

THE IMPACT OF ELECTRONIC HUMAN RESOURCE MANAGEMENT STRATEGIES ON ORGANIZATIONAL FLEXIBILITY

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Abstract

Through a theoretical framework, this study aimed to identify definitions of Organizational Flexibility by covering the definitions proposed by many researchers and trying to reach a new definition. Previous studies have identified many benefits that can be achieved using organizational resilience in organizations. In addition, this study summarized these benefits and identified the most frequently mentioned benefits through a review of previous studies. The study measured the impact of Electronic Human Resource Management Strategies on (OF) in Iraqi pharmaceutical companies through a service of 180 employees in 20 Iraqi companies producing human drugs. Partial Covariance-Based Structural Equation Modeling (CB-SEM) were used in the statistical program (Smart PLS (version 4.0.8.9) as a statistical method for data analysis. The results of the study showed a significant effect of E-HRMS on (OF) in Iraqi pharmaceutical companies and the highest level of (OF) in Iraqi pharmaceutical companies. The most important recommendation for this study was that if organizations want to encourage the adoption of new work methods such as (OF), there must be a link between employee's incentives and employee learning for this new technological skill.

Keywords: Electronic Human Resource Management Strategies, E-HRM, Organizational Flexibility.

1. Introduction

The COVID-19 pandemic has shown the importance of electronic technologies in the workplace in ensuring continuity in business operations and providing optimal customer service (Komm et al., 2021). Business leaders, human resource managers, and employees were forced to work from home and had to meet and interact through various digital platforms (Bersin, 2021). Before the COVID-19 pandemic, the adoption of E-HRMS within organizations was increasing linearly (Friedman, 2016), but it was expected to increase significantly (Komm et al., 2021). The need and importance of (E-HRMS) arise from the expected future competition of business organizations, which can enable the company to withstand intense competition (Alabaddi et al., 2020). It is noted that E-HRMS, such as electronic recruitment and selection, electronic training and development, and electronic reward management, are mostly adopted within organizations compared to other digital human resource management practices as digital dispute settlement management and digital change management (Burbach, 2019; Parry & Battista, 2019). Authors such as Jammulamadaka (2020), Thite (2020), Imperatori et al. (2019), and Kiron and Spindel (2019) suggest that to meet the requirements of (OF), electronic human resource management practices should be adopted to make the workforce technologically intelligent and to enhance interaction between humans and machines (Thite, 2020). In addition, E-HRMS refer to the use of digital human resource management techniques in the comprehensive management of

internal talent or human resources (Barman & Das, 2019; Strohmeier, 2020; Thite, 2019; Zavyalova et al., 2022). E-HRMS have become increasingly important for many organizations to improve innovation by considering the use of (OF). In a recent study, Silva et al. (2018) pointed out that the participation of innovation intermediaries in cooperative projects will also enable them to achieve organizational benefits more closely. Recently, Johnson et al. (2016) pointed out that the term E-HRM more clearly illustrates the importance of the Internet and the Web in providing human resource services. However, since the emergence of the Internet, a new era of human resources called E-HRM has begun. In addition, information and communication technology (ICT) is born globalization that affects the business environment and transforms the building and performance of organizations around the world. Müller & Hundahl (2018) recently described how information technology enables innovation, resulting in typical transformations in how companies perform business. Information technology allows companies to abandon traditional business models. Reflecting the ability to change direction quickly, (OF) is an important source of competitive advantage and is considered an essential characteristic in the strategic planning process and a critical factor in adapting strategic plans to a competitive environment characterized by continuous change (Vladimir et al., 2012). As goals are the starting and ending points of any human activity, they form the foundation for the existence and survival of organizations and are part of their design. Organizations cannot function without a deep understanding of their goals, since organizations aim to achieve specific goals and objectives, which are set by employees and senior management (Hitt et al., 2001). Based on the above, organizations need to build and develop human resource information systems capable of meeting the requirements of (OF). However, there is a research gap in this area, particularly in terms of understanding the impact of E-HRMS on (OF). This gap in the literature necessitates further research in this field. Therefore, this study aims to shed light on the concept of E-HRMS and the benefits of implementing E-HRMS, in addition to the main objective of identifying the impact of E-HRMS on (OF). By presenting the theoretical framework for E-HRMS (such as e-selection, e-recruitment, e-training and development, e-performance appraisal, and e-compensation), application areas are utilized to identify the most important procedures related to E-HRMS, in an attempt to reduce the gap and adopt these strategies. It is also important to determine the level of interest among research organizations in the field of E-HRMS.

2. Theoretical Background

2.1 Electronic Human Resource Management Strategies

E-HRMS is a crucial and fundamental component of organizational management (Rahman & Hosain, 2021). The introduction of technology into the business world has had a profound impact, as it has transformed how organizations operate and manage their employees and work. Researchers in human resource management have extensively studied the effects of technological changes (AlHaziazi et al., 2021), which have greatly streamlined human resource management functions, providing valuable insights for human resource professionals, managers, and policymakers on navigating and operating in the new landscape (Kim et al., 2021). It should be noted that human resource management has undergone several stages of evolution throughout history (Bhuiyan et al., 2014). The first stage was personnel management (pre-World War II), followed by the notion of "employee care". Employees began keeping basic worker

information like names, addresses, and phone numbers on paper. In the second stage, the post-World War II era (1945-1960), large organizations in the United States started hiring from the military, and employees formed labor unions through which labor laws regulated the relationship between organizations and unions. Employee records were computerized during this time (Tannenbaum, 1990). The third stage was the legislative era (1960-1980), when the term human resource management emerged. Labor laws were organized through the adoption of anti-discrimination measures and regulations around employee health, safety, retirement, and taxes (Bhuiyan et al., 2014). The fourth stage represents the cost-cutting era (1980-1990), as organizations sought to reduce expenses in an increasingly competitive market. Human resource information systems appeared during this time. Large companies began installing programs on central computers to centralize employee databases, incorporating recruitment, benefits management, payroll, training, and development into their systems (Wei & Feng, 2013). The fifth stage represents the technology era (1990-2014) (Bhuiyan et al., 2014). Researchers like Mozgovoy & Mettler (2019) have used varied terminology such as E-HRM and E-HR to describe the application of technology in human resource management. Its use was first introduced in the 1990s. Therefore, the strategy for accessing selected information and communication technologies (ICT) should align with human resource management in organizations by focusing on different E-HRMS such as e-recruitment, e-selection, e-training, e-performance appraisal, and e-compensation (Majeed, 2020). Table (1) illustrates the various definitions of the concept of E-HRMS based on previous studies:

Table 1. Definitions of E-HRMS

| Definition | Researchers | N |
|--|-------------------------|---|
| A network-based structure, typically mediated by information technologies, that helps organizations acquire, develop, and disseminate intellectual capital. | Lepak & Snell (1998) | 1 |
| E-HRM is an overarching term that refers to all processes and tools for integrating human resources and technology. The goal is to generate and convey value within organizations to employees and other stakeholders. | Bondarouk & Ruël (2009) | 2 |
| Enhancing productivity through faster processing, improved work environments, reduced errors, quick exchange of documented information, and enabling better and faster communication between all stakeholders. | Nivoudi (2014) | 3 |
| E-HRM represents a new mindset and administrative approach that has emerged in a rapidly evolving era. It allows organizations to adapt to new technologies, information flows, and communication channels when carrying out human resource functions. | Amuna (2017) | 4 |
| An electronic network structure fully integrated with human resource data, information services, databases, devices, applications, and exchanges that are accessible at any time by employees, managers, and human resource specialists. | Nageswari (2020) | 5 |
| The systems and technologies supported by the human resource foundation within organizations | Rahman & Hosain (2021) | 6 |
| E-HRM is the administrative support of human resource | Nurimansjah et | 7 |

| | | |
|--|------------|--|
| functions in organizations through the use of internet technology. | al. (2023) | |
|--|------------|--|

Analyses of E-HRM definitions by various scholars show that E-HRM is often described in broad terms, though some definitions lack specificity, with each author providing their own interpretation. In summary, E-HRM can be viewed as an umbrella concept that includes all mechanisms for integrating human resources and technology, usually enabled by information technologies. The goal is to help organizations and allow seamless communication between all stakeholders, underpinned by the human resource capabilities within organizations.

2.1.1 Types of Electronic Human Resource Management

Literature on (E-HRM) tends to focus primarily on types of (E-HRM), and the types of operational, functional, and processing processes for human resource management work to create value (Kamran et al., 2016). Electronic human resource processes have become increasingly operational with an impact on human resource employees and employees (Alameri, 2018). Many authors realize that information technology has affected human resources, and there are three important types of (E-HRM) (Lepak & Snell, 1998) (Ruël et al., 2004) which are described respectively as:

Operational human resource management: It deals with administrative functions such as employee payroll and personal data (Padmavathy & Kumar, 2020). Therefore, organizations need to choose whether employees will keep their personal information up-to-date through a human resources website or whether they will have an administrative team to do so, such as reviewing and publishing workplace policies and investigating workplace issues (Bondarouk & Ruel, 2007).

Relational human resource management: For this type, there is an option whether more complex human resources strategies such as human resource planning, recruitment, testing, development, and training should be carried out using (E-HRM), or whether a more traditional approach relying on paper such as newspaper advertisements and paper application forms should be used (Ruël et al., 2004; Bondarouk & Ruel, 2007; Meyvtoviav, 2021). It includes automating transactions through the use of the Internet and external networks, and self-service for employees (Lengnick-Hall & Moritz, 2003).

Transformative Human Resource Management: Is associated with strategic human resource management activities known as knowledge management, strategic redirection, and organizational change, which can create a workforce ready for change through an integrated set of web-based tools that enable human resources to develop in line with the organization's strategic options (Strohmeier & Ye, 2015; Kabst, 2014).

2.1.2 The importance of Electronic Human Resource Management

The breadth and depth of E-HRM literature indicates that academic interest in this subject is growing significantly (Bersin, 2021). This is because the importance of E-HRM stems from the importance of technology in various work areas, through what it leaves behind of important connotations that indicate the importance of using E-HRM as a broad and diverse field according to the needs and requirements of the organization. Therefore, E-HRM is considered a potential source for enhancing human resource services within the human resources department for both employees and management to improve efficiency and cost-effectiveness within the human resources department and to allow human resources to become a strategic partner in achieving organizational (Alameri, 2018). From Raman's point of view (2020), the importance of E-HRM lies in the following:

1. Contributes to effective interactions between employees and managers.
2. Enhances the progression of tasks assigned to human resource managers.
3. Leads to effective and rapid implementation of strategic measures, policies, and strategies through the use of web-based technology.
4. Helps E-HRM to consolidate organizational effectiveness.
5. E-HRM is essential for enhancing the role of human resources in the organization.

Therefore, EHRM leads to self-sufficiency and independence through the use of web-based technology. Enables employees to obtain necessary information related to human resource transactions without even having to leave their workplace.

The dimensions of Electronic Human Resource Management can be clarified through the following table 2:

Table 2. Shows the Dimensions of E-HRMS from the Perspective of some Authors and Researchers.

| The Dimensions | | | | | | | | | | | | | | Research yers and year | N | | | | |
|--------------------------------------|--|----------------|-------------------|-------------|------------------|------------|-------------|----------------|--------------------|-----------------------|----------------------|-------------------------|------------------------|------------------------------|-----------|-------------------------------------|------------------------|------------------------------|---|
| human resource management activities | human resource management applications | Infrastructure | perceived benefit | ease of use | transformational | Relational | Operational | Communications | electronic records | electronic discipline | electronic selection | Compensation electronic | performance evaluation | performance management | Education | Electronic training and development | Electronic recruitment | | |
| | | | | | * | * | * | | | | | | | | | | | Lepak & Snll (1998) | 1 |
| | | | * | * | | | | | | | | | | | | | | Jagetia et al. (2003) | 2 |
| | | | | | | | | | | | | | * | | | | | Card & Miller (2005) | 3 |
| | | | | | | | | | | | * | * | | | * | * | | Hooi (2006) | 4 |
| | | | | | | | | | | * | * | * | | | * | * | | Panayot opoulu et al. (2007) | 5 |
| | | | | | | | * | | | | | * | | | | | | Pouyan | 6 |

must ensure HR employees understand how to utilize the recruitment process wisely. Adequate training should be available for HR staff on effectively leveraging electronic recruitment to identify and hire the right talent for required roles.

Electronic Training and Development: COVID-19, known as the Coronavirus, has become a global pandemic, leading to widespread isolation and severely impacting economies (Bayunit, 2020). This has compelled people to work more online to maintain productivity amid the pandemic spread (Fachriansyah, 2020). In recent years, the internet has significantly impacted many people's lives, particularly in training, contributing to the rise of e-training (Wolor et al., 2020). Information technology has enabled tremendous growth in training strategies in recent years (Al-Hawary et al., 2020), allowing employees to learn without needing physical facilities (Ramayah & Yusliza, 2012). Organizations seek to boost competitiveness by promoting a culture of continuous learning and development online to be more responsive in meeting current and future organizational needs (Al-Lozi et al., 2017). Thus, online training options and online access to performance data have become more commonplace (Shah et al., 2020), considering traditional training's limitations which reduce its effectiveness globally due to worldwide changes (Wolor et al., 2020). Employee training and development is a critical HR function in organizations, spreading knowledge and skills (Saleh & Saleh, 2016). This applies to new hires acquiring necessary competencies to succeed in roles, and current staff needing urgent upskilling to efficiently gain new expertise for solving work challenges (Kamala & Shubbarb, 2020). Consequently, many organizations have started adopting online training systems for their workforces (Majeed, 2020).

Electronic performance evaluation: Given the impacts of the Coronavirus, organizations face intense global competition and must adapt with innovative thinking to stay competition (Umar et al., 2020). Recent literature points to the growing adoption of e-performance evaluation to assess employee performance. E-performance evaluation uses technology to create systems and processes for evaluating employees based on their job performance (Piggot-Irvine, 2003). This allows for providing more structured feedback, enhancing employee participation, involving peers in feedback, and improving social outcomes of performance feedback (Delery & Roumpi, 2017). An effective e-performance system should align with the organization's HR approach (Bondarouk et al., 2017). In essence, a results-driven evaluation system aims to assess employees on achieving objectives and identify required competencies (Ullah et al., 2021). Notably, it enables accessing and retrieving data from job descriptions and transferring evaluation information anytime via the Internet, making it easier and faster for organizations to generate accurate HR reports. As Rivai (2014) noted, performance evaluation measures and impacts job attributes, behaviors, and outcomes including absenteeism. Since performance stems from an employee's work, employees need feedback to guide future behavior (Jarwati et al., 2020). Such systems can improve employee performance and organizational competitiveness (Johnson & Gueutal, 2011).

Electronic compensation: In recent years, compensation systems have become a critical competitive factor for attracting human resources in organizations and motivating and retaining them (Umar et al., 2020). Researchers such as (Dulebohn & Marler, 2005) mentioned that electronic compensation is the use of information and communication technology in designing compensation packages and benefits for working individuals that help ensure fair salary distribution, track employee benefits packages, and critical compensation information, and help managers develop the organization's budget, analyze the impact of current incentive systems, and ensure

fairness in their compensation system. In addition, access to compensation information and data through the organization's Internet network is possible (Umar et al., 2020). Electronic compensation management refers to such an online system that manages employee compensation issues as well as tracks employee participation in benefits programs such as insurance, profit sharing, and seats (Rahman et al., 2018). Electronic compensation systems are used for many purposes such as developing and implementing a wage system, providing entitlements, and estimating the efficiency of the compensation system.

2.2 Organizational Flexibility

The concept of flexibility first emerged in 1939 by Stigler, referring to price fluctuations due to changes in demand. It later evolved into a broad idea for organizations to minimize the impact of environmental changes by adapting to various developments (social, economic, technological and technical). This requires compatible plans so organizations can gain competitive edge (Dastmalchian, 2001). Organizational flexibility (OF) has been extensively studied over the years. Early research by Blyton (1991) and MacInnes (1988) focused on delineating the different facets of flexibility. Studies show OF provides valuable perspective on organizational characteristics that help identify potential direct and indirect risks and respond preemptively (Baker et al., 2008). Burgess (1994) notes that flexibility requires strong grounding in management theory, including timely and proactive responsiveness. Researchers Landrum and Skipper (2008) define (OF) as the ability to adapt to unexpected crises and capitalize on opportunities. They added that highly flexible organizations are more capable of responding to unexpected conditions and events. Table 3 illustrates the various definitions of the concept of Organizational flexibility based on previous studies:

Table 3. Shows the Different Definitions of The Concept of Organizational Flexibility Based on Previous Studies

| Definition | Researchers | N |
|--|---------------------------|---|
| Organizational flexibility denotes the capacity to respond to changes in environmental conditions. | Limetal (2012) | 1 |
| Organizational flexibility refers to the capacity to adapt as well as the rational foundation for organizational change. | Dunford et al. (2013) | 2 |
| The core capability enabling organizations to address environmental changes is that it makes the organization more responsive to change. | Madhani (2013) | 3 |
| Organizational flexibility is the ability to adapt to internal and external environmental changes and identify market opportunities. | Jun&al (2015) | 4 |
| It is one of the most critical organizational functions, performing numerous tasks and activities to provide competent and qualified human resources aligned with the current and future needs of the institution. | Aityassine et al. (2022) | 5 |
| Organizational flexibility is defined as "the organization's ability to anticipate, prepare for, and respond to gradual change and sudden disruptions to survive and thrive". | BS 65000 | 6 |
| The Organization's ability to reconfigure its structure systems and processes quickly, and efficiently to adapt to changing environmental condition | Chalab & Chraimukh (2023) | 7 |

2.2.1 The importance of Organizational Flexibility

According to Dreyer & Gronhaug (2004) and Dibrell (2007), the importance of (OF) is determined in the following points:

1. Organizational Flexibility is a condition for increasing the organization's ability to face important and rapid environmental changes efficiently and effectively and enables it to manage its activities under these conditions.
2. Organizational Flexibility works to maintain the effectiveness of the organization by developing strategies that adapt to changes in the work environment to face expected difficulties.
3. Organizational Flexibility enhances the organization's ability and capacity to respond to emergency changes.
4. Planning rigidity can cause malfunctions for the organization at the medium or long term level. Therefore, (OF) works to give organizations the quality of compliance to overcome rigidity, which helps them compete.
5. The conscious and flexible management with ideas is characterized by renewal and always tends towards innovation and creativity, as it takes change as an approach that reflects on its productivity and quality.
6. Organizational Flexibility contributes to developing the necessary skills to diversify the work culture in the organization, as it works to modify organizational procedures and regulations according to internal and external environmental variables.
7. Organizational Flexibility is an important source in the planning process to keep up with strategic plans for the environment within the context of contemporary dynamic changes (social, economic, technological and technical), which requires that plans be compatible with this development so that the organization can obtain some competitive advantages.
8. Flexibility gives the organization the ability to respond effectively to demands such as market fluctuations and increased customer demands for goods and services (Jones, 2005).

2.2.2 The Dimensions of Organizational Flexibility

Compatibility: Compatibility is one of the most crucial elements for success. The compatibility dimension here refers to the extent of congruence between employees' values and organizational values. Most organizational behavior studies have shown that a key driver of job satisfaction is the alignment of individual and organizational values. When an individual works in a stimulating environment that boosts morale, this positively impacts their performance and work overall. Hence, it is important for organizations to strive for value congruence between individual and organizational values. Achieving this compatibility within an integrated framework reduces the chances of value conflicts and greatly contributes to attaining desired goals (Yarbrough et al., 2011).

Implementation: is the practical realization or execution of an idea, plan, model or policy. Its scope is diverse. When an employee is aware of their goals in organizational life and how the future vision provides purpose and meaning, their implementation becomes their imprint on life, and they can balance the roles they play (Covey, 2017).

Responsibilities and Roles: Aligning roles is considered one of the most vital activities for an individual to achieve their organizational goals, as it is a means to accomplish those objectives. Each role is uniquely defined and expected to be performed by the individual to attain those goals, which in turn reduces organizational friction (Yarbrough et al., 2011).

Synergy and Interaction: This is the process of cooperation and exchange of knowledge and expertise within an organization. If available, this is reflected in employees' sense of collective responsibility for the organization as an integrated entity and its stability (Baker et al., 2008).

Leadership Capabilities: This refers to the appropriate procedures, decisions and actions taken by a leader that yield positive outcomes. These stem from personal talents honed through practical experience gained by the leader (Copland, 2003). Building leadership capabilities paves the way for effective leadership and assists managers in improving their skills to build trust among all stakeholders – employees and society (Burnham, 2007).

As defined by (Limetal.,2011), Organizational Flexibility has three dimensions:

Strategic Flexibility: This stems from capabilities that provide a range of strategic options that can be implemented relatively quickly, such as the adaptability to change the nature of activities related to organizational or environmental goals. It includes modifying strategies and tactics to adapt to rapidly evolving markets.

Tactical Flexibility: This supports adaptation in organizational structure and decision-making processes through proper communication with changing circumstances in an agile manner.

Operational Flexibility: This enables quick responses to change, with the goal of maximizing efficiency and reducing risks in volatile markets. It refers to the known devices, machines, equipment and software used to convert inputs into outputs.. These stem from personal talents honed through practical experience gained by the leader (Copland, 2003). Building leadership capabilities paves the way for effective leadership and assists managers in improving their skills to build trust among all stakeholders – employees and society (Burnham, 2007).

3. Methods

This applied study investigated the impact of electronic human resource management strategies on organizational flexibility in Iraqi pharmaceutical companies. The study commenced with a review of relevant literature, presenting previous studies to extract the concepts of (E-HRMS) and (OF). A survey was conducted among employees of Iraqi pharmaceutical companies that manufacture human drugs registered with the Iraqi Ministry of Health. The total number of registered companies included in this study was 20, and questionnaires were distributed to employees at each company. Thus, the study sample comprised (180) employees, all of whom fully completed the survey. All questionnaires were valid for analysis. The survey consisted of five sections; First, questions describing sample demographics; Second, questions regarding e-HRM strategies; Third, questions about organizational flexibility; Fourth, a 5-point Likert scale to interpret participant responses; Fifth, statistical tests to analyze the research hypotheses. SmartPLS software (version 4.0.8.9) was utilized to evaluate the study hypotheses. E-HRM (the independent variable) was tested against organizational flexibility (the dependent variable).

4. Results and Discussion

4.1 Demographic Data Analysis

The demographic data collected from the questionnaires were analyzed and distributed to a sample of the study population.

Table 4. Distribution of the Sample by Demographic Factors

| Demographic Variable | Section | Frequency | Percent |
|----------------------|--------------|-----------|---------|
| Gender | Male | 107 | 59.4 |
| | Female | 73 | 40.6 |
| | Total | 180 | 100.0 |
| Educational level | Bachelor | 138 | 76.7 |
| | Master | 22 | 12.2 |
| | PhD | 20 | 11.1 |
| | Total | 180 | 100.0 |
| years of experience | Less than 10 | 60 | 33.3 |
| | 10-15 | 50 | 27.8 |
| | More than 15 | 80 | 44.4 |
| | Total | 180 | 100.0 |

Table 4 analyzes the gender, educational level, and years of experience of the study sample. The majority of respondents held a bachelor’s degree and had long experience. This confirms the efforts of pharmaceutical companies in Iraq to employ highly qualified human resources with good education.

4.2 Statistical analysis results & Reliability analysis

Table 5. Means and Standard Deviations

| Dimensions | No. of items | mean | Sd. | Level |
|--|--------------|------|------|-------|
| Electronic Human Resources Management Strategies | 9 | 4.34 | 0.77 | High |
| Strategic Flexibility | 10 | 4.28 | 0.78 | High |
| Tactical Flexibility | 9 | 4.58 | 0.74 | High |
| Operational Flexibility | 7 | 4.18 | 0.72 | High |

Mean ranks (2.33 and less: low; 2.34 - 3.67: moderate; 3.68 and more: high)

Table 5 presents the means and standard deviations for E-HRMS, organizational flexibility, and its dimensions. The average values ranged from 4.18 to 4.58. Notably, organizational flexibility scored 4.38, with tactical flexibility having the highest score at 4.58 and operational flexibility having the lowest score at 4.18. Overall, the scores for both E-HRMS and organizational flexibility were high, with mean scores of 4.34 and 4.38, respectively.

This study utilized Structural Equation Modeling with Covariance-Based Structural Equation Modeling (CB-SEM) to test the hypotheses. CB-SEM is a statistical technique used for data analysis and examining relationships between variables, applied across fields like management, economics, psychology, and social sciences (Hair, JF, Hult, G.T.M., Ringle, C.M., & Sarstedt, M., 2022).

Accordingly, the reliability of structures and HTMT matrix, along with their validity, were tested via Confirmatory Factor Analysis (CFA) through the SmartPLS statistical

software (version 4.0.8.9). Table (6) summarizes the convergent and discriminant validity results, as well as reliability indicators.

Table 6. Results of Validity and Reliability Tests

| Constructs | 1 | 2 | 3 | 4 | 5 |
|----------------------------|-----------------|----------------|-----------------|-----------------|-----------------|
| HTMT | | | | | |
| 1. Strategic Flexibility | | | | | |
| 2. Tactical Flexibility | 0.451 | | | | |
| 3. Operational Flexibility | 0.385 | 0.441 | | | |
| 4.(OF) | 0.405 | 0.395 | 0.685 | | |
| 5. (E- HRMS) | 0.412 | 0.436 | 0.551 | 0.385 | |
| VIF | 1.856 | 2.445 | 1.310 | 1.694 | --- |
| Loadings range | 0.664- 0.812 | .701- 0.764 | 0.653- 0.792 | 0.703- 0.788 | 0.682- 0.771 |
| BIC | -23.043 | -25.600 | -12.473 | -14.982 | -15.982 |
| AVE | 0.562 | 0.530 | 0.542 | 0.563 | 0.583 |
| Cronbach alpha | 0.891 | 0.880 | 0.898 | 0.925 | 0.967 |
| Composite reliability | 0.899 | 0.891 | 0.899 | 0.930 | 0.970 |

Table 6 shows that the standard loading values for individual items ranged from 0.653-0.812, exceeding the minimum threshold to retain items based on their standard loadings (Al-Lozi et al., 2018; Sung et al., 2019). The average variance extracted (AVE), an indicator of convergent validity, should be above 0.50 (Howard, 2018). The results revealed AVE values for all constructs were over 0.50, indicating the measurement model has adequate convergent validity. For variance-based SEM, Rimkeviciene et al. (2017) proposed comparing the maximum shared variance (MSV) to AVE values, and the square root of AVE with correlations between constructs, to assess discriminant validity. Thus, the measurement model exhibits satisfactory discriminant validity. Internal consistency was measured using Cronbach's alpha and composite reliability with McDonald's omega as indicators to evaluate the measurement model. As shown in Table 5, Cronbach's alpha and McDonald's omega were both above 0.70, meeting the minimum threshold for reliable measurement (De Leeuw et al., 2019).

4.3 Hypothesis testing:

4.3.1 Study hypotheses:

Throughout the research, attempts were made to verify the following research hypotheses: The main hypothesis:

H0: There is no statistically significant effect of E-HRMS on (OF)for Iraqi pharmaceutical companies at a statistical level of 0.05.

The following sub-hypotheses were derived:

H0-1: There is no statistically significant effect of E-HRMS on strategic flexibility for Iraqi pharmaceutical companies at a statistical level of 0.05.

H0-2: There is no statistically significant effect of E-HRMS on tactical flexibility for Iraqi pharmaceutical companies at a statistical level of 0.05.

H0-3: There is no statistically significant effect of E-HRMS on operational flexibility for Iraqi pharmaceutical companies at a statistical level of 0.05.

The researchers applied logical analysis to test the proposed model to provide a comprehensive explanation of the results related to the hypotheses by implementing covariance-based structural equation modeling (CB-SEM) in SmartPLS software (version 4.0.8.9). Figure (1) shows the effect of E-HRMS on the dimensions of organizational flexibility (OF), while Figure (2) illustrates the effect of E-HRMS on OF, based on the numbers shown in Table (7).

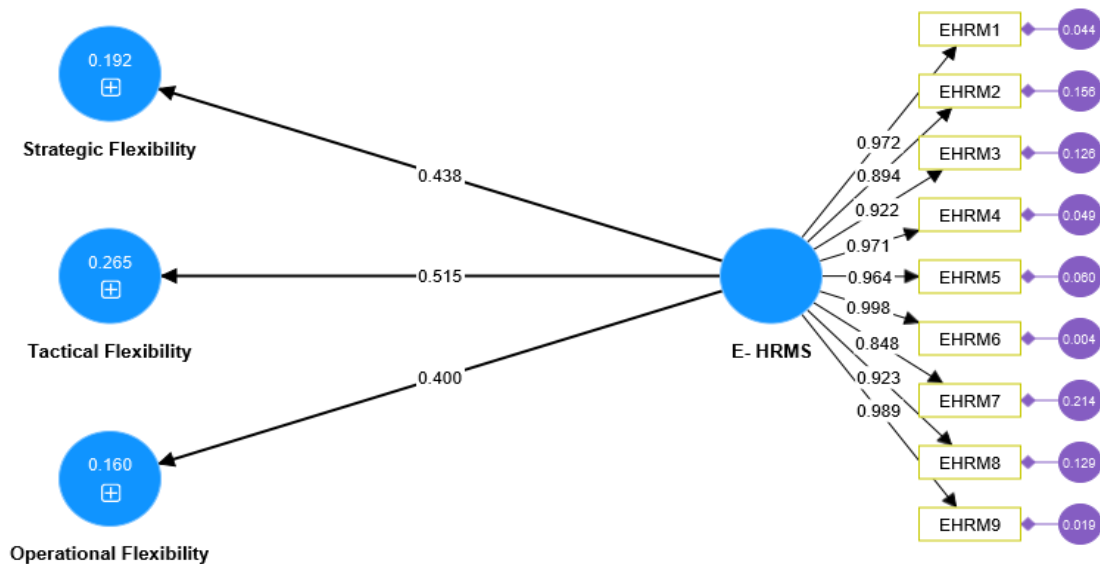


Figure 1. Standardized Effects E-HRMS on (Strategic Flexibility, Tactical Flexibility, and Operational Flexibility)

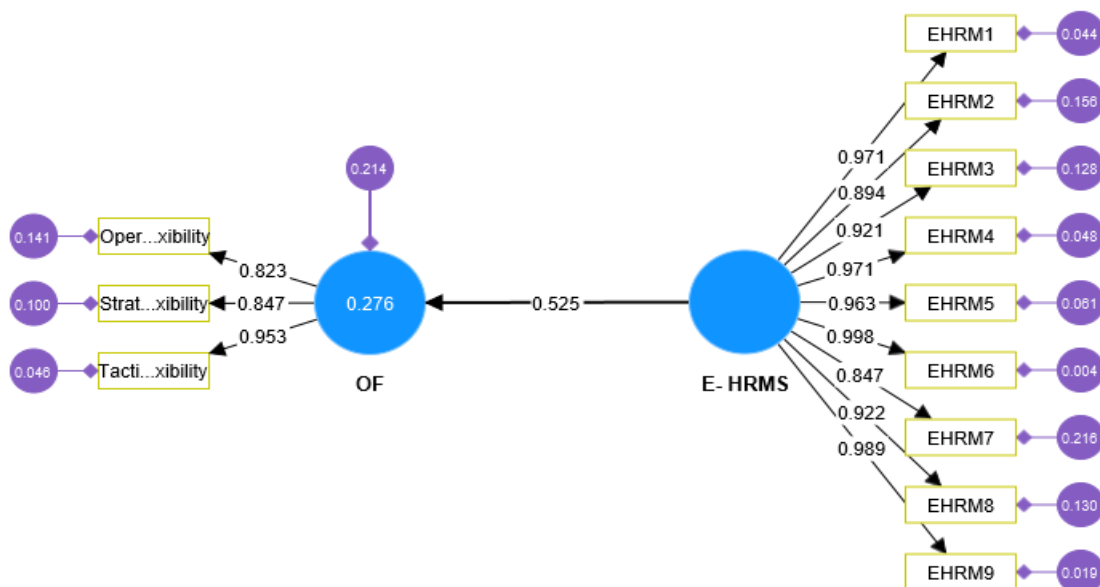


Figure 2. Standardized Effects E-HRMS on (OF)

Table 7. Standardized Effects

| Hypothesis | impact direction | B | T | Prob | R2 | F2 |
|------------|--|-------|-------|-------|-------|-------|
| H0 | Electronic Human Resources Management Strategies on Organizational Flexibility | .525 | 5.370 | 0.000 | 0.276 | 0.389 |
| H0-1 | Electronic Human Resources Management Strategies on Strategic Flexibility | 0.438 | 4.786 | 0.000 | 0.192 | 0.266 |
| H0-2 | Electronic Human Resources Management Strategies on Tactical Flexibility | 0.515 | 5.870 | 0.000 | 0.265 | 0.411 |
| H0-3 | Electronic Human Resources Management Strategies on Operational Flexibility | 0.400 | 4.288 | 0.000 | 0.160 | 0.234 |

4.3.2 Results of testing the main hypothesis

Table 7 exhibits the value of the effect of E-HRMS on (OF), conveyed through the standardized beta coefficient, determined to be (0.525). The effect value was deemed statistically significant, as the associated probability value (0.000) was <0.05. Therefore, the null hypothesis stating that E-HRMS do not affect (OF) was rejected.

4.3.3 Results of testing the first sub-hypothesis:

The results in Table (7) demonstrate that E-HRMS significantly and positively impacted strategic flexibility, as evidenced by the standardized beta coefficient of (0.438) ($p < 0.05$). This statistically significant finding rejects the null hypothesis and lends support to the alternative hypothesis that E-HRMS have a favorable influence on strategic flexibility.

4.3.4 Results of testing the second sub-hypothesis:

The results in table (7) show that E-HRMS had a significant positive impact on tactical flexibility, as evidenced by the standardized beta coefficient of 0.515 ($p < 0.05$). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that E-HRMS positively influence tactical flexibility.

4.3.5 Results of testing the third sub-hypothesis:

The results presented in table (7) demonstrate that E-HRMS had a significant positive impact on operational flexibility, as shown by the standardized beta coefficient of 0.400 ($p < 0.05$). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that E-HRMS positively influence operational flexibility.

5. Conclusion

The results showed that there is a statistically significant effect of E-HRMS on the practices of (OF) for Iraqi pharmaceutical companies. The results also showed that there is a statistically significant effect of E-HRMS on the practices of (OF) for Iraqi pharmaceutical companies regarding (strategic flexibility, tactical flexibility, and operational flexibility). The higher the level of E-HRMS, the higher the level of (OF) in Iraqi pharmaceutical companies. This result is attributed to the high level of awareness

of the importance of (OF)and monitoring (OF)by companies through the organization's approach and culture and its adoption of modern technology. In addition, research organizations have a good knowledge of the concept of (OF) and its role in maintaining appropriate flexibility. The results of this study are consistent with the results of (Phillips & Wright, 2009); (Reed & Blunsdon, 1998); (Koçyiğit & Akkaya, 2020); (Anning-Dorson, 2021); (De la Gala-Velasquez et al. 2023); (Joseph & Sonwaney, 2023); (Chalabi & Chraimukh, 2023).

Through the overall relative weight averages of elements related to E-HRMS, the study showed that Iraqi pharmaceutical companies manage their human resources electronically well and appropriately for management levels without interfering with powers as well as having good protection for information that allows files to be retrieved in case of loss. The system also provides secure and accurate information used in planning and is flexible enough to accommodate any changes required by E-HRMS. This result can be attributed to modern technological developments in developing administrative work methods imposed on institutions where there is a shift from traditional methods of doing business to electronic methods. The results of this study are consistent with (Nyathi & Kekwaletswe, 2023).

The results showed that the level of tactical flexibility is high in Iraqi pharmaceutical companies. The results proved that Iraqi pharmaceutical companies have practices to consolidate tactical flexibility and prioritize employees who have awareness, interest, and knowledge of tactical flexibility. In addition, tactical flexibility has become part of HR management policy. The results of this study are consistent with those of a study (Kwan et al., 2013).

The results showed that the level of strategic flexibility is relatively high in Iraqi pharmaceutical companies. The results proved that Iraqi pharmaceutical companies are working on developing the knowledge and skills required for all aspects related to strategic flexibility. The results of this study coincide with the results of other studies (Brozovic, 2018); (Dhar et al., 2022); (Zang et al., 2022); (Kafetzopoulos et al., 2022).

The results showed that the level of operational flexibility is high in Iraqi pharmaceutical companies. The results proved that operational flexibility included the concept of organizational flexibility. The results of this study were consistent with the results of a study (Yu et al., 2015); (Alolayyan & Alyahya, 2023); (Jiang et al, 2023).

T Some literature indicates that electronic HR management, for example (Nivoudi, 2014) enhances productivity by providing faster processing, a better working environment, reducing errors, quickly exchanging documented information, and allowing better and faster communication between all stakeholders. The study showed that most definitions of (OF)are very similar except for minor differences. The main focus of this concept is the ability to "respond" to changes that occur in the external environment. The researchers concluded the following definition: (OF)is the ability to respond to organizational change that enables the organization to face changes. The results showed that the three most important benefits of (OF)are risk management, emotional impact management, and employee health and stability. The results also showed that there is a statistically significant effect of E-HRMS on (OF)for Iraqi pharmaceutical companies regarding (electronic selection, electronic recruitment, electronic training and development, electronic performance evaluation and electronic compensation). The result also showed that the higher the level of E-HRMS, the higher the level of (OF)in Iraqi pharmaceutical companies. This result is attributed to the high level of awareness of the importance of (OF)and monitoring (OF)by companies through

the organization's approach and culture and its adoption of modern technology. In addition, the results proved that Iraqi pharmaceutical companies have practices to consolidate a culture of flexibility and prioritize employees who have awareness, interest, knowledge and development of knowledge and skills required for all aspects related to (OF) programs.

Recommendations:

- 1) If organizations want to encourage the adoption of new methods such as organizational flexibility, there must be a link between employee incentives and learning this skill.
- 2) Continuing the process of training employees by holding training courses to develop employees in the fields of organizational flexibility.
- 3) Raising awareness among managers and employees about the importance of the concept of (OF) in the institutional field and focusing on its application within the organization due to its tremendous ability to improve employee performance and administrative processes.
- 4) The need to focus on E-HRMS in the researched organization due to their impact on organizational flexibility.
- 5) Discussion that answers their search objectives.

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