

The Role of the Human Resources Information System in Evaluating Social Performance: a case study of the municipality of Zelfana -

*Souid Hadjer, * Administrative development to improve economic institutions, university of Ghardaia (Algeria), hadjer.souid@univ-ghardaia.dz*

Chergui Mehdi, Administrative development to improve economic institutions, university of Ghardaia (Algeria), chergui.mehdi@univ-ghardaia.edu.dz

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Abstract:

This study aimed to demonstrate the impact of the Human Resources Information System (HRIS) on the evaluation of social performance in the Municipality of Zelfana. To achieve the study's goal, a descriptive-analytical approach was followed by distributing a questionnaire to the administrative employees of the Municipality of Zelfana for data collection, which was then analyzed using statistical methods with the programs smart PLS4 and SPSS26. The study concluded that there is a statistically significant impact of the HRIS on the evaluation of social performance in the Municipality of Zelfana, and a statistically significant impact of each dimension of the HRIS on the evaluation of social performance in the Municipality of Zelfana.

Keywords: Human Resources Information System; Social; performance; Zelfana; Municipality.

Jel Classification Codes: M12 ,O15.

* Corresponding author

1. Introduction:

Recently, due to the changes experienced by the world and institutions in various fields, it has become imperative for these institutions to improve their performance and ensure their continuity by aligning with these changes. The focus is no longer solely on economic aspects; in addition to this, it is currently necessary to pay attention to the social aspect due to its significant role in improving performance. Consequently, this necessitates its evaluation during the performance evaluation process as it is considered part of the overall performance of the institution.

In the same context related to the rapid developments and changes in the world, we notice the significant and rapid development in information technology, which has become an integral part of the operational tools of institutions. The HRIS is one of these tools, encompassing vast quantities of information both in quantity and quality about the human resources of the institution, playing an important role in all administrative functions within institutions and representing a capital that must be attended to.

Evaluating the social performance of institutions requires data that can be used for the evaluation process, and the HRIS in the institution is one of the sources of this data and information that plays an important role in the evaluation process. Among the institutions, we find the Municipality of Zelfana, which is one of the public administrations relying on the HRIS in carrying out its tasks.

1.1 Research Problematic:

: From the previous discussion, we can formulate the main research problem as follows: **What is the impact of the HRIS on the evaluation of social performance in the institution under study?** This main question leads to the following sub-questions:

- _ Is there an impact of the dimension of devices and equipment on the evaluation of social performance in the Municipality of Zelfana?
- _ Is there an impact of the dimension of networks and programs on the evaluation of social performance in the Municipality of Zelfana?

- Is there an impact of the dimension of human resources on the evaluation of social performance in the Municipality of Zelfana?
- Is there an impact of the dimension of databases on the evaluation of social performance in the Municipality of Zelfana?

1.2 Study Hypotheses:

1.2.1 Main Hypothesis:

- There is an impact of the Human Resources Information System (HRIS) on the evaluation of social performance in the Municipality of Zelfana.

1.2.2 Subsidiary Hypotheses:

- There is an impact of the dimension of devices and equipment on the evaluation of social performance in the Municipality of Zelfana.
- There is an impact of the dimension of networks and programs on the evaluation of social performance in the Municipality of Zelfana.
- There is an impact of the dimension of human resources on the evaluation of social performance in the Municipality of Zelfana.
- There is an impact of the dimension of databases on the evaluation of social performance in the Municipality of Zelfana.

1.3 Study Methodology:

This study adopted a descriptive-analytical method to describe the phenomenon.. In the practical aspect, we conducted a case study of the Municipality of Zelfana by distributing a questionnaire to the employees in the study sample and analyzed it using the programs smart PLS4 and SPSS26 to reach the study results.

1.4 Importance of the Study:

The significance of this study stems from the importance of evaluating social practices, which have become essential to consider nowadays due to their integration with financial performance, both of which together achieve

the comprehensive performance of the institution. Furthermore, the importance lies in the fact that this study is among the rare studies linking the variables of social performance and the HRIS, especially considering the case study is in an Algerian institution where studies of this kind related to social performance and its evaluation are limited.

1.5 Study Objectives: The objectives of our study are:

- To address the theoretical framework of the HRIS and social performance in the institution.
- To address the reality of using the HRIS in the Municipality of Zelfana, the institution under study.
- To attempt to determine the role played by the HRIS in evaluating social performance in the Municipality of Zelfana.

2. Theoretical Framework:

2.1 Evaluation of Social Performance of the Institution:

2.1.1 Concept of Social Performance Evaluation:

Before delving into the concept of social performance evaluation, it is essential to first understand related terms. For years, social performance was considered synonymous with social responsibility, which means that companies should not only fulfil legal and economic obligations but also have responsibilities that extend beyond these, including responsibilities towards society (CARROLL, 1979, p. 497).). CARROLL further refined the term social performance, seeing it as requiring the integration of evaluating a company's social responsibility, identifying social issues to address, and selecting response methods (CARROLL, 1979, p. 504). This was after proposing a model for corporate social performance that identified social issues, social responsibilities, and social responsiveness. Consequently, evaluating social performance is done according to social and environmental standards and stakeholder expectations (Agudo, Concepcion , & Manuel, 2012, p. 27)

2.1.2 Indicators of Social Performance Evaluation of Institutions:

There are several indicators and fields for evaluating social performance according to the VIGEO agency (ORSE, 2012): Human Resources, Environment, Customer and Supplier Relations, Corporate Governance, Community Commitment, Human Rights

2.2 Human Resources Information System:

2.2.1 Concept of Human Resources Information System (HRIS):

The origins of HRIS usage date back to 1940 and during 1950, where it was used only for sorting and categorizing data due to the rarity of computers and the lack of advanced technology. Its use was limited to some companies until it became widely used in institutions, with most of them now possessing it (DeSances, 1986, p. 15). In 1993, Walker defined the HRIS as a computer-based method for collecting, storing, maintaining, retrieving, and verifying certain data needed by the organization about its current and former employees (poutanen & Vesa , 2010, p. 3)

Over time, with rapid technological advancements and the increased functions of HRIS, its definition has evolved. It can be described as a set of interconnected programs that ensure the application of various administrative procedures and processes related to human resources in a cohesive manner, starting from employee files as inputs (Mohand & FERHAT , 2023)

Thus, in its broad sense, the HRIS can be seen as a combination of individuals, equipment, and procedures designed to collect and maintain data describing human resources and contribute to their management and administration.

2.2.2 Objectives of Human Resources Information System:

Through the HRIS, the institution aims to achieve several goals related to human resources management tasks, including (zaoui & toumi, 2015, p. 227) as illustrated in the following diagram:

Figure 1: Illustrates the tasks associated with the Human Resources Information System.



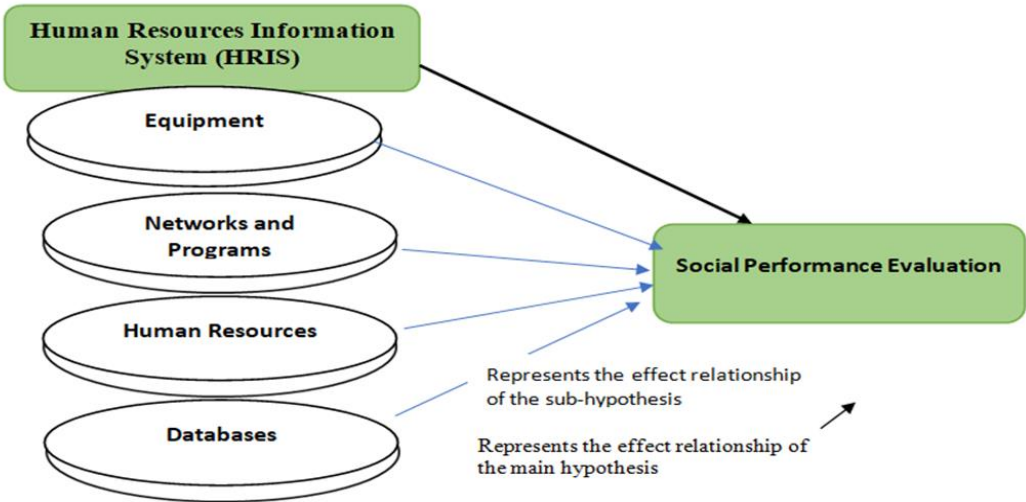
Source: Prepared by the researchers

3. Practical Framework:

3.1 Study Structure:

In our study, we hypothesized that the Human Resources Information System (HRIS) affects the evaluation of social performance in the Municipality of Zelfana, as illustrated in the following diagram

Figure 2: Diagram Representing Study Structure



Source: Prepared by the researchers

3.2 Study Sample:

The study sample consists of the administrative employees of the Municipality of Zelfana, specifically those working in the Departments of Human Resources and Finance and Payroll. The sample comprised 31 individuals out of the total 36 administrative employees in these departments. Our choice of this group is based on their use and familiarity with the HRIS, and because they are the ones who can provide insights into the social performance evaluation of the institution under study.

3.3 Study Instrument:

To collect data, we distributed 31 questionnaires and retrieved all of them. The questionnaire was divided into three sections: the first section was related to personal data, the second to the independent variable, and the third to the dependent variable. For data analysis and to obtain research results, we used statistical analysis following the structural equations methodology with the smart PLS4 software and the statistical package SPSS26.

3.4 Analysis of Respondents' Trends Regarding the HRIS:**Table 1:** Trends in respondents' answers concerning the first Axis

	Statement	Mean	Standard Deviation	Direction
01	first dimension	3.61	1.244	Agree
02	the second dimension	3.87	0.803	Agree
03	the third dimension	3.61	1.244	Agree
04	the fourth dimension	3.47	1.375	Agree
Mean for Axis 1		3.61	1.244	Agree

Source: Prepared by the researchers based on SPSS outputs

From the previous table, we observe that:

the average score for the first-dimension statements was (3.61) with a standard deviation of (1.244), indicating a tendency towards agreement in the responses. indicating that the sample agrees on the presence of the necessary equipment and machinery for the operation of the HRIS.

the average score for the second-dimension statements was (3.87) with a standard deviation of (0.803), indicating a tendency towards agreement in the responses This indicates that the sample agrees on the availability of the necessary programs and networks for the use of the HRIS

that the average score for the third-dimension statements was (3.61) with a standard deviation of (1.244), indicating a tendency towards agreement in the responses This indicates that the sample agrees that the human resources are qualified and knowledgeable in using the HRIS

the average score for the statements of the fourth dimension was (3.66) with a standard deviation of (0.760), indicating a tendency towards agreement in the responses This indicates that the sample agrees that the databases contain all necessary information related to employees, including wages, training, performance evaluation, and career path data

3.5 Analysis of Respondents' Trends Regarding Social Performance Evaluation:

Table 5: Individual Responses Regarding the Second Axis

Statement	Mean	Standard Deviation	Direction
01 Employees in your institution are of both genders - male and female	3.852	1.282	Agree
02 Employees in the institution are satisfied with their salaries and work and do not leave for this reason	3.264	1.332	Agree
03 Your institution employs people with special needs	3.264	1.420	Somewhat agree
04 Relationships with leaders and colleagues are good and do not lead to resignations	3.117	1.472	Somewhat agree
05 Employment in your institution is fair and respects the laws	3.088	1.564	Somewhat agree
06 My attendance at work is regular and I do not frequently take leave	3.441	1.541	Agree
07 There are satisfactory social services	3.764	1.371	Agree
08 The workplace is safe, and I have not had a serious accident at the institution	3.911	1.311	Agree
09 The salary you receive corresponds to the volume of tasks you perform	2.941	1.475	Somewhat agree
10 You have benefited from training courses since your employment	3.029	1.487	Somewhat agree
11 The training course you benefited from during your career was effective and yielded results	2.970	1.507	Somewhat agree

12	The institution receives many job applications	2.764	1.478	Somewhat agree
13	The institution hires a significant number of employees annually	2.235	1.271	Disagree
Mean for Axis 2		3.203	1.104	Somewhat agree

Source: Prepared by the researchers based on SPSS outputs

From the previous table, we observe that the average responses for the axis of social performance evaluation reached (3.203) with a standard deviation of (1.104), indicating a general agreement towards "somewhat agree." The arithmetic means ranged between (2.235-3.911) with standard deviations between (1.271-1.311), fluctuating between "agree" and "disagree." The highest arithmetic mean was for the statement "the workplace is safe, and I have not had a serious accident at the institution," which scored (3.911) with a standard deviation of (1.311), indicating that the workplace is safe. This is attributed to the nature of the institution under study being a public administration, where workplace accidents are rare. The lowest mean was for the statement "the institution employs a significant number of employees annually," with an arithmetic mean of (2.235) and a standard deviation of (1.271). This indicates that the institution does not hire a large number of employees, as public administrations cannot open employment positions without consultation and higher authorization, and only as necessary. Consequently, from the table results, we notice that the sample's opinions leaned towards "somewhat agree," indicating that the social performance evaluation in the municipality of Zelfana is not excellent.

3.6 Confirmatory Factor Analysis of the Measurement Model:

This involves testing the reliability and discriminate validity of the study model.:

- **Reliability Testing of the Study Model:** Internal Consistency and Convergent Validity

- **Internal Consistency Criteria:** Factor loading, Composite reliability from the table, we observe that the factor loading values for all variables exceeded 70%, indicating that the statements are consistent with each other.

Composite reliability, which is similar to Cranach’s alpha but more advanced, measures the entire axis rather than individual statements. It requires a threshold of 70% or higher, indicating internal consistency between the axis and the statements. From the table, we note that all axes and statements exceeded 70%, making the study tool reliable and applicable to other research.

Convergent Validity Criterion: Average variance extracted (AVE), after processing, it was found that the percentage exceeded 50% for all dimensions and axes of the study, thus confirming convergent validity.

Statements with a factor loading less than 70% were deleted (statements number 5 and 11 from the dependent variable) to increase composite reliability and average variance extracted

Table 6: Results of Convergent Validity Test

		Statements	Factor Loading (FL)		Composite Reliability (CR)	Cronbach's Alpha	Average Variance Extracted (AVE)
			Greater than 70%		Greater than 70%	Greater than 70%	Greater than 50%
Independent Variable	Equipment and Tools	Q1	0,955	Acceptable	0,936	0,936	0,886
		Q2	0,929	Acceptable			
		Q3	0,939	Acceptable			
	Networks and Programs	Q4	0,927	Acceptable	0,944	0,942	0,854
		Q5	0,967	Acceptable			
		Q6	0,940	Acceptable			

Dependent Variable	Databases	Human Resources	Q7	0,859	Acceptable			
			Q8	0,944	Acceptable	0,946	0,938	0,890
			Q9	0,929	Acceptable			
			Q10	0,956	Acceptable			
			Q11	0,939	Acceptable	0,940	0,936	0,841
			Q12	0,838	Acceptable			
			Q13	0,964	Acceptable			
			Q14	0,924	Acceptable			
			Y1	0,770	Acceptable	0,950	0,943	0,604
			Y2	0,842	Acceptable			
			Y3	0,822	Acceptable			
			Y4	0,817	Acceptable			
			Y5	0,390	Deleted			
			Y6	0,898	Acceptable			
			Y7	0,820	Acceptable			
			Y8	0,854	Acceptable			
			Y9	0,795	Acceptable			
			Y10	0,761	Acceptable			
			Y11	0,688	Deleted			
			Y12	0,745	Acceptable			
			Y13	0,783	Acceptable			

Source: Prepared by the researchers based on Smart PLS4 outputs

• Indicators of Discriminate Validity:

Criteria for evaluating discriminate validity include: Cross loading, and Variable correlation of the structural model. After processing, the results are shown in the following tables:

Cross Loading:

Table 7: Results of Cross Loading

Statements	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dependent Variable
Q1	0.955	0.715	0.633	0.676	0.465
Q2	0.929	0.723	0.743	0.721	0.527
Q3	0.939	0.806	0.686	0.678	0.512

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Q4	0.733	0.927	0.758	0.794	0.745
Q5	0.794	0.967	0.862	0.887	0.741
Q6	0.694	0.940	0.744	0.836	0.711
Q7 (Deleted)	0.715	0.859	0.899	0.798	0.744
Q8	0.701	0.841	0.944	0.770	0.763
Q9	0.579	0.749	0.929	0.701	0.721
Q10	0.773	0.899	0.956	0.874	0.816
Q11	0.649	0.826	0.768	0.939	0.653
Q12	0.561	0.744	0.812	0.838	0.808
Q13	0.729	0.901	0.769	0.964	0.733
Q14	0.748	0.817	0.717	0.924	0.656
Y1 (Deleted)	0.603	0.871	0.652	0.782	0.770
Y2	0.336	0.533	0.575	0.595	0.842
Y3	0.313	0.506	0.658	0.606	0.822
Y4	0.258	0.478	0.700	0.519	0.817
Y5	0.431	0.317	0.461	0.362	0.390
Y6	0.348	0.615	0.711	0.563	0.898
Y7	0.310	0.576	0.691	0.504	0.820
Y8	0.275	0.544	0.606	0.571	0.854
Y9	0.305	0.492	0.503	0.508	0.795
Y10	0.461	0.729	0.618	0.679	0.761
Y11	0.565	0.716	0.641	0.609	0.688
Y12	0.658	0.828	0.649	0.717	0.745
Y13	0.264	0.449	0.661	0.553	0.783

Source: Prepared by the researchers based on Smart PLS4 outputs.

Cross Loading: The cross-loading indicator measures the extent to which statements diverge from one another by ensuring that the relationship value between the question and its latent variable is greater than its relationship with another variable. From the previous table, we observe that all statements belong to the variable or dimension they are supposed to follow. For instance, in the dimension of equipment and tools, statement number 01 had a value of 0.955, which is the highest compared to the values corresponding to other dimensions and axes. This indicates that the statement indeed belongs to the dimension of equipment and tools and has a strong relationship with the axis. Based on the table values, it can be said that all statements are strongly correlated with their respective axes.

- **Variable Correlation of the Measurement Model:**

Table 8: Results of Variable Correlation of the Structural Model

	Equipment and Tools	Dimension 2 Networks and Programs	Human Resources	Databases	Dependent Variable
Equipment and Tools	0.940				
Networks and Programs	0.072	0.860			
Human Resources	-0.120	0.716	0.924		
Databases	0.319	0.238	0.185	0.798	
Dependent Variable	0.470	-0.116	-0.033	0.195	0.731

Source: Prepared by the researchers based on Smart PLS4 outputs.

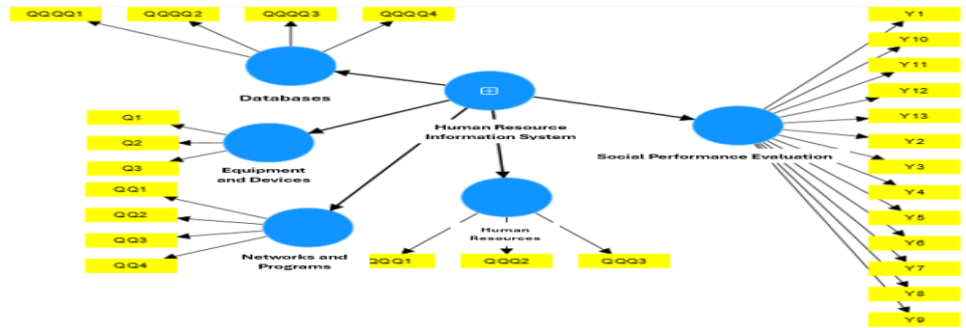
Variable Correlation of the Structural Model: The variable correlation indicator measures the extent to which variables diverge from one another. From the table, we observe that the variable correlation (vc) values for each variable with itself are higher than with other axes. Therefore, it can be said that these variables are independent of each other and there is no overlap between them, meaning each axis is independent.

- **Structural Model Evaluation and Hypothesis Testing:**

- **The Structural Model**

The following figure illustrates the structural model after employing evidence of convergent and discriminate validity.

Figure 3: structural model of the study



Source: Prepared by the researchers based on Smart PLS4 outputs.

- **Model Fit Indicators:**

After addressing the hypothesis testing of the field study, it is necessary to consider the indicators of the structural model's fit quality. These indicators include R^2 , Q^2 , F^2 , and GOF. The following table presents the key results

Table 10: R^2 value between Human Resource Information System and Social Performance Evaluation

Variable	R^2
Equipment	0.741
Networks and Programs	0.946
Human Resources	0.852
Databases	0.920
Dependent	0.635

Source: Prepared by researchers based on Smart PLS4 outputs

From Table Number 10, we observe that the R^2 value between the Human Resources Information System and social performance evaluation reached 0.635. This indicates a medium value, meaning that the independent variable has a moderate ability to explain and interpret the dependent variable.

Table 11: F^2 Impact Factor

Variable	F^2 Impact Factor	
	F^2	Observation
Equipment	0.162	Moderate
Networks and Programs	0.035	Weak
Human Resources	0.239	Moderate
Databases	0.060	Weak
Independent Variable	1.77	Strong

Source: Prepared by researchers based on Smart PLS4 outputs

F^2 Effect Size Indicator: The F^2 statistic is used to measure the strength and capability of the dimensions of the independent variable in influencing the dependent variable. In our study, we relied on Cohen's (1988) scale to estimate the range of effect strength, where a value between 0.02 and 0.15 indicates a weak effect, a value between 0.15 and 0.35 indicates a moderate effect, and a value greater than 0.35 indicates a strong effect. From Table Number 11, we observe that the F^2 effect size for the dimensions of human resources and equipment reached 0.239 and 0.162, respectively, indicating a moderate effect as they fall between 0.15 and 0.35. However, the F^2 value for the dimensions of databases and networks and programs reached 0.035 and 0.060, respectively, indicating a weak effect.

GOF (Goodness of Fit) Indicator: This indicator measures the reliability of the study model. It is calculated by combining the structural model's average variance extracted (AVE) and the structural model's average R^2 .

The formula can be summarized as follows: $GOF = \sqrt{(R^2 * AVE)}$ Table

12: GOF Indicator

Dimension	AVE	R ²	GOF
Mean	0.815	0.818	0.816

Source: Prepared by researchers based on Smart PLS4 outputs

From the previous table, we observe that the value of the Goodness of Fit (GOF) indicator is greater than 0.36. Therefore, it can be said that the quality of the study model is very high.

3.6 Hypothesis Testing and Interpretation of Results:

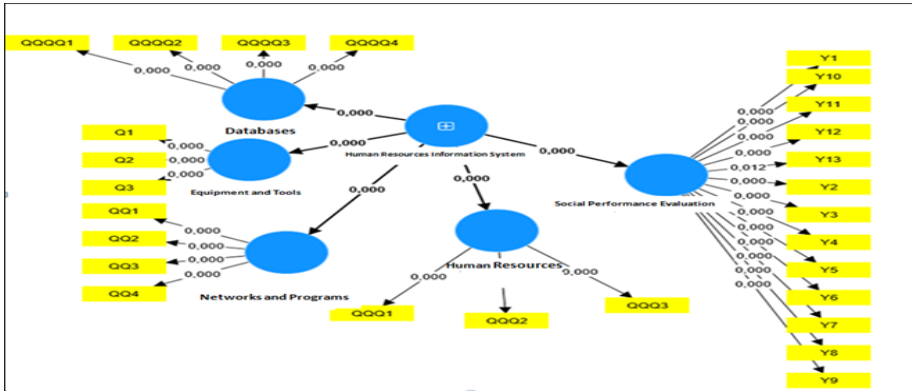
Hypotheses will be tested at a significance level of 0.05 based on SmartPls outputs. The results are shown in the following table:

Table 13: Hypothesis Testing Results

Hypothesis	Regression Coefficients	Standard Deviation	T-Test Value	P-Value	Decision
H1	0.151	0.030	5.072	0.000	Accept
H2	0.282	0.040	7.107	0.000	Accept
H3	0.173	0.022	7.961	0.000	Accept
H4	0.249	0.037	6.811	0.000	Accept
Main Hypothesis	0.807	0.074	10.787	0.000	Accept

Source: Prepared by the researchers based on Smart PLS4 outputs

Figure 4: Illustrates the Hypothesis Testing Results.



Source: Prepared by the researchers based on Smart PLS4 outputs.

3.6.1 Main Hypothesis:

From the table, we observe that the p-value for the main hypothesis is less than 0.05, indicating that the hypothesis is accepted. This means there is a statistically significant effect of the Human Resources Information System (HRIS) on the evaluation of social performance in the municipality of Zelfana.

3.6.2 Sub-Hypotheses:

- According to the results of the previous table, the p-value for the first sub-hypothesis is statistically significant and less than 0.05. This means that equipment and tools have an effect on the evaluation of social performance in the municipality of Zelfana. The institution's focus on the equipment and tools and their quality used in the HRIS affects the evaluation of social performance.
- The p-value for the second sub-hypothesis is also statistically significant and less than 0.05. This indicates that networks and programs have an effect on the evaluation of social performance in the municipality of Zelfana. The institution's focus on networks and programs and their quality used in the HRIS affects the evaluation of social performance.

- The p-value for the third sub-hypothesis is statistically significant and less than 0.05. This means that human resources have an effect on the evaluation of social performance in the municipality of Zelfana. The institution's focus on human resources, their training, and qualification affects the evaluation of social performance.
- The p-value for the fourth sub-hypothesis is statistically significant and less than 0.05. This indicates that databases have an effect on the evaluation of social performance in the municipality of Zelfana. The information contained in the databases and the focus on updating them affects the evaluation of social performance.

4. Conclusion:

- To evaluate the social performance of an institution, it is essential to rely on a set of data and information related to all areas of social performance. Among the sources of this information is the Human Resources Information System (HRIS), which contains important information useful for evaluation. Through our study on the impact of the HRIS on the evaluation of social performance in the municipality of Zelfana, we have reached several conclusions:
- Evaluating social performance involves assessing the institution's contribution to serving stakeholders and meeting their expectations by evaluating its performance towards employees, the surrounding environment, the community, and consumers.
- The HRIS consists of a set of interrelated programs that enable the implementation of various administrative procedures on human resources and their management. The objectives of the HRIS include functions such as job management, employment forecasting, training needs analysis, career path management, performance evaluation, and managing all aspects of human resources administration.
- Through the applied study, we found a positive impact of the HRIS on the evaluation of social performance in the municipality of Zelfana. We also found a positive impact of all HRIS dimensions included in our

study, which are: equipment and tools, programs and networks, human resources, and databases. These dimensions positively affect the evaluation of social performance in the municipality of Zelfana. The more attention is given to the requirements and components of the HRIS, the better the institution can improve its social performance.

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