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Antecedents of Human Resource Information System Adoption: A Qualitative Study in French Context

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Abstract

This study delves into the facilitators of effective Human Resource Information System (HRIS) adoption, emphasizing vital elements while investigating the role of technological, organizational, and social factors in the adoption process. The research employs a qualitative approach, amalgamating in-depth interviews and surveys with HR professionals and employees of a company specializing in electrical and digital building infrastructures. The study identifies pervasive patterns and themes about adoption antecedents through thematic analysis of collected data. The findings underscore the critical importance of these factors in fostering the successful integration of an HRIS. Comprehensive training initiatives that empower employees to navigate the new system confidently emerge as indispensable. Moreover, sustained support and guidance from HR experts and management assume a pivotal role in surmounting challenges, addressing concerns, and nurturing user acceptance throughout the pre-and post-implementation phases.

Keywords

Knowledge, Human Resources Information System, technological factors, social factors, organizational factors.

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1. Introduction

Human resources management has become a strategic activity at the heart of companies' development, competitiveness, and attractiveness (Ponce-Pore, 2023). This is reflected in the diversity and scope of Human Resources activities, from payroll and personnel management to talent management (recruitment, integration), performance management (annual and professional interviews), career management (development plans, training), and compensation (Rezvani et al., 2022). Human Resources Information System (HRIS) is defined as "the set of databases, computer applications, hardware, and software required to collect, store, manage, and manipulate human resources data" (Sharma et al., 2023). This allows for optimal monitoring of the company's overall productivity. To meet this challenge, HR teams must be adequately equipped to manage their activities efficiently and effectively (Kravariti & Johnston, 2020).

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This situation necessitates the modernization and digitization of the HR function. The HRIS is the tool that meets the needs of HR; digital processes, simplified, automated, and fast administrative tasks (Hikmawan & Santoso, 2020). It is a tool that will reconcile technical advances and the maturity of the HR function in a company. The HRIS is a powerful lever for performance and transformation that gives concrete form to human resources management policies (Dida et al., 2021). An HRIS is not an end in itself. It is a tool that serves the company's HR policy (Davarpanah & Mohamed, 2020). All of its functionalities, and all arbitration concerning its development, are based on a business process and are designed to meet HR needs and objectives (Khamphroh et al., 2019; Memon et al., 2022).

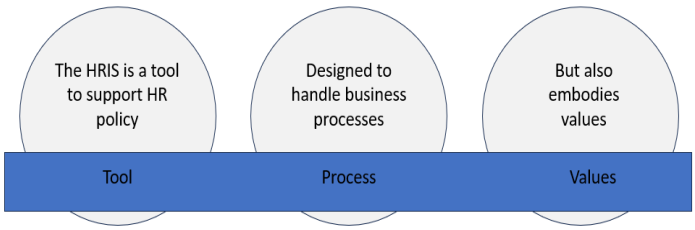

Figure 1: HRIS Principles

The HR function has undergone a digital transformation in recent years, affecting all HR components. The most widespread is the dematerialization of payroll and employee files, training software and e-learning platforms, artificial intelligence in recruitment, etc. (Shahreki, 2019; Wiblen & Marler, 2021). HRIS is the solution that frees the HR function from time-consuming administrative tasks, allowing it to focus more on high-value-added activities. However, once an HRIS has been implemented, efforts must be maintained to ensure that the users adopt the HRIS; HR, managers, and employees (Davarpanah & Mohamed, 2020; Gürlek & Uygur, 2019; Hosain et al., 2020).

Another argument is digitalization, which reflects the desire of companies to adapt to current trends, remain aligned with the new behaviors of internal employees and potential candidates, and remain competitive with other companies (Dida et al., 2021). Technological advances have driven the transformation of the HR function. The first payroll software appeared in the 1970s. Ten years later, the development of HRIS arrived (Baudoin et al., 2019). In the 2000s, with the emergence of the Internet, new HR solutions appeared. Since 2010, HR analytics, dematerialization, virtual reality, the use of digital HR offerings, etc. (Baldwin, 2020b; Constantinide, 2020).

The aim is to determine what factors influence the successful adoption of an HRIS. The intention of the decision-makers who chose, designed, and deployed the tool differs from the actual use of each end-user (Wiblen & Marler, 2021). As soon as an HRIS is deployed, the challenge is obvious: it has to be adopted by HR, who are the primary target, managers, and finally, employees, to sustain its investment and take advantage of the benefits it can bring to these populations daily (Strode et al., 2022).

The present study was motivated by the observation that employees in our company were reluctant to use the current tool in manufacturing electrical and digital building infrastructures. This raised concerns about the effectiveness and adoption of the tool within the organization. To better understand the reasons for this reluctance and to identify the factors that encourage the adoption of a Human Resources Information System (HRIS), this research proposes to explore in depth the role of training and support in the successful implementation of an HRIS. By understanding employees' barriers and concerns, this study aims to formulate practical recommendations for improving the acceptance and

adoption of a future HRIS tool by adapting training and support strategies to end-users' needs (Ponce-Pore, 2023).

2. Literature review

2.1 The Evolution of HRIS

The evolution of HRIS is associated with two factors: on the one hand, ICT disruptions, and the other hand, the evolution of HR management practices in companies (Piwowar-Sulej et al., 2022). Thus, an HRIS will merge the core activities and processes of Human Resource Management with the field of information technology (Shahreki, 2019). HRIS has evolved significantly over the last thirty years. Initially, an HRIS processed payroll data; it responded to calculation needs based on rules for payment purposes. The legal obligation to issue pay slips to employees in France in the 1970s encouraged the development of payroll-oriented software (Pandit et al., 2022).

The 1980s and 1990s saw the rise of client-server architectures intended to store information centrally. The 1990s and 2000s were marked by industrialization, harmonization, and outsourcing (Lung-Guang, 2019). These three elements, considered interesting economic levers for the company, still require modeling and standardization of processes. From the 2000s onwards, there has been talk of the democratization of HRIS. Companies have developed maturity and skills in the field of HR; they have become more rigorous and pragmatic in their choice of tools (Kravariti & Johnston, 2020; Lee & Park, 2022). On their side, employees are now used to technology and user experiences in their personal lives, and they want to bring it to the workplace. (Hikmawan & Santoso, 2020) described HRIS as "a system typically comprising one or more interrelated databases that track specific employment information".

2.2 The Components of HRIS

Behind an HRIS, there are, on average, more than 1,500 data tables that manage data related to different tasks (Baldwin, 2020b; Basu, 2019). The HRIS is used in different contexts and various organizations. It performs critical functions, such as collecting, storing, analyzing, maintaining, and retrieving employee data. The aim is to make decisions and progress toward achieving the organization's goals. The information must, therefore, always be up-to-date, valid, accurate, and accessible to managers in order to facilitate decision-making on the management and allocation of human resources. Today, an HRIS is presented as a system integrating software bricks capable of automating a certain number of tasks related to human resources management and ensuring follow-up (Al-Kassem, 2021; Davarpanah & Mohamed, 2020).

The HRIS comprises three components, like the 'Input' component, which focuses on collecting and entering HR data into the system. The 'Data Maintenance' component refers to updating the data stored in the system. As changes occur, it is important to incorporate them and preferably keep the old data in the history. Finally, the 'Output' component remains the most visible to most users as it provides usable reports and results (Chabani, 2020).

Figure 2: Components of an HRIS

Then there are the managers, who carry out a range of tasks as part of managing their teams. These tasks include conducting and approving annual performance reviews, managing and approving working hours, helping to assess training needs, requesting job openings, defining the profiles required for recruitment, and participating in the compensation process (salary increases and bonus allocation)

(Al-Kassem, 2021). Finally, employees will also use the HRIS to carry out certain tasks, such as filling in their files, entering their working hours, expense reports, absences (sickness, leave, etc.), individual interviews, training requests, and requests for mobility (Constantinide, 2020). Dida et al. (2021) distinguish four structuring principles of the HRIS shown in the diagram:

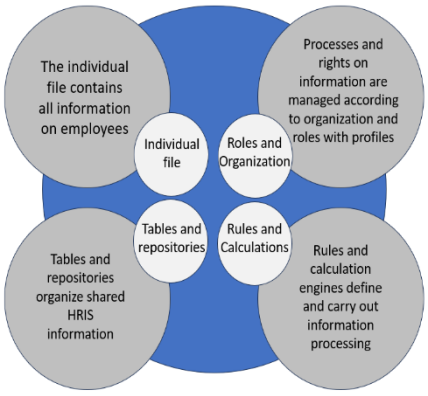

Figure 3: The structuring principles of an HRIS

2.3 The advantages of an HRIS

HRIS will enable HR departments to generate added value through the following axes identified (Basu, 2019; Baudoin et al., 2019). The accuracy, reliability, relevance, and availability of data are important. Both for all the company's HR departments, the highest authorities (to monitor indicators on the wage bill, for example), other HR-related departments, such as accounting (to feed payroll data into the chart of accounts), and finally, administrations. The quality of the data will significantly impact management's thinking and decision-making. It can be achieved by setting up workflows defining the information types to be entered (Chabani, 2020). In a recruitment workflow, for example, the manager will request the opening of a position, the HR department will study and validate the request, and then draft the first version of the job description, which will be validated by the manager (Gunawan et al., 2019). This harmonization process prompts those involved to question the methods they use and leads to a process of reflection that encompasses the needs and constraints of all stakeholders (Jha & Khanna, 2020). This process is more complex for companies operating on a merger/acquisition model, which has left each subsidiary or entity autonomous in managing its HR activities (Khamphroh et al., 2019).

In concrete terms, this means automating administrative tasks (e.g., production of employment contracts, management of social security daily allowances), simplifying interactions between the various players (e.g., electronic signatures, workflows), making employees responsible for entering specific data (e.g., leave, absences, changes of address or bank details), setting up automatic checks to secure entries (e.g., system for checking elements calculated by the payroll software), and finally setting up relevant, automated reporting (Dida et al., 2021; Khan et al., 2020; Lee & Park, 2022). They enable a company to subscribe to a web application that several customers of the solution share. In terms of training, the emergence of interactive and playful training courses overturn traditional forms of learning and tends to personalize employee training according to their career path, skills, and aspirations. Regarding skills, the rapid evolution of technologies threatens to make certain professions disappear. The challenge is, therefore, to develop predictive solutions to identify future skills that are still unknown to the company (Lee & Park, 2022).

2.4 The challenges, benefits, and key success factors of an HRIS

As competitive pressure increases to reduce costs, play a strategic role, and better manage employees in organizations, companies have realized that they cannot compete if they do not manage their human resources effectively (Memon et al., 2022). Thus, this need has driven organizations to use

HRIS as it can help make more informed decisions, more efficient HR processes, and better allocation of human resources. Therefore, competition is seen as an environmental factor influencing the adoption of an HRIS. HRIS is also influenced by factors such as the institutional and cultural environment of the host country (Mensah, 2020). As a company becomes more global, it becomes necessary to balance the organization's global and local elements. The challenges of implementing an HRIS according to Moreno Gálvez and Sierra Caballero (2022); Pitafi et al. (2020); Prastiawan et al. (2021) inconsistent emphasis on HRIS, leading to difficulties in maintaining management commitment to the project and securing the resources needed to fully develop the new or enhanced HRIS (Ponce-Pore, 2023).

The benefits of implementing an HRIS, according to Prastiawan et al. (2021), communication is facilitated between managers and their teams and between HR and employees. Information storage, retrieval, and reporting are facilitated. The overall efficiency of the HR department improves with the implementation of an HRIS (Shahreki, 2019). The automation of HR services enables the company to move from a bureaucratic system to a self-service system with a minimum of manual work. HR processes become faster, more precise, and more efficient.

The democratization of IS is helping to create a work culture focused on IT and speed. Before the advent of software, many employees were not at ease with computers (Sharma et al., 2023). The HR organization is moving from a traditional to a strategy-driven organization. HR staff have more time to focus on strategic issues, as many administrative services are provided as " self-service ". Key success factors for implementing an HRIS, according to Moreno Gálvez and Sierra Caballero (2022) highly committed management team that is enthusiastic about the software development and sees the project as an investment. An effective needs analysis. The participation of key people from HR and IT departments in the project team, with a role in coordination, leadership, communication, direction, and monitoring. Good communication and effective training, make users more confident in using the software, and clarify any confusion about the software (Ponce-Pore, 2023; Shahreki, 2019).

2.5 The Future of HRIS

Human resources management has become increasingly complex over the years, not least because of growing trends toward teleworking and globalization. HRIS evolutions have combined to move in four main directions, paving the way for the future of HR management (Piwowar-Sulej et al., 2022). In recruitment, the integration of AI can facilitate the recruitment process. Algorithms will enable the selection of candidates based on criteria (technical skills, behavioral skills) expected by the recruiter and the company. This pre-selection will lighten the recruiter's workload, especially for positions with a high volume of applications to be processed. Another expected development is cross-referencing skills sought with those available within the company. Today, HRIS enables us to identify talents and high potentials (HP) (Sharma et al., 2023). Tomorrow, artificial intelligence will make it possible to match job vacancies with the right skills profiles in a targeted and relevant way. In training, integrating AI will accelerate employees' skills development and consequently encourage professional mobility. This will manifest in the suggestion of appropriate online training courses, individualized to employees, according to their profile and aspirations, accessible anywhere, anytime.

In the same way, Netflix or Youtube offer programs based on previously consulted elements (Ponce-Pore, 2023). In the User Experience (EU), this involves integrating digital adoption platforms and Chatbots into the HRIS, capable of accompanying employees through navigation and processes and conversing with them to answer their questions automatically. To make manager/employee relations more fluid, access to new data (Data Analysis) will make managers' day-to-day work easier and enable them to feed in their feedback. Performance appraisals will no longer be carried out mid-year or annually, but rather on an ongoing basis for continuous coaching (Piwowar-Sulej et al., 2022; Ponce-Pore, 2023; Sharma et al., 2023).

Employees need to be trained and familiarized with the new tool to evolve in harmony with the artificial intelligence in place and make the most of its functionalities and make the most of the

functionalities it offers (Soebandrija & Kampus Syahdan). However, there are difficulties in measuring the effectiveness of AI implementation. The use of AI in the HR function remains basic, but it will develop a lot in the years to come, mainly via HRIS, with a single aim: to gain productivity. On the other hand, for a company, the adoption of an HRIS can be difficult and costly (Soebandrija & Kampus Syahdan).

2.6 Prior Research Theories

2.6.1 Technology Adoption Curve

The Technology Adoption Curve, also known as the Diffusion of Innovation Theory, is a sociological model developed by Rogers that describes how people react to, adapt to, and accept new innovative products and technologies (Taherdoost, 2019). This model classifies adopters into five categories in the technology adoption lifecycle. Innovators (2.5%) are often the initiators of change. People are willing to take risks and are enthusiastic about trying new things. People may even encourage others to try out a new tool.

For innovators, the focus should be on the possibilities the new tool offers. By doing so, people pretend to join a volunteer army and enthusiastically support the new technology (Wiblen & Marler, 2021). Early adopters (13.5%) want to test the tool to form a solid opinion of the technology before supporting it. What distinguishes them from innovators is risk-taking. People prefer to gather information and gain personal experience with the technology before recommending it to others. The early majority (34%) are interested in technology but want proof of its effectiveness. These are the people who peruse product reviews before making a purchase and discreetly test tools before committing. People need a pragmatic approach with proof of what the technology can achieve (Zhang et al., 2020). Early adopters need to be provided guides, videos, and training on how to use a tool. Early adopters want to be up and running immediately and will accept system anomalies in the testing phases. For the early majority, you need to show how the tool solves a problem in an argued, clear way, based on a similar problem solved successfully (Strode et al., 2022). For the late majority, you need to prove the effectiveness of the new tool with facts and figures and call on the innovators to show how the tool serves the organization. People are more sensitive to arguments backed up by data, especially if it comes from people they work with. For laggards, collect data from other users and show how the new tool has helped others succeed within the same company or team. Laggards want success stories from their colleagues that show a strong personal advantage to overcome skepticism (Sharma et al., 2023).

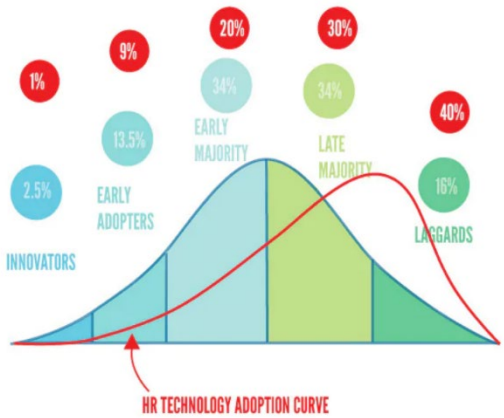

Figure 4: HR Technology Adoption Curve (Consumers vs HR Technology)

This category's late majority (34%) expects well-founded arguments for adopting technology. People do not like to take risks and question the need for change, preferring to observe how change unfolds before getting involved (Sharma et al., 2023). Laggards (16%) in this category are wary of new technologies. Before people consider jumping on board, they need to know what's in it for them. People prefer the status quo because they know what to expect. They quickly abandon a tool that does not immediately make their lives easier (Shahreki, 2019). The last thirty years have greatly enriched the research on information systems adoption. The question of IS adoption has been the subject of research in the human sciences (sociology, psychology) and management, integrating diversified approaches and different angles of analysis of what adoption is (Wiblen & Marler, 2021).

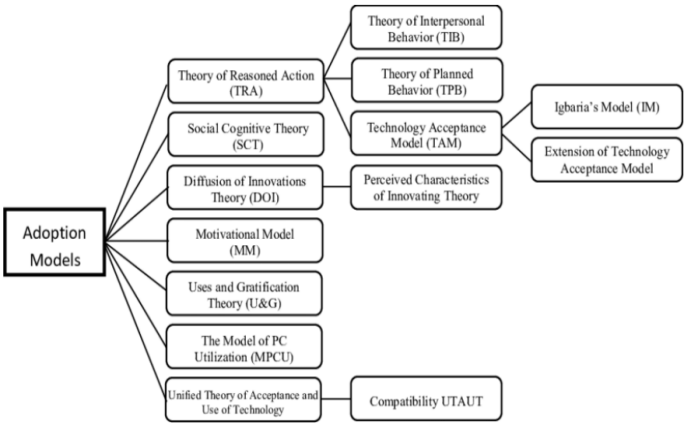

Figure 5: Overview of Adoption Models (Taherdoost, 2018)

2.6.2. Technology Acceptance Model

Technology Acceptance Model (TAM) (Davis, 1989) is the most widely used model, based on theories from social psychology; Ajzen & Fishbein's Theory of Reasoned Action, which in turn evolved into the Theory of Planned Behavior. According to Davis (1989), information systems offer the potential for significant performance improvements, but these can be hampered by the reluctance of users to accept and use the systems available. Davis (1989) identified two key variables: Firstly, Perceived Usefulness: people tend to use or not use an application to the extent that they think it will help them develop. Perceived usefulness is "the degree to which a person believes that using a particular system would improve their professional performance" (Baldwin, 2020a).

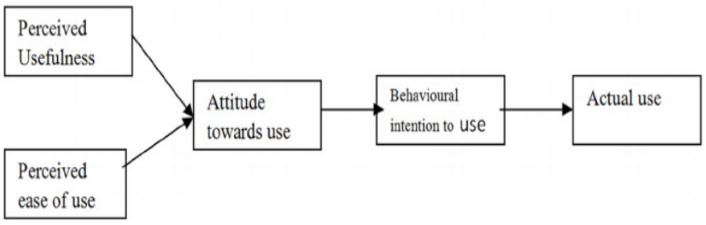

Figure 6: The original technology acceptance model TAM (Davis, 1989)

Secondly, Perceived ease of use: even if users believe that a given application is useful, they may at the same time feel that it is too difficult to use and that the benefits in terms of performance are outweighed by the effort required to use the application. This variable can be defined as "the degree to which a person believes that using technology will require minimal effort ". Davis (1989) argues that an application perceived as easier to use than another is more likely to be accepted by users. Davis (1989) considers that external variables influence perceived usefulness and perceived ease of use.

Davis (1989) adds that a set of attitudes justifies an Attitude Toward Using, which triggers a Behavioral Intention to Use, followed by Actual System Use.

2.6.3 Proposed Research Model

Based on the prior theories and research models of Teo et al. (2007), and Moreno Gálvez and Sierra Caballero (2022), this study utilized the three factors influencing HRIS adoption; named as technological, organizational, and social factors.

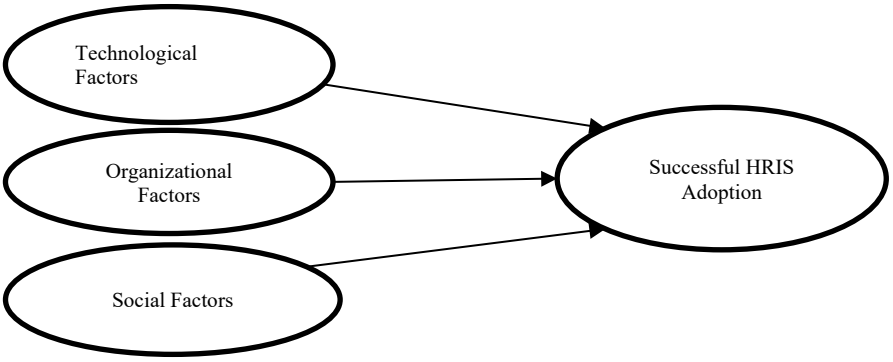

Figure 7: Proposed Research Model

3. Methodology

This study is based on a qualitative, exploratory approach aimed at exploring in depth the factors favoring the adoption of a Human Resources Information System (HRIS) for the manufacture of electrical and digital building infrastructures company Human Resources department. This is a unique case study conducted within this company. The research adopts a qualitative approach, focusing on understanding HR professionals' and employees' experiences, perceptions, and insights regarding HRIS implementation. Qualitative analysis allows for an in-depth exploration of factors influencing adoption from multiple perspectives. The study will be conducted within the manufacturing company specializing in electrical and digital infrastructure. This context is chosen to gain insights into industry-specific challenges and opportunities related to HRIS adoption.

3.1 Population and Sample Size

The target population for this study is employees from the manufacture of electrical and digital building infrastructures company Human Resources department who were involved in adopting the HRIS. The sample for this study comprises 10 participants selected from this population. The participants include four manufacturers of electrical and digital building infrastructures company employees from France. Employees have varied seniority within the company, ranging from less than 2 years to more than 10 years. This strategic selection enables us to cover different regions and perspectives. The response rate for this study was 100%. All 10 contacted participants agreed to participate in the survey and completed the interviews. This high response rate testifies to the participants' commitment and interest in sharing their experiences and perspectives on HRIS adoption.

3.2 Data Collection and Analysis Methods

Data were collected through in-depth individual interviews. Interviews were conducted in person at the manufacture of electrical and digital building infrastructures company premises for the four French employees and by videoconference for employees from the rest of the world. All interviews were conducted in English. The discussions followed a semi-structured approach. Each interview lasted an average of 45 minutes. They were recorded with the participant's consent and fully transcribed for

further analysis. The data collected is mainly qualitative, providing detailed information on participants' experiences, perceptions, and practices regarding HRIS adoption in their organizational context. Considering the company animosity reference name of HRIS (T—m) is mentioned.

Participants were notably asked in the interviews:

(1) What they were using HRIS (T—m) for

(2) How often do they use HRIS (T—m)

(3) How ergonomic they find the use of HRIS (T—m)

(4) What support they received in the use of HRIS (T—m)

(5) What could have been improved regarding the support

(6) What they expect for a future HRIS project

3.3 Coding

By analyzing the responses from the ten interviews, seven sub-dimensions were identified. The following table provides a sample of extracted statements from the interviews and their aligned sub-dimensions.

Table 1: Interview Coding Samples

Extracted statements	Sub-dimensions
The design of a product to optimize comfort	Ergonomic
An interface or system that is easy to understand and use	User-friendly
A software that can be counted or depended on consistently, without failure or error, and updated data.	Reliable
Flexible, iterative development approach, enabling rapid adaptation to change and efficient delivery of results	Agile
Technical support, resources, or assistance available for the system	Supported
The software can be used independently, without external intervention or control.	Autonomous
Different elements and components are combined coherently to form a functional and interconnected whole.	Integrated

4. Results

This section presents the findings from the respondents' answers to the questions regarding their usage of HRIS (T—m), their expectations from a future HRIS system, and their satisfaction with data quality, along with their means of improving it. The perspectives of each respondent are summarized below:

(1) Ergonomic: Harker (1995) discusses the importance of incorporating ergonomic principles into the design and development of software applications. The author highlights the need for standards that address the human-computer interaction aspects of software to ensure user comfort, efficiency, and overall well-being. Harker (1995) work provides insights and recommendations for software developers, designers, and policymakers interested in promoting user-friendly and ergonomic software design practices. Ergonomics is paramount for a tool, as it aims to ensure an optimal user experience. By creating a user-friendly, intuitive interface, ergonomics enables users to navigate the device easily, perform their tasks efficiently and minimize errors. Ergonomics promotes user comfort, satisfaction, and productivity, helping to maximize the tool's effectiveness and improve overall results.

(2) User-friendly: Meyer and Harper (1984) delve into designing user-friendly technology and interfaces. The authors emphasize the importance of prioritizing the needs and expectations of users in the design process. Meyer and Harper (1984) provide insights and strategies for creating intuitive and efficient user experiences, focusing on usability, accessibility, and visual design. The research offers practical guidance and case studies to help designers and developers create products that are enjoyable, efficient, and easy to use. Meyer and Harper (1984) emphasize that user-friendliness is a key factor in the success and adoption of any technology or product.

(3) Reliable: Jha and Khanna (2020) ensure that software systems perform their intended functions consistently and accurately. It is the ability of software to operate without failure or errors over a specified period and under various conditions. Achieving high software reliability is crucial as it helps prevent system crashes, data corruption, and potential financial or operational losses while instilling user confidence in the software's stability and dependability. The reliability of a tool is essential, as it guarantees its smooth operation and stability, thus avoiding errors and unexpected breakdowns. Users can rely on the tool to perform tasks without interruption or frustration. High tool reliability inspires confidence, promotes work efficiency, and prevents negative consequences such as data loss or service interruptions.

(4) Agile: Dyba and Dingsoyr (2009) explore the principles, methods, and practices of agile development. Dyba and Dingsoyr (2009) provide in-depth knowledge of the agile approach, including its benefits, challenges, and applications in software development. Agility offers several advantages in software development. Firstly, it promotes greater flexibility by enabling rapid adjustments to changing customer requirements and needs. In addition, it fosters close collaboration between team members, improving communication, efficiency, and the quality of the work accomplished. Finally, the agile approach favors continuous, iterative delivery of functionalities, enabling shorter development cycles and more excellent responsiveness.

(5) Supported: Rodriguez and Walters (2017) explain that training and development are crucial for organizational leaders to recognize and prioritize as they significantly impact employee performance and evaluation. By investing in employee training, organizations can achieve various goals, such as improving morale, job security, engagement, and overall job competencies. Organizational leaders should adopt systematic approaches to assess employee performance, considering personal attributes, corporate environment, motivation, skills, aptitudes, and role perceptions. Organizations can empower employees to contribute to their competitive position in the global market by providing suitable training and support opportunities and effective performance assessment strategies.

(6) Autonomous: Saragih (2015) explains that this research aimed to investigate the relationship between job autonomy and work outcomes, specifically job performance, job satisfaction, and job stress, with self-efficacy as a mediating variable. The results indicated that job autonomy significantly positively impacted job satisfaction and performance, but it did not have a substantial relationship with job stress. The study also found that self-efficacy partially mediated the relationship between job autonomy and job satisfaction and performance.

(7) Integrated: Baldwin (2020a) discusses the importance of modular integration in software development. They point out that modular design enables better integration of software components, making it easier to update, modify and maintain the software. This makes the application easier to use and avoids double filling of information, as some countries have their system in addition to manufacturing electrical and digital building infrastructures.

4.1 Abstraction

After the evaluation of all sub-dimesnions it was abstracted under three dimensions according to the proposed research model namely, Technological Factors, Organizational Factors, and Social Factors

Table 2: Abstraction under three dimensions

Dimensions	Sub-dimensions	Description
Technological factors: refer to the benefits that organizations expect to receive from adoption and include increased levels of quality, efficiency, and reliability	Ergonomic	To determine if the tool is optimized for users' comfortable and efficient use, considering factors such as user interface design, ease of navigation, and minimizing physical strain or discomfort.
	Reliable	Refers to the ability of software to consistently perform its intended functions without errors and with accurate data.
Organizational factors: refer to the level of centralization as central management and management support	Agile	Refers to a development approach that emphasizes flexibility, collaboration, and iterative development cycles. Agile software development allows for frequent feedback and adaptation to changing requirements, resulting in faster and more efficient development.
	Supported	Refers to software that is actively maintained and updated by the developer or a dedicated support team and adequate training.
	Integrated	Describes software or systems that have seamless connections between different components or modules, enabling efficient data flow, communication, and real-time updates across functionalities or departments.
Social factors: refer to the relationship between social actors and technological devices, focusing on the development of technological and cognitive skills by users	User-friendly	Describes software that is intuitive and easy to use, requiring minimal technical knowledge.
	Autonomous	Employees can make decisions independently and, without requiring constant any other team's intervention.

5. Conclusion and Discussion

Successfully adopting a Human Resources Information System (HRIS) depends on several key factors, but two stand out: support and training. Support is essential to ensure a smooth transition to HRIS. Users need to be guided through the entire adoption process, from the planning phase to the day-to-day use of the system. Proper support includes clear communication on the objectives of HRIS, the benefits for the organization and individuals, and the stages in the adoption process. It also involves technical assistance and rapid resolution of any problems users encounter.

Training is another crucial element. Users need to be trained in the functionalities and processes of the HRIS, as well as in best practices for its use. Training tailored to each user's skill level and specific

needs is essential to ensure effective use and maximize the system's benefits. Training can include online sessions, face-to-face training sessions, tutorials, and educational resources to enable users to develop the skills they need to optimize the HRIS. Coaching and training promote user acceptance of HRIS and reduce resistance to change. By understanding the benefits and mastering the tool, users are more inclined to adopt it and fully use it. Coaching and training also help minimize errors and frustrations linked to incorrect or inefficient system use. Organizations can create an environment conducive to successful HRIS adoption by focusing on coaching and training. This involves dedicating resources and skills to setting up a comprehensive coaching and training program in collaboration with HR management teams and HRIS service providers. This ensures that users are well-prepared and supported throughout the adoption process, helping to maximize the benefits of HRIS and promote the organization's overall success.

In conclusion, support and training are key factors in successfully adopting an HRIS. By investing in these two aspects, organizations can ensure that users are competent and confident in using the system, enabling the full benefits of HRIS to be exploited. Coaching and training promote a smooth transition, reduce resistance to change and contribute to effective human resources management, boosting an organization's performance and competitiveness.

5.1 Implications

There are numerous implications of the importance of coaching and training in HRIS adoption. Firstly, organizations need to recognize that coaching and training are necessary investments to ensure a successful transition to HRIS. This means allocating financial, human, and time resources to set up appropriate training programs and offer ongoing support to users. In addition, HR managers must actively promote HRIS adoption by actively communicating its benefits, encouraging employee participation, and facilitating access to training.

5.2 Limitations

However, there are some limitations to consider. Firstly, financial constraints may limit organizations' ability to provide comprehensive coaching and training. In addition, employees' resistance to change can represent a significant challenge, even with adequate coaching and training. Some employees may be reluctant to abandon traditional methods and adopt new technologies. Finally, it is essential to note that coaching and training alone do not guarantee successful HRIS adoption. Other factors, such as system quality, organizational culture, and management support, also play a crucial role.

5.3 Future Research Directions

There are several promising research directions to deepen the understanding of HRIS adoption. Firstly, it would be interesting to investigate further the effectiveness of different training programs, such as e-learning, face-to-face training, and blended learning approaches. This would help determine which training methods are most effective for different types of users and organizational contexts. In addition, further research could focus on best practices in coaching, identifying the most effective approaches to supporting employees throughout the HRIS transition. In addition, it would be interesting to conduct comparative studies to assess the impact of coaching and training on organizational outcomes such as productivity, employee satisfaction, and staff retention. This would quantify the tangible benefits of HRIS adoption and demonstrate its added value for organizations.

Finally, it is important to explore the individual and organizational factors that influence the effectiveness of coaching and training. For example, it would be interesting to examine how employees' characteristics, such as their level of technological competence and resistance to change, influence their ability to benefit fully from coaching and training. In addition, it would be relevant to study how organizational characteristics, such as learning culture, leadership, and management support, influence the effectiveness of coaching and training in the context of HRIS adoption. In

summary, future in-depth research into HRIS adoption should focus on the effectiveness of coaching and training programs, the organizational outcomes of HRIS adoption, and the individual and organizational factors that influence adoption. By developing a better understanding of these aspects, organizations will be able to improve their HRIS adoption strategies and maximize their benefits.

References

Al-Kassem, A. H. (2021). Significance of Human Resources Training and Development on Organizational Achievement. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *18*(7), 693-707.

Baldwin, C. Y. (2020a). Design Rules Volume 2: Chapter 4—The Mirroring Hypothesis: Linkages Within and Across Transaction Free Zones. *Design Rules*, *2*.

Baldwin, C. Y. (2020b). *Design Rules, Volume 2: how Technology Shapes Organizations: Chapter 2 Transactions in a Task Network*. Harvard Business School.

Basu, M. (2019). Implementing E-HRM in Cross-Country Environment: The Key to Organizational Growth. Proceedings of 10th International Conference on Digital Strategies for Organizational Success,

Baudoin, E., Diard, C., Benabid, M., & Cherif, K. (2019). *Transformation digitale de la fonction RH* (Vol. 1). Dunod.

Chabani, Z. (2020). The challenges facing public organizations to implement human resources information systems: a case study of Algeria. *Journal of Management Information and Decision Sciences*, *23*(4), 230-244.

Constantinide, A. U. (2020). *Are managers ready for HRM 4.0?: the potential role of blockchain technology in HRM*

Davarpanah, A., & Mohamed, N. (2020). Human resources information systems implementation and influences in higher education: Evidence from Malaysia. *International Journal of Asian Business and Information Management (IJABIM)*, *11*(3), 65-84.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Dida, H. H., Moguche, A., & Rintari, N. (2021). Relationship between Change Management and the Implementation of the Human Resource Information System in Isiolo County Government, Kenya.

Dyba, T., & Dingsoyr, T. (2009). What do we know about agile software development? *IEEE software*, *26*(5), 6-9.

Gunawan, F., Ali, M. M., & Nugroho, A. (2019). Analysis of the effects of perceived ease of use and perceived usefulness on consumer attitude and their impacts on purchase decision on PT Tokopedia in Jabodetabek. *European Journal of Business and Management Research*, *4*(5).

Gürlek, M., & Uygur, A. (2019). STRATEJİK İNSAN KAYNAKLARI YÖNETİMİ YAKLAŞIMLARININ TEORİK TEMELLERİ. *ISGUC The Journal of Industrial Relations and Human Resources*, 1-21.

Harker, S. (1995). The development of ergonomics standards for software. *Applied Ergonomics*, *26*(4), 275-279.

Hikmawan, T., & Santoso, B. (2020). Human Resources Information System To Improve Employee Performance. *Dinasti International Journal of Management Science*, *1*(4), 578-584.

Hosain, S., Manzurul Arefin, A. H. M., & Hossin, M. A. (2020). The role of human resource information system on operational efficiency: evidence from MNCs operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, *18*(2), 29-47.

Jha, S., & Khanna, P. (2020). Study of enhancing employee engagement at workplace by adopting internet of things. *International Journal of Business and Systems Research*, *14*(3), 341-361.

Khamphroh, A., Boonlua, S., & Peemanee, J. (2019). The Antecedent Effects of Human Resource Development Capability of Auto Parts Businesses in Thailand. *JOURNAL OF SOUTHERN TECHNOLOGY*, *12*(2), 181-192.

Khan, Y. W., Hassan, M., Jalees, T., & AsadUllah, M. (2020). Job satisfaction, organizational commitment and other factors' impact on turnover intention of private employees: An empirical evidence from education sector of Pakistan. *Journal of Geography and Social Sciences (JGSS)*, *2*(2), 200-215.

Kravariti, F., & Johnston, K. (2020). Talent management: a critical literature review and research agenda for public sector human resource management. *Public Management Review*, *22*(1), 75-95.

Lee, S. Y., & Park, M. J. (2022). Design of decision support system for yield management in semiconductor industry: application to artificial intelligence. *International Journal of Business Information Systems*, *40*(1), 60-84.

Lung-Guang, N. (2019). Decision-making determinants of students participating in MOOCs: Merging the theory of planned behavior and self-regulated learning model. *Computers & Education*, *134*, 50-62.

Memon, K. R., Ghani, B., Hyder, S. I., Han, H., Zada, M., Ariza-Montes, A., & Arraño-Muñoz, M. (2022). Management of knowledge and competence through human resource information system—A structured review. *Frontiers in Psychology*, *13*, 944276.

Mensah, I. K. (2020). Perceived usefulness and ease of use of mobile government services: The moderating impact of electronic word of month (eWOM). *International Journal of Technology Diffusion (IJTD)*, *11*(1), 1-16.

Meyer, K., & Harper, M. (1984). User friendliness. *MIS quarterly*, 1-3.

Moreno Gálvez, F. J., & Sierra Caballero, F. (2022). Social appropriation of new technologies. *Internet Policy Review*, *11*(1), 1-11.

Pandit, N., Prox, C., & Baldwin, C. Y. (2022). Studying modular design: an interview with Carliss Y. Baldwin. *Journal of Organization Design*, *11*(2), 77-85.

Pitafi, A. H., Kanwal, S., & Khan, A. N. (2020). Effects of perceived ease of use on SNSs-addiction through psychological dependence, habit: The moderating role of perceived usefulness. *International Journal of Business Information Systems*, *33*(3), 383-407.

Piwowar-Sulej, K., Wawak, S., Tyrańska, M., Zakrzewska, M., Jarosz, S., & Sołtysik, M. (2022). Research trends in human resource management. A text-mining-based literature review. *International Journal of Manpower*, *44*(1), 176-196.

Ponce-Pore, I. (2023). *Factors of Artificial Intelligence Usage in Personnel Selection: An Examination of Timing, Algorithm Aversion, and Accuracy* Bowling Green State University].

Prastiawan, D. I., Aisjah, S., & Rofiaty, R. (2021). The effect of perceived usefulness, perceived ease of use, and social influence on the use of mobile banking through the mediation of attitude toward use. *APMBA (Asia Pacific Management and Business Application)*, *9*(3), 243-260.

Rezvani, S., Heidari, S., Roustapisheh, N., & Dokhanian, S. (2022). The effectiveness of system quality, habit, and effort expectation on library application use intention: the mediating role of perceived usefulness, perceived ease of use, and user satisfaction. *International Journal of Business Information Systems*, *1*(1), 1.

Rodriguez, J., & Walters, K. (2017). The importance of training and development in employee performance and evaluation. *World Wide Journal of Multidisciplinary Research and Development*, *3*(10), 206-212.

Saragih, S. (2015). The effects of job autonomy on work outcomes: Self efficacy as an intervening variable. *International Research Journal of Business Studies*, *4*(3).

Shahreki, J. (2019). Electronic Human Resource Management and Employee Efficiency: Test of the Mediating Role of Impersonal Trust. *Journal of Soft Computing & Decision Support Systems*, *6*(4).

Sharma, C., Sakshi, S., Sharma, S., & Kondal, N. (2023). Role and impact of human resource information system (HRIS) on organizational activities. AIP Conference Proceedings,

Soebandrija, K. E. N., & Kampus Syahdan, J. K. Multidisciplinary Perspectives of Doctor of Research in Management (DRM) and Industrial Engineering (IE), Strategic Management, and Psychology: ICT Enabler within Leadership, Innovation, Organizational Learning and Performance.

Strode, D., Dingsøyr, T., & Lindsjorn, Y. (2022). A teamwork effectiveness model for agile software development. *Empirical Software Engineering*, *27*(2), 56.

Taherdoost, H. (2018). A review of technology acceptance and adoption models and theories. *Procedia manufacturing*, *22*, 960-967.

Taherdoost, H. (2019). Importance of technology acceptance assessment for successful implementation and development of new technologies. *Global Journal of Engineering Sciences*, *1*(3).

Teo, T. S., Lim, G. S., & Fedric, S. A. (2007). The adoption and diffusion of human resources information systems in Singapore. *Asia Pacific Journal of Human Resources*, *45*(1), 44-62.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Wiblen, S., & Marler, J. H. (2021). Digitalised talent management and automated talent decisions: the implications for HR professionals. *The InTernaTIonal Journal of human resource managemenT*, *32*(12), 2592-2621.

Zhang, L., Ruiz-Menjivar, J., Luo, B., Liang, Z., & Swisher, M. E. (2020). Predicting climate change mitigation and adaptation behaviors in agricultural production: A comparison of the theory of planned behavior and the Value-Belief-Norm Theory. *Journal of Environmental Psychology*, *68*, 101408.