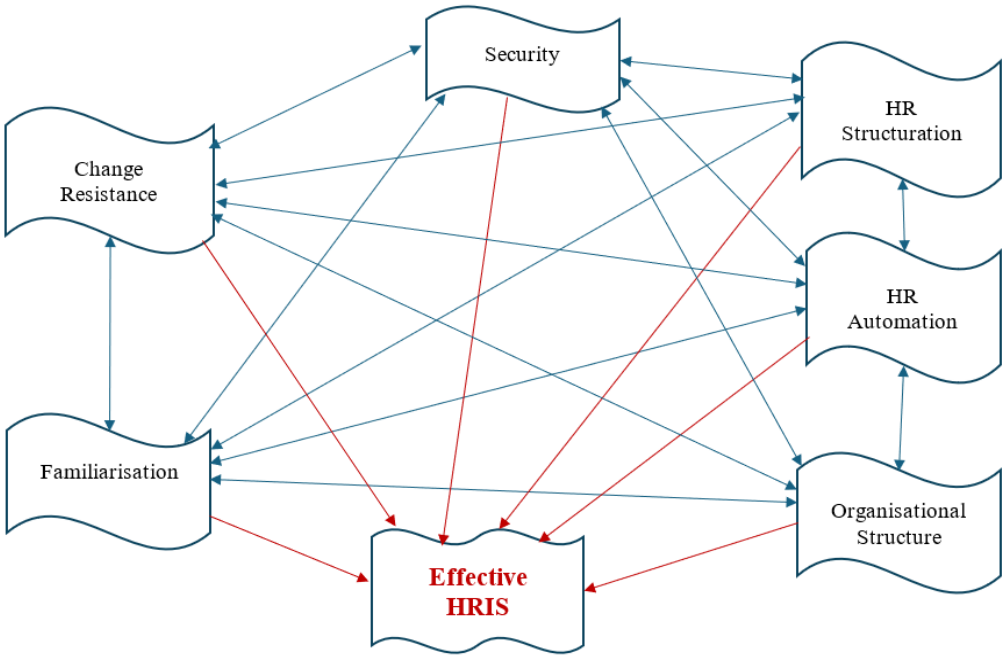

Figure 3. The framework of effective HRIS in the health sector

Figure 3 summarises the research's findings and their relationship to each other. The analysis uncovers several reasons for effective HRIS: security, automation, structures, familiarisation, structuration, transformation, and resistance in the health sector.

Conclusion

This research highlights the critical role of HRIS in supporting organisational sustainability, particularly within the health sector. Operational productivity and employee well-being need an effective HRIS. Hence, the lack of a professional HR office, limited access to HRIS, inadequate infrastructure, and physical HR processes hampered HRIS rollout. These gaps limit healthcare improvement. For health sector sustainability, a future-proof strategy that combines HRIS and other information technologies that actively engages personnel is needed for effective cooperation, support, enhancement, and productivity in the health sector. Regular inspection and upgrades of HRIS are significant towards accomplishing information privacy initiatives among health workers. HRIS needs open-minded leaders and workers to succeed. Helping the health industry become resilient and competitive is necessary.

Recommendation

In the research, most respondents were unaware of an HRIS, and many hospitals lacked an HR office. When hospitals hire people to manage HR operations without a formal system, HRIS is ineffective (Dlamini et al., 2021). Authorities should emphasise effective HRIS implementation in the health sector by building a robust help structure to support workforce management. This prioritisation would limit workers' distractions from visits to the HR office in other branches.

Despite being healthcare professionals, most participants had no understanding of what HRIS was or its goals in health organisations (Pouransari, 2016). A detailed familiarisation and awareness-raising strategy,

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https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i4.6725

including training programs and seminars, is recommended to ensure healthcare workers understand the HRIS.

The research showed that many healthcare institutions do not have HRIS and manage HR duties physically, which makes personnel less trusting in HR processes (Piros and Preena, 2020). HR functions in HRIS are crucial for technology adoption and efficiency. This initiative would improve safety and data security in the health sector's information management systems.

Resource and change resistance were major barriers to effective HRIS application. Healthcare professionals' resistance to system reforms may be at fault (Iwu and Benedict, 2013; Al Shikhy et al., 2019). Workers and authorities should use new technologies and improve HRIS to boost job performance. Also, public healthcare institutions should be sufficiently resourced for effective HRIS technology infrastructure acquisition.

This research presents a unique exploration of the factors and complexities associated with the effectiveness of HRIS within the public health sector. It underscores the importance of addressing familiarity and resistance to transformation in HRIS applications. To facilitate successful integration, it is vital to provide comprehensive guidance and adequate resources to enhance HRIS functions, ensuring both accessibility and security within the health sector.

Further research is essential to encompass a broader range of hospitals, particularly those with larger components and staffing levels, to effectively assess HRIS and its effect on healthcare delivery in Southern Africa and other developing nations. This expanded research scope should employ diverse methodologies to provide a comprehensive understanding of HRIS. Such investigations will highlight the operational challenges faced by healthcare institutions and contribute to the development of tailored solutions that enhance healthcare service delivery. Addressing these needs is crucial for fostering sustainable improvements in public health systems across the region, but equally important is the contributory attempt to realise the UN's goal #3, especially in developing nations.

Conflict of interest: The researchers do not have any conflict of interest in this research.

Acknowledgement: The researchers would like to thank the National Research Foundation (NRF) (PSTD23042396292) and the University of the Western Cape (UWC), South Africa, for their support.

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Journal of Ecohumanism
2025
Volume: 4, No: 4, pp. 209 – 223
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
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ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
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