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PAPER

The Influence of Mobile Information Systems Implementation on Enhancing Human Resource Performance Skills: An Applied Study in a Small Organization

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ABSTRACT

The human resources mobile information system (HRMoIS) provides users with direct access to information via mobile devices, enhancing efficiency, productivity, and the user experience. It includes mobile applications, websites, SMS services, and other communication mediums. This system enhances information mobility, facilitates operational processes, and supports decision-making in the ever-evolving technological landscape, ultimately improving users' efficiency and productivity. Al-Anbar Province is undergoing significant urban and economic development. Still, more research is needed on the impact of HRMoIS on employee performance in Anbar to enhance their skills. This study aims to provide insights for top management and decision-makers on implementing similar methods to enhance employee performance. The study employs a questionnaire to survey managers and regular employees in 20 small organizations in Al Anbar, Iraq. The data is analyzed using percentages, frequencies, Pearson correlation, and Cronbach's alpha coefficient. This allows for a comprehensive examination of all the essential aspects of human resource dynamics. The questionnaire upholds integrity and precision by aligning with roles and responsibilities. The study found that organizations implementing HRMoIS had higher mean values despite barriers such as organizational resistance, limited resources, and inadequate training. The results underscore the importance of organizations addressing these issues and enhancing their HRMoIS adoption. The study investigates the impact of HRMoIS on HR performance in small organizations in Iraq. The results show a positive correlation between mobile information systems and HR management efficiency. The study recommends implementing mobile information systems in small organizations in Al Anbar to enhance their performance. It emphasizes the need for providing necessary hardware and software, hiring experienced consultants, ensuring employee training and development, supplying HRMoIS with relevant data, and appointing experienced employees to keep up with technological advancements.

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KEYWORDS
mobile information system, information technology (IT), information system (IS), human resource mobile information systems (HRMoIS), mobile information system (MIS), human resource (HR)

1 INTRODUCTION

In recent times, there have been rapid developments and an increasing strength of computer technologies, coupled with a decrease in the cost of equipment and software [1]. Many advancements have emerged in various administrative, industrial, and economic fields, all of which are outcomes of the dynamics experienced in the technological sector, particularly those related to information processing, also known as information technology. As a result, there has been a growing trend toward the use and deployment of technology in most human activities. This trend has been fueled by the emergence of the internet, the evolution of information technology (IT) and communication methods, and the transformation of jobs into electronic work. Additionally, organizations are increasingly undergoing digital transformation [2]. It has become necessary to convert paper-based files and functions into electronic files, and relationships between companies, employees, and customers are now conducted through Internet networks [3]. Resource management necessitates an information system that offers current and future data for employees to plan, monitor, and make decisions [4]. This system needed a set of procedures, information, operational methods, and data evaluation, as well as the users of the information [5]. Human resource information systems (HRMoIS) are crucial for collecting, processing, and storing the data required by decision-makers. They can perform all human resource functions, such as job analysis, recruitment, training, performance evaluation, compensation, incentives, and promotions. Therefore, these systems have become essential tools for organizations [6].

Human resources (HR) are the primary pillars of the basic information structure and the foundation for development processes [7]. HR must be trained to use modern technology and information systems to keep pace with progress [8]. It is the primary driver and supporter of organizational processes and contributes to process flexibility and facilitation. It also creates employee participation in designing and implementing work focusing on production and quality [9]. Therefore, companies must develop their HR by employing and utilizing IT to improve their efficiency and performance levels, achieve employee satisfaction, strengthen their position, and achieve a competitive advantage [10] [11]. Hence, organizations have sought to introduce modern mobile information systems, develop them, and train employees to use them [12]. HR in small organizations is considered their most important asset, serving as the strategic tool that enables the organization to compete effectively under changing and accelerating conditions [13]. HR ps one of the most important assets possessed by the organization, and organizational goals can only be achieved with the HR that the organization must strive to care for [14]. Therefore, organizations have been keen to use mobile information systems to help them invest in developing the skills, efficiency, development, and motivation of HR [15]. And to utilize all the mechanisms and methods that enhance their performance levels, enabling them to effectively achieve the organization's goals and tackle challenges [16].

The connection between an information system and a mobile information system revolves around facilitating information transfer and exchange through mobile devices [17] and [18]. Human resource information systems (HRIS) have clear advantages for organizations as they combine technology, data, processes, and people [19]. These systems are essential for improving organizations' performance and assisting decision-makers in accessing the necessary information when needed [20]. HRIS is a framework that transforms raw data into useful information and generates reports for multiple users [21]. An information system is a meticulously structured amalgamation of resources, processes, and technologies that gathers, stores, processes, and transmits information to bolster organizational and operational procedures and decision-making [20]. The dynamic landscape of IT within human resource management (HRM) presents evolving opportunities and challenges. Recent trends encompass various facets such as cloud-based HR, data analytics and big data in HRM, artificial intelligence (AI) and automation technologies optimizing HR functions, remote work necessitating virtual collaboration tools for interviews, cybersecurity, HR facing talent management, skills gap, diversity, equity, and inclusion challenges, and HRMoIS [6], [22], [23].

The HRMoIS enriches this framework by providing users with flexible and direct access to information through mobile devices such as smartphones and tablets [24]. Such a system empowers users to promptly obtain information and execute diverse operations and tasks while on the move [25]. A mobile information system comprises various components, such as mobile applications, responsive websites, SMS services, and other communication and processing mediums accessible through mobile devices [22]. By providing seamless and convenient access to information and services at any time and from any location, a mobile information system enhances efficiency, productivity, and the user experience [26]. Thus, an information system synergistically delivers the necessary infrastructure and tools for information gathering, storage, and analysis in harmony with a mobile information system [27]. Moreover, it provides a portable means to access this information conveniently and effectively [28]. The mobile system enhances information mobility and facilitates operational processes and decision-making in our advanced and ever-evolving technological landscape [29] [30].

Although Al-Anbar Province significantly influences the country's stability and growth [31–34], it is currently experiencing notable urban and economic development in various sectors [35]. While many organizations have adopted new practices in HRIS, there is limited research on the impact of HRMoIS on employee performance skills in Anbar [36], [37]. Previous studies have highlighted the positive effects of mobile information systems in nearby environments [38–42], but there is a lack of substantial data for Iraqi organizations. Hence, this study aims to shed light on the current usage of mobile information in Anbar Province, providing insights to assist top management and decision-makers in implementing similar methods to enhance employee performance.

The problem of the study lies in determining the extent to which mobile information system systems are applied in developing HR performance skills in small organizations in Al Anbar. Hence, the study aims to address the research problem, which is articulated in the following questions:

Research Question 1: What is the implementation and effectiveness of mobile information systems in small firms in Al Anbar?

Research Question 2: How does the implementation of mobile information systems enhance HR performance skills in small firms in Al Anbar?

In the same context, the research objectives of this study can be identified as follows:

To shed light on the readiness of small organizations in Al Anbar to apply mobile information systems to managing HR and developing their skills.

1. To measure the impact of implementing mobile information systems on improving the performance skills of HR in small organizations in Al Anbar.
2. To evaluate the mobile information system for HR in small organizations in Al Anbar.
3. To provide recommendations on the implementation of mobile information systems in HR management within small organizations and to suggest ways to enhance their application and maximize the benefits they offer.

Therefore, based on the stated objectives, the following hypotheses can be deduced to shed light on the research approach that will be followed in this study (see Figure 1). These hypotheses are as follows:

Primary Hypothesis: Implementing a human resource mobile information system in small organizations in Al Anbar will directly and positively influence human resource performance skills.

According to the above hypothesis, we can formulate the following sub-hypothesis to achieve our study objectives:

Hypothesis 1: Implementing a mobile information system in small organizations in Al Anbar will directly and positively influence the efficiency and effectiveness of human resource performance.

Hypothesis 2: Effective communication facilitated by mobile information systems between departments and upper management will lead to better organizational performance in small organizations in Al Anbar.

Hypothesis 3: The lack of understanding and training among small organization managers in Al Anbar regarding mobile information systems for HR will impede the adoption and success of such systems, thereby adversely affecting employee and organizational performance.

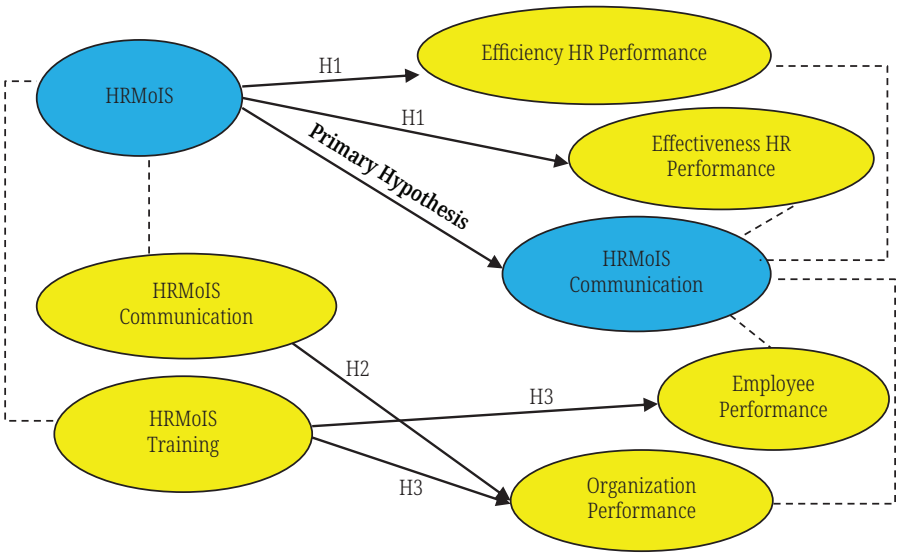

Fig. 1. Research hypothesis

2 LITERATURE REVIEW

This section of the paper will discuss the main concepts of mobile information systems, their characteristics, and the reasons for their widespread adoption and integration into various aspects of life.

Information technology is the merger of computer and communication technologies to create a system capable of processing, storing, protecting, transmitting, and retrieving information [43], [44]. This merger brought about information systems, which involve studying, designing, and developing systems related to computer science [45]. These systems utilize the latest technology to provide efficient information management and networking solutions for businesses across various industries and sizes [46]. One of the prominent specialized subsets of information systems nowadays is mobile information systems that utilize mobile technology to facilitate on-the-go management access and interaction with information [39].

A mobile information system refers to a system that enables the collection, processing, storage, and dissemination of information through mobile devices such as smartphones and tablets [22]. It allows users to access and interact with information anytime and anywhere, providing flexibility and convenience through wireless connectivity, location-aware capabilities, and real-time data access [30]. Mobile information systems emphasize mobile technology features such as wireless connectivity, location awareness, and multimedia capabilities to provide real-time information that aids in various tasks and activities [47]. It is vital to enhance communication, collaboration, and decision-making processes within organizations and facilitate information exchange and access for individuals in their personal and professional lives [48]. Mobile information systems have revolutionized how information is managed and utilized, enabling individuals and organizations to stay connected, informed, and productive in a mobile and fast-paced digital environment [49], [50]. There are numerous areas where integrating mobile technology into an organization's information system can produce excellent results, particularly in HR management.

2.1 The concept of human resources management

Human resource management is a specialized area of management that establishes goals, develops strategies, and formulates policies related to HR [51]. It is considered an integral part of any organization, as its success highly depends on its ability to utilize its human capital. This human capital is entrusted with designing and implementing strategic plans to achieve sustainable and profitable growth [5]. It involves recruiting, training, compensation, performance management, etc., to attract, develop, and retain effective employees [52]. These activities focus on equipping the workforce with the essential expertise to develop and maintain their competencies, motivating them to efficiently and effectively achieve the organization's goals [53]. Therefore, HR development is a continuous and interactive process based on knowledge, experience, productivity, and short-or long-term satisfaction [54]. This process or activity aims to maximize the benefits derived from an organization's human capital, whether intellectual or physical, benefiting not only the organization and its workforce but also the community and the economy. Ensuring the full maximization of human capital benefits requires organizations to keep pace with constantly evolving technological advancements in order to enhance HRM processes. Therefore, integrating mobile information systems in HRM has become necessary to achieve the organization's goals and ensure employees' satisfaction and development [39], [55].

2.2 Human resource information system

The human resource information system (HRIS) comprises various components, including people, technology, data, and processes, that interact to develop and improve organizational performance and support decision-makers through timely and reliable information [56]. The system establishes a framework that converts data into information to generate reports communicating results to different users [43] and [56]. These results include the systematic generation and update of the HR portfolio, which encompasses employee records, benefits, compensation, employee relations, training, job positions, salaries, and wages [51]. The reports aid decision-making by providing analytics on turnover rate, satisfaction levels, recruitment costs, etc. Based on this, the HRIS can be defined as a system that involves collecting, organizing, and analyzing data related to HR and converting it into decision-making centers for human resource planning [30]. In addition, it supports the overall administrative supervision of HR in the organization [57]. It is also known as an electronic-based system that facilitates HR department activities such as recruitment, training, development, motivation, performance evaluation, retention, and updating employee data [58]. Its primary function is strategic human resource planning, which involves analyzing the site for technical-level navigation, documenting, organizing, and supporting the completion of all operations in the organization [59], [60]. Organizations can benefit significantly from the HRIS concept and its practical implementation in several ways that enhance employee and organizational performance [61], [62].

1. Effective data management: HRIS simplifies the gathering, archiving, and handling of employee information, including personal data, attendance logs, performance reviews, and training records. The well-organized data enables better decision-making, analysis, and speedy access [63].
2. Enhanced employee engagement: Performance management, feedback systems, and an employee self-service portal are all available modules in HRIS. By allowing workers to manage their data, set goals, and monitor their progress, these solutions improve communication, boost transparency, and empower workers [64].
3. Improved decision-making: HRIS facilitates well-informed HR decisions by providing accurate and current data. It supports talent acquisition, resource allocation, strategic planning, skill gap identification, and workforce forecasting [65].
4. Streamlined HR processes: Automation reduces manual labor and human error in common HR processes, such as payroll, benefits administration, leave management, and onboarding. Streamlining reduces costs, saves time, and increases efficiency [66].
5. Data-driven insights: HRIS generates comprehensive analyses and reports on various HR indicators, such as employee satisfaction, productivity, training effectiveness, and attrition rates. With these insights, HR professionals may recognize patterns, pinpoint areas needing development, and create plans to increase performance [67].
6. Compliance and regulatory adherence: HRIS can ensure that business policies, industry regulations, and labor laws are followed. It reduces the likelihood of non-compliance by helping to monitor and manage legal requirements, certifications, and documents [68].
7. Promotes flexibility and distance work: HRIS, which is especially pertinent in today's workplace, promotes flexibility and adaptation by facilitating digital

collaboration, enabling accessible communication between distant teams, and providing access to critical HR services [64].

Installing HRIS modernizes HR functions and aligns them with the organization's goals. It dramatically increases organizational performance by fostering a data-driven culture, enhancing operational effectiveness, and improving employee experience [69].

Trends and challenges in HRIS. Without a doubt, IT in HRM is constantly evolving, offering new opportunities and challenges. The following are some recent developments and challenges in this field:

a) **Adoption of cloud-based HR solutions:** Cloud-based HR solutions that offer scalability, flexibility, and accessibility are becoming increasingly popular. Cloud technology enables remote access to HR systems, offering improved data integration and storage capabilities [23].
b) **Data analytics and HR metrics:** Making data-driven decisions is facilitated by the application of big data analytics in HRM. Enhancing HR plans and policies involves evaluating HR metrics such as performance indicators, employee turnover rates, and engagement levels [70].
c) **Artificial intelligence and automation in HR procedures:** AI and automation technologies optimize various HR procedures, such as performance reviews, onboarding, and candidate screening. AI-powered chatbots that provide prompt answers to inquiries also enhance the working environment for employees [6].
d) **Remote work and virtual collaboration tools:** Adopting virtual collaboration solutions for HR functions, such as online interviews, virtual onboarding, and remote training programs, has become necessary due to the shift towards remote work [71].
e) **Cybersecurity issues:** As HR procedures become more digitally oriented, safeguarding data security and privacy becomes essential. become in compliance with data protection rules, and safeguarding confidential employee information from cyberattacks presents formidable obstacles, [72].
f) **Talent management and the skills gap:** HR must successfully manage talent, close the skills gap, and plan for workers to retrain and upskill to meet changing job demands [73].
g) **Diversity, equity, and inclusion:** Encouraging diversity, equity, and inclusion in the workplace is becoming increasingly important. HR must establish inclusive HR procedures, eliminate hiring bias, and foster a culture that values diverse talent [74].
h) **Employee well-being and difficulties with remote work:** HR must address issues related to employee well-being, especially when working remotely, by providing adequate measures to address burnout and implementing remote training programs [75].
i) **Human resource mobile information systems:** Due to the widespread use of smartphones, the popularity of mobile HR apps has increased. These apps enable staff members to access HR services from their mobile devices, such as leave requests, performance reviews, and training courses [22].

All in all, we may conclude from the above that there are numerous trends and issues in the field of HRIS. Adopting mobile information systems has been recommended by several studies due to their numerous advantages in optimizing work processes, enhancing overall employee performance, and increasing HR management

productivity [76]. Employees can now work from anywhere and extend their work beyond regular hours because work is no longer restricted to set working hours [30]. This feature supports the HR function. Therefore, this study aims to illuminate the current usage situation of the mobile information system in Anbar Province. The study results will assist top management and decision-makers in small organizations in the province of Anbar in implementing similar methods in their organizations.

2.3 The concept of MIS related to HRMoIS

Since both HRMoIS and management information systems (MIS) focus on managing information within an organization to support decision-making and enhance efficiency, they are closely related concepts [24]. Their unique features and focuses, however, are different. To gather, process, store, and distribute information throughout an entire business, MIS encompasses a broader framework that incorporates diverse systems, technologies, and processes [25]. Finance, marketing, operations, and HR are just a few of the areas and roles it covers. Traditional MIS consists of centralized databases, reporting tools, and data analytics to support administrative decision-making at all organizational levels [22]. However, HRMoIS is a subset of MIS designed for information management about human resources.

The collection, archiving, management, and analysis of HR-related data, including payroll, benefits, training materials, employee records, performance reviews, and hiring, are the main objectives of HRMoIS [26]. Its main goals are to encourage employee management, support HR decision-making, and streamline HR procedures. The primary distinctions between HRMoIS and standard MIS are their functionality and scope. HRMoIS focuses exclusively on human resource management, while standard MIS encompasses all corporate functions. HR departments have specific demands for talent management, performance reviews, and employee development.

Human resource mobile information systems is designed to meet these needs. Because mobile devices provide increased accessibility, flexibility, and real-time information access, they enhance various aspects of information systems [27]. Employees and supervisors can access HR-related data and perform various operations remotely when HRMoIS is integrated with mobile devices [28]. Mobile devices and faster information access enable quicker decision-making and enhanced internal communication [29]. Furthermore, the user-friendly interfaces that mobile HR systems frequently offer enhance employee engagement and usage, boosting productivity and efficiency in HR operations [30].

2.4 Human resource mobile information systems

Incorporating HRMoIS has undoubtedly become more prominent in contemporary corporate environments, revolutionizing HR operations. Although there may not be many direct empirical studies solely focused on HRMoIS, several case studies and empirical research demonstrate the advantages and effects of mobile technology in HRM.

a) **The mobile app for SAP success factors:** The mobile app for SAP SuccessFactors, a cloud-based HR management system, makes it easier for staff members to access HR features. Case studies demonstrate how this mobile integration resulted in

streamlined HR procedures, providing staff members with access to performance reviews, task management, and time off requests through mobile devices. This study established the effectiveness of mobile HR solutions in enhancing employee happiness and engagement [77].

b) **The mobile-friendly platform from IBM Kenexa:** The talent management solutions provider IBM Kenexa added mobile functionality to their platform. Examples from real-world usage demonstrate how this mobile-friendly platform greatly enhances HR features. With mobile access, employees can effectively participate in performance management, onboarding, and recruitment procedures. This integration improved the user experience, communication between HR departments and employees, and accessibility [78].

c) **Research on mobile HR empirical studies:** Although there aren't many direct studies on HRMoIS, empirical research has assessed how mobile HR systems affect worker productivity and engagement in various business contexts. Easy access to HR services through mobile devices led to higher employee engagement, according to a study conducted by a global business. It has been proven that increased job satisfaction and productivity are positively correlated with mobile HR solutions [79].

d) **Adoption of mobile HR apps by small businesses:** HRMoIS by small businesses using mobile HR software has significantly increased employee satisfaction and operational effectiveness. According to case studies, these connections significantly reduced the administrative burden, simplifying access to HR services such as leave requests, training materials, and performance reviews. This more efficient method improved teamwork and increased employee engagement [80].

Together, these real-world examples and empirical research highlight the benefits of utilizing mobile technology in HR processes. They emphasize increased employee participation, simplified procedures, enhanced accessibility, and improved communication between employees and the HR department. Although there may not be many studies focused solely on HRMoIS, these examples demonstrate how mobile HR solutions can significantly enhance employee satisfaction and corporate effectiveness. On the other hand, there are many essential tasks that mobile information systems in HR offer [81]. These tasks are essential for developing the work environment in organizations of all sizes, including small ones. The following is a summary of the main tasks performed by a human resource department based on the mobile information system:

- Reviewing, classifying, and analyzing data, information, and statistics in preparation for use in various areas of HR management.
- HRMoIS can generate clear and accessible administrative reports that greatly benefit human resource managers. These reports are designed to support decision-making and are based on predictive data files that estimate future institutional needs and trends.
- HRMoIS can automatically track and generate employee satisfaction rates for various aspects of their jobs. This allows managers to identify and address potential issues before they escalate into more significant problems, thereby helping to maintain employee productivity.
- By creating a centralized database of job expectations and tracking them over time, HRMoIS can help managers ensure that employees meet expectations and are satisfied with their jobs.

2.5 HRMoIS in a small organization in Al Anbar, Iraq

Small organizations in Iraq face numerous challenges when managing their HR [82]. One of the most pressing issues is the need for more effective and efficient information systems for collecting employee data [83]. With proper data management systems, small organizations can improve employee record-keeping, performance monitoring, and payroll management, which can lead to increased HR efficiency [84]. Implementing a HRMoIS could help small organizations in Al Anbar, Iraq, overcome these challenges [85]. A well-designed HRMoIS can centralize all employee data, automate HR processes, and provide real-time data analytics, enabling small organizations to make data-driven decisions and optimize their HR utilization [86]. However, implementing an HRMoIS in small organizations in Al Anbar, Iraq, presents several challenges. One of the most significant obstacles is that these organizations need more technical expertise and infrastructure [87]. Many small organizations in Al Anbar, Iraq, lack the technical expertise to implement and maintain an HRMoIS and may need the infrastructure or budget to support such a system [88]. Additionally, cultural barriers may hinder the implementation of an HRMoIS, as many organizations may be resistant to change or need to see the value in investing in HR technology [89]. Additional related studies conducted in the Sultanate of Oman can be found in the references [90]. Despite these challenges, the benefits of implementing an HRMoIS in small organizations in Al Anbar, Iraq, can be significant. With the appropriate resources and support, small organizations can utilize HR technology to enhance their HRM and propel organizational success.

3 RESEARCH METHODOLOGY

The study's primary method is a questionnaire adapted from previous research, with minor modifications to suit the research environment [91], [92]. This meticulously structured questionnaire serves as a conduit for gathering quantitative data to address the research inquiries. Within our questionnaire, the selection and formulation of variables were based on previous scholarly works, specifically focusing on aspects related to human resource performance. These aspects were drawn from a range of prior studies associated with HR performance [93], [94]. Based on this empirical foundation, the questionnaire instrument was meticulously constructed to maintain integrity and precision. The sampled participants were divided into two distinct segments: the first section focused on managers in their respective roles, gathering their responses to nine specific queries. A deliberate separation was implemented between managers and other employees to mitigate potential influence on employee responses, ensuring the authenticity and accuracy of their feedback.

The questions directed towards managerial personnel were intricately designed to align with their leadership responsibilities and daily professional duties, which are distinctly different from routine tasks performed by regular employees. This strategic delineation is purposeful, aligning directly with the focal points of this research inquiry. Conversely, the questionnaire administered to regular employees included a set of seven questions carefully aligned with their daily operational activities and strategically harmonized with the overarching objectives of this study. This deliberate segregation and alignment of questions caters to the distinct roles and responsibilities of managers' and regular employees, ensuring a comprehensive exploration of relevant aspects within human resource dynamics.

3.1 Participants and procedure

The questionnaires were distributed to the targeted organizations in Al Anbar, Iraq, in paper form. This method was chosen because most small organizations in the area do not have access to a public internet network. Additionally, many companies rely on personal subscriptions for their employees. It included both closed-ended questions to enable quantitative analysis of the collected data. To gather valuable data for the study, the sample size focused on two main groups in the targeted small organizations: HR department managers and their employees. The study relied on a descriptive methodology, where a questionnaire was prepared and distributed to 20 small organizations. Additionally, 25 questionnaire forms were distributed to some employees and 20 to managers within a small organization in Al Anbar. A descriptive data analysis is performed on the questionnaire responses using the mean and the Pearson correlation coefficient. Figure 2 provides a detailed description of the research methodology framework for this study.

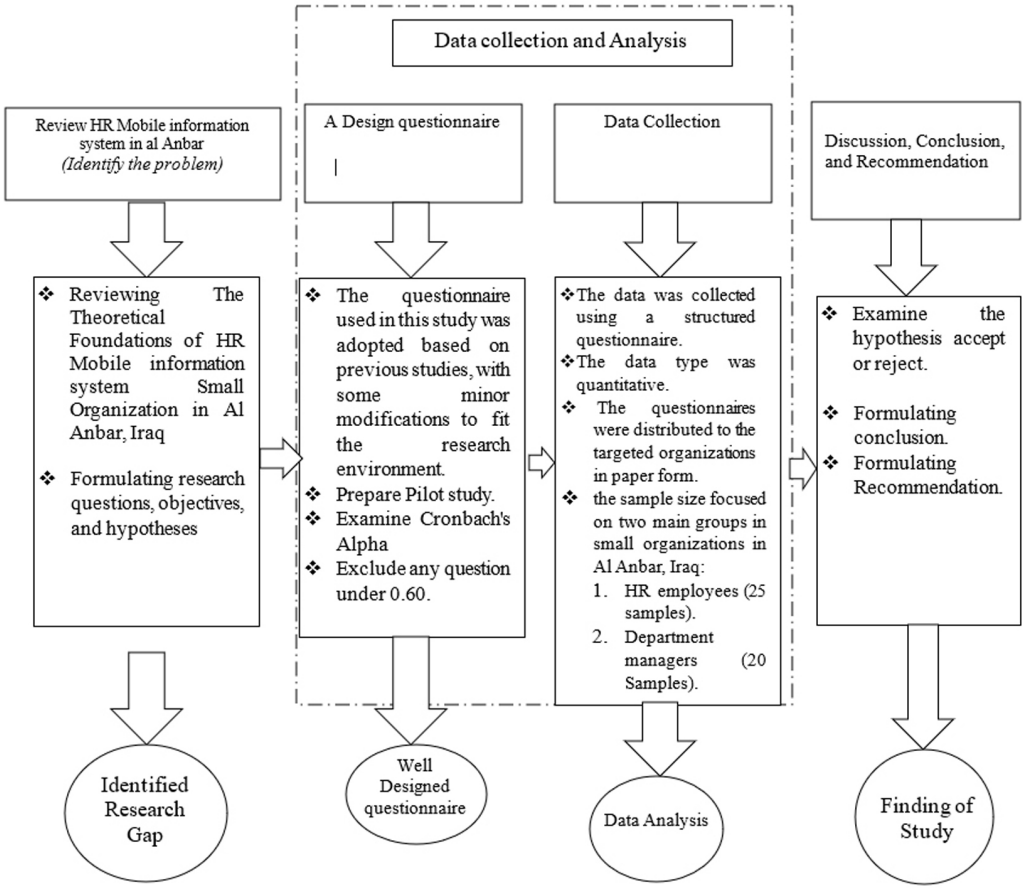

Fig. 2. Research methodology

3.2 Measures

The statistical method in scientific research utilizes computational techniques to collect, arrange, and analyze information from data. Many statistical terms and measures are used in scientific research methods to help achieve the desired results and draw conclusions that contribute to reaching the research goal [95]. To process

the collected data and achieve the objectives of this study, the researcher utilized various statistical methods, including Pearson correlation, Cronbach's alpha coefficient, percentages, and frequencies. The Pearson correlation coefficient (r) is one of the most popular linear correlation methods. The correlation coefficient measures the strength and direction of the relationship between two variables; it is a number between –1 and 1. In addition, we used Cronbach's alpha coefficient to evaluate the reliability of the study instrument. Cronbach's alpha coefficient was utilized to determine the consistency and homogeneity of participants' responses across all dimensions within the questionnaire. Finally, we utilized percentages and frequencies for computation to analyze characteristics within the research sample. A significant number of percentages were used to help understand the statistical ratios.

3.3 Pilot study

According to Creswell (2008), conducting a pilot test of research instruments enables researchers to assess whether respondents can complete the questionnaire and understand the questions asked. Additionally, it enables researchers to evaluate the suitability of operational definitions and research methodology [57] and [58]. The primary objective of a pilot study is to evaluate the feasibility of the questionnaire questions. It is also essential to assess the clarity and comprehensibility of the questionnaire items for most participants.

In this current study, a pilot study was conducted with the participation of four managers and four employees. The pilot study was also used to become more familiar with the data collection procedures. The preliminary findings of the pilot study indicated that only minor adjustments were needed for the two technically complex questions. Consequently, those questions were removed from the questionnaire. Composite reliability measures were used to assess the reliability of the questionnaire items. The results of Cronbach's alpha, as shown in Table 1, indicated that most of the questions were clear and acceptable to the targeted sample, with a Cronbach's alpha coefficient of 0.87. This supports the acceptability of the questions.

Table 1. Reliability statistics

Cronbach's Alpha
0.874

4 DATA COLLECTION AND ANALYSIS

The study relied on a descriptive methodology, where a questionnaire was prepared and distributed to 20 small organizations. All questionnaires were retrieved, representing 20 questionnaire forms distributed to small organization managers in Al Anbar, to determine the extent of organizations' readiness and the availability of the necessary material and HR for implementing electronic human resource information systems. Additionally, 25 questionnaire forms were distributed to some employees within a small organization in Al Anbar to determine the readiness and willingness of employees to learn and deal with electronic human resource mobile information systems (HRMoIS) through simple statistical analysis of the samples.

4.1 Questionnaire form addressed to small organizations managers in Al Anbar

Q1: Do you clearly understand the concept of a mobile information system for human resources?

Table 2. Clear understanding of HRMoIS

No.	Q1	Frequency	Rate
1	Yes	12	60%
2	Neutral	0	0%
3	No	8	40%
	Total	20	100

It is evident from Table 2 that 60% of the total small enterprise managers have a clear understanding and awareness of HRMoIS for human resources, while 40% of the managers need to learn the concept of human resource mobile information systems. Therefore, based on the data above, the apparent significance of the current study can be summarized in the following points:

1. The results of the current study emphasize the advantages gained by organizations that have implemented mobile information systems for human resources. This paves the way for other organizations to consider adopting and integrating the system within their own organizations.
2. Enhanced awareness of mobile information systems for HR in organizations that have not yet implemented these systems.
3. Identify obstacles that impact the adoption and implementation of mobile information systems for human resources.

Q2: Does using mobile information systems contribute to reducing workplace conflict rates?

Table 3. Use of HRMoIS reduces conflict rates in the workplace

No.	Q2	Frequency	Rate
1	Yes	12	60%
2	Neutral	0	0%
3	No	8	40%
	Total	20	100

It is evident from Table 3 that 60% of the total managers believe that using HRMoIS within companies helps reduce conflicts and disputes among employees, while 40% do not see this benefit. Therefore, HRMoIS provides a healthy work environment and significantly reduces conflicts and disputes that negatively impact many essential variables in developing and improving the work of small organizations in Al Anbar province. Data analysis reveals that the majority of respondents from organizations that have implemented mobile information systems for HR responded positively. In contrast, organizations that needed to be informed about

these systems did not comprehend the system and reacted negatively. From this, we can infer that mobile information systems in implementing organizations have received high acceptance from managers and have significantly contributed to reducing conflict rates in the workplace, unlike organizations that have not implemented this system.

Q3: Do you believe that using a mobile information system increases the knowledge of job duties among human resources?

Table 4. Use of HRMoIS increases human resources' knowledge of their job duties

No.	Q3	Frequency	Rate
1	Yes	12	90%
2	Neutral	2	5%
3	No	8	5%
	Total	20	100

It is evident from Table 4 that 90% of the managers agree that applying HRMoIS contributes to increasing human resources' knowledge of their job duties, while only 5% of the participants disagree. In addition, 5% provided a neutral response. Therefore, HRMoIS significantly contributes to enhancing HR knowledge and improving employees' ability to address essential issues in small organizations, leading to significant benefits. The data analysis revealed that out of 18 managers who agreed to respond, 10 were from organizations implementing mobile information systems. Additionally, eight managers were from organizations that do not implement mobile information systems. Still, their responses were positive regarding the contribution of HRMS to enhancing knowledge of job responsibilities. Therefore, it becomes evident that the positive impact of implementing the system on employees' understanding of job duties is clear, resulting in increased efficiency and effectiveness within the organization.

Q4: Do you believe that utilizing mobile information systems helps reduce the error rate in small organizations in Al Anbar?

Table 5. Use HRMoIS contributes to reducing the error rate in the workplace

No.	Q4	Frequency	Rate
1	Yes	16	80%
2	Neutral	2	10%
3	No	2	10%
	Total	20	100

Table 5 demonstrates that 80% of the total managers believe that utilizing HRMoIS contributes to reducing the error rate in the workplace, while 10% disagree and 10% provide a neutral response. Upon revisiting the sample data analysis, it was found that out of ten managers from organizations that implement mobile information systems, nine agreed that the system reduces errors, while one response was neutral. On the other hand, seven managers from organizations that do not

implement mobile information systems responded positively to this question, while one response was neutral. The positive influence of implementing the system in organizations that have adopted it becomes evident from their responses. They indicate acceptance that the system reduces errors, leading to increased profits and improved overall organizational performance by reducing costs associated with work errors and enhancing employee efficiency.

Q5: Does a mobile information system facilitate the supervision and monitoring process in the small organizations in Al Anbar?

Table 6. HRMoIS contributes to facilitating the process of supervision and monitoring

No.	Q5	Frequency	Rate
1	Yes	16	80%
2	Neutral	4	20%
3	No	0	0%
	Total	20	100

It is evident from Table 6 that 80% of the total managers agree that using HRMoIS contributes to facilitating the process of monitoring and supervision. In comparison, 80% do not see this benefit, and 20% provide a neutral response. Although monitoring and control are considered critical activities within organizations, their primary goal is to enhance performance. When analyzing the data for this question, it becomes evident that ten managers from organizations implementing mobile information systems had a positive perception that the system enhanced the managers' ability to supervise and monitor. In contrast, 6 out of 10 organizations implementing a traditional non-mobile system responded positively, while 4 provided neutral responses. Consequently, adopting mobile information systems improves managers' performance in supervision and monitoring, contributing to enhancing employee performance and the overall organization's performance.

Q6: Is using electronic interviews and exams in recruitment common in small organizations in Al Anbar?

Table 7. HRMoIS use of electronic interviews and exams in the recruitment process

No.	Q6	Frequency	Rate
1	Yes	0	0%
2	Neutral	2	10%
3	No	18	90%
	Total	20	100

Most respondents (90%) answered "no," indicating that the use of electronic interviews and exams in recruitment is not widespread within the HRMoIS (see Table 7). Conversely, 10% of the respondents chose "neutral," indicating some uncertainty or variability in adopting electronic interviews and exams. This could be due to partial implementation or mixed practices within the organizations. The data results indicate that mobile information systems cannot conduct recruitment interviews.

Most comments pointed out that the current interview practice is traditional face-to-face. Incorporating this functionality into future development plans for these systems is essential to keeping pace with the significant advancements in information systems.

Q7: Is employee performance evaluated through mobile information systems in Al Anbar's small organizations?

Table 8. Employee performance evaluated through HRMoIS

No.	Q7	Frequency	Rate
1	Yes	0	0%
2	Neutral	0	0%
3	No	20	100%
	Total	20	100

It is evident from Table 8 that 100% of the sample does not use mobile information systems to evaluate employee performance. The data results indicate that mobile information systems must include the capability for electronic employee evaluations. This function requires the currently implemented systems to take this aspect into consideration in the future. Adopting an electronic employee evaluation system reduces assessment bias, leading to fair and accurate performance evaluations. Therefore, we propose incorporating an electronic evaluation mechanism into mobile information systems to ensure genuine assessment results of employee performance are obtained.

Q8: Are the training needs of HR identified using electronic training methods in the small organizations in Al Anbar?

Table 9. Training needs of human resources identified using HRMoIS

No.	Q8	Frequency	Rate
1	Yes	2	10%
2	Neutral	0	0%
3	No	18	90%
	Total	20	100

It is evident from Table 9 that 10% of the total sample use electronic training methods to identify employee training needs, while 90% do not utilize them. The results of this study indicate a significant demand for electronic training methods in small organizations in Al Anbar. Most employees need to be made aware of the latest developments and modern electronic techniques, which can negatively impact their awareness levels in these organizations. The data results suggest that most managers do not prioritize or allocate a budget for developing the workforce and providing training courses to enhance their awareness of the latest technologies. Information systems are rapidly evolving daily in various IT domains, especially with the advent of artificial intelligence technologies. This makes it challenging to detect hacking or intrusion attempts on the systems of these organizations and to know the procedures to follow when encountering any technical or security issues with electronic systems. Additionally, this study recommends implementing structured training

courses for all employees and IT personnel to enhance job performance and improve the organization's overall effectiveness.

Q9: Does the company provide computing devices with suitable specifications for HR training to enable them to perform their tasks?

Table 10. Company provides computing devices with suitable specifications

No.	Q9	Frequency	Rate
1	Yes	1	5%
2	Neutral	2	10%
3	No	17	85%
	Total	20	100

It is evident from Table 10 that 85% of the total number of companies under study need to allocate a budget for training employees and acquiring the necessary computer devices. Meanwhile, 5% of the companies under investigation have sufficient financial resources to train employees. In contrast, 10% of the sample chose neutrality and did not answer this question. Therefore, according to the results of this study, it is evident that most small organizations in Al Anbar need to allocate a budget to purchase advanced computer devices for training employees and enhancing their skills. This significantly negatively influences employee performance, reducing their motivation and ability to innovate and develop, thereby limiting opportunities for growth and impeding the rate of company development.

4.2 Questionnaire form addressed to small organizations employees in Al Anbar

This questionnaire targeted 25 employees from small organizations in Al Anbar. We selected employees from organizations that have adopted HRMoIS and excluded others. Here are their questionnaire responses:

Q1: Does using HRMoIS in HRM lead to increased work flexibility?

Table 11. Using HRMoIS in human resource management to achieve greater flexibility

No.	Q1	Frequency	Rate
1	Yes	22	88%
2	Neutral	2	8%
3	No	1	4%
	Total	25	100

It is evident from Table 11 that 88% of employees agree that using HRMoIS in HRM results in greater work flexibility, while 4% disagree. Meanwhile, neutral responses accounted for only 8% of the total sample. These results indicate the significant role HRMoIS plays in enhancing work flexibility and creating a healthier work environment for employees. A flexible and healthy work environment

enhances employee productivity, resulting in increased profits and accelerated growth. Consequently, this has resulted in an improvement in both employee and organizational performance.

Q2: Does using HRMoIS facilitate communication between different departments and administrations?

Table 12. Use of HRMoIS contribute to facilitating communication between different departments and administrations

No.	Q2	Frequency	Rate
1	Yes	24	96%
2	Neutral	1	4%
3	No	0	0%
	Total	25	100

It is evident from Table 12 that 96% of the employees confirm that the use of HRMoIS significantly enhances communication among different departments and administrations within the company, while 0% do not observe this improvement. Additionally, 4% chose neutrality and were required to provide an answer. The response data indicates that HRMoIS utilization leads to increased communication rates across all employee levels within the organization. This expedites the identification and resolution of any issues that may arise, ultimately reducing the costs associated with losses. In addition, most employees have confirmed that implementing HRMoIS in organizations significantly improves communication at all organizational levels, from the executive down to the operational level. Adopting mobile information systems has a demonstrably positive influence on organizational performance.

Q3: Does the use of HRMoIS contribute to achieving transparency in the workplace?

Table 13. The use of HRMIS contribute to achieving transparency

No.	Q3	Frequency	Rate
1	Yes	23	92%
2	Neutral	1	4%
3	No	1	4%
	Total	25	100

Transparency and objective indicators are crucial criteria. Table 13 shows that 92% of employees confirmed that HRMoIS contributes to workplace transparency. In contrast, only 4% do not consider transparency a significant factor in specialization-based recruitment. Transparency in an organization typically fosters trust among stakeholders, resulting in enhanced communication, accountability, and decision-making. This increased transparency can enhance organizational efficiency, productivity, and overall success. Based on the data, employees using HRMoIS in the organization reported a significant enhancement in transparency, which benefited both individual and organizational performance.

Q4: Does using an HRMoIS lead to faster and more accurate access to employee information?

Table 14. The use of HRMIS leads to faster and more accurate access to employee information

No.	Q4	Frequency	Rate
1	Yes	20	80%
2	Neutral	3	12%
3	No	2	8%
	Total	25	100

Table 14 indicates that 80% of employees agree that utilizing mobile information systems accelerates and enhances access to employee information, while 8% disagree. An additional 12% chose to remain neutral by not responding. These results indicate that most employees trust that HRMoIS facilitates quick and accurate access to employee information, saving time, effort, and cost and improving job performance. Consequently, adopting HRMoIS enhances employee performance.

Q5: The company is committed to updating its equipment's technical specifications according to the work's requirements and development.

Table 15. The company is committed to updating the technical specifications of its equipment

No.	Q5	Frequency	Rate
1	Yes	2	8%
2	Neutral	2	8%
3	No	21	84%
	Total	25	100

It is evident from Table 15 that 84% of the employees stated that the company does not care about updating its equipment's technical specifications according to the work's requirements and development. In comparison, 8% of the employees stated that their companies care about updating the technical specifications of their equipment. Additionally, 8% of the employees chose neutrality and did not answer the question. Therefore, it can be inferred that many small organizations in Al Anbar need to prioritize the quality and type of equipment they use. This lack of attention could lead to damage or security issues with the organization's private data, resulting in a slowdown in data processing and a negative impact on the organization's operations.

Q6: Do you feel satisfied with the HR department's performance after implementing mobile information systems compared to the department's performance before adopting them?

Table 16. Employees' satisfy with HRMoIS

No.	Q6	Frequency	Rate
1	Yes	20	80%
2	Neutral	3	12%
3	No	2	8%
	Total	25	100

It is evident from Table 16 that 80% of employees are satisfied with the role of their HRMoIS, while 12% of the employees have not responded yet. 8% of employees are dissatisfied with it. These data indicate a higher percentage of employees who evaluate the HR department's performance positively after implementing mobile systems. This positive evaluation influences employee satisfaction in the workplace, thereby enhancing employees' performance. Numerous studies have confirmed that employee satisfaction significantly influences productivity rates and an organization's returns [96–98]. Therefore, job satisfaction is considered a crucial criterion for any organization. However, certain employees seem indifferent or unwilling to express a clear opinion, whether positive or negative. At the same time, a small percentage expressed dissatisfaction. It can be concluded that many employees express satisfaction following the adoption of mobile information systems in the HR department.

Q7: Does the company conduct training courses for its employees?

Table 17. Employees training

No.	Q7	Frequency	Rate
1	Yes	2	8%
2	Neutral	1	4%
3	No	22	88%
	Total	25	100

It is evident from Table 17 that 88% of the employees confirmed that the company does not conduct training courses. In comparison, 8% of the employees confirmed that companies provide a variety of training courses for employees, either within the company or externally. Additionally, 12% of the employees still need to answer the question. The results also indicate that these courses mainly focus on teaching Office software programs such as Excel, Word, and PowerPoint. The lack of funding for training programs in small organizations in Al Anbar significantly hampers employees' productivity, skills, and abilities. As a result, this ultimately leads to a slowdown in the organization's work.

5 RESULTS AND DISCUSSION

The data analysis was conducted using the table below. A response value closer to 1 indicates a positive response, while a value closer to 2 indicates a neutral response. "The closer it is to 3, the more it signifies a negative response" (refer to Table 18).

Table 18. The questionnaire measurement standards

No	Neutral	Yes
3	2	1

The data analysis in this section involved comparing means and measuring the difference between two samples. The first sample (A) represented the total sample

of respondents and whether their organizations had adopted mobile information systems for human resources. The second sample (B) consisted of organizations that exclusively adopted and implemented the mobile information system for human resources. Upon reviewing the table, it is evident that the mean values significantly increased in organizations that implemented HRMoIS compared to the overall table, including organizations that did not adopt it. Please refer to Table 19.

Table 19. Compare means between A and B

	Q1		Q2		Q3		Q4		Q5		Q6		Q7	
	a	b	a	b	a	b	a	b	a	b	a	b	a	b
Mean	1.8	1.0	1.6	1.0	1.15	1.1	1.3	1.0	1.5	1.2	1.9	1.2	1.8	1.2
n	20	10	20	10	20	10	20	10	20	10	20	10	20	10
Std. Deviation	1.005	.00	.940	.00	.489	.316	.657	.00	.489	.422	.616	.422	.00	.427
	a	The sample represents those who adopted and implemented the HRMoIS in their organizations and those who did not.												
	b	This part represents only those who apply the HRMoIS.												

For the first question, the mean value increased from 1.8 to 1, indicating a fully positive response. The second question showed an increase of 6 points towards a positive response (from 1.6 to 1). In the third question, it increased by half a point (from 1.15 to 1.1). In the fourth question, it increased by three points (from 1.3 to 1); in the fifth question, it increased by 3 points (from 1.5 to 1.2). The last two questions increased by 7 and 6 points, respectively, rising from 1.9 to 1.2 in the sixth question and from 1.8 to 1.2 in the final (see Figure 3).

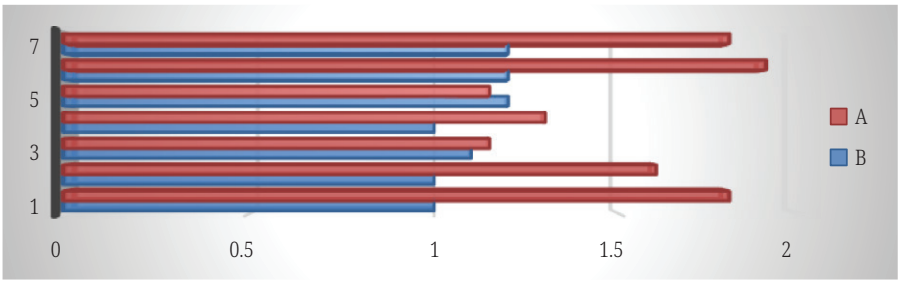

Fig. 3. Statistical compare means between A and B

In addition, based on data collection, we can conclude that there are numerous other barriers and challenges to adopting HRMoIS in small organizations in Al Anbar, Iraq. Some of these obstacles include:

a) **Organizational resistance:** Common issues include design, data, cost, and operations. Challenges in mobile system adoption stem from organizational resistance and technological fears.
b) **Limited financial resources:** Constrained financial means indicate a shortage of funds or resources. For instance, playground reconstruction is unfeasible due to our constrained financial resources.
c) **Inadequate understanding and training:** Insufficient training refers to training that does not meet a company's requirements in terms of both quantity and quality. Recognizing optimal training needs involves considering the opportunity cost of subpar and sporadic training.
d) **Integration challenges:** Data integration is intricate, given variations in data formats and quality across diverse sources such as apps, systems, cloud services, and databases. Security and governance pose additional challenges.

The study's research questions aimed to explore the feasibility of utilizing HRMoIS in small firms in Al Anbar and assess the effect of HRMoIS implementation on improving HR performance in these organizations.

Research Question 1: What is the implementation and effectiveness of mobile information systems in small Al Anbar firms?

According to the data in Table 20, the research findings demonstrate a significant increase in average values for firms that have implemented HRMoIS compared to the entire sample. More precisely, the average score for the initial question increased from 1.8 to 1, indicating a completely positive response. These findings indicate that firms in Al Anbar that have adopted HRMoIS have a positive perception of using mobile information systems. The higher average values across different questions support an excellent trend, confirming the favorable reality of utilizing HRMoIS in small firms in Al Anbar.

Research Question 2: How does the implementation of mobile information systems enhance HR performance skills in small firms in Al Anbar?

An examination of the disparities between groups A and B in Table 20 reveals a significant increase in mean values within organizations that solely implemented and utilized HRMoIS for their human resources. More precisely, the average score for the second question increased by 6 points towards a positive response (from 1.6 to 1). This indicates a beneficial influence of HRMoIS on enhancing abilities related to HR performance. The gradual and positive changes in average values across several questions indicate that the implementation of HRMoIS is linked to favorable results in terms of enhancing the performance abilities of HR in small firms in Al Anbar.

In addition, the limitations and problems discovered, such as opposition within the organization, limited financial resources, insufficient understanding and training, and difficulties in integration, provide a framework for understanding the research findings. These issues highlight the complexities and challenges faced by small firms in Al Anbar when implementing HRMoIS, improving the understanding of the reality and consequences revealed by the research.

5.1 Hypothesis testing

The present study examines the influence of HR mobile IT (HRMoIS) on enhancing HR performance skills in small organizations, primarily through a field study in Al Anbar Province, Iraq. The researchers have formulated a series of hypotheses, and this section will clarify whether they are accepted or rejected. These hypotheses will support the researchers in providing recommendations based on empirical evidence within the scope of the research.

The results of the three sub-hypotheses indicate that none of the hypotheses can be rejected, and the Pearson correlation between the variables is mainly positive but weak. The correlation coefficient for the first hypothesis between the variables is 0.532, indicating a weak positive correlation between the use of mobile information systems and the efficiency of HRM in small organizations in Al Anbar. This result indicates that small enterprises that integrate mobile information systems into their HRM strategy witness higher levels of employee performance. As a result, the organization's overall productivity increased. Nonetheless, the number of small enterprises that use mobile information systems is low. This highlights the urgent need for small enterprises to integrate mobile information systems into their management practices to leverage the positive effects on their human resources management.

Nonetheless, realizing benefits might be further impeded, as the results of the second hypothesis (0.584) indicate a necessity for increased communication between upper management and low-level employees. Therefore, integrating mobile information systems must be accompanied by proper communication systems to enhance overall human resource performance. Another obstacle highlighted by the correlation coefficient of the final hypothesis (0.470) is the necessity for additional training opportunities for HR in electronic systems. In this era, the lack of employee knowledge and the underutilization of advanced technology, such as mobile information systems, may further weaken the development of small enterprises and lead to negative consequences for overall organizational performance. Based on the analysis of the data collected from the target sample, the correlation coefficient between mobile information systems in HR and HR performance skills was found to be 0.564. From this, we can infer that using mobile information systems in the HR department positively influences HR performance skills.

Table 20. Hypothesis testing

Hypothesis	Status
Primary Hypothesis: Implementing a human resource mobile information system in small organizations in Al Anbar will directly and positively influence human resource performance skills.	Accept
Hypothesis 1: Implementing a mobile information system in small organizations in Al Anbar will directly and positively influence the efficiency and effectiveness of human resource performance.	Accept
Hypothesis 2: Effective communication facilitated by mobile information system systems between departments and upper management will lead to better organizational performance in small organizations in Al Anbar.	Accept
Hypothesis 3: The need for more understanding and training of small organization managers in Al Anbar regarding mobile information systems for human resources will hinder the adoption and success of such systems, negatively influencing employee and organizational performance.	Accept

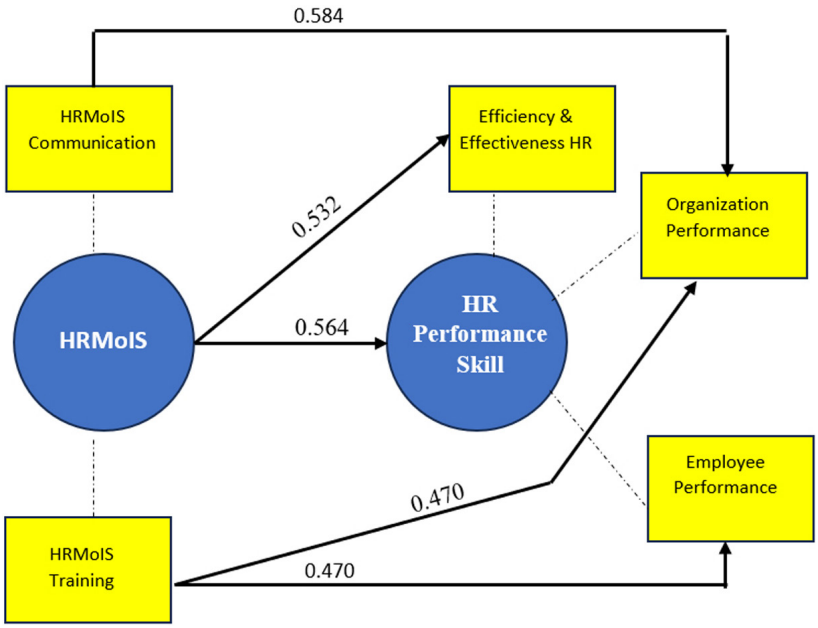

Fig. 4. The correlation between variables

5.2 Conclusion

As mobile phones dominate people's everyday lives, their use in small business organizations is transforming human resource management. Therefore, it became crucial to determine the scale and methods by which small business organizations utilize mobile information systems to enhance all facets of management, including human resources.

This paper establishes that integrating mobile systems in HR departments significantly impacts the development of HR skills. Specifically, there were strong positive correlations between using mobile systems and improved efficiency and effectiveness of HR management, as well as better overall organizational performance (see Figure 4). However, the positive impact of implementing mobile systems relied on pre-existing knowledge and training in electronic information systems. Organizations that lack these foundations experience fewer benefits from implementing mobile information. Therefore, it is also essential to consider the broader technological context in which the usage takes place. Small enterprise managers who lack knowledge of electronic information systems may be less likely to adopt this type of system. Consequently, their businesses may not experience these positive effects.

Key benefits reported by small organizations that utilize mobile information systems include efficient time management and effective communication. By integrating these systems into mobile devices, departments could easily interact with top management, resolve problems quickly, and make decisions swiftly. In light of the research above, it is evident that mobile information systems need to expand their scope beyond financial and administrative departments in small organizations. The practical implications of our findings for human resource development are diverse and highly relevant for small businesses aiming to enhance their organizational performance.

a) **Strategic integration of mobile information systems:** Our study emphasizes that the strategic adoption of HRMoIS positively influences the efficiency and efficacy of HRM in small organizations. Practical implications involve strategically integrating mobile systems within HR departments to leverage the benefits of improved communication, enhanced time management, and overall organizational performance.
b) **Knowledge and training foundations:** The favorable impact of HRMoIS relies on the existing knowledge and training in electronic information systems. It underscores the importance of establishing strong knowledge and training foundations within small organizations. Practical implications revolve around investing in continuous training programs for both managers and employees to maximize the potential benefits of mobile systems.
c) **Improved communication and time management:** Our study reveals that small businesses utilizing HRMoIS benefit from enhanced communication and time management, leading to quick problem resolution and well-informed decision-making. Practical implications highlight the importance of integrating mobile systems across all operational aspects, extending beyond financial and administrative departments. This step can significantly contribute to human resource development, increased productivity, and overall business enhancement.
d) **Technological knowledge context:** Our study emphasizes the significance of considering the broader technological knowledge context in HRMoIS utilization. Managers in small enterprises lacking knowledge of electronic information systems may be less inclined to adopt such systems, which can affect their potential positive effects. The practical implications underscore the need for organizations

to prioritize technology literacy among managerial staff to ensure the effective adoption and utilization of HR mobile information systems.

Through our investigation in this study, we have determined a positive correlation between implementing HRMoIS and improving performance within human resources. This provides actionable information specific to small-scale companies in Al Anbar. These practical outcomes highlight a pathway for organizations to leverage the full potential of mobile systems in their human resource development strategies. These recommendations aim to simplify the process of integrating technology into an organizational structure, significantly enhancing operational efficiency, productivity, and competitiveness. Due to the changing technological environment, all small organizations should adapt and embrace these technologies to remain agile in this ever-changing business world. Such adoption in the process of nurturing HR and enhancing productivity, which inevitably leads to improvements in overall business performance, has always tended to overshadow costs, despite mobile information systems being ubiquitous in contemporary organizational activities. Nonetheless, it should be noted that the results of our study were based on a survey conducted by small-sized organizations. It is, therefore, necessary to conduct further studies with larger samples and utilize secondary data such as sales records or personnel turnover patterns to confirm the findings of this study.

6 RECOMMENDATIONS

The final recommendations of this study are as follows:

a) The study recommends keeping up with the rapid changes in the use of mobile information systems in human resource development in a small organization in Al Anbar.
b) Providing the necessary hardware and software for implementing human resource information systems is crucial.
c) Hiring experienced consultants to implement human resource mobile information systems within the organization is essential.
d) It is necessary to ensure that human resource mobile information systems in small organizations in Al Anbar include everything required for employee training and development.
e) Providing HRMoIS in small organizations in Al Anbar with all the necessary data about the external job market, trainers, and training courses is crucial.
f) It is recommended that small organizations in Al Anbar appoint employees with experience in the application and development of mobile information systems to keep up with the significant advancements in this technology, ultimately benefiting them.
g) Additional specific recommendations to overcome barriers such as economic development and prioritization, transformation organization strategies, teamwork with IT experts, and continuous monitoring and evaluation

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