

## The Reality of Human Resources in Industrial Enterprises -An empirical Study "Industrial Enterprises - Oran"

واقع الموارد البشرية في المؤسسات الصناعية - دراسة تجريبية للمؤسسات الصناعية - وهران

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### **Abstract:**

Perspectives are now focusing on individuals as key assets in companies. The main challenge is to attract qualified talent to create value, highlighting the importance of human resources, which are essential and sensitive to organizational changes. This paper aims to highlight the reality of human resources in industrial organizations through its three dimensions (a strategic resource, human resources aligned with production costs, and human resources as operational risks) within industrial enterprises of state-Oran, the company selected for the field study. A quantitative approach was used to address the research problem and hypothesis, involving a questionnaire distributed to 65 executives in the organization, and results were analyzed using SPSS.

The study results revealed that human resources within the sample are pivotal in enhancing competitiveness and sustaining growth. By considering human resources as a strategic asset, managing costs, and simultaneously operational risks, the companies have balanced investing in people and achieving economic objectives.

**Keywords:** Human Resources, Strategic resource, Production cost, Operational risk, Industrial organization.

**JEL Classification Codes:** J24, M5 ; D810 ; H32, L

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**ملخص:**

في الآونة الأخيرة، تحولت وجهات النظر نحو التركيز على الأفراد كأصول مهمة في الشركات، بدلاً من الموارد المادية. وكان التحدي الرئيسي للشركات هو خلق القيمة من خلال جذب الأفراد المؤهلين لشغل المناصب. يهدف هذا البحث إلى تسليط الضوء على واقع الموارد البشرية في المنظمات الصناعية من خلال أبعادها الثلاثة (مورد استراتيجي، موارد بشرية متوافقة مع تكاليف الإنتاج، وموارد بشرية كمخاطر تشغيلية) داخل المؤسسات الصناعية لولاية وهران. لمعالجة مشكلة البحث، تم استخدام نهج كمي من خلال توزيع استبيان على 65 من المسؤولين التنفيذيين في المنظمة، بما في ذلك المديرين ورؤساء الأقسام والمسؤولين في مختلف الإدارات. تم إجراء تحليل النتائج المتحصل عليها باستخدام الحزمة الإحصائية للعلوم الاجتماعية (SPSS).

كشفت نتائج الدراسة أن الموارد البشرية لعينة الدراسة تلعب دوراً محورياً في تعزيز القدرة التنافسية واستدامة نموها، فمن خلال اعتبار الموارد البشرية أصلاً استراتيجياً، وإدارة تكاليف وفي نفس الوقت مخاطر تشغيلية، تمكنت الشركات من تحقيق التوازن بين الاستثمار في الموارد البشرية وتحقيق الأهداف الاقتصادية.

**كلمات مفتاحية:** الموارد البشرية، مورد استراتيجي، تكلفة إنتاج، مخاطر تشغيلية، شركات صناعية.

تصنيفات JEL : M5، J24، H32، D810، L

## 1. INTRODUCTION

The introduction to human resources, rooted in the ideas of classical economists, highlights the fundamental role that labor and workers play in wealth creation and economic development. Classical economists such as Adam Smith (SMITH, 1776) and David Ricardo (RECARDO, 1977) contributed to shaping our understanding of human resources by emphasizing different aspects of labor, productivity, and economic growth. Adam Smith, introduced the concept of the division of labor in his seminal work *The Wealth of Nations* (1776). (Malthus, 1798), another classical economist, highlighted in his *Essay on the Principle of Population* (1798) the challenges posed by population growth and its impact on human resources. Malthus warned that unchecked population growth could lead to resource shortages, including labor, and wage pressures, underscoring the need for strategic management of human resources to prevent economic crises. Mincer's work (JACOB, 1993) reinforces the idea that human resources are a fundamental element of a company's strategic success, with the development and management of human capital being key drivers of organizational performance and competitiveness.

Mincer's insights emphasize the critical role of human resources in businesses, highlighting that employees' skills, knowledge, and experience are not just factors of production but vital assets that determine a company's success and growth. By investing in its workforce, a company can enhance its overall performance.

### **Problem Statement and Hypothesis:**

Based on those above, the problem of this study is encapsulated in the following main question: **What is the reality of human resources in its various dimensions at industrial Companies in Oran?**

The following hypothesis was adopted to answer this posed problem: Human resources are considered strategic assets contributing to the institution's performance and competitiveness.

### **2. Definition of human resources**

Human resources in organizations refers to the collective workforce that contributes to achieving the organization's goals and objectives. It encompasses the management and development of employees – the most valuable asset of any organization. Human resources involve the strategic and coherent approach to managing people to maximize their potential, foster a positive work environment, and align their skills and behaviors with the organization's mission and values.

Interest in human resources has increased in recent years due to technological development, globalization, and artificial intelligence, which are considered key factors that have significantly influenced the business environment. Researchers, including the following, have provided various definitions:

(Bernard Martory, 2001) consider human resources as the true support at various administrative levels, representing the real tool for achieving management objectives and effectively contributing to the institution's goals if managed well and provided with conditions that encourage work and productivity.

According to, (JOHSTON, 1998) human resources consists of the knowledge, qualifications, abilities, and other attributes that individuals possess within an organization that is valuable in economic activity.

For (BUCK, 2014), human resources occupy an important position in all types of institutions, essential for their growth and development. Regardless of the individual's position or role within the organization, their role is fundamental and contributes to collective success. Therefore, individuals at all functional levels constitute the most important resource for the existence and sustainability of the organization.

### **3. The importance of human resources**

Economists have long emphasized the importance of human resources in achieving economic growth, most notably Adam Smith, who considered it a wealth that can't be dispensed. The significance of human resources stems from several points, the most important of which include:

#### **3.1 Human Resources as an Influential and Governing Resource in Performance**

Human beings are considered the primary driver of every administrative process due to their significant importance within the organization. It plays a distinguished role when compared to other material resources. Even though this resource does not manifest a monetary value, practicing researchers have pointed out that it is the only real resource for any institution (HMAIZIA, 2008).

#### **3.2 Human Resources as a Variable Creating Competitive Advantage**

Considering the human element within the organization as a strategic resource responsible for creating sustainable competitive advantage requires it to rely on the same characteristics that strategic resources possess. These characteristics include the property of value, the property of rarity, the property of inimitability, the property of organization, and the property of non-substitutability of human resources (Lamia, 2008).

### **4. The three- Dimensionality of Human Resources**

In the current business context, human resource management (HR) has become a crucial factor for organizational success. To fully understand the complexity and importance of this function, it is essential to recognize its three-dimensional nature, which comprises three interconnected aspects: the strategic, productive, and operational dimensions.

#### **4.1 Human resources as a strategic asset**

In this dimension, (FERRARY, 2014) emphasizes the idea that employees are a key asset for the company. Their expertise, skills, and ability to innovate constitute a source of added value that can differentiate the company in the market. In this sense, HR must be managed strategically to align employee talents and skills with the organization's overall goals. Investing in skill development and talent retention is therefore crucial for ensuring long-term competitiveness.

#### **4.2 Human resources as a production cost**

This dimension highlights the fact that HR also represents a significant cost for the company, including salaries, benefits, and training expenses. (Ferrary, 2014) emphasizes the importance of managing these costs effectively to maintain the company's profitability. This may involve difficult

choices, such as optimizing the workforce, managing compensation, or reorganizing tasks. The goal is to find a balance between minimizing costs and maximizing the value contributed by employees.

#### **4.3 Human resources as an operational risk:**

Finally, (Michel, 2014) addresses the dimension of HR as a potential source of risk for the company. Operational risks can arise from various factors, such as turnover, internal conflicts, absenteeism, or the loss of critical skills. Managing these risks involves implementing talent management strategies, succession planning, and creating a work environment that promotes stability and employee engagement.

This operational risk can manifest in various ways:

##### **a-The risk of losing a key person**

Some employees of the company possess knowledge, professional relationships, or managerial skills that play a crucial role in the organization's activities. The loss of these individuals, whether due to resignation or death, can have serious consequences for the company (Michel F. , 2014).

##### **b-The Risk of Human Error**

The involvement of individuals in production processes inherently carries a risk of error, which can have significant consequences for the company's operations. Certain industrial sectors, such as nuclear or petrochemical activities, are particularly vulnerable to this operational risk associated with human intervention in the production process. Implementing rigorous work procedures aims to minimize this risk of error (Ferrary M. , 2014).

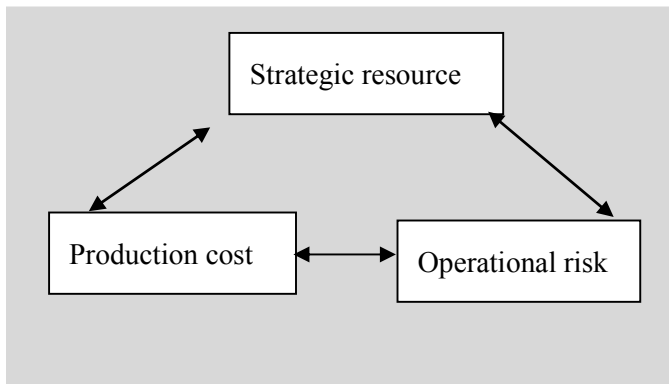
##### **c- The Risk of Misconduct**

Employees of the company may be involved in fraudulent activities that damage its reputation, lead to financial losses, and, in some cases, drive the company to bankruptcy.

##### **d- The Risk of Social Conflict**

The strategic behavior of employees may lead them to organize collective actions aimed at disrupting the company's operations and applying pressure on management to obtain concessions. Such actions are tools available to employees and labor representatives during their negotiations with company management. These social movements aim to inflict economic harm on the company, notably by causing a halt in its activities.

**Figure 1:«The Three-Dimensions of Human Resources »**



## **5. The challenges of the company through its human resources**

The real value of an organization, and consequently the state of its resources, whether tangible or intangible (Kor, 2015), is largely determined by its human capital. Reports from the OECD and the World Bank consider this human capital as a central element of the intangible capital of countries and organizations (OCDE, 2006). In this context, human resource management practices are crucial in guiding, developing, and motivating this human capital (Mhoney Joseph, 2015).

Over the past century, leaders have shifted from a scientific approach to work organization to strategic management of human resources, moving from viewing personnel as a cost with a negative value to seeing them as productive assets. As a result, human resources are now regarded as a major investment.

### **5.1 Human capital: a fundamental pillar of the organization's intangible capital**

It aims to highlight the importance of mobilizing human capital in a context where global economies increasingly shift towards the intangible. This mobilization is crucial for enhancing the competitiveness of organizations and their productive capacities. (William, 1961), in one of the earliest definitions, proposed that human capital be understood as the collective knowledge, skills, and cognitive abilities of individuals working within an organization. This initial definition emphasizes the importance of investing in and preserving this capital.

### **5.2 Human resources: a capital to maximize**

The development of the knowledge market, and by extension that of skills, is emerging as the new dominant paradigm in organizations, leading to new organizational reconfigurations and trends (Alexandre, 2005). The cognitive advantages of organizations thus surpass purely material advantages, initiating a new model in the relationship between organizations and their

human capital (Léné, 2005). Furthermore, human resources play a central role in value creation within organizations, particularly by transforming information into knowledge, which in turn is converted into (Léné, 2005)

### **Study Tool**

In this study, a questionnaire was used to collect data and address the study's problem. The questionnaire form included gender, age, seniority, and administrative qualification.

The second section was dedicated to highlighting the state of human resources in its various dimensions at the level of Tippex Company and its branches, relying on the Likert scale which includes 5 measures (strongly agree, agree, neutral, disagree, strongly disagree). This part is divided into three dimensions:

### **Empirical study**

Before discussing the field study and analyzing the results of the questionnaire, it is necessary to address the methodological framework of the study, which is considered the basis for organizing ideas and information in order to reach results and judge the validity of hypotheses or not.

The limitations of the spatial study were the industrial enterprises of W. Oran; the study tool is considered the means used by the researcher in order to collect the necessary information about the problematic of the subject of the study. The researcher relied on a questionnaire form as the study tool to collect information from the study sample and analyze the opinions of specialists in this field.

In order to carry out statistical analysis of the data under study, the appropriate statistical analysis tools for such studies were used, the results of which are obtained directly after transcribing the questionnaire data through the SPSS program (Statistical Package For Social Sciences), where statistical methods were used.

### **The Alpha Cronbach coefficient**

Alpha Cronbach is a statistical index varying between 0 and 1 which makes it possible to evaluate the homogeneity (the consistency or internal consistency) of an evaluation or measurement instrument composed of a set of items, this index reflects a degree of homogeneity (internal consistency) that is higher as its value is close to 1. In practice, we generally consider that the homogeneity of the instrument is satisfactory when the value of the coefficient is at less equal to 0.80.

### **Kolmogorov-Smirnov test**

The Kolmogorov-Smirnov test is a goodness-of-fit test, in statistics, it is a hypothesis test used to determine whether a sample follows a given law

known by its continuous distribution function, or whether two samples follow the same law.

### **The Pearson correlation coefficient**

The Pearson correlation coefficient is a coefficient that measures the strength of the connection (positive or negative) that can exist between two quantitative variables; it varies between -1 and 1.

### **Linear regression**

In statistics, econometrics and automatic learning, a linear regression model is a regression model that seeks to establish a linear relationship between a variable, called explained, and one or more variables, called explanatory.

The questionnaire was divided into two main axes, which include 35 items as follows:

**The first axis:** Human resources management (the three-dimensional Dimensions of Human Resources);

**The second axis:** The performance of industrial enterprises and human resources.

We also adopted the five-level Likert scale as a tool for studying and analyzing the questionnaire because it is the most explicit measure of respondents' opinions and the easiest to understand and it faithfully reflects the degree of consent. expressed in the statements presented, and we used the closed form in the responses which contain five responses ranked from 1 to 5 as follows: Strongly disagree: 1, Disagree: 2, Indifferent: 3, Agree: 4 Completely agree: 5

To determine the length of each dimension of the Likert scale used, we calculated the limits of the scale  $(5-1) = 4$  then divided this value over the number of dimensions  $(4/5) = 0.8$  and then adjusted it to the lowest value (1), we will have each dimension as follows:

- Disagree at all: the average belongs to the field [1.00-1.80];
- Disagree: the average belongs to the range [1.81-2.60];
- Indifferent: the average belongs to the range [2.61-3.40];
- Agree: the average belongs to the field [3.41-4.20];
- Completely agree: the average belongs to the range [4.21-5.00].

**Analysis of the reliability of research data (Alpha Cronbach)**

**Table 1: The reliability and validity of the questionnaire (Alpha Cronbach)**

<b>Axis number</b>	<b>The axis</b>	<b>The number of items</b>	<b>The Alpha Cronbach coefficient</b>	<b>The validity coefficient</b>
<b>1</b>	Human resource management	20	0.871	<b>0.933</b>
<b>2</b>	The performance of industrial institutions	15	0.895	<b>0.946</b>
	<b>Total</b>	<b>35</b>	<b>0.893</b>	<b>0.945</b>

**Source:** Established from the use of survey data using SPSS software

According to the table, we see that the value of Alpha Cronbach varies between 0.871 and 0.895, a sufficient level because it exceeds the most rigorous threshold 0.7 where the first axis and the second axis obtained 0.871 and 0.895 successively, which proves the reliability of both axis and the total reliability of the questionnaire was 0.893.

**The sincerity of the internal consistency of the items of the first axis**

The correlation between each of the items of the first axis and the average of this axis is presented in the following table:

**Table 2: the sincerity of the internal consistency of the items of the first axis**

	<b>The items</b>	<b>Pearson's correlation coefficient</b>	<b>SIG</b>
<b>1</b>	The organization views human resources (workers) as a strategic resource.	<b>0.381</b>	<b>0.000</b>
<b>2</b>	Your organization's employees participate in determining your strategy.	<b>0.482</b>	<b>0.000</b>
<b>3</b>	The organization links its human resource strategy with the institution's overall strategy.	<b>0.302</b>	<b>0.003</b>
<b>4</b>	The institution supports its employees.	<b>0.647</b>	<b>0.000</b>
<b>5</b>	Human resources represent a strategic human resource that determines their presence in consumer choice.	<b>0.369</b>	<b>0.000</b>
<b>6</b>	The Company's development depends on its ability to attract and retain competent individuals.	<b>0.509</b>	<b>0.000</b>
<b>7</b>	The incentive system is considered motivation to harness their skills in serving the company's strategy.	<b>0.423</b>	<b>0.000</b>
<b>8</b>	The institution gives sufficient attention to direct and indirect recruitment costs.	<b>0.572</b>	<b>0.000</b>

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<b>9</b>	Hiring human resources is considered a cost that deprives the institution of growth and development.	<b>0.466</b>	<b>0.000</b>
<b>10</b>	Managing human resource costs helps in making appropriate decisions.	<b>0.369</b>	<b>0.000</b>
<b>11</b>	Human resources represent a liquidity that burdens the institution.	<b>0.436</b>	<b>0.023</b>
<b>12</b>	The recruitment budget is considered an additional cost on the institution's budget.	<b>0.411</b>	<b>0.000</b>
<b>13</b>	Human resources are seen as operational costs (salaries, bonuses) that drive companies to implement HR management practices.	<b>0.502</b>	<b>0.000</b>
<b>14</b>	The organization replaces human resources with new technological capital and technologies.	<b>0.496</b>	<b>0.000</b>
<b>15</b>	Filling human resources poses operational risks that affect company activities through their behaviors.	<b>0.553</b>	<b>0.000</b>
<b>16</b>	Mismanagement of human resources leads to operational risks that incur expenses for the institution to cover.	<b>0.562</b>	<b>0.000</b>
<b>17</b>	The departure of competent employees has harmed the company.	<b>0.441</b>	<b>0.000</b>
<b>18</b>	Labor strikes impact operational activities hindering company operations.	<b>0.532</b>	<b>0.000</b>
<b>19</b>	Risks from social conflicts negatively affect stakeholders' behavior in the company.	<b>0.422</b>	<b>0.000</b>
<b>20</b>	The institution implements effective internal monitoring systems to reduce embezzlement and it uses technology (analytics) as a deterrent against embezzlement.	<b>0.657</b>	<b>0.000</b>

**Source:** Established from the use of survey data using SPSS software

The Pearson correlation matrix between the items of the first axis (human resources management (the three-dimensional Dimensions of Human Resources) and the average of this axis is presented in Table 2 which shows that the Pearson coefficient varies between (0.369 and 0.657), this indicates a medium to strong positive correlation where item 10 obtained the lowest value (0.369) which means a medium correlation and item 20 obtained the highest value which means a strong correlation in the first axis, we find that the correlation of all items is statically significant at the 0.01 level.

**The sincerity of the internal consistency of the items of the second axis**

The correlation between each of the items of the second axis and the average of this axis is presented in the following table:

**Table 3: the sincerity of the internal consistency of the items of the second axis**

	<b>The items</b>	<b>Pearson's correlation coefficient</b>	<b>SIG</b>
<b>1</b>	Human resources contribute to increasing the institution's profitability.	<b>0.481</b>	<b>0.000</b>
<b>2</b>	The institution considers its human resources as indispensable assets.	<b>0.682</b>	<b>0.000</b>
<b>3</b>	The employee constitutes a competitive advantage that contributes to the success of the institution's business.	<b>0.502</b>	<b>0.000</b>
<b>4</b>	The institution considers human resources a barrier threatening its profitability.	<b>0.647</b>	<b>0.000</b>
<b>5</b>	Increasing the institution's profits leads to a reduction in labor usage.	<b>0.469</b>	<b>0.000</b>
<b>6</b>	Departure of competent human resources from the institution contributed to improving its performance.	<b>0.509</b>	<b>0.000</b>
<b>7</b>	The organization improves labor cost structure to enhance profitability and free up investment capacity (reducing salaries).	<b>0.623</b>	<b>0.000</b>
<b>8</b>	Employee mistakes during task execution incur risks affecting company performance.	<b>0.572</b>	<b>0.000</b>
<b>9</b>	Your institution's management cares about employees as internal customers contributing to increasing profits.	<b>0.466</b>	<b>0.000</b>
<b>10</b>	Human resources are considered a strategic dimension that helps the institution develop.	<b>0.769</b>	<b>0.000</b>
<b>11</b>	The organization seeks to reduce the labor force to avoid increasing costs.	<b>0.536</b>	<b>0.000</b>
<b>12</b>	The organization seeks to employ temporary workers (contractual basis) to safeguard its budget.	<b>0.611</b>	<b>0.000</b>
<b>13</b>	The organization adopts a policy of reducing costs (training and development) to prevent budget increases.	<b>0.502</b>	<b>0.000</b>
<b>14</b>	Human resources has an impact on the performance of the institution.	<b>0.509</b>	<b>0.000</b>

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<b>15</b>	The organization aims to boost employee morale to avoid any cost implications for the institution.	<b>0.553</b>	<b>0.000</b>
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**Source:** By authors from outputs of SPSS

The Pearson correlation matrix between the items of the second axis (the performance of industrial enterprises and human resources) and the average of this axis is presented in Table 3 which shows that the Pearson coefficient varies between (0.466 and 0.769), this indicates a medium to strong positive correlation where item 09 obtained the lowest value (0.466) which means a medium correlation and item 10 obtained the highest value which means a strong correlation in the second axis, we find that the correlation of all items is statically significant at the 0.01 level.

**Descriptive analysis of questionnaire data**

We will attempt to carry out a descriptive analysis of the characteristics of the sample studied and the study variables.

**Descriptive analysis of the first axis**

**Table 4: the results of the descriptive analysis of the first axis**

	<b>The items</b>	<b>The arithmetic mean</b>	<b>The standard deviation</b>	<b>The coefficient of variation</b>
<b>1</b>	The organization views human resources (workers) as a strategic resource.	<b>2.698</b>	<b>0.610</b>	<b>50.42 %</b>
<b>2</b>	Your organization's employees participate in determining your strategy.	<b>2.613</b>	<b>1.150</b>	<b>47.66 %</b>
<b>3</b>	The organization links its human resource strategy with the institution's overall strategy.	<b>2.630</b>	<b>0.974</b>	<b>44.64 %</b>
<b>4</b>	The institution supports its employees.	<b>3.109</b>	<b>0.881</b>	<b>56 %</b>
<b>5</b>	Human resources represent a strategic human resource that determines their presence in consumer choice.	<b>3.848</b>	<b>0.798</b>	<b>49.09 %</b>
<b>6</b>	The Company's development depends on its ability to attract and retain competent individuals.	<b>4.935</b>	<b>0.959</b>	<b>49.56 %</b>
<b>7</b>	The incentive system is considered motivation to harness their skills in serving the company's strategy.	<b>3.315</b>	<b>0.976</b>	<b>50.80 %</b>
<b>8</b>	The institution gives sufficient attention to direct and indirect recruitment costs.	<b>2.880</b>	<b>1.108</b>	<b>58.94 %</b>

9	Hiring human resources is considered a cost that deprives the institution of growth and development.	3.978	1.099	55.56 %
10	Managing human resource costs helps in making appropriate decisions.	2.826	0.921	50.44 %
11	Human resources represent a liquidity that burdens the institution.	3.760	0.856	48.64 %
12	The recruitment budget is considered an additional cost on the institution's budget.	3.402	1.038	43.21 %
13	Human resources are seen as operational costs (salaries, bonuses) that drive companies to implement HR management practices.	3.837	0.905	49.27 %
14	The organization replaces human resources with new technological capital and technologies.	2.517	0.906	52.77 %
15	Filling human resources poses operational risks that affect company activities through their behaviors.	4.101	0.807	55.88%
16	Mismanagement of human resources leads to operational risks that incur expenses for the institution to cover.	4,232	0,680	50.85%
17	The departure of competent employees has harmed the company.	3,951	0,871	49.20%
18	Labor strikes impact operational activities hindering company operations.	3,850	0,752	47.32%
19	Risks from social conflicts negatively affect stakeholders' behavior in the company.	3,933	0,685	56.33%
20	The institution implements effective internal monitoring systems to reduce embezzlement and it uses technology (analytics) as a deterrent against embezzlement.	3,750	1,129	58.98%

**Source:**By authors from outputs of SPSS

Through Table 4, we see that the arithmetic mean of the items of the first axis varies between (2.613 and 4.935) which means that the degree of approval of the items of the first axis is between indifferent to completely agree where the item (6) ranked first with a mean of 4.935 and a standard deviation of 0.959 which explains that the individuals in the sample are completely agree that the Company's development depends on its ability to attract and retain competent individuals, and the second ranking is for the item (16) with an average of 4.232 and a standard deviation of 0,680which means that the individuals in the sample are completely agree that Mismanagement of human resources leads to operational risks that incur expenses for the institution to cover.

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Among the items of the first axis, we have a single item (14) whose average belongs to the field [1.81-2.60], this means that the individuals in the sample do not agree about that the organization replaces human resources with new technological capital and technologies.

In general, almost the means of all items are ranked in the field (2.613 and 4.935), this indicates that the individuals in the sample agree that the organization views human resources (workers and employees) as a strategic resource, Human Resources Align with Production Costs and Human Resources Represent Operational Risks.

**Table 5: the results of the descriptive analysis of the second axis**

	<b>The items</b>	<b>The arithmetic mean</b>	<b>The standard deviation</b>	<b>The coefficient of variation</b>
<b>1</b>	Human resources contribute to increasing the institution's profitability.	<b>3.598</b>	<b>1.310</b>	<b>50.42 %</b>
<b>2</b>	The institution considers its human resources as indispensable assets.	<b>4.413</b>	<b>1.150</b>	<b>47.66 %</b>
<b>3</b>	The employee constitutes a competitive advantage that contributes to the success of the institution's business.	<b>3.630</b>	<b>1.174</b>	<b>44.64 %</b>
<b>4</b>	The institution considers human resources a barrier threatening its profitability.	<b>4.109</b>	<b>1.181</b>	<b>56 %</b>
<b>5</b>	Increasing the institution's profits leads to a reduction in labor usage.	<b>2.848</b>	<b>1.398</b>	<b>49.09 %</b>
<b>6</b>	Departure of competent human resources from the institution contributed to improving its performance.	<b>2.935</b>	<b>0.959</b>	<b>49.56 %</b>
<b>7</b>	The organization improves labor cost structure to enhance profitability and free up investment capacity (reducing salaries).	<b>4.315</b>	<b>1.176</b>	<b>50.80 %</b>
<b>8</b>	Employee mistakes during task execution incur risks affecting company performance.	<b>3.880</b>	<b>1.108</b>	<b>58.94 %</b>
<b>9</b>	Your institution's management cares about employees as internal customers contributing to increasing profits.	<b>3.978</b>	<b>1.099</b>	<b>55.56 %</b>
<b>10</b>	Human resources are considered a strategic dimension that helps the institution develop.	<b>3.826</b>	<b>0.921</b>	<b>50.44 %</b>

11	The organization seeks to reduce the labor force to avoid increasing costs.	3.760	0.856	48.64 %
12	The organization seeks to employ temporary workers (contractual basis) to safeguard its budget.	4.402	1.038	43.21 %
13	The organization adopts a policy of reducing costs (training and development) to prevent budget increases.	3.837	0.905	49.27 %
14	Human resources has an impact on the performance of the institution.	2.717	0.906	52.77 %
15	The organization aims to boost employee morale to avoid any cost implications for the institution.	3.424	0.997	41.13 %

**Source:**By authors from outputs of SPSS

Through Table 5, we see that the arithmetic mean of the items of the second axis varies between (2.717 and 4.413) which means that the degree of approval of the items of the second axis is between indifferent to completely agree where the item (2) ranked first with a mean of 4.413 and a standard deviation of 1.150 which explains that the individuals in the sample are completely agree that the institution considers its human resources as indispensable assets, and the second ranking is for the item (12) with an average of 4.402 and a standard deviation of 1.038 which means that the individuals in the sample are completely agree that The organization seeks to employ temporary workers (contractual basis) to safeguard its budget.

In general, almost the means of all items are ranked in the field ((2.717 and 4.413)), this indicates that the individuals in the sample agree that the human resources with its three dimensions has an impact on the performance of the enterprises of the study sample.

**Evaluation of model parameters**

**Evaluation of the fit of the regression model to the data**

The model summary table makes it possible to determine the contribution of the variable.

**Table 6: summary of models**

Model	R	R-two	R-two adjusted	Standard error of the estimate
1	0.728 <sup>a</sup>	0.679	0.671	0.537

<sup>a</sup> **predictors** : constant, the human resource management

**Source:**By authors from outputs of SPSS

Table 6 contains several useful information for our analysis, the value of the correlation (R) corresponds to the agglomeration of the points, it is (0.728), this value suggests that the data fit the model satisfactorily.

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The squared correlation value is (0.679) which means the variation in industrial performance is strong and suggests that of human resources.

The independent variable (human resources) explains 67.9% of the dependent variable (the performance of industrial enterprises).

**Evaluation of model quality**

The following table of the ANOVA shows that the model is significant because the p-value is less than 5%.

**Table7: ANOVA analysis of the model**

Model	Sum of squares ddl	Mean square	F	Sig
1Regression	13.047	13.047	39.796	0.000
Residue	27.967	0.689		
<b>Total</b>	41.014			

**Source:**By authors from outputs of SPSS

**Evaluation of model parameters**

The regression equation is:

$$Y = B_0 + B_1 X_1$$

Y: dependent or explained random variable (performance of industrial enterprises).

X<sub>1</sub>: independent or explanatory variable measured without error or set at arbitrary levels (human resources management).

**Table 8: model evaluation**

Model	Unstandardized coefficients		Standardized coefficients	t	Sig
	B	Standard error	Béta		
1(constant)		0.783	0.307	3.520	0.001
The application of IAS/IFRS		0.855	0.128	4.898	0.000

**Source:**By authors from outputs of SPSS

**Y = 0.78 + 0.85 human resources management**

According to Table 8, the standardized regression coefficient Beta indicates that the human resources management with its three dimensions has a strong influence on industrial performance.

#### **4. CONCLUSION**

Human resources in industrial companies play a vital role in ensuring the smooth operation, safety, and long-term success of the organization. The strategic alignment of HR practices with business goals, investment in continuous employee development, and emphasis on health and safety are critical for maintaining a competitive edge. Additionally, managing labor relations and adapting to technological changes are essential for navigating the complexities of the industrial sector. Ultimately, effective HR management in industrial companies not only enhances operational efficiency but also fosters a motivated and skilled workforce, crucial for sustaining growth and innovation.

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