The role of human resources management in enhancing the economic sustainability of Jordanian banks

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Abstract
Purpose – The purpose of this study is to examine the role of human resources management (HRM) on economic sustainability in Jordanian banks. To achieve this goal, data were collected from 23 Jordanian banks listed at the ASE from 2014 to 2019.
Design/methodology/approach – A regression model was employed using four independent variables that represent the HRM (i.e. managing the environment of human resources, human resources acquisition and preparation, human resources assessment and development and human resources compensation) and using economic sustainability as the dependent variable. The study also controlled for banks’ age, size, leverage and return on equity.
Findings – Results show that all independent variables are positively correlated with economic sustainability. The results imply that HRM is an important tool to enhance economic sustainability within the banking sector.
Originality/value – This study provides practical implications for banks’ managers, future researchers and policymakers. This is achieved by investigating the impact of the independent variables, including managing the human resources environment, the acquisition and preparation of human resources, the assessment and development of human resources and the compensation of human resources on the economic, social and environmental sustainability in Jordanian banks.
Keywords Human resources management, Economic sustainability, Jordanian banks
Paper type Research paper

1. Introduction
Sustainability is a new concept that attracts the interest of businesses since it covers vital outputs related to companies’ growth and development (Ananzeh et al., 2022c; Forcadell et al., 2020). Sustainability is an umbrella embracing several aspects related to quality, appropriate environment, customer satisfaction, creativity and innovation, growth, expansion and optimal resource utilization (Malik et al., 2021). Achieving sustainability is a continuous process, and the required steps vary from one company to another. In addition, the steps needed to achieve sustainability are integrated, comprehensive and complex because they encompass the firm’s financial, human and community resources (Ananzeh, 2022; Khan et al., 2020). Sustainability can be defined as a business management approach that produces positive economic, environmental and social benefits by adopting initiatives that consider the three components, namely, society, environment and economy (Suileek and Alshurafat, 2023; Taha et al., 2023; Al-Hazaima et al., 2022; Ananzeh et al., 2022a; Hang and
This paper investigates the role of human resources management (HRM) on economic sustainability.

In the HRM literature, several studies suggested the presence of a significant and positive relationship between HRM practices and companies’ performance (Mohiuddin et al., 2022; Nathaniel et al., 2021; Piwowar-Sulej, 2021; Santana et al., 2020; Stahl et al., 2020). Scholars have recently focused on topics such as sustainable human resources (Mohiuddin et al., 2022), human resource development (Stahl et al., 2020) and the impact of human resource practices on performance (Da Silva et al., 2020; Malik et al., 2021). However, a few studies, such as Mohiuddin et al. (2022), investigated the relationship between HRM and sustainability.

Economic sustainability continues to attract the interest of many scholars (Ananzeh, 2020; Bugshan et al., 2022), driven by the corporate scandals that led to the subsequent crisis and the lack of confidence in the current economic system (Alhusban et al., 2020; Alshurafat, 2019, 2022; Alshurafat et al., 2019a, b, 2021a, b; Haloush et al., 2021; Stahl et al., 2020). However, new studies confirm the significance of HRM in explaining the growth and the economic sustainability of banks (Mohiuddin et al., 2022). Piwowar-Sulej (2021) stated that HRM activities including recruitment, human resources development, human resources assessment and human resources rewarding are significant drivers for economic sustainability by maximizing organizations’ results and accomplishing their goals and performance, offering several advantages to their stakeholders (Amrutha and Geetha, 2020). Mohiuddin et al. (2022) stated that HRM plays a significant role in enhancing economic sustainability and innovates new perspectives on economic aspects such as return on equity (ROE), exploitation of opportunities, risk reduction, innovation and launching new products into the market while ensuring the achievement of goals.

HRM is critical to the firms’ economic sustainability (Hernita et al., 2021). However, economic sustainability cannot be improved without enhancing the societal and environmental sustainability in the area where the company is located. Hernita et al. (2021) stated that increasing the productivity and sustainability of firms will boost economic growth and reduce unemployment and poverty. This paper contextualized sustainability in terms of economic, social and environmental sustainability based on the management of human resources in Jordanian banks.

The remainder of this paper is organized as follows. Section 2 reviews the current literature on this topic. Section 3 illustrates the research methodology. Data analysis and empirical results are presented in Section 4. Discussion and conclusion are represented in Sections 5 and 6, respectively.

2. Literature review
Mohiuddin et al. (2022) investigated the development of sustainable human resources in universities. The researchers concluded that human resources practices, social and psychological factors, company branding, economic factors and workplace politics might be used to promote sustainable HRM. Sustainable human resources may lead to a positive impact on employees’ physical, economical and social welfare, affecting companies’ sustainability as a whole. Mamin Ullah (2017) examined the concepts, significance, practices and implications of green HRM regarding recruitment, training and development, performance appraisal and reward management. The study found that green HRM improves efficiencies, economic utilization of resources and job-related attitude, hence helping organizations maintain resource-efficient and socially responsible workplaces. Moreover, Buller and McEvoy (2016) investigated the implementation of sustainable strategy through HRM practices and explored the impact of HRM practices such as recruitment/selection, training and development, performance appraisal and compensation.
As a result, a comprehensive analysis is required to consider the limitations of previous studies to improve sustainability research in the context of Jordanian banks, as well as to include new variables that were ignored by previous studies. Therefore, this paper investigates the impact of human resources environment (HRE) management, human resources acquisition and preparation, human resources assessment and development and human resources compensation on economic, social and environmental sustainability in Jordanian banks while controlling for bank size, bank age, leverage and ROE. By examining the impact of HRM on sustainability within Jordanian banks, this paper provides an original contribution. The purpose of this paper is to fill the research gap in the field of HRM and sustainability.

2.1 Stakeholders theory
This theory suggests that the purpose of the firm is to create as much value as possible for its stakeholders including owners, consumers, suppliers and the community. Managers must safeguard stakeholders’ interests on a continuous and balanced basis to achieve long-term success and sustainability (Wu et al., 2019). In this regard, stakeholders play a unique role in expanding firms’ sustainability in its various facets, by influencing how firms deal with their sustainability-related activities (Geldres et al., 2021). Firms, for example, can use charitable donations as a strategy to satisfy stakeholders’ requirements (Ananzeh et al., 2021, 2022b). Furthermore, managers under threat of replacement may use sustainability as a worthy strategy to gain stakeholders’ support (Elmagrhi et al., 2019).

From a more strategic perspective, stakeholders believe that activities related to environmental and social sustainability might improve their firm’s financial claims (Sahasranamam et al., 2020). Alternatively, sustainability is a feasible strategy for meeting stakeholders’ requirements but must not interfere with the firm’s primary goal (Najaf, 2021).

The accountability concept is concerned with the notion that companies’ activities affect the external environment, thus, imposing environmental responsibility for their actions (Ferry and Murphy, 2018). Accordingly, this definition indicates that companies recognize that they are a part of a broad social framework and are accountable for communicating and interacting with all stakeholders, not just investors and owners.

External stakeholders have the right to know about the company since they are the parties most affected by its activities. Thus, the company should disclose its policy, decisions and activities in a clear, accurate, complete, reasonable and adequate manner. This should include any known or potential effects on the environment and society (Artene et al., 2020). Transparency does not require proprietary information, legally protected information or information violating commercial, security or personal privacy requirements to be publicly available.

2.2 Hypotheses development
2.2.1 Human resources environment and the economic sustainability. According to Mohiuddin et al. (2022), it is imprudent to disregard managing the HRE as an important factor in promoting economic sustainability. The HRE is a component of the social environment and consists of all internal and external factors influencing the functioning of the human resources department (Molina-Azorin et al., 2021). However, there are several significant environmental trends and changes that human resources managers of Jordanian banks must deal with, such as workforce diversity, economic and technological change, organizational restructuring, employee demand and supply and compensation methods. Therefore, researchers argued that managing human resources’ environment may positively enhance Jordanian banks’ economic sustainability. Thus, the following hypothesis is formulated.

H1. Managing the HRE positively affects the economic sustainability of Jordanian banks.
2.2.2 The acquisition and preparation of human resources and the economic sustainability. Banks, like other companies, constantly strive to maintain their leading position in the market, which drives them to be more interested in promoting sustainability practices throughout all their operations and in the surrounding communities (Aust et al., 2020). The human element is an important factor affecting the strength, effectiveness and growth of the companies’ production. Since employees are the main driver behind all of the company’s tasks and responsibilities, most companies prefer to manage their human resources with distinguished competencies and qualifications as well as to prepare individuals to achieve the company’s goals while also improving and enhancing the economic sustainability (Da Silva et al., 2020; Drolet, 2020). Therefore, the researchers argued that managing the acquisition and preparation of human resources (APHR) may positively enhance Jordanian banks’ economic sustainability. Thus, the following hypothesis is formulated.

\[ H2. \text{ Managing the APHR positively affects the economic sustainability of Jordanian banks.} \]

2.2.3 The assessment and development of human resources and the economic sustainability. Human resources development is the integrated use of practices, systems and policies to develop and maintain a company’s workforce to achieve its desired goals and sustainability (Mijatović et al., 2020). However, a continuous assessment of human resources is necessary for the growth of human resources (Agung and Widnyana, 2020). The human resources in Jordanian banks may encounter a variety of issues, such as a lack of skills and knowledge (Eglash et al., 2020). Therefore, the researchers concluded that managing the assessment and development of human resources (ADHR) may positively affect Jordanian banks’ economic sustainability.

\[ H3. \text{ Managing the ADHR positively affects the economic sustainability of Jordanian banks.} \]

2.2.4 The compensation of human resources and the economic sustainability. Human resources compensation is the monthly or annual salary paid to the employee for a particular job and may include benefits such as health insurance, vacation time, housing and loans. Banks, like other organizations, want to expand their profitability and sustainability, but to recruit top talent and entice workers away from rivals, they must offer better compensation (Madanat and Khasawneh, 2018; Matuszak et al., 2019). Therefore, the researchers suggested that managing the compensation of human resources (CHR) may positively affect Jordanian banks’ economic sustainability.

\[ H4. \text{ Managing the CHR positively affects the economic sustainability of Jordanian banks.} \]

3. Research methodology
To achieve the objective of this paper, which is to investigate the role of HRM on economic sustainability, the sample covers 23 Jordanian banks (Al-Zaqeba and Al-Rashdan, 2020) from 2014 to 2019. To avoid any distortions, shortcomings or defects in the research results, the research sample was subject to the following conditions: (1) Banks’ annual reports should be published on Amman Stock Exchange (ASE) for all years; and (2) Banks should be continuously traded on ASE for at least six years. The research sample was selected based on the aforementioned requirements, consisting of 23 Jordanian banks listed on the ASE. This study was motivated by the need to cover a stable era following the Arab Spring from 2014 to 2019.

3.1 Variables measurement
3.1.1 The dependent variable. In this paper, the dependent variable is sustainability, which can be measured in different ways, including content analysis, questionnaire-based surveys,
reputational indices and one-dimensional indicators (Ananzeh et al., 2022b). In this study, sustainability is measured based on Matuszak et al. (2019)’s three dimensions (environment, economic and social dimensions), using 22 items as shown in Appendix 1. A dichotomous method is used where the sustainable item is marked as 1 if disclosed and 0 otherwise. For clarification, each bank’s sustainability index is calculated as follows:

\[
\text{Sustainability} = \sum_{j=1}^{n} \frac{d_j}{n}
\]

where \(d_j = 1\) if item \(j\) is disclosed, 0 otherwise; \(n\) is the maximum number of items, being 22 items.

3.1.2 Independent variables. They include four dimensions measuring HRM (HRE, APHR, ADHR and CHR) using a total of 23 items as shown in Appendix 2. Similarly, a dichotomous method is used where each item is marked as 1 if disclosed and 0 otherwise. For clarification, each bank’s HRM index is calculated as follows:

\[
\begin{align*}
\text{HRE} & = \sum_{j=1}^{n} \frac{d_j}{n} \\
\text{APHR} & = \sum_{j=1}^{n} \frac{d_j}{n} \\
\text{ADHR} & = \sum_{j=1}^{n} \frac{d_j}{n} \\
\text{CHR} & = \sum_{j=1}^{n} \frac{d_j}{n}
\end{align*}
\]

where \(d_j = 1\) if item \(j\) is disclosed, 0 otherwise; \(n\) is the maximum number of items which is 6 for HRE, 4 for APHR, 8 for ADHR and 5 for CHR.

3.1.3 Control variables. This study includes four control variables. First, bank size (BSIZE) is measured by the logarithm of the total asset. Second, bank age (BAGE) is measured by the number of years since the bank started its operation. Third, leverage is measured by the total debt to total asset, and finally, ROE is measured by net income to total equity (Ananzeh et al., 2021, 2022b; Dahmash et al., 2021).

3.2 Regression model
To investigate the study’s hypotheses, the following regression model is used:

\[
\text{Sustainability}_{it} = \alpha + \beta_1 \text{HRE}_{it} + \beta_2 \text{APHR}_{it} + \beta_3 \text{ADHR}_{it} + \beta_4 \text{CHR}_{it} + \beta_5 \text{BAGE}_{it} + \\
+ \beta_6 \text{BSIZE}_{it} + \beta_7 \text{LEV}_{it} + \beta_8 \text{ROE}_{it} + \varepsilon
\]

where

HRE is the human resources environment, APHR stands for the acquisition and preparation of human resources; ADHR is the assessment and development of human resources, CHR is the compensation of human resources; BAGE is the number of years since the bank started its operation; BSIZE is the logarithm of total assets; LEV is defined as the total debt to total asset; and ROE is defined as the net income to total equity.
4. Data analysis and empirical results

4.1 Descriptive statistics and CSR disclosure level

Table 1 displays the descriptive statistics for the study variables. The disclosure of economic sustainability tends to be low among Jordanian banks, with an average of 10.2%. This result indicates the need to improve sustainability among banks in Jordan. In addition, descriptive results show that human resources assessment and development is the most highly reported area (151%), while human resources acquisition and preparation is the least reported (10%). This suggests that, on average, banks do not pay sufficient attention to human resources issues.

Moreover, Table 1 shows a significant variation in the control variables. The descriptive statistics show that the average bank size is 17.429, while ROE, leverage and age have average values of 0.812, 37.744 and 28.11, respectively.

4.2 Multicollinearity analysis and diagnostic test

The variance inflation factor (VIF) method is used to assess the issue of multicollinearity among independent variables, as shown in Table 2. According to Myers and Myers (1990), multicollinearity is not a concern if the VIF value is less than 10. Table 2 illustrates that all values conform to this principle, indicating no multicollinearity among the independent variables.

According to Hair et al. (2020), the normality problem occurs when the skewness and kurtosis values are not in the range of ±1.96 and ±3.00, respectively. Consequently, the skewness and kurtosis tests for normality show that residuals are normally distributed (Table 3).

4.3 Empirical analysis

To test the hypotheses, we perform a simple linear regression whose findings are displayed in the following tables.

| Variables            | Obs | Mean   | Std. dev |
|----------------------|-----|--------|----------|
| Sustainability level | 138 | 0.102  | 0.134    |
| HRE level            | 138 | 0.114  | 0.135    |
| APHR level           | 138 | 0.10   | 0.179    |
| ADHR level           | 138 | 0.151  | 0.212    |
| CHR level            | 138 | 0.124  | 0.253    |
| Bank size            | 138 | 17.429 | 1.43     |
| ROE                  | 138 | 0.812  | 9.125    |
| Leverage             | 138 | 37.744 | 23.089   |
| Bank age             | 138 | 28.11  | 15.855   |

**Table 1.** Descriptive statistics

| Variables | Variance inflation factor (VIF) |
|-----------|---------------------------------|
| HRE level | 1.799                           |
| APHR level| 1.283                           |
| ADHR level| 1.570                           |
| CHR level | 1.566                           |
| Bank size | 1.354                           |
| ROE       | 1.689                           |
| Leverage  | 1.649                           |
| Bank age  | 1.268                           |

**Table 2.** Multicollinearity analysis
The first hypothesis proposes a relationship between the management of the HRE and the economic sustainability of Jordanian banks. Table 4 represents the results of a simple linear regression investigating the first hypothesis.

As shown in Table 4, there is a strong positive correlation between the management of the HRE and the economic sustainability of Jordanian banks, with a correlation coefficient of 0.745, and a coefficient of determination ($R^2$) of 0.631 indicating that the management of the HRE explains 63.1% of the change in the economic sustainability of Jordanian banks. The adjusted coefficient of determination (Adj. $R^2$) is 0.629, lower than the coefficient of determination by only 0.002, indicating the ability of the model variables to predict the values of the dependent variable. The table also shows the significance of the model, with an $F$-value of 284.350 and a $p$-value of 0.000 ($\alpha \leq 0.05$), indicating a statistically significant impact of HRE management on the economic sustainability of Jordanian banks. As a result, the first hypothesis is accepted.

The second hypothesis proposes a relationship between the acquisition and preparation of human resources and the economic sustainability of Jordanian banks. Table 5 presents the results of a simple linear regression investigating the second hypothesis.

Based on Table 5, there is a strong positive correlation between the acquisition and preparation of human resources and the economic sustainability of Jordanian banks, with a correlation coefficient of 0.738, and a coefficient of determination of 0.614, indicating that the acquisition and preparation of human resources variable can explain 61.4% of the change in the economic sustainability of Jordanian banks. The value of the adjusted coefficient of determination is 0.611 slightly below the coefficient of determination (a difference of 0.003), showing that the model variables could predict the values of the dependent variable. The table also shows the model’s significance with a calculated $F$-value of 198.684 and a $p$-value of 0.000 which is less than 0.05 ($\alpha \leq 0.05$), indicating a statistically significant impact of the acquisition and preparation of human resources on the economic sustainability of Jordanian banks. Thus, the second hypothesis is accepted.
The third hypothesis posits a relationship between the assessment and development of human resources and the economic sustainability of Jordanian banks. Table 6 represents the results of a simple linear regression addressing the third hypothesis.

There is a strong positive correlation between the assessment and development of human resources and the economic sustainability of Jordanian banks, with a correlation coefficient of 0.759 and a coefficient of determination of 0.662, indicating that the assessment and development of human resources can explain 66.2% of the change in the economic sustainability of Jordanian banks. The value of the adjusted coefficient of determination is 0.659, falling slightly below the coefficient of determination (difference of 0.003), indicating the ability of the model variables to predict the values of the dependent variable.

Table 6 also shows the significance of the model, where the calculated $F$-value is 221.031 and the $p$-value is 0.000 ($\alpha \leq 0.05$), indicating a statistically significant impact on the assessment and development of human resources on the economic sustainability of Jordanian banks. Thus, the third hypothesis is accepted.

Finally, the fourth hypothesis expects a relationship between the compensation of human resources and the economic sustainability of Jordanian banks. Table 7 represents the results of a simple linear regression tackling the fourth hypothesis.

There is a strong positive correlation between the compensation of human resources and the economic sustainability of Jordanian banks, where the correlation coefficient is 0.698, and the coefficient of determination is 0.578, indicating that the compensation of human resources can explain 57.8% of the change in the economic sustainability of Jordanian banks. The value of the adjusted coefficient of determination is 0.576, less than the coefficient of determination by 0.002, suggesting the ability of the model variables to predict the values of the dependent variable.

Table 7 also shows the significance of the model, where the calculated $F$-value is 221.031 and a $p$-value of 0.000 ($\alpha \leq 0.05$), indicating a statistically significant impact of the compensation of human resources on the economic sustainability of Jordanian banks. Thus, the fourth hypothesis is accepted.

5. Discussion
The purpose of this study was to identify the impact of HRM on the economic sustainability of Jordanian banks. The study found a strong positive association between the management
of the HRE and the economic sustainability of Jordanian banks. According to Molina-Azorin et al. (2021), the HRE is part of the social environment and consists of all internal and external factors that have an impact on the operations of the human resources department. The study uncovered a strong positive relationship between the acquisition and preparation of human resources and the economic sustainability of Jordanian banks. This result is supported by Drolet (2020) and Da Silva et al. (2020), who reported that most companies choose HRM with distinct competencies and qualifications.

Furthermore, the study found that the evaluation and development of human resources positively affect the economic sustainability of Jordanian banks. According to Mijatović et al. (2020), human resources development is the integrated use of systems, practices and policies to develop and retain personnel for the firm to achieve its desired goals and sustainability. However, Agung and Widnyana (2020) pointed out that human resources development needs a continuous assessment to discover any problems that might arise during the human resources development process. The study also found that compensating human resources positively affects the economic sustainability of Jordanian banks. Madanat and Khasawneh (2018) supported this result as they found that banks, like other organizations, desire the best people to work for them and do their best to boost their profitability and sustainability.

6. Conclusion
This study aimed to identify the role of HRM in enhancing the economic sustainability of Jordanian banks. Data were collected from 23 Jordanian banks listed on the Amman Stock Exchange from 2014 to 2019. The regression model and content analysis were used to measure independent, dependent and control variables. Based on the findings, the study concluded that the management, acquisition and preparation, assessment and development and compensation of human resources have a positive impact on the economic sustainability of Jordanian banks. The study recommends banks to pay more attention to HRM factors to maintain sustainability. In addition, banks should focus on strengthening the role of HRM in the banking industry in a broader way.

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## Appendix 1

### Role of human resources management

| NO | Sustainability item | % of sustainable |
|----|----------------------|------------------|
|    | **Environmental sustainable** |                   |
| 1  | Taking account of the environment in credit policy (environmentally-friendly products, “green products” and funding “low-emission” investment projects) |
| 2  | Actions aiming to limit consumption of energy, materials and water (sustainable use of resources) |
| 3  | Environmental awards |
| 4  | Conservation/recycling activities |
| 5  | Reduce pollution |
| 6  | Support NGOs in the environment field |
| 7  | The aesthetic value of the environment (designing structures in harmony with the environment and landscape) |
|    | **Total sustainable percentage** |
|    | **Economic sustainable** |
| 8  | The return on equity |
| 9  | Risk reduction |
| 10 | Consumer satisfaction |
| 11 | Exploitation of opportunities |
| 12 | Strengthening business capacity |
| 13 | Innovation |
| 14 | Introducing new products to the market |
| 15 | Optimal utilisation of resources |
| 16 | Ensuring the achievement of goals |
|    | **Total sustainable percentage** |
|    | **Social sustainable** |
| 17 | Promote women empowerment |
| 18 | Youth empowerment |
| 19 | Training for unemployed/retrenched |
| 20 | Support for the education of children from a vulnerable group |
| 21 | Supporting the development of local industries or community programs and activities |
| 22 | Sponsorship of various sports, artistic and cultural events |
|    | **Total sustainable percentage** |

*Table A1. Sustainability*
### Appendix 2

**Table A2. Human resources management**

| No | HRM items                                      | % of managing |
|----|-----------------------------------------------|---------------|
| 1  | Diversity of workforce                        |               |
| 2  | Economic and technological change             |               |
| 3  | Globalisation                                 |               |
| 4  | Organisational restructuring                  |               |
| 5  | Changes in the work culture                   |               |
| 6  | Efficiency                                    |               |
| 7  | Employees’ demand and supply                  |               |
| 8  | Distinguished competencies                    |               |
| 9  | Distinguished qualifications                  |               |
| 10 | Training of the human resources               |               |
| 11 | Planning organizational development activities |               |
| 12 | Creating training programs                    |               |
| 13 | Oversee the training of the employees         |               |
| 14 | Designing systems to attract and retain talent|               |
| 15 | Improve learning and performance on both individual and organizational levels |               |
| 16 | Development of executive and leadership       |               |
| 17 | Continuous assessment of the employees        |               |
| 18 | Planning for overcoming the problems facing the employees |               |
| 19 | Compensation methods                          |               |
| 20 | Faring compensation packages with good pay    |               |
| 21 | Wages cover basic living expenses and inflation|               |
| 22 | Increment over time                           |               |
| 23 | Offering health benefits, vacations and bonuses|               |

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