

Human Resource Accounting and Its Impact on Achieving Competitive Advantage for Economic Institutions

-A Field Study of a Sample of Professionals and Academics-

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Abstract:

This study seeks to measure the impact of implementing human resource accounting (HRA) on an economic enterprise's capacity to achieve a competitive advantage. The descriptive-analytical approach was employed to tackle the study's primary inquiry. Additionally, a questionnaire was developed to focus on a sample of professionals and academics. The data was analyzed using SPSS Version 2. The study's main result was that the adoption of human resource accounting significantly impacts the enterprise's capacity to achieve a competitive advantage across all four dimensions at a significance level of ($\alpha=0.05$). It was also found that The knowledge and abilities of human resources are an essential aspect in attaining a lasting competitive advantage for the firm over its competitors.

Keywords: Accounting for human resources HRA; Attaining Competitive Advantage; Dimensions of achieving competitive advantage

Jel Classification Codes :M41; J24; M12

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Introduction:

The economic market is rapidly evolving, and organizations no longer rely solely on machinery and technology; human resources have become the key to success and sustainability. With their growing importance, human resource accounting has emerged to measure their value and costs, recognizing them as assets in financial statements. This approach provides data that help management make decisions on recruitment, training, and skill development, enhancing productivity and goal achievement.

On the other hand, organizations are economic entities aimed at achieving profit. They continuously strive to improve the quality of their services and products to enhance their competitive advantage in the face of intense competition with other organizations operating in the same field. Undoubtedly, the most critical resource for an organization to achieve competitive advantages and ensure survival lies in its human resources. This is where human resource accounting plays a vital role, serving as an essential tool for organizations to understand, enhance, and develop their human capital in a way that ensures efficiency and effectiveness.

Problem Statement:

To what degree does the implementation of human resource accounting (HRA) influence the attainment of competitive advantage in an economic organization?

Main Hypothesis:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve competitive advantage."

Sub-Hypotheses:

- At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve lower costs.

- At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve quality.
- At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve flexibility.
- At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve excellence and innovation.

Objectives of the Study: The objective of this research is to quantify how the application of HRA affects the organization's competitive advantage in four areas: reduced costs, quality, flexibility, and innovation/excellence.

Methodology: This work's theoretical component employs a descriptive methodology. The study employs statistical analysis using SPSS for the applied component to address the research goals and hypotheses.

Previous Studies:

- **Namita Srivastava (2014), "Human Resource Accounting: A Strategic Approach to Corporate Excellence," International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 2, Issue 5.**

This research aimed to elucidate the importance of evaluating human capital and the methodologies for assessing its value. The study also covered new developments in international organizations, especially in India, and their attempts to apply HRA. The results highlighted how crucial HRA is to identifying and evaluating human capital, how it influences strategic choices, and the new methods businesses use to improve their journey toward institutional excellence.

- **. A study by Salaheddine Soualem (2020), "The Impact of Implementing Human Resource Accounting in Achieving Competitive Advantage in the Economic Institution—A Field Study at the National Oil Company Unit of Sétif**

Market," Journal of Knowledge Collections, Volume 06, Issue 02.

This study sought to reveal the impact of implementing HRA in building competitive advantage within Algerian economic institutions. To achieve the study's objectives, the descriptive-analytical method was adopted, and data was collected using questionnaires. After retrieving 35 valid forms, the data was analyzed using SPSS software. According to the study's findings, putting in place a HRA system is a smart first step toward creating and gaining competitive advantages.

I- The Conceptual Framework of HRA and Its Relationship with Achieving Competitive Advantage :

The success of businesses is no longer solely reliant on physical capital but increasingly on human capital.. Human resources are considered the driving force behind achieving sustainable competitive advantage. The skills, creativity, and capabilities possessed by these resources are key factors in achieving competitive success and long-term sustainability.

I.1. Definition of HRA:

We will address the following set of definitions:

- The "AAA" defines it as "the process of collecting, assessing, and conveying human resource data to the relevant administrative units".
- It has also been defined as an attempt to identify and disclose investments made by the organization in human resources, which are not considered in current traditional accounting practices. Essentially, it is an information system that provides management with updates on changes in the organization's human resources over time"
- It is also "an organizational tool that involves measuring the costs incurred by organizations in processes such as hiring, selecting, assigning, training, and developing human assets, as well as measuring the economic value of individuals to the organization "

HRA is the process of determining, quantifying, and reporting the costs associated with the development of human resources, as defined above.

I. 2. HRA's Goals:

The objectives of HRA include¹:

- Giving management relevant data regarding human capital to assist in making valuable decisions in areas such as recruitment, training, development, promotion, workforce reduction, wage levels, and performance evaluation ;
- Evaluating the efficacy of human resource policies and procedures, determining their advantages and disadvantages, and encouraging pride and contentment in workers when they are viewed as assets rather than costs ;
- Assessing the merits of human resources employed by the firm. For example, if two organizations yield identical returns on invested capital utilizing the same technology, HRA can furnish insights into their human resources, aiding potential investors in determining which company to invest in; ;
- Managing different kinds of human resource expenses helps increase company profitability and determine the present worth of future commitments to workers, including pay ;
- Providing more valuable and reliable information than that provided by traditional accounting systems.

I.3. Methods for Measuring and Evaluating Human Resources:

Two main approaches are distinguished for measuring human resources: the cost-based approach and the value-based approach.

I.3.1. A Cost Model for evaluating Human Capital:

There are several ways to calculate the cost of human resources, with the most fundamental being:

- **Historical Cost Method:** It aims to evaluate the value of an asset (individuals) by recording all expenses incurred by the organization to acquire and prepare it.
- **Replacement Cost Method:** This pertains to an organization's expenditure to substitute its existing human resources. It is categorized

into two kinds: Personal Replacement Cost and Job Replacement Cost.²

- **The cost of Opportunity Method:** It refers to the value of an individual's foregone alternative employment when assigned to one position over another.³

I.3.2. Value Model for Measuring Human Resources

This approach is predicated on the idea that human resources have economic value.⁴

- **Expected Value Approach:** This method evaluates an individual's value is assessed based on the expected future services they will provide during their tenure, influenced by factors such as job satisfaction, motivation, and commitment.

- **Present Value of Future Earnings Approach:** This method, analogous to the present value of future earnings for financial assets, evaluates the anticipated future profits generated by different employee cohorts until their retirement age, discounting them at a predetermined rate.

- **Stochastic Rewards Valuation Model:** This model states that the conditional link between an employee's value and the profit they make for the company over the course of their career is what determines their value. This "conditional value" encompasses individual drive, abilities, and production.

I-2 The notion of competitive advantage and its components:

Competitive advantage arises when an organization discovers new and more effective methods than those used by competitors. It can be defined as: "the significant returns and leading position an organization can achieve in the market through the use of its internal resources and managerial capabilities, while maintaining the sustainable development of this advantage. Thus, the competitive advantage of an organization stems from its unique resources and capabilities."⁵

There are several dimensions of competitive advantage, which can be classified as follows:

- **Lowest Cost:** An organization's ability to compete is based on its cost. Achieving the lowest cost is the main objective of firms that compete on price. Even businesses that compete using alternative strategies aim to offer their goods and services at reasonable prices⁶.

- **Quality:** According to ISO 9001, quality is defined as the total set of characteristics of a product, process, individual, or organization that demonstrate their ability to meet specified and implied needs. Quality is achieved by delivering high-quality services that satisfy customer desires and ensure their satisfaction.

- **Flexibility:** It is defined as the organization's capacity to switch to different procedures and methodologies. Four categories of flexibility are covered by this change: volume, delivery, product mix, and product flexibility.⁷

- **Innovation and Excellence:** Innovation is achieved by offering a new service or product or working in a new and innovative way that differentiates the organization from competitors, . Regarding excellence, an organization outperforms its competitors through this advantage by possessing unique qualities that attract customers and create loyalty. It highlights its excellence by offering exceptional deals, even at slightly higher prices.⁸

II– Methods and Materials:

II-1 Study Methodology, Sample, and Instrument:

Within the framework of the field study and with the aim of testing the role of implementing HRA in achieving competitive advantage, a questionnaire was chosen as the measurement tool.

First- Study Methodology: Prior to discussing the field study and examining the questionnaire's results, it is essential to talk about the study's methodological framework, which forms the foundation for its structure. The description and analysis tools of the inductive technique were used. Data for this was gathered by a field survey using a sample.

Second- Study Population: The study population comprised 60 people, including academics, human resource management managers, and accountants. Out of the 80 surveys that were sent out, 63 were returned, three of which were deemed ineligible.

Third- Statistical Methods Used in the Study: The SPSS software was used, and the following statistical tests were applied: Cronbach's Alpha coefficient, arithmetic mean, standard deviation, frequency distribution and percentages, simple regression analysis to study the effect of one variable on another, and Pearson correlation coefficient to examine relationships between variables.

Fourth- Questionnaire Measurement: A five-point Likert scale was chosen as the best and most widely used scale for this type of study. It relies on the five response options : (Strongly Disagree- Disagree- Neutral- Agree- Strongly-Agree)

Fifth - Validity and Reliability of the Study : The Cronbach's Alpha coefficient, which should be higher than 0.60, was calculated to assess dependability. Additionally, the validity coefficient, which is the square root of Cronbach's Alpha, was calculated and should be greater than 0.70. This is illustrated in the following table:

Table (01): Cronbach's Alpha Reliability Coefficient and Self-Validity Values for the Questionnaire

Dimensions		Number of Statements	Reliability Value	Validity
HRA Application		11	0.599	0.773
Achieving Competitive Advantage	Lower Cost	5	0.789	0.888
	Quality	5	0.746	0.863
	Flexibility	5	0.837	0.914
	Creativity and Excellence	6	0.695	0.833
	Overall Dimension	21	0.783	0.884
All Questionnaire Items		32	0.843	0.918

Source: Produced by the researchers using the results of SPSS V22.

Using Cronbach's Alpha, we can see from the table that the questionnaire's reliability coefficient varied from 0.599 to 0.837. while for all items of the questionnaire, the reliability coefficient reached 0.843, indicating that the scale has a good and acceptable level of reliability. As for the self-validity of the questionnaire, it reached 0.918, which confirms that the questionnaire is valid and measures what it was designed to measure.

Fifth - Research Tool :

The questionnaire was divided into two parts to obtain findings and assess the validity of the hypotheses.

- **Part One:** Includes general questions about the personal and functional data of the sample individuals.

- **Part Two:** Divided into two axes:

a) **First Axis:** "HRA"

b) **Second Axis:** "Achieving Competitive Advantage," which is divided into four parts: the cost-effectiveness, quality, adaptability, and innovation and excellence dimensions.

II-2 Analysis of Sample Opinions Regarding Section One ("Personal Data"):

The research sample was selected and included a group of accountants, academics, and human resource managers, totaling 60 individuals, as shown below:

Table (02): Specifications of the Study Sample

Statement	Category	Count	Percentage
Gender	Male	20	33.3%
	Female	40	66.7%
Job Qualification	Accounts Manager	18	30%
	Accounting Expert	5	8.3%
	Certified	2	3.3%
	HR Management	7	11.6%
	University	28	46.6%
Educational Qualification	Bachelor's Degree	19	31.6%
	Master's Degree	13	21.6%
	Doctorate (PhD)	28	46.6%
Duration of Professional Experience	Less than 5 years	8	13.4%
	5 to 9 years	20	33.3%
	10 to 14 years	24	40%
	15 years and more	60	13.4%

Source: Produced by the researchers using particular characteristics of the study sample individuals.

By looking at the distribution of the 60 participants in the study sample and the preceding table, we can see that the largest proportion of professional qualifications consisted of university professors at 46.6%, while the smallest proportion belonged to human resource managers at 11.6%, due to the difficulty of reaching them.

II-3 Analysis of Sample Opinions on the Application of HRA:

The questionnaire results for this axis are presented in the following table:

Table (3): Responses of Study Sample Members to Statements in the HRA Axis

N	First Dimension: "HRA"	Mean	S.D	Decision
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1	The human factor is a crucial resource in the manufacturing process..	3.18	0.854	Moderate
2	The production of high-quality accounting information related to human resources positively impacts sound decision-making by its users.	3.25	0.876	Moderate
3	Revealing human resources information in financial statements allows the firm to optimize its human resource use	3.45	0.891	High
4	The application of HRA differs from that of other assets due to the unique nature of human resources. Therefore, its implementation requires the development of management methods to align with these characteristics.	3.52	1.081	High
5	Relying on cost-based methods for measuring human resources is a less complex approach that can be applied within an organization.	4.5	0.624	High
6	Using a value-based approach in human resource measurement is considered more objective and suitable for the characteristics of human resources.	2.82	1.157	Moderate
7	The choice between human resource measurement methods (cost or value) depends on the intended objective of the measurement process.	3.98	0.930	High
8	Recognizing human resources as new assets leads to an inflated financial position for the organization, suggesting an increased market presence.	4.50	0.597	Very High
9	HRA assists in preparing budget plans for the costs associated with acquiring human resources.	4.58	0.561	Very High
10	An organization's decision to implement HRA is based on how well management realizes the value of data pertaining to human resources.	4.70	0.462	Very High
11	The organization can reduce the difficulties involved in putting accounting for human resources into practice by clearly defining its goals and purposes.	4.63	0.486	Very High
Overall Mean and Standard Deviation		3.91	0.360	High

Source: Produced by the researchers using the results of SPSS V22.

According to the preceding table, the replies to the statements in this axis had an arithmetic mean of 3.91 and a standard deviation of 0.360. This suggests that the study sample is well-informed about the measuring techniques employed as well as the significance of implementing HRA and its application in economic institutions. Additionally, the highest average for the statements in this axis was for statement No. 10, with an average of 4.70 and a standard deviation of 0.462. On the other hand, the lowest average was for statement No. 6, with an average of 2.82, indicating moderate acceptance with significant variation in opinions, as reflected by a standard deviation of 1.157.

II-4 Analysis of Sample Opinions on Achieving Competitive Advantage:

The following table displays the questionnaire findings for this axis in accordance with the four dimensions of competitive advantage:

Table (4): Responses of Study Sample Members to Statements on Achieving Competitive Advantage

N°	Second Dimension: "Achieving Competitive Advantage"	Mean	S.D	Decision
	Cost Leadership Dimension	3.99	0.538	High
1	A company seeking a larger market share must offer products at a lower cost than competitors.	3.98	0.725	High
2	A company can reduce costs by efficiently utilizing its available production capacity.	4.18	0.701	High
3	Implementing systems and programs to monitor all cost-generating activities, not just production, helps minimize costs.	4.13	0.724	High
4	Eliminating costly procedures that do not contribute to cost leadership is among the factors that should be monitored to achieve a lower-cost advantage.	3.72	0.804	High
5	A company cannot maintain its cost leadership advantage unless it ensures its sustainability.	3.95	0.699	High
	Quality Dimension	3.73	0.601	High
1	Delivering products or services that fulfill or beyond client expectations.	3.93	0.880	High
2	Service or product quality is a measure of how effectively a company satisfies customer needs	3.82	0.854	High

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	and desires.			
3	Companies that do not offer products with quality that meets customer expectations cannot survive.	3.25	0.836	Neutral
4	A company that provides high-quality products carefully selects human resources that can achieve that quality.	4.05	0.746	High
5	Achieving a quality advantage positively impacts a company's market share and profitability due to increased customer demand for high-quality products.	3.62	0.940	High
	Flexibility Dimension	3.926	0.612	High
1	Companies strive for flexibility because it is essential for survival.	3.9	0.858	High
2	The ability to respond to changes in product design leads to achieving a flexibility advantage.	3.98	0.624	High
3	A company's ability to modify methods, processes, and operation times contributes to achieving flexibility.	3.87	0.947	High
4	The importance of achieving flexibility stems from the continuous change in customer preferences and technological advancements.	3.78	0.761	High
5	Achieving flexibility requires adaptability in product design, product mix, production volume, and delivery schedules.	4.10	0.706	High
	Creativity and Excellence Dimension	3.927	0.649	High
1	Creativity involves introducing new work methods.	4.22	1.010	High
2	Creativity creates a sustainable competitive advantage, particularly in work processes rather than in products.	3.90	1.160	High
3	Achieving creativity requires generating new ideas, adopting them, and implementing them.	3.93	1.039	High
4	A company achieves a competitive advantage through excellence when its innovations are difficult for competitors to replicate.	4.13	0.724	High
5	Achieving excellence requires the company to provide financial, material, human, and organizational resources.	3.65	1.055	High
6	A company's success and distinction are linked to the skills and capabilities of its human resources.	3.73	1.148	High
	Overall Mean and Standard Deviation.	3.927	0.649	High

Source: Produced by the researchers using the results of SPSS V22.

Using Table (4), we can see that all statements of the "Achieving Competitive Advantage" axis across its four dimensions obtained averages within the range [3.40–4.19], which falls under the fourth category of the Likert scale at a high level, except for Statement 3 of the quality dimension, which obtained an average of 3.25 with a standard deviation of 0.836. This indicates neutrality.. Through these results, we find that most of the sample members recognize the importance of achieving competitive advantage through cost reduction, which ranked first with an average of 3.99 and a standard deviation of 0.538.

III- Results and discussion :

III-1 Testing the Main Hypothesis:

The main hypothesis was formulated as follows:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve competitive advantage."

- **H0:** At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve competitive advantage

- **H1:** At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve competitive advantage.

To confirm the validity of the model for testing this hypothesis, simple linear regression analysis was used. After statistical processing, the results are presented in the following table:

Table (6): Simple Regression Equation for the Main Hypothesis

Independent Variable	Dependent Variable	Correlation Coefficient	Coefficient of Determination	T- Value	B	F- Value	Significance Level
HRA Application	Achieving Competitive Advantage	0.759	0.575	8.867	0.728	78.621	0.000

Source: Produced by the researchers using the results of SPSS V22.

According to the following table, the Pearson correlation coefficient between gaining a competitive advantage and putting HRA in place is $R = 0.759$, indicating a positive correlation. This suggests the existence of a positive direct relationship between the two variables,

meaning that the implementation of HRA positively impacts and contributes to achieving competitive advantage.

The regression model's coefficient of determination (R²), which indicates its explanatory strength, was 0.575. This indicates that 57.5% of the differences in competitive advantage can be explained by the application of HRA.

In terms of the model's overall significance, the F-test results revealed a value of 78.621 at a significance level of 0.000, which is below the 0.05 threshold. Furthermore, at a significance level of 0.000, the partial regression significance test (T-test) produced a value of 8.867, which is likewise below the 0.05 cutoff.

These findings lead us to accept the previously stated alternative hypothesis (H₁) and reject the null hypothesis (H₀).

The following is the regression equation:

Achieving Competitive Advantage = 1.082 + 0.728 Implementation of HRA.

III-2 Testing the Subsidiary Hypotheses:

The study's four subsidiary hypotheses will be tested below:

III-2-1 First Subsidiary Hypothesis Testing:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve lower costs."

- **H₀**: At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve lower costs.

- **H₁**: At $\alpha=0.05$, At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve lower costs.

Table (7): Simple Regression Equation for the 'Lowest Cost' Dimension

Independent Variable	Dependent Variable	Correlation Coefficient	Coefficient of Determination	T-Value	B Coefficient	F-Value	Significance Level
HRA Application	□Cost Leadership Dimension	0.370	0.137	3.034	0.248	9.204	0.000

Source: Produced by the researchers using the results of SPSS V22.

As we can see from the above table, the Pearson correlation coefficient between the "lowest cost" dimension and the application of HRA is $R = 0.370$, indicating a positive correlation. This indicates that the "lowest cost" component is positively impacted and influenced by the use of HRA.

The regression model's coefficient of determination (R^2), which indicates its explanatory strength, was 0.137. This indicates that 13.7% of the variances in the "lowest cost" dimension can be explained by the application of HRA.

At a significance level of 0.000, the F-test results revealed a value of 9.204 for the model's overall significance, which is below the significance threshold of 0.05. Furthermore, at a significance level of 0.000, the partial regression significance test (T-test) produced a result of 3.034, which is likewise below the 0.05 cutoff.

These findings lead us to accept the previously stated alternative hypothesis (H_1) and reject the null hypothesis (H_0).

The following is the regression equation:

Lowest Cost Dimension = 2.930 + 0.248 Implementation of HRA.
III-2-2 Second Subsidiary Hypothesis Testing:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve quality."

- **H0:** At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve quality.

- **H1:** At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve quality.

Table (8): Simple Regression Equation for the 'Quality' Dimension

Independent Variable	Dependent Variable	Correlation Coefficient	Coefficient of Determination	T-Value	B	F-Value	Significance Level
HRA Application	Quality Dimension	0.460	0.211	3.941	0.276	15.528	0.000

Source: Produced by the researchers using the results of SPSS V22.

The aforementioned table shows that the "quality" dimension and the use of HRA have a Pearson correlation coefficient of $R = 0.460$, indicating a positive correlation. This means that the implementation of HRA positively impacts and influences the "quality" dimension.

The regression model's coefficient of determination (R^2), which indicates its explanatory strength, was 0.211. This indicates that 21.1% of the variances in the "quality" dimension can be explained by the application of HRA.

In terms of the model's overall significance, the F-test results revealed a value of 15.528 at a significance level of 0.000, which is below the 0.05 criterion. A value of 3.941 at a significance level of 0.000 was also obtained by the partial regression significance test (T-test), which is likewise below the 0.05 cutoff.

These findings lead us to accept the previously stated alternative hypothesis (H_1) and reject the null hypothesis (H_0). The regression equation between the two variables is as follows:

Quality Dimension = 2.891 + 0.276 Implementation of HRA.

III-2-3-The Third Subsidiary Hypothesis Testing:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve flexibility."

- **H0:** At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve flexibility

- **H1:** At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve flexibility.

Table (9): Simple Regression Equation for the 'Flexibility' Dimension

Independent Variable	Dependent Variable	Correlation Coefficient	Coefficient of Determination	T-Value	B	F-Value	Significance Level
HRA Application	Flexibility Dimension	0.531	0.282	4.769	0.312	22.745	0.000

Source: Produced by the researchers using the results of SPSS V22.

According to the above table, there is a positive link (Pearson correlation coefficient) between the "flexibility" dimension and the application of HRA ($R = 0.531$). This indicates that the "flexibility" attribute is positively impacted and influenced by the use of HRA.

With a coefficient of determination (R^2) of 0.282, the regression model's explanatory power indicates that the application of HRA accounts for 28.2% of the variances in the "flexibility" dimension.

At a significance level of 0.000, the F-test results indicate a value of 22.745 for the model's overall significance, which is below the significance threshold of 0.05. Furthermore, at a significance level of 0.000, the partial regression significance test (T-test) produced a value of 4.769, which is likewise below the 0.05 cutoff.

These findings lead us to accept the previously stated alternative hypothesis (H_1) and reject the null hypothesis (H_0).

The regression equation between the two variables is as follows:

Flexibility Dimension = 2.693 + 0.321 Implementation of HRA.

III-2-4 The Fourth Subsidiary Hypothesis testing:

" At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve excellence and innovation."

- **H_0 :** At $\alpha=0.05$, human resource accounting (HRA) does not exert a statistically significant influence on the organization's capacity to achieve excellence and innovation.

- **H_1 :** At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve excellence and innovation.

Table (10): Simple Regression Equation for the 'Innovation and Excellence' Dimension

Independent Variable	Dependent Variable	Correlation Coefficient	Coefficient of Determination	T-Value	B	F-Value	Significance Level
HRA Application	Creativity and Excellence Dimension	0.508	0.258	4.486	0.282	20.124	0.000

Source: Produced by the researchers using the results of SPSS V22.

According to the table above, there is a positive association between the "innovation and excellence" dimension and the application of HRA, as indicated by the Pearson correlation value of $R = 0.508$. The "innovation and excellence" dimension is thus positively impacted and influenced by the application of HRA.

With a coefficient of determination (R^2) of 0.258, the regression model's explanatory power indicates that 25.8% of the variances in the "innovation and excellence" dimension can be explained by the use of HRA.

The F-test findings indicate that the model's overall significance is less than the significance threshold of 0.05, with a value of 20.124 at a significance level of 0.000. Furthermore, the value of 4.486 at a significance level of 0.000, which is likewise below the cutoff of 0.05, was obtained via the partial regression significance test (T-test).

These findings lead us to accept the previously stated alternative hypothesis (H_1) and reject the null hypothesis (H_0).

The regression equation between the two variables is as follows:

$$\text{Innovation and Excellence Dimension} = 2.813 + 0.282 \text{ Implementation of HRA.}$$

Conclusion:

From this study, we have concluded that HRA primarily aims to produce and communicate information to the management of an organization at all levels regarding its human resources in order to facilitate decision-making related to planning, utilizing, and monitoring human resources, thereby helping achieve the organization's objectives. Additionally, we validated the main hypothesis, which says: " At $\alpha=0.05$, human resource accounting (HRA) exerts a statistically significant influence on the organization's capacity to achieve competitive advantage." We also identified several findings, summarized as follows:

- HRA provides organizations with multiple benefits, such as effective planning for human resources to address current and anticipated challenges. It also helps shift the perception of employees from being considered burdens to being viewed as assets, increasing the organization's focus on developing human resources. This positively impacts their performance and encourages them to contribute to achieving both organizational and personal goals.

- Human resource accounting aims to identify their value as an economic asset that must be utilized efficiently and to account for their cost as one of the organization's assets.
- Cost-based and value-based measurement methods provide methodologies for measuring and evaluating human capital, which is essential for organizations seeking to utilize their human resources efficiently and effectively.
- The utilization of human resource accounting by an organization is contingent upon the extent to which its administrators acknowledge the value of human resource data.
- Clearly outlining the objectives and purposes of human resource accounting that an organization aims to achieve can mitigate the difficulties encountered while implementing this accounting method.
- Competitive advantage arises when an organization discovers new methods or possesses unique resources that allow it to produce greater value and benefits for customers compared to competitors. Among the most important of these resources are human resources.
- Competitive advantage can be achieved through cost leadership, quality differentiation, flexibility, and innovation/excellence.
- The knowledge and skills possessed by human resources represent a key driving force for achieving sustainable competitive advantage compared to competitors. In the context of a knowledge-based economy, investing in human resources and measuring their costs and returns has become an inevitable necessity. Unique skills and creativity among employees are not easily replaceable, making them a critical factor in sustaining long-term success.

Referrals and references:

¹ Juhi Chatterjee, Partha Chatterjee, "**Human Resource Accounting - Role and Challenge for Accountants,**" International Journal of Business and Management Invention, Vol. 7, Issue 6, Ver II, (2018) pp. 1-6, p. 4.

² Samira Abdessamed, "**The Role of Human Resource Accounting in Achieving Outstanding Performance at Ain Touta Cement Company -Batna-**" Journal of Business and Trade Economics, Vol. 07, No. 01, (2022), pp. 150-166 p. 154.

³ . Mohamed Lamine Aloun, Abdelhak Saadi, Mohamed Lakhdar Salhi, "**Human Resource Accounting According to International Accounting Standards in Economic Institutions** " Journal of International Economics and Globalization, Vol. 03, No. 02, (2020), pp. 210-229, p. 216.

⁴ Saïdani Nabila, **"Methods and Models Used in Human Resource Accounting,"** Journal of Industrial Economics, Vol. 2, No. 12, (2017), pp. 129-144, p. 139.

⁵ Yin Yang, Quin Liu, Jin Song, Ming Zhou, **"The Influence Mechanism of Financial Shared Service Mode on the Competitive Advantage of Enterprises from the Perspective of Organizational Complexity: A Force Field Analysis"** International Journal of Accounting Information Systems, 42, 100525, doi: 10.1016/j.accinf.2021.100525 , (2021), pp. 1-21, p. 5.

⁶ Ahmad Mohammed Alamri, **"Strategic Management Accounting and the Dimensions of Competitive Advantage: Testing the Associations in the Saudi Industrial Sector"**, International Journal of Academic Research in Accounting, Finance and Management Sciences, (2018), Vol. 8, No. 2, pp. 48-64, p. 53.

⁷ Ahmad Mohammed Alamri, op. cit., p. 53.

⁸ Mekraach Fawzia, Kaddam Jamal, Hrikish Massoud, **"The Impact of Service Quality in Achieving Competitive Advantage for Small and Medium Enterprises – A Case Study of a Hotel Group in Jijel Province,"** Journal of Commercial Sciences, Vol. 18, No. 02, December 2019, p. 85.