

Factors influencing users' retention of using human resources information system in the post-implementation stage in Vietnam, from human resources professionals' perspective

Hang Thu Dang ¹, Huong Thu Kieu ^{2*}, Trang Thi-Quynh Bui ³

¹ The University of Sheffield, United Kingdom

² Faculty of Hospitality and Tourism, Thuongmai University, Cau Giay District, Hanoi, Vietnam

³ Faculty of Hospitality and Tourism, Thuongmai University, Cau Giay District, Hanoi, Vietnam

* Corresponding Author: Huong Thu Kieu

Article Info

ISSN (online): 2582-7138 Impact Factor: 5.307 (SJIF) Volume: 05 Issue: 02 March-April 2024 Received: 15-02-2024; Accepted: 18-03-2024 Page No: 838-846

Abstract

This study aims to explore the factors influencing the retention of human resources information systems (HRIS) by users during the post-implementation stage in Vietnam. To obtain insights into the experiences of HR professionals with HRIS implementation and use, semi-structured interviews were conducted with eight professionals from three different organisations. The thematic analysis of the interview data revealed four key themes that impact the retention of HRIS, which are system features, management support, organisational management, and organisational capabilities. The study found that system features, such as user-friendliness, selfservice, reliability, data aggregation, and integration, drive satisfaction and ongoing use of HRIS. Management support in the form of modelling usage and training also encourages retention. Organisational management practices. including communication and change management, facilitate adoption. Finally, digital transformation experience and financial investment enhance engagement with HRIS. The study concludes that user experience, leadership, communication, change management, and organisational elements all contribute to sustaining HRIS adoption after implementation. This study provides valuable insights into promoting continued HRIS utilisation through a holistic approach that addresses these various factors. Additionally, it offers practical recommendations to increase user retention during the post-implementation stage, based on real-world perspectives from HR professionals in Vietnam.

DOI: https://doi.org/10.54660/.IJMRGE.2024.5.2.838-846

Keywords: ERP, HRIS, Post-implementation, User engagement, User retention

1. Introduction

Over the past twenty years, the business landscape has undergone significant changes due to globalisation and technological advancements. To keep up, many organisations invest heavily in information systems to support their operations. Among these systems, Enterprise Resource Planning (ERP) has become a vital component because of its ability to improve efficiency and profitability, streamline processes, and enhance data management. While it's essential to install and configure the system correctly, it's equally important to recognize that the post-implementation phase is critical (Liang *et al.*, 2007) ^[22] since it's when users experience the actual benefits (Muscatello & Parente, 2006) ^[29]. This user acceptance is what encourages them to continue using the systems (Baroudi *et al.*, 1986) ^[4]. Unfortunately, many organisations struggle to maintain this engagement and commitment, leading to underutilization of the system and failure to meet expected benefits (Jasperson *et al.*, 2005; Wang *et al.*, 2014; Ha & Ahn, 2014) ^[17, 52, 15].

In today's world of global economic integration and the widespread influence of information technology, Vietnamese companies face challenges that may impact their goals and strategies, despite the opportunities and advantages brought by globalisation. The success of a business depends heavily on the efficient management of its human resources, which is influenced by Human Resource Information Systems (HRIS) (Park et al., 2004; Purcell, 2014) [33, 36]. An HRIS is an essential administrative tool that significantly contributes to the success of an organisation (Aggarwal & Kapoor, 2012) ^[1]. HRIS can be viewed as a part of the larger framework of ERP systems (Zafar, 2013) ^[55], and it is primarily used in organisations to assist with HR management. It is widely recognized as a revolutionary advancement that has transformed the field of Human Resources Management (HRM) (Stone et al., 2015; Silva & Lima, 2018) [44, 41].

An effective HRIS can offer useful information to managers for planning and managing their human resources, and assist them in making timely decisions (Moussa & Arbi, 2020)^[28]. It can also bring added benefits to businesses such as improved productivity and service quality, and reduced operating costs (Zainol *et al.*, 2017)^[56], making it an indispensable component of business operations. Therefore, the importance of HRIS in business cannot be overstated as it provides companies with valuable information and advantages.

HRIS, short for Human Resource Information System, is a complex system that consists of both technical and human components, with the latter being the end-users. Employees use the system along with technology, equipment, procedures, and processes in their daily work. The use of HRIS by employees can increase efficiency by facilitating faster work and providing timely information, thereby contributing to business value and achieving business goals (Aggarwal & Kapoor, 2012)^[1]. Due to the continuous growth and evolution of Vietnam's economy, businesses are looking for innovative ways to remain competitive. One such way is by implementing an HRIS (Marler & Fisher, 2013)^[27]. The successful application of technological elements in management requires HR personnel to have adequate knowledge, experience, and positive attitudes towards using the system (Chaudhry, 2018) [7]. Thus, organisations must help employees familiarise themselves with the system and work faster and more effectively. In addition to the mandatory requirements for using the system, HRIS users must follow daily tasks, procedures, and handling processes to ensure meticulous usage behaviour. The extent and manner of the system's functions, frequency of use, and meticulousness in using the system reflect employee HRIS usage (DeLone & McLean, 2016)^[8].

This study is aimed at exploring the utilisation of HRIS in the post-implementation phase. HRIS has come a long way from being just a record-keeping tool to a sophisticated system that supports organisations in decision-making and reporting since the 1960s (DeSanctis, 1986; Ngai & Wat, 2006) ^[12, 30]. Previous research on HRIS has primarily focused on identifying the factors necessary for the successful implementation of the system (Ngai & Wat, 2006; Razali & Vrontis, 2010; Winkler *et al.*, 2013) ^[30, 39, 54] or its usage (Kassim *et al.*, 2012; Maier *et al.*, 2013; Bamel *et al.*, 2014) ^[18, 24, 3]. However, despite the prevalence of HRIS in companies, there is still limited information on how organisations can effectively increase employee utilisation of this technology. Many organisations are becoming

increasingly interested in utilising HRIS capabilities and activities as they become more aware of them. Nevertheless, limited knowledge of HRIS can impede its successful application, and that is why it is crucial to understand how to use it to its full potential.

The main objective of this study is to identify the factors that contribute to the continuous utilisation of HRIS in Vietnamese organisations during the post-implementation stage. The research focuses on the perspective of eight (08) HR professionals in Vietnam who were involved in the HRIS implementation and have been using the system since its full installation. The study is limited to investigating organisations in Vietnam and gathering insights from HR professionals' experiences in the post-implementation stage. The study will address the following research questions:

Q1. How was users' experience with the HRIS in the post-implementation stage?

Q2. What are the factors that have influence on users' behaviour towards the continuance of using the HRIS?

Q3. What is the relationship between such factors and the level of users' retention of using HRIS in the post-implementation stage?

2. Literature Review

Since the latter half of the twentieth century, HRM has evolved into a strategic function from being just administrative tasks (Thite et al., 2012) [48]. This transformation has been possible by integrating information systems and technologies into HRM, leading to the emergence of HRIS (Ulrich, 1997a). The use of information systems has helped HRM to simplify processes, improve decision-making and support HR strategies. The integration of HRM and information systems has resulted in some significant contributions and advancements in the field. One of the key research areas has been the adoption and implementation of HRIS. Studies have also explored the challenges and success factors in HRIS implementation, such user acceptance, change management, system as customization and integration with existing HR processes (Bondarouk & Brewster, 2016; Maier et al., 2013) ^[5, 24]. Additionally, the impact of HRIS on HRM effectiveness, efficiency and strategic alignment has also been a crucial area of investigation.

2.1. HRIS implementation success factors

Successfully implementing a Human Resource Information System (HRIS) is a strategic requirement, and this has led to an increasing interest in factors that contribute to its success. Researchers have conducted numerous studies highlighting the significance of various factors such as user trust (Lippert & Swiercz, 2005) ^[23], project social capital, trust, and leadership (Tansley & Newell, 2007) ^[47], user involvement (Wilson-Evered & Hartel, 2009) ^[53], management support, and organisational commitment (Razali & Vrontis, 2010) ^[39]. Additionally, studies have also focused on the relevance of compatibility between IT systems, organisational design, and the skills of professionals, management commitment, human capability, organisational fit, and broader environmental factors (Delorme & Arcand, 2010; Troshani *et al.*, 2011) ^[9].

It has also been noted that the formation and re-formation of actor networks play a crucial role in the successful implementation of HRIS projects (Dery *et al.*, 2013; Strong & Letch, 2013) ^[11, 45]. These factors are critical to the success

of HRIS projects, and they should be taken into account when implementing such systems.

2.2. HRIS usage

Extensive research has been conducted on the impact of HRIS on various work-related outcomes. According to Markova (2012) [25], companies can enhance their competitiveness by utilising in-house developed or customised HRIS that can establish dynamic capabilities. The idea is also supported by Kumar & Parumasur (2013)^[21], who claim that proper implementation of HRIS can improve organisational effectiveness by aligning human resource strategy with organisational strategy, resulting in better decision-making and efficient resource deployment. Additionally, Maier et al. (2013) [24] found that HRIS implementation is positively related to employee job satisfaction and their intention to stay with the company. This emphasises the importance of HRIS in managing employee sentiment, which can reduce turnover rates and increase retention rates. Furthermore, Dulebohn and Johnson (2013) ^[44] suggest that HRIS can play a vital role in selecting, applying, and employing human resource metrics and analytics, contributing to the strategic advancement of organisations by providing valuable insights into employee performance, recruitment, and training. By utilising HRIS to gather and analyse data, organisations can make informed decisions and drive continuous improvement without compromising employee satisfaction.

2.3. Adoption barriers of HRIS

Introducing a HRIS can be a significant milestone for organisations, but it's important to be aware of potential unforeseen consequences. According to Stone and Dulebohn (2013)^[44], implementing an HRIS could lead to increased work stress for employees. This is because they may need to learn new skills or perform new tasks to adapt to the new system (Bondarouk & Brewster, 2016; Maier *et al.*, 2013)^[24]. Additionally, users may feel disappointed if the HRIS properties do not meet their expectations (Bondarouk & Brewster, 2016)^[5], which could ultimately decrease job satisfaction (Maier *et al.*, 2013)^[24].

During the process of implementing HRIS, there may be concerns regarding the privacy of employees. According to Stone and Dulebohn (2013)^[44], employees may feel anxious about who can access their personal information which could lead to a lack of trust in the HRIS technology. This lack of trust could have a negative impact on the success of the system, as noted by Lippert and Swiercz (2005)^[23].

When implementing HRIS, it is crucial for organisations to consider technology trust. Technology trust refers to the predictability, reliability, and usefulness of HRIS, which is essential for employees to have confidence in the system and ensure its success. As a result, organisations should ensure that employees receive adequate training to use the system, and they should address any privacy concerns to build trust in HRIS technology.

2.4. HRIS usage and users' behaviour in developing countries

Numerous studies in recent years have explored the factors that impact the adoption of HRIS in developing countries. These studies have investigated economic and technological factors, socio-cultural factors, institutional factors, and individual factors that influence the adoption of HRIS in developing countries. However, previous research has primarily focused on specific business sectors such as banking and finance, or particular groups of organisations such as small and medium-sized enterprises (SMEs).

Rahman et al. (2016) [38] conducted a study that identified several factors that hinder the adoption of HRIS in the banking and financial sector of Bangladesh. The study revealed that employees are not aware of the expected benefits of HRIS, which leads to a lack of performance expectancy. Additionally, employees perceive HRIS as a complex system that requires more effort and time to learn and use effectively, resulting in a lack of effort expectancy. The study also highlighted social influence as a significant challenge, such as the lack of support from top management and colleagues. Furthermore, the lack of facilitating conditions, such as inadequate IT infrastructure and resources, was another significant hurdle to the adoption of HRIS in the sector. The complexity of the system also made it difficult for employees to learn and use it effectively. The study suggests that addressing these challenges can enhance the adoption of HRIS in the banking and financial sector of Bangladesh.

Fobang *et al.* (2019)^[14] conducted a study that concluded that the implementation of HRIS can have a significant impact on the performance of small and medium-sized enterprises (SMEs) in developing economies like Cameroon. The study found that user satisfaction with HRIS has a positive effect on individual performance, which in turn has a positive impact on organisational performance. Furthermore, the implementation of HRIS can improve the quality of HR management, leading to better organisational performance. However, the study also found that HRIS is not widely adopted in firms in Cameroon, indicating that SMEs need to develop this system to remain competitive and reap its benefits.

The research identified several factors that influence the adoption of HRIS in SMEs in Cameroon. The study indicates that the quality of the system is the only predictor of the adoption of HRIS. Other key factors that influence the acceptance and use of HRIS include user satisfaction, performance expectancy, effort expectancy, and social influence. The study suggests that future research may also consider the perspectives of business/functional managers and end-users, or include variables such as age, gender, and education to better explain organisational performance.

2.5. HRIS usage and users' behaviour in Vietnamese context Limited studies have been conducted in Vietnam to examine the utilisation and acceptance of HRIS. A study by Nguyen and Nguyen (2016) ^[31] investigated the adoption of HRIS in SMEs in Vietnam. Results showed that organisations with higher levels of readiness had a more positive perception of HRIS. The readiness included operational and financial feasibility, indicating that organisations better equipped to handle the operational and financial aspects of HRIS implementation were more likely to adopt and accept it. Furthermore, the study revealed that a higher level of technology readiness, indicating technological feasibility, also led to a more positive perception of HRIS usage.

In analysing the implementation of HRIS, the study investigated how organisational features such as size, type, and financial standing impact perception and preparedness. However, the research did not offer any conclusive findings on how these factors specifically impact the adoption and

reception of HRIS.

The research was conducted in Ho Chi Minh City and included 73 participants over a period of two months. However, the study did not provide any information regarding the demographic characteristics of the participants, including their position, work experience, or education level, which could have influenced the study's findings.z40239.

3. Methodology

3.1. Data collection

To answer the research question, we chose a qualitative approach for this study. The method involved collecting qualitative data and using an inductive approach to analyse it. Qualitative research is a naturalistic technique that allows the interpretation of phenomena in their usual context, using the subjective meanings that individuals attach to them. (Denzin & Lincoln, 2018; Hennink et al., 2020) ^[10, 16]. We opted for this approach for several reasons. Firstly, it provided an interpretive method to collect and analyse data on people's experiences with information systems implementation through in-depth interviews (Hennink et al., 2020) [16]. Secondly, it allowed for sensitivity to contextual factors and flexibility for detailed explorations of the information systems implementation process (Queiros et al., 2017; Smith & Zajda, 2018) ^[37, 42]. Lastly, it helped the researcher understand the meanings attached to specific user behaviours and experiences (Hennink et al., 2020)^[16].

This study employed a qualitative and interpretive philosophical approach to gain insight into the experiences of HR professionals. The interpretive approach proved particularly effective in acknowledging the subjectivity of personal reality and the natural environment that influences behaviour (Saunders *et al.*, 2015)^[40]. By observing multiple interactions, realities, and experiences from the HR professionals' subjective perspective, this approach provided a deep understanding of their experiences in HRIS implementation and utilisation in this context (Oates, 2005)^[32].

3.2. Data analysis

The aim of this study is to understand the factors that affect the utilisation and maintenance of HRIS, as perceived by HR experts in Vietnam. To accomplish this objective, the study will use the thematic analysis method, which is a qualitative analytical technique that is ideal for investigating intricate subjective viewpoints in a dataset (Marks & Yardley, 2004) ^[26]

4. Results and Discussion

4.1. Results

Four major themes emerged from the thematic analysis related to factors encouraging ongoing HRIS use after implementation:

4.1.1. System features

Several fundamental features play a critical role in shaping users' retention. The first one is user-friendliness, which refers to how easy it is for users to navigate and use the system. Self-service, which allows users to access information and complete tasks independently, is another important feature. Performance, which determines how quickly and efficiently the system responds to user requests, is also a key factor. Data aggregation, which involves collecting and organising data from various sources, is crucial for providing valuable insights. Integration, which enables the system to interact seamlessly with other systems, tools, and software, is another important aspect.

It's worth noting that the ease of use of the system is a critical factor in promoting regular use, while complexity can deter utilisation. The presence of highly capable self-service options can reduce dependence on HR staff and encourage persistent use. Reliability is vital in building trust, while technical issues can erode user confidence. Centralised information is essential for improving insights and analytics, which drives value realisation. Finally, integrating the system with existing tools and software helps minimise duplicative work, increases system efficiency, and enhances system stickiness.

4.1.2. Management support

The successful adoption of HRIS was found to depend heavily on management modelling its usage and providing effective training. When leaders displayed enthusiasm in using the system, it conveyed its importance and significance to the employees, motivating them to follow suit. Adequate and comprehensive training programs played a critical role in building users' self-efficacy and confidence in utilising the system, while the absence of proper instruction led to confusion and avoidance. It was observed that different user groups had varying training needs, which ranged from online modules to in-person workshops depending on their level of familiarity and expertise with the HRIS.

4.1.3. Organisational management

Consistent and frequent internal communication regarding HRIS updates played a crucial role in enhancing employees' understanding of the system, leading to increased engagement. The organisation was able to smoothly adopt the HRIS due to effective pre-implementation change management strategies, such as involving various departments, ensuring executive alignment, and creating a structured transition plan. These efforts resulted in a successful and seamless integration of the HRIS across the entire organisation.

4.1.4. Organisational capabilities

Experienced companies that have undergone technology transformations are more likely to embrace HRIS compared to those who are new to digital transformation. When a company makes a financial investment in an HRIS, it compels key stakeholders such as HR and management to ensure that the system is utilised to its fullest potential and justifies the expenditure.

4.2. Discussion

4.2.1. Alignment with existing technology acceptance models

The results of this study demonstrated a noteworthy association with established technology acceptance models, including the TAM model, UTAUT model, and TOE framework. These widely recognized models provide a valuable framework for understanding and evaluating the adoption and use of new technologies in various contexts.

The importance of perceived ease of use in the TAM model is also highlighted in this study. TAM suggests that perceived ease of use plays a critical role in determining technology adoption and acceptance by users. This study focuses on the HRIS interface and emphasises the significance of userfriendliness and navigability in impacting continued usage. The study's findings align with previous research, which highlights the usability issues that act as significant barriers to technology assimilation. The study underscores the importance of designing highly usable systems and interfaces, as suggested by TAM. Therefore, this study emphasises the importance of considering users' perceptions of ease of use when designing technological systems to enhance their adoption and continued usage.

Moreover, it should be noted that actual performance and stability of the HRIS have a significant impact on how likely users are to keep using it. This is because if the HRIS isn't reliable and often experiences technical issues, users won't see it as useful. This lines up with the TAM model, which says that users are more likely to keep using a system if they find it helpful. Organisations need to make sure their HRIS is stable and reliable to keep users engaged and using the system.

With regards to the UTAUT model, effective adoption of HRIS by users requires a range of conditions to be facilitated, including managerial support and the provision of comprehensive training. As is suggested by the findings of Venkatesh *et al.* (2003) ^[51], the attitude of management can have a significant impact on the positive usage behaviour of employees. Furthermore, users must be equipped with the necessary knowledge and skills to confidently leverage the system, underscoring the importance of providing thorough and ongoing training opportunities. By prioritising these key elements, organisations can enhance the likelihood of successful HRIS implementation and maximise the benefits of this valuable tool.

As per the TOE framework, the integration of HRIS into an organisation's operations necessitates two crucial elements: digital transformation capabilities and change management planning. These factors are crucial in ensuring that the organisation is ready to adopt the new system and that the assimilation process is successful. The significance of technological readiness and the organisational structures cannot be overstated, emphasising the need for careful attention to these factors during the assimilation process (Baker, 2012)^[2].

4.2.2. Alignment with existing literature

The results of this study also show a correlation with previous research on user retention and HRIS adoption.

According to research, the perceived ease of use and system reliability of information systems play a critical role in their continued usage and assimilation. It has been empirically demonstrated that simpler, more user-friendly HRIS interfaces tend to result in higher rates of adoption. Additionally, recent research has highlighted the benefits of HRIS in terms of efficiency and information access, particularly in the area of self-service capabilities (Ngai & Wat, 2006; Kaygusuz, 2016; Suharti & Sulistyo, 2018) ^[30]. These advantages can result in notable enhancements in productivity and overall performance for organisations that opt to implement HRIS systems.

However, this study found that the influence of userfriendliness on adoption and retention is not as straightforward as initially thought. After the implementation of the system, it was discovered that particular aspects of the interface, such as navigation, layout, and intuitiveness, had a more significant impact on user experience than just overall perceived ease of use. This finding is consistent with usability research, which has identified user experience issues as a common cause of failure for HRIS (Kumar *et al.*, 2015; Prastyo *et al.*, 2019; Pratama *et al.*, 2022) ^[20, 34]. Therefore, it is essential for HRIS developers to pay close attention to the design of the system's interface to ensure a positive user experience.

As per this study, the frequency of HRIS usage is heavily influenced by the dependability and performance of the system, which differs from its perceived usefulness. Additionally, the research supports recent discoveries which suggest that issues such as instability and bugs act as major hindrances to the widespread adoption of HRIS. These findings emphasise the significance of ensuring that HRIS not only appears beneficial but also operates consistently and reliably to maximise its potential advantages.

Effective utilisation and integration of HRIS largely depends on various facilitating conditions, with training being a crucial aspect. Based on recent evidence, role-based and personalised training interventions have proven to be highly effective in enhancing sustained usage of HRIS. Furthermore, tailored capacity building interventions have also been observed to play a crucial role in ensuring successful integration of HRIS within organisations. Therefore, it is important for organisations to prioritise such training and capacity building interventions to ensure that their HRIS systems are effectively utilised and integrated.

Research has highlighted the crucial role of management support and effective communication in reinforcing the adoption of technology in organisations. This finding is in line with the principles of social influence and organisational messaging, which emphasise the significance of leadership and communication in shaping attitudes and behaviours. Moreover, emphasising change management practices, such as organisational readiness assessments and structured transition planning, can help ensure a smooth and successful adoption of new technology. By providing a clear vision and roadmap for change, and by addressing potential resistance and concerns, organisations can maximise the benefits of technology adoption while minimising disruptions and risks. According to a study conducted by Chakraborty and Mansor (2013)^[6], the costs associated with HRIS played a significant role in determining the initial adoption of the system. However, recent research has suggested that these costs may not have as much of an impact on the retention of Vietnamese end-users after the HRIS has been implemented. It is important to note that the success of HRIS implementation is dependent on several factors, including but not limited to the organisation's culture, management support, and the level of end-user training. Therefore, it is essential for organisations to consider all of these factors when implementing HRIS to ensure its long-term success and effectiveness.

4.2.3. New findings

This research study offers novel insights into the adoption of HRIS that surpass previous technology acceptance research. One of the primary findings is that the impact of user-friendly interface design and navigation on retention is greater than the impact of ease of use. This suggests that UI/UX deserves more attention in adoption models as improving interfaces can make complex systems more intuitive and 'sticky'. Additionally, the study reveals that system reliability plays a crucial role in habituating users to HRIS, which is a unique perspective separate from perceived usefulness. Consistent performance builds user confidence and loyalty, which ultimately leads to higher productivity.

In addition, the variability in training needs between different user groups highlights the importance of personalised, targeted training. While one-size-fits-all methods may work initially, tailored approaches are key to retention. Another significant insight is the evolving nature of cost considerations between initial adoption and postimplementation, which provides a more nuanced view. For end-users, ongoing usefulness matters more than costs in sustaining HRIS use.

Finally, the qualitative approach used in this study provides rich, contextualised insights beyond theory-driven studies. This inductive lens highlighted nuances around user experience, system trust, peer influences, and change management. In summary, the findings of this study offer fresh perspectives on user-centricity, system reliability, tailored training, shifting cost views, and contextual drivers of sticky HRIS adoption. These insights can help extend acceptance models and increase system entrenchment.

5. Conclusion and Recommendations

5.1. Conclusion

The main objective of this research project was to obtain a deeper understanding of the factors that come into play when HR professionals in Vietnam decide to retain and persistently utilise HRIS in their respective organisations. To achieve this, a qualitative approach was employed, wherein data was gathered from HR professionals working in three different organisations situated in Vietnam. The study essentially sought to gain insight into the rationale behind the HR professionals' preference for HRIS and the various factors that influence their decision-making process.

The research topic focuses specifically on Vietnam and gathering data from local HR professionals, ensuring that the study is directly relevant to the local context. The increasing use of HRIS in Vietnam provides an opportunity to investigate post-implementation usage and retention factors. By examining the perspectives of HR professionals, the researcher can gain valuable insights into company-wide issues and patterns that go beyond individual cultural biases. This is especially important given the diverse workforces that they oversee. The fact that Vietnam has quickly adapted to IT systems integration, despite being a developing economy, suggests that cultural barriers can be overcome with proper change management. Furthermore, this research focuses on organisational users of HRIS, rather than population-wide technology use patterns, as company cultures tend to converge globally.

According to the study findings, it appears that the retention of HRIS by users during post-implementation can be attributed to four distinct themes with eleven sub-themes. This information provided valuable insights into the factors that contribute to the successful adoption and continued use of HRIS by individuals and organisations alike. However, the most frequently cited factors that motivated users to continue using the system were the features it offered. This finding aligns with previous literature on the subject, highlighting the importance of system features in promoting HRIS adoption and continued usage. Upon further analysis, it has been discovered that there are particular indigenous factors that are unique to Vietnamese business culture and economic environment. These include internal communication and change management within organisations. The internal communication factor helps to boost the exposure of HRIS to

employees by constantly providing information via internal emails or LCDs on elevators. Additionally, the successful retention attempt is contingent upon the effective management of organisational change. This entails a carefully orchestrated transition that is both smooth and seamless. To achieve this, it is essential to incorporate a comprehensive approach that considers the various factors that influence organisational change, such as communication, training, and support. By doing so, businesses and organisations can minimise the risks associated with technological change and ensure that the transition is as efficient and effective as possible. It is important to consider these factors when conducting HRIS implementation in Vietnam to ensure successful outcomes.

The purpose of this research study is to contribute to the existing knowledge on the different factors that affect the sustained utilisation of HRIS in organisations in Vietnam. Through an in-depth exploration of this topic, this study will provide valuable insights and comprehension not only to the organisation being studied but also to other organisations seeking to improve their HRIS implementation process. This research will lay the groundwork for these organisations to harness the advantages of HRIS and boost their overall effectiveness and productivity.

5.2. Suggestions for organisations

The objective of this paper is to enhance the utilisation of HRIS in Vietnamese companies, particularly in the postimplementation stage. The research delves into identifying the crucial factors that influence user retention and seeks to provide valuable answers to pertinent research questions. Essentially, the study aims to offer valuable insights that can enable organisations to optimise their HRIS utilisation and attain better outcomes.

To ensure an HRIS is utilised consistently and effectively over a prolonged period, organisations must implement various key tactics. The foremost of these is securing buy-in from upper-level management to establish the system's value as a valuable corporate resource.

In addition, aligning the HRIS with existing work processes is critical to its smooth integration into daily operations. Comprehensive training and support for employees are also essential to ensure their comfort and confidence in using the system. Highlighting high-value functions at the outset can demonstrate the system's usefulness and generate enthusiasm for its use.

To facilitate consistent and accurate data input, it can be helpful to design workflows that incorporate the HRIS. Establishing targets and tracking usage analytics can aid in identifying areas where additional training or support may be required. Designating power users to provide peer support can also be beneficial, as well as continually optimising and enhancing the system to meet the changing needs of the organisation.

5.3. Recommendations for future studies

To maximise the effectiveness of research and overcome any potential limitations, it is highly recommended to take a comprehensive approach. This approach involves increasing the sample size, including various levels and departments, and conducting personalised research on each organisation to uncover unique factors. By doing so, researchers can obtain more precise and detailed results that can be extremely valuable for future research efforts. This method can help to identify patterns, trends, and insights that may not be apparent with a limited sample size or a one-size-fits-all approach. Therefore, it is crucial to invest the necessary time and resources in conducting thorough and personalised research to obtain the most accurate data and make informed decisions based on evidence.

6. References

- Aggarwal N, Kapoor M. Human Resource Information Systems (HRIS) - Its role and importance in Business Competitiveness. Gian Jyoti E-Journal. 2012; 1(2):1-13. Available from: https://gjimt.com/N14.pdf
- Baker J. Information Systems Theory: Explaining and Predicting 231 Our Digital Society. In: Dwivedi YK, et al., Integrated Series in Information Systems, vol. 1. Springer Science+Business Media; 2012. doi:10.1007/978-1-4419-6108-2 12
- Bamel N, Bamel UK, Sahay V, Thite M. Usage, benefits and barriers of human resource information system in universities. The journal of information and knowledge management systems. 2014; 44(4):519-536. doi:10.1108/VINE-04-2013-0024
- 4. Baroudi JJ, Olson MH, Ives B. An empirical study of the impact of user involvement on system usage and information satisfaction. Communications of the ACM. 1986; 29(3):232-238. doi:10.1145/5666.5669
- Bondarouk T, Brewster C. Conceptualising the future of HRM and technology research. The International Journal of Human Resource Management. 2016; 27(21):2652-2671. doi:10.1080/09585192.2016.1232296
- Chakraborty AR, Mansor NNA. Adoption of Human Resource Information System: A Theoretical Analysis. Procedia - Social and Behavioral Sciences. 2013; 75:473-478. doi:10.1016/j.sbspro.2013.04.051
- Chaudhry S. Managing Employee Attitude for a Successful Information System Implementation: A Change Management Perspective. Journal of International Technology and Information Management. 2018; 27(1):58-90. Available from: https://core.ac.uk/download/pdf/212813989.pdf
- DeLone WH, McLean ER. Information Systems Success Measurement. Foundations and Trends[®] in Information Systems. 2016; 2(1):1-116. doi:10.1561/2900000005
- Delorme M, Arcand M. HRIS implementation and deployment: A conceptual framework of the new roles, responsibilities and competences for HR professionals. International Journal of Business Information Systems. 2010; 5(2):148-161. doi:10.1504/IJBIS.2010.030626
- 10. Denzin NK, Lincoln YS, eds. The SAGE Handbook of Qualitative Research. 5th ed. SAGE Publications; 2018.
- Dery K, Hall R, Wailes N, Wiblen S. Lost in translation? An actor-network approach to HRIS implementation. Journal of Strategic Information Systems. 2013; 22(3):225-237. doi:10.1016/j.jsis.2013.03.002
- DeSanctis G. Human Resource Information Systems: A Current Assessment. MIS Quarterly. 1986; 10(1):15-27. doi:10.2307/248875
- Dulebohn JH, Johnson RD. Human resource metrics and decision support: a classification framework. Human Resource Management Review. 2013; 23(1):71-83. doi:10.1016/j.hrmr.2012.06.005
- 14. Fobang AN, Wamba SF, Kamdjoug JRK. Exploring factors affecting the adoption of HRIS in SMEs in a developing country: Evidence from Cameroon. In: ICT

for a Better Life and a Better World: The Impact of Information and Communication Technologies on Organizations and Society. Springer Nature Switzerland; 2019. doi:10.1007/978-3-030-10737-6_18

- Ha YM, Ahn HJ. Factors affecting the performance of Enterprise Resource Planning (ERP) systems in the postimplementation stage. Behaviour & Information Technology. 2014; 3(10):1065-1081. doi:10.1080/0144929X.2013.799229
- 16. Hennink MM, Hutter I, Bailey A. Qualitative Research Methods. 2nd ed. SAGE Publications; 2020.
- Jasperson J, Carter PE, Zmud RW. A Comprehensive Conceptualization of Post-Adoptive Behaviors Associated with Information Technology Enabled Work Systems. MIS Quarterly. 2005; 29(3):525-557. Available from: http://www.jstor.org/stable/25148694
- Kassim NM, Ramayah T, Kurnia S. Antecedents and outcomes of human resource information system (HRIS) use. International Journal of Productivity and Performance Management. 2012; 61(6):603-623. doi:10.1108/17410401211249184
- Kaygusuz İ. The impact of HRIS usage on organizational efficiency and employee performance. International Journal of Business and Management. 2016; 4(4):14-52. doi:10.20472/BM.2016.4.4.002
- 20. Kumar BA, Kumar I, Hussein S. Usability Study of Online Human Resource Information Systems at Fiji National University: A Case Study. Asian Journal of Information Technology. 2015; 14(1):42-48. Available from: https://www.researchgate.net/profile/Bimal-Kumar/publication/278028761_Usability_Study_of_On line_Human_Resource_Information_Systems_at_Fiji_ National_University_A_Case_Study/links/57c741b408 aefc4af34c7d81/Usability-Study-of-Online-Human-Resource-Information
- Kumar NA, Parumasur SB. The impact of HRIS on organizational efficiency: random or integrated and holistic? Corporate Ownership & Control. 2013; 11(1):567-575. doi:10.22495/cocv11i1c6art4
- Liang H, Saraf N, Hu Q, Xue Y. Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management. MIS Quarterly. 2007; 31(1):59-87. doi:10.2307/25148781
- 23. Lippert SK, Swiercz PM. Human resource information systems (HRIS) and technology trust. Journal of Information Science. 2005; 31(5):340–353. doi:10.1177/0165551505055399
- 24. Maier C, Laumer S, Eckhardt A, Weitzel T. Analyzing the impact of HRIS implementations on HR personnel's job satisfaction and turnover intention. The Journal of Strategic Information Systems. 2013; 22(3):193-207. doi:10.1016/j.jsis.2012.09.001
- 25. Markova G. Building dynamic capabilities: the case of HRIS. Management Research The Journal of the Iberoamerican Academy of Management. 2012; 10(2):81-98. doi:10.1108/1536-541211251580
- Marks DF, Yardley L, eds. Research Methods for Clinical and Health Psychology. SAGE Publications; 2004.
- 27. Marler JH, Fisher SL. An evidence-based review of e-HRM and strategic human resource management. Human Resource Management Review. 2013; 23(1):18-36. doi:10.1016/j.hrmr.2012.06.002
- 28. Moussa NB, Arbi RE. The impact of Human Resources

Information Systems on individual innovation capability in Tunisian companies: The moderating role of affective commitment. European Research on Management and Business Economics. 2020; 26(1):18-25. doi:10.1016/j.iedeen.2019.12.001

- 29. Muscatello JR, Parente DH. Enterprise resource planning (ERP): A postimplementation cross-case analysis. Information Resources Management Journal. 2006; 19(3):61-80. doi:10.4018/irmj.2006070105
- Ngai EWT, Wat FKT. Human resource information systems: a review and empirical analysis. Personnel Review. 2006; 35(3):297-314. doi:10.1108/00483480610656702
- 31. Nguyen DN, Nguyen MH. Factors Influencing the Use of HRIS: Case Study from SMEs in Vietnam. Proceedings of the 14th International Conference of the Society for Global Business & Economic Development. 2016:378-394. Available from: https://www.researchgate.net/profile/Aqila-Rafiuddin-2/publication/342026428_Proceedings_14thSGBED/lin ks/5edef04d92851cf1386bfa95/Proceedings-14thSGBED.pdf#page=398
- 32. Oates BJ. Researching Information Systems and Computing. SAGE Publications; 2005.
- 33. Park HJ, Gardner TM, Wright PM. HR practices or HR capabilities: which matters? Insights from the Asia Pacific region. Asia Pacific Journal of Human Resources. 2004; 42(3):260–273. doi:10.1177/1038411104045394
- Prastyo D, Sihabudin, Bakhtiar MY. Development of the Human Resources Information System (HRIS) Based on Usability Analysis with Usefulness, Satisfaction, Ease to Use (USE) Questionaire and Cognitive Walkthrough Methods. bit-Tech. 2019; 1(3):148-160. doi:10.32877/bt.v1i2.41
- 35. Pratama IT, Putri R, Fernanda R, Sunardi. The Usability Analysis of Human Resource Information System (HRIS) Using Usability Scale System and Concurrent Think Aloud. 2022 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS), Jakarta, Indonesia. 2022:270-275. doi:10.1109/ICIMCIS56303.2022.10017542
- 36. Purcell J. The impact of corporate strategy on human resource management. In: New Perspectives on Human Resource Management. Routledge; 2014:67-91.
- 37. Queiros A, Faria D, Almeida F. STRENGTHS AND LIMITATIONS OF QUALITATIVE AND QUANTITATIVE RESEARCH METHODS. European Journal of Education Studies. 2017; 3(9):369-387. doi:10.5281/zenodo.887089
- Rahman MA, Qi X, Jinnah MS. Factors affecting the adoption of HRIS by the Bangladeshi banking and financial sector. Cogent Business & Management. 2016; 3(1):1262107. doi:10.1080/23311975.2016.1262107
- 39. Razali MZ, Vrontis D. The Reactions of Employees Toward the Implementation of Human Resources Information Systems (HRIS) as a Planned Change Program: A Case Study in Malaysia. Journal of Transnational Management. 2010; 15(3):229-245. doi:10.1080/15475778.2010.504497.
- 40. Saunders M, Thornhill A, Lewis P. Research Methods for Business Students. 7th ed. Pearson Education; 2015.
- 41. Silva MSA e, Lima CGdS. The Role of Information Systems in Human Resource Management. In:

Management of Information Systems. InTech; 2018:113-126. doi:10.5772/intechopen.79294

- 42. Smith K, Zajda J. Qualitative and Quantitative Methodologies: A Minimalist View. Education and Society. 2018; 36(1):73-83. doi:10.7459/es/36.1.06
- 43. Stone DL, Deadrick DL, Lukaszewski KM, Johnson R. The influence of technology on the future of human resource management. Human Resource Management Review. 2015; 25(2):216-231. doi:10.1016/j.hrmr.2015.01.002
- Stone DL, Dulebohn JH. Emerging issues in theory and research on electronic human resource management (eHRM). Human Resource Management Review. 2013; 23(1):1-5. doi:10.1016/j.hrmr.2012.06.001
- 45. Strong M, Letch N. Investigating cultural heritage data integration with an ANT perspective. VINE. 2013; 43(3):322-340. doi:10.1108/VINE-05-2013-0030
- Suharti L, Sulistyo PR. The implementation of human resources information system and it's benefit for organizations. Diponegoro International Journal of Business. 2018; 1(1):1-7. doi:10.14710/dijb.1.1.2018.1-7
- 47. Tansley C, Newell S. Project social capital, leadership and trust: a study of human resource information systems development. Journal of Managerial Psychology. 2007; 22(4):350-368. doi:10.1108/02683940710745932
- 48. Thite M, Kavanagh MJ, Johnson RD. Evolution of human resource management and human resource information systems: The role of information technology. In: Human Resource Information Systems: Basics, Applications, and Future Directions. Sage Publications, Thousand Oaks, CA; 2012:2-35.
- 49. Troshani I, Jerram C, Hill SR. Exploring the public sector adoption of HRIS. Industrial Management & Data Systems. 2011; 111(3):470-488. doi:10.1108/02635571111118314
- Ulrich D. HR of the future: conclusions and observations. Human Resource Management. 1997; 36(1):175-179. doi:10.1002/(SICI)1099-050X(199721)36:1<175::AID-HRM25>3.0.CO; 2-G
- Venkatesh V, Morris MG, Davis GB, Davis FD. User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly. 2003; 27(3):425-478. doi:10.2307/30036540
- 52. Wang W, Liu L, Feng Y, Wang T. Innovation with IS usage: individual absorptive capacity as a mediator. Industrial Management & Data Systems. 2014; 114(8):1110-1130. doi:10.1108/IMDS-05-2014-0160
- 53. Wilson-Evered E, Hartel CEJ. Measuring attitudes to HRIS implementation: a field study to inform implementation methodology. Asia Pacific Journal of Human Resources. 2009; 47(3):374-384. doi:10.1177/1038411109106863.
- 54. Winkler S, Konig CJ, Kleinmann M. What makes human resource information successful? Managers' perceptions of attributes for successful human resource information. The International Journal of Human Resource Management. 2013; 24(2):227-242. doi:10.1080/09585192.2012.680068
- 55. Zafar H. Human resource information systems: Information security concerns for organizations. Human Resource Management Review. 2013; 23(1):105-113. doi:10.1016/j.hrmr.2012.06.010
- 56. Zainol Z, Fernandez D, Ahmad H. Public Sector

Accountants' Opinion on Impact of a New Enterprise System. Procedia Computer Science. 2017; 124:247-254. doi:10.1016/j.procs.2017.12.153