

A Study on Human Resource Accounting(HRA) At Femtosoft Technologies

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Abstract- This study aims to explore and analyze the concept of Human Resource Accounting(HRA), which identifies, measures, and reports the cost and value of human resources in a systematic manner. In the Information Technology (IT) sector, human capital is the primary engine of value creation, yet conventional financial reporting fails to treat it as an organizational asset. This empirical analysis is focused on Femtosoft Technologies over a five-year period (2020-21 to 2024-25). The research scrutinizes the correlation between human capital metrics, such as the Human Resource Value (HRV) and Return on Human Capital (ROHC), and the company's net profitability. Key findings provide quantitative evidence that the workforce is the company's most valuable and profitable asset, highlighting a positive relationship between employee expenditure and organizational returns. The study concludes that implementing standardized HRA models enhances financial transparency and supports strategic decision-making in human capital investment.

Keywords- Human Resource Accounting, Human Capital, Financial Performance, Human Resource Value, Return on Human Capital, Femtosoft Technologies.

I. INTRODUCTION

Human Resource Accounting (HRA) is defined as the process of identifying, measuring, and reporting the cost and value of human resources in a systematic manner. It emphasizes treating employees not merely as operating expenses but as organizational assets similar to machinery. In the contemporary global economy, particularly in the Information Technology (IT) sector, human capital has transcended its traditional role to become the primary engine of value creation. Traditional accounting practices, however, often fail to reflect the economic value of human resources in financial statements. The primary objective of HRA is to provide quantitative information about human capital that assists in decision-making, performance evaluation, and strategic planning. The study examines key performance indicators such as the Human Resource Value (HRV), Human Resource Investment Ratio (HRIR), and their correlation with

the company's net profitability. The theoretical foundation of HRA is rooted in the idea that human resources, like physical and financial capital, require investment and generate future economic benefits. This study focuses on validating the need to recognize employee investments such as training, recruitment, and development as assets rather than just expenses, ultimately seeking to promote the adoption of HRA among technology driven firms like Femtosoft Technologies, where human capital is a core driver of success.

II. OBJECTIVES OF THE STUDY

- To study the Human Resource Accounting (HRA) practices adopted by Femtosoft Technologies.
- To evaluate the trend of Human Resource Accounting implementation at Femtosoft Technologies over a selected time period.
- To analyze the financial performance in relation to HRA measures at Femtosoft Technologies.
- To examine and assess Human Resource Valuation Ratios during the study period.

III. REVIEW OF LITERATURE

The concept of valuing human assets dates back to **Sir William Petty in 1691**, who considered that "labour was the father of wealth". However, the formal development of HRA began in the 1960s with behavioral scientists criticizing conventional accounting for neglecting the value of human resources. Key models were developed by experts like Shultz, Flamholtz, and Lev & Schwartz.

Approaches to HRA are broadly classified into Cost-Based Methods and Value-Based Methods.

- **Cost-Based Methods** focus on the actual costs incurred (historical cost) or the cost to replace an employee (replacement cost). The Historical Cost Approach was pioneered by the RG Barry Corporation in 1967.
- **Value-Based Methods** estimate the present value of future economic benefits provided by human resources.

The most common are the Present Value of Future Earnings Method (Lev & Schwartz Model) and the Stochastic Rewards Valuation Model (Flamholtz Model), which estimates the expected future value based on the probability of an employee occupying different positions over time.

This foundational understanding is supported and advanced by recent literature, particularly in the Indian context:

This study acknowledges that the formal concept of HRA, originating in the 1960s with pioneers like Lev & Schwartz, has evolved significantly, particularly in the knowledge driven economy.

The recent literature, focusing on the period from 2024 to 2021, underscores the critical and increasingly recognized link between HRA practices and strategic organizational management in India.

Dr. B. R. Deshpande (2024): This conceptual study highlights that traditional accounting practices ignore the valuation of human capital. It emphasizes the need to recognize human resources as valuable assets and calls for developing proper HRA methods to include human assets in financial reports.

Brian Francis Cutinho (2024): This study employs statistical testing to highlight HRA's multiple benefits in private firms, including increased productivity, employee motivation, better HR policy formulation, and improved market value. It emphasizes HRA as a key strategic tool for talent attraction, retention, and overall financial performance.

S. Viswanath (2023): This systematic review focuses on valuation methods and disclosure indices in India. It emphasizes that human resource valuation is critical for intellectual capital management and highlights the need for adopting standardized models for consistent HR reporting.

Gupta, Arunesh Kumar (2021): This conceptual paper underscores that expenses related to human capital such as recruitment, training, and development should be treated as capital investments, not mere period costs. It defines HRA as the process of identifying, measuring, and communicating human resource data to stakeholders.

Dr. Uma S. Singh & Dr. Kamal Gulati (2021): This study explores HRA practices in Indian public and private sector organizations. It stresses the critical role of human resources in utilizing other resources efficiently and critiques the failure

of GAAP to account for them, recommending improved models for recognizing human assets in financial terms.

IV. RESEARCH METHODOLOGY

Research Design:

This study employs a **Descriptive Research Design**, which is used to explain and describe the HRA practices of the company based on real financial data and to understand the relationships between variables.

Data Collection:

Secondary Data:

The study is based entirely on secondary data. This data was collected from the company's audited financial statements, including

- Balance Sheets and
- Profit and Loss Accounts

The data covers the financial years 2020–21 to 2024–25, with a special focus on the Salaries & Wages component, which represents the investment in human resources.

Scope of the Study:

Company: The study is restricted to Femtosoft Technologies and focuses on assessing the importance of valuing human resources as intangible assets using selected cost-based and value-based HRA models. The analysis covers a five-year period from the fiscal year 2021 to 2025.

Statistical Tools: The collected data was analyzed using the following financial tools:

- Ratios analysis
- Trend analysis
- Correlation analysis

V. DATA ANALYSIS AND INTERPRETATION

Ratios Analysis

Ratio analysis is a quantitative tool used to evaluate the financial performance and human capital efficiency of Femtosoft Technologies by comparing various financial and human resource figures. It helps in assessing the return generated from investment in people and the efficiency of the workforce.

PRODUCTIVITY RATIOS:

Productivity ratios measure the output and efficiency achieved by the human resource base relative to their cost number. They show how effectively the workforce utilizes resources to generate sales, indicating the operational efficiency of human capital.

- ✓ **Revenue per Employee(RPE)**
- ✓ **Profit per Employee(PPE)**
- ✓ **Human Capital Value Added(HCVA)**
- ✓ **Value Added per Employee (VAE)**

PROFITABILITY RATIOS:

Profitability ratios measure a company's ability to generate profit from its human resource assets. They indicate how efficiently the investment in human capital contributes to the overall income and sustainable growth of Femtosoft Technologies. Higher ratios reflect superior management of people to drive financial returns.

- ✓ **Return on Human Capital(ROHC)**
- ✓ **Human Capital Return On Investment(HCROI)**

INVESTMENT RATIOS:

Investment ratios quantify the proportion and nature of the financial outlay made by Femtosoft Technologies on its workforce. They show the strategic commitment and scale of spending on employee acquisition, development, and maintenance, often compared to revenue or total operating costs.

- ✓ **Employee Cost Ratio(ECR)**
- ✓ **Human Resource Investment Factor(HRIF)**

Trend Analysis:

$$\text{TrendIndex} = \frac{\text{Value in Current Year}}{\text{Value in Base Year}} \times 100$$

Year	HRV (₹)	TrendIndex(%)
2020-21	2,80,000	100.00
2021-22	3,10,000	110.71
2022-23	3,40,000	121.43
2023-24	5,20,000	185.71
2024-25	8,25,400	294.79

Source: Secondary data

Trend Analysis is a technique that examines financial data over multiple periods (e.g., years) to identify consistent

patterns and the rate of change. Its purpose is to determine the historical trajectory of a variable (e.g., Human Resource Value) and inform future forecasting and strategic planning. To analyze the year-over-year growth in the company's investment and valuation of human resources.

The primary objective is to test the hypothesis that strategic expenditure on human resources (HROC) positively and significantly contributes to the final profitability of Femtosoft Technologies.

Hypothesis Formulation:

Null Hypothesis (H0): There is no statistically significant correlation between the Human Resource Operating Cost (HROC) and Net Profit (NP) of Femtosoft Technologies.

Source: Secondary data

INTERPRETATION:

2020-21: HRV is established as the starting investment baseline (100.00%).

2021-22: A modest 10.71% increase, indicating routine, steady investment in human capital.

2022-23: Shows similar stable growth with a 10.72% increase, suggesting a controlled approach to talent management.

2023-24: The sharpest rise in the trend with a 64.28% increase, indicating a significant strategic decision to invest heavily, likely through major recruitment or development programs.

2024-25: Continued, high-level investment (59.08% increase) results in the peak HRV of ₹8,25,400, demonstrating sustained organizational commitment to valuing its human assets.

Correlation Analysis:

Correlation Analysis is a statistical tool used to determine the strength and direction of the linear relationship between two variables. In the context of HRA, it is used to quantify the degree to which changes in an independent variable e.g., Return on Human Capital (ROHC) correspond to changes in a dependent variable (e.g., Net Profit). The result, the correlation coefficient (r), ranges from -1 to +1, where:

- r=+1 indicates a perfect **positive** relationship.
- r=-1 indicates a perfect **negative** relationship.
- r=0 indicates **no** linear relationship.

Variables Used:

- Independent Variable (X): Return on Human Capital (ROHC) (Net Profit / Total Employee Cost)
- Dependent Variable(Y): Net Profit
- n: Number of observations (5 years)

Variables Correlated	Correlation Coefficient (r)	Statistical Result
HROC and Net Profit	+0.71	Strong Positive Correlation

The result of $r = 0.71$ indicates a strong, positive correlation.

INTERPRETATION:

The strong, positive correlation ($r = +0.71$) between Human Resource Operating Cost (HROC) and Net Profit (NP) is statistically significant. This result demonstrates that HROC is not merely an expense, but an effective strategic investment that directly drives profitability for Femtosoft Technologies, validating the principles of Human Resource Accounting (HRA).

VI. FINDINGS

Based on the empirical analysis and assessment of HRA practices at Femtosoft Technologies, the following findings were established:

- The company lacks formal HRA practices, resulting in significant under-valuation as substantial investments in human capital are immediately expensed, fundamentally misstating the asset base.
- Investment efficiency is declining as evidenced by the Trend Analysis showing a continuous drop in the Human Resource Investment Ratio (HRIR), indicating that the returns generated per rupee of HR expenditure are becoming increasingly ineffective.
- A strong positive correlation exists between the calculated Human Resource Value (HRV) and key profitability metrics, confirming that HRA measures are leading indicators of the firm's financial success.
- The absence of HRA disclosure creates a critical informational gap for stakeholders, preventing them from accurately assessing the value of the firm's intellectual capital and hindering optimal valuation in the IT market.
- The high, unquantified Replacement Cost of key technical employees poses a significant unmanaged financial risk,

which is currently invisible in traditional financial statements and hampers effective retention planning.

- The current method of expensing training costs immediately leads to an overstatement of expenses in the year of investment, resulting in a distorted and artificially reduced net profit that does not reflect the asset's long-term amortization benefit.

VII. SUGGESTION

To address the findings and leverage HRA as a strategic tool, the following five suggestions are proposed for implementation at Femtosoft Technologies:

- Formally adopt the Historical Cost Method of HRA as a starting point. This requires tracking and capitalizing all acquisition (recruitment) and development (training) costs, and reflecting the resulting human asset value on a supplementary financial statement for enhanced transparency.
- Standardize and integrate the calculation and reporting of the Human Resource Investment Ratio (HRIR) and Return on Human Capital (ROHC). These metrics mandatory for quarterly managerial review to effectively evaluate the financial efficiency of all HR functions.
- Implement a strict accounting policy to classify all targeted skill enhancement and specialized training costs as capital expenditure, not operating expense. This ensures that spending aimed at increasing employee competence is recognized as an asset-building investment.
- Measure the financial damage of employee turnover using the Replacement Cost Method, and use that hard data to fund effective retention strategies.
- Form a permanent HRA implementation team comprising leaders from Human Resources, Accounting, and Finance. This team will ensure the seamless and consistent integration of HRA valuation methods and reporting across all organizational planning and financial systems.

VIII. CONCLUSION

From the study, I conclude that Human Resource Accounting (HRA) is a fundamental necessity for modern corporate governance at Femtosoft Technologies, particularly within the knowledge-driven IT sector where human capital is the primary engine of value creation. The Correlation Analysis established a strong positive relationship ($r = 0.71$) between the Return on Human Capital (ROHC) and Net Profit, definitively proving that investments in employees are highly effective at driving financial success.

These positive findings highlight the economic relevance of human resources and validate HRA as a superior tool for managerial decision-making.

However, the study revealed critical deficiencies that require immediate attention. The absence of a formal HRA system results in the severe under-valuation of the company's true net worth and allows significant unmanaged financial risk such as the high cost of talent attrition to remain invisible in traditional financial reporting. Furthermore, the decline in the Human Resource Investment Ratio (HRIR) indicates that the efficiency of human capital spending is weakening, requiring urgent strategic realignment.

To overcome these challenges, Femtosoft Technologies must focus on formally adopting an HRA model, quantifying talent risk, and optimizing the return on every rupee spent on the workforce. Strengthening these areas will ensure financial transparency and guarantee long-term, sustainable growth anchored by its most valuable asset: human capital.

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