



# **A COMPREHENSIVE REVIEW OF HUMAN RESOURCE ACCOUNTING MODELS**

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## **ABSTRACT**

Since the onset of business globalization, human resources have emerged as a crucial factor in the seamless operation of enterprises. The effectiveness of decisions made by top management heavily relies on the efficiency of personnel resources. Businesses incur significant expenses in recruiting and training their employees, viewing these investments as anticipations of future earnings. Consequently, there is a need to account for human resources. Human Resource Accounting (HRA) aims to determine the costs and future earnings associated with an organization's human resources. Implementing HRA can offer substantial benefits to enterprises by valuing their personnel resources in monetary terms. This research study seeks to elucidate various models of human resource accounting. It is a descriptive study based on a comprehensive literature survey of existing HRA models. Secondary data has been collected from books, academic journals, relevant textbooks, articles, magazines, and websites. The study concludes by synthesizing findings from the literature review.

This research study seeks to elucidate the various models of human resource accounting, exploring their methodologies, advantages, and limitations. It is a descriptive study based on a comprehensive literature survey of existing HRA models. Secondary data has been meticulously collected from a wide range of sources,

including books, academic journals, relevant textbooks, articles, magazines, and reputable websites. The study synthesizes these findings to offer a holistic understanding of HRA models and their practical implications for businesses. By examining these models, the study aims to highlight best practices and suggest potential improvements for more effective human resource management and accounting. The study concludes by providing insights and recommendations based on the literature review, contributing to the ongoing discourse on the valuation of human capital in the global business environment.

## INTRODUCTION

Among the fundamental factors of business—Material, Machine, Money, Men, and Management—human resources play a pivotal role in managing the others. Achieving organizational goals requires personnel to be highly effective and efficient in their tasks and performance. To enhance the capabilities of their workforce, businesses invest in training and development and incur costs to recruit skilled personnel, with the expectation of future returns on these investments. Human Resource Accounting (HRA) is a valuable tool for businesses to calculate the costs associated with acquiring and developing human resources.

Traditional accounting principles state that any asset expected to provide future returns should be accounted for. Human resources, which generate future economic benefits, should therefore also be accounted for in financial terms. To quantify human resources monetarily, various HRA models are employed as valuation systems. These HRA models are not only essential for measuring the value of human resources but also assist in managerial decision-making. They help management implement effective strategies for salary, wages, and overtime administration, ensuring the best use of human capital.

## REVIEW OF LITERATURE:

This literature review systematically examines research articles on the models and methods of Human Resource Accounting (HRA) both within India and internationally. The review relies on secondary sources, including books, academic journals, conference proceedings, reports, newspapers, and online resources.

Over the past two decades, several scholars have developed various models of HRA, including notable contributions from Flam Holtz, Pekin, Lev and Schwartz, Hendricks, Herman, and others. These researchers assert that HRA is highly beneficial for both external and internal stakeholders. For external stakeholders, HRA provides insights into the changes and developments in an organization's personnel resources, aiding in their evaluation of the organization's stability and future prospects. For internal stakeholders, HRA is instrumental in making informed decisions regarding promotions, compensation, performance appraisals, and other human resource-related matters.

**Azmy (2015)** argues that enhancing human resource competencies, viewed as an aspect of human resource accounting, significantly impacts productivity by improving administration and reporting processes within the context of organizational strategic decision-making.

**Dasari Pandurangarao and colleagues (2013)** highlight the advantages of human resource accounting models in their article. This research is based on the authors' analysis of various HRA valuation systems. The study details the benefits experienced by enterprises that have effectively implemented HRA techniques, emphasizing the positive impact on organizational performance and decision-making.

**Dr. M. Dhanabahakym and colleagues (2015)** conducted a study based on a literature survey to review the challenges associated with implementing the Lev and Schwartz model and Flam Holtz model of HRA for valuing faculty members in institutions. Their findings indicate that these two models are effectively applicable for making decisions related to promotions and compensation in academic settings.

**Pekin Ogan (1988)** conducted an empirical study examining the impact of HRA reports on decisions made by higher authorities regarding employee dismissal and retrenchment. The study concluded that HRA information significantly influences decisions related to laying off personnel.

## RESEARCH GAP

The comprehensive literature review reveals that certain studies focus solely on specific Human Resource Accounting (HRA) models, while others fail to cover all existing HRA models. This discrepancy indicates a gap in the literature, prompting the current study to address this deficiency by providing a brief overview of nearly all significant HRA models.

**RESEARCH PROBLEM:** According to Sveiby (1997), the knowledge, experience, expertise, and specialization embodied in human capital, along with the organizational structure shaped by employees, bear a striking resemblance to other assets within an organization. Human resources constitute an integral part of any business, often serving as the primary source of income. Therefore, it becomes imperative to include human resources in the valuation of a business. Over the course of business evolution, enterprises have made substantial investments in acquiring and training human resources. However, to effectively gauge the returns on such investments, it is essential to compare them with the future earnings generated by these employees.

The valuation of human resources becomes crucial for this comparison of costs and returns. Human Resource Accounting (HRA) models play a pivotal role in measuring the value of human resources. However, the challenge lies in determining which specific model should be utilized for computing the value of human resources. Thus, this article aims to address this problem by providing an overview of various HRA models, aiding decision-makers in selecting the most appropriate model for their specific context.

## NEED FOR STUDY

The study of Human Resource Accounting (HRA) is imperative to demonstrate the potential of human resources in monetary terms, considering people as valuable assets within an organization. This valuation relies on two primary variables: the initial investment made in human resources for their acquisition and training, and the subsequent value they bring to the organization in terms of future yields. To effectively determine the value of human resources, it is essential to utilize models of Human Resource Accounting.

These models serve as frameworks for estimating the value of human resources within the firm. By employing HRA models, organizations can achieve the objectives of Human Resource Accounting, which include assessing the worth of human capital and understanding its potential contributions to organizational success. Therefore, there is a clear need for studying HRA models to enable organizations to accurately quantify and manage their human resources in alignment with their strategic objectives.

## RESEARCH QUESTION:

The literature review has shed light on critical issues that form the basis of the present study and have led to the formulation of pertinent research questions. The hierarchy of research questions is outlined as follows:

1. What is the concept of Human Resource Accounting?
2. What are the different Models of Human Resource Accounting?

These research questions serve as the guiding framework for the present study, aiming to explore and elucidate the intricacies of Human Resource Accounting and its various models.

## OBJECTIVES OF THE STUDY:

Based on the Research questions the objectives of the study are framed as follows: To understand the concept of Human Resource Accounting. To briefly review the various Models of Human Resource Accounting.

## METHODOLOGY:

This research adopts a conceptual approach through secondary data analysis. A comprehensive literature survey on Models of Human Resource Accounting has been conducted to fulfil the research objective. Secondary data for this study has been gathered from a variety of sources including books, academic journals, relevant

textbooks, articles, magazines, and reputable websites. Through this methodological framework, the study aims to provide a thorough understanding of the various models of Human Resource Accounting.

## SCOPE OF THE STUDY:

Based on the literature review, this study identifies 19 Models of Human Resource Accounting, including:

Lev and Schwartz's present value of future earnings model, Jaggi and Lav Group Valuation Model, The Eric Flashily Model, Morse Model, Liker Model, Ogan Model, Hermanson's Unpurchased Goodwill Model. Hekimian and Jones competitive bidding model, Robinsons Human Asset Multiplies Model, Myers and Flower's five-dimensional model, Economic Cost Model, Behavioural Model, Standard Cost Model, Opportunity Cost Model, Replacement Cost Model, Historical Cost Model, Total Organisation Model, Return on Efforts employed Method, Performance Evaluation Model

However, for the purpose of this study, only the 12 major models of Human Resource Accounting will be considered. These models will form the core focus of the research, providing a comprehensive understanding of the diverse approaches to valuing human resources within organizations.

## HUMAN RESOURCE ACCOUNTING:

Human Resource Accounting (HRA) refers to the process of measuring the cost and value associated with employees and managers within an organization. This process involves evaluating the expenses related to recruiting, hiring, training, and developing personnel. Additionally, HRA assesses the current economic value of employees to the organization. The outcome of this evaluation is compiled into an HRA Report, which is presented to top-level management and can also be shared with employees, managers, and external stakeholders.

HRA aims to identify and quantify data concerning human resources and communicate this information to relevant parties. According to Flashily, human resource accounting involves considering people as organizational assets and entails calculating the costs associated with recruitment, selection, hiring, training, and development. Furthermore, it includes evaluating the economic value that individuals bring to the organization. As noted by P K Gupta, HRA also encompasses accounting for investments in human resources, their replacement costs, and their overall economic value to the organization.

In essence, HRA is about the measurement and quantification of organizational inputs related to human resources, such as recruiting, training, experience, and commitment. This provides a comprehensive view of the investment in human capital and its impact on organizational performance.

## MODELS OF HUMAN RESOURCE ACCOUNTING:

To achieve the second objective of the study, a brief review of the models of Human Resource Accounting (HRA) is presented as follows:

1. **Historical Cost Model: Historical Cost Model:** This model calculates the cost of human resources by taking into account the historical expenses that an organization has incurred for recruitment, hiring, training, and development of its employees. It includes both direct costs, such as salaries, benefits, and training program fees, and indirect costs, such as administrative expenses related to the hiring process and the time spent by existing staff on training new employees. By aggregating these costs, the Historical Cost Model provides a comprehensive view of the financial investment an organization has made in its workforce over time. This model helps organizations understand the cumulative expenditure on human resources and can inform budgeting and financial planning decisions.
2. **Replacement Cost Model: Replacement Cost Model:** The Replacement Cost Model estimates the cost necessary to replace an organization's existing human resources. This model encompasses all

expenses associated with the process of finding, hiring, and training new employees to attain the same level of competence and productivity as the current workforce. It includes direct costs such as advertising for job openings, recruitment agency fees, interviewing and selection processes, onboarding, and training programs. Additionally, it considers indirect costs like the time spent by managers and HR personnel in these activities, as well as the potential loss of productivity during the transition period while new employees reach the desired performance level. By calculating the replacement cost, organizations can gain insights into the value of their current employees and the financial implications of turnover, aiding in more strategic human resource management and retention planning.

3. **Opportunity Cost Model:** The Opportunity Cost Model assesses the value of human resources by considering the opportunity costs involved. Opportunity costs refer to the potential benefits that an organization forgoes when assigning employees to specific roles rather than to alternative positions or projects where they might generate greater value. This model evaluates the economic trade-offs of allocating human resources to their current tasks versus other potential uses within the organization. It includes analysing the potential revenue, productivity, or strategic advantages that could have been realized if the employees were deployed differently. By examining these opportunity costs, organizations can make more informed decisions about resource allocation, ensuring that their human capital is utilized in the most effective and value-maximizing manner. This approach highlights the importance of strategic workforce planning and helps organizations optimize the contributions of their employees.
4. **Present Value of Future Earnings Model:** The Present Value of Future Earnings Model evaluates the economic value of employees by calculating the present value of the future earnings they are expected to generate for the organization. This approach involves forecasting the future income that each employee is likely to produce over their tenure with the company. These future earnings are then discounted to their present value using an appropriate discount rate, which reflects the time value of money and the risk associated with those future earnings. The discount rate may take into account factors such as the organization's cost of capital, inflation, and the uncertainty of the projected earnings. By converting future earnings into present value terms, this model provides a clear and quantifiable measure of an employee's economic contribution to the organization over time. This helps in making informed decisions regarding human resource investments, compensation planning, and long-term workforce development strategies. The Present Value of Future Earnings Model underscores the importance of forward-looking financial planning and the strategic management of human capital.
5. **Stochastic Rewards Valuation Model:** The Stochastic Rewards Valuation Model employs probabilistic methods to assess the value of human resources within an organization. Unlike deterministic models that rely on fixed assumptions, this approach acknowledges the inherent uncertainty in future outcomes. It considers the multitude of potential future states and the probabilities associated with each outcome, allowing for a more nuanced and realistic estimation of the value of human capital.

By incorporating stochastic elements, such as random variables and probability distributions, this model offers a dynamic and flexible framework for valuing human resources. It recognizes that future events and conditions are subject to variability and uncertainty, and it accounts for these factors in its valuation process.

Through stochastic analysis, the model generates a range of possible outcomes and their associated probabilities, providing decision-makers with insights into the risk and uncertainty surrounding human resource investments. This enables organizations to make more robust and informed decisions regarding workforce planning, talent management, and resource allocation.

Overall, the Stochastic Rewards Valuation Model enhances the decision-making process by offering a comprehensive and probabilistic assessment of the value of human resources. It highlights the

importance of considering uncertainty and variability in future outcomes when evaluating the contribution of employees to organizational success.

6. **Human Resource Value Model:** The Human Resource Value Model represents a holistic approach to assessing the value of human resources within an organization. Unlike some other models that focus solely on quantitative measures or financial metrics, this model recognizes the multifaceted nature of human capital and considers both qualitative and quantitative aspects.

This comprehensive model takes into account various dimensions of human resources, including skills, experience, expertise, potential for future contributions, and overall impact on organizational performance. It acknowledges that employees bring not only tangible skills and capabilities but also intangible qualities such as creativity, innovation, teamwork, and leadership.

By considering both qualitative and quantitative factors, the Human Resource Value Model provides a more nuanced and complete understanding of the value that employees bring to the organization. It goes beyond simply calculating costs or revenues associated with human resources and instead seeks to capture the full range of contributions that employees make to organizational success.

Moreover, this model recognizes that the value of human resources extends beyond immediate financial returns and encompasses long-term strategic considerations. It emphasizes the importance of investing in employee development, engagement, and retention to cultivate a high-performing workforce capable of driving sustained organizational growth and competitive advantage.

Overall, the Human Resource Value Model offers a comprehensive framework for evaluating the true worth of human capital within an organization. By considering both qualitative and quantitative dimensions, it enables organizations to make more informed decisions regarding talent management, resource allocation, and strategic workforce planning.

7. **Hekimian and Jones competitive bidding model:** The Hekimian and Jones competitive bidding model assesses the value of human resources in an organization by having Investment Managers bid on productive employees. The highest bid for each employee determines their value within the company. This valuation method considers the expected outcomes that the organization can achieve through the utilization of the employee with the highest bid. This model not only estimates the value of certain individuals but also incentivizes high bidders to encourage performance that ensures a reasonable return on their investment.
8. **Myers and Flower's five-dimensional models:** M. Scott Myers and Vincent S. Flowers developed a five-dimensional model for valuing human resources within an organization. This model emphasizes five key dimensions essential for enhancing the effectiveness of both the organization and its human resources: Knowledge, Skill, Health, Attitudes, and the availability of Human Resources. Myers and Flowers argue that if any one of these dimensions is lacking, the effectiveness of the others is significantly diminished. Therefore, it is crucial to evaluate the current levels of all five dimensions before deciding to improve any single one.
9. **Liker Model:** Renzi's Likert developed a model based on his research into cause and effect relationships within organizations. This model assesses the value of human resources by focusing on collaborative processes among employees. It examines the interactions between three main variables: Causal, Intervening, and End Result. The End Result variable measures outcomes such as productivity, waste, turnover, and production costs. By analysing these relationships, the model provides a comprehensive understanding of how human resource dynamics impact organizational performance.
10. **Morse Model:** The Morse Model, also known as the Net Benefit Method, evaluates the value of human resources by calculating the present value of the net benefits an organization derives from its employees' services. According to this model, the value of human resources is determined by the present value of the total future benefits provided by employees, both individually and collectively, minus the present value of all future payments made to employees, including both direct and indirect costs.

In essence, this model involves two main calculations:

1. **Gross Value of Future Services:** This is the total value of services that employees are expected to provide in the future, considered both individually and as a group.
2. **Future Payments to Employees:** This includes all forms of compensation that employees will receive in the future, such as salaries, benefits, and other indirect costs.

The difference between these two values, when discounted to their present value, gives the net benefit, which represents the value of the human resources according to the Morse Model. This approach helps organizations understand the economic contribution of their employees by quantifying the net financial gain from their employment.

These models provide different perspectives and methodologies for valuing human resources, helping organizations to make informed decisions regarding their investment in human capital.

**LIMITATIONS OF THE STUDY:** This study is primarily based on secondary data. It provides only a brief review of Human Resource Accounting (HRA) models and does not offer a comprehensive analysis. The benefits and limitations of each HRA model are not discussed in this study. No empirical data or information related to the HRA models is presented in this study.

## CONCLUSION:

Human resources are an essential factor of production and represent one of the most valuable assets within any organization. Therefore, it is crucial to accurately value human resources to reflect their true contribution to the organization's success. Over time, various models of Human Resource Accounting (HRA) have been developed and have played a significant role in this valuation process. These models provide frameworks for understanding and measuring the value of human capital, helping organizations make more informed decisions regarding their workforce.

Despite the evolution and development of these HRA models, they have not achieved the same level of prominence and importance as other areas of business accounting. This discrepancy is primarily due to the lack of statutory regulations that mandate the inclusion of HRA in an organization's annual report. As a result, the application and recognition of HRA models remain inconsistent and less emphasized in financial reporting and corporate governance.

The absence of regulatory requirements means that many organizations do not systematically adopt HRA practices, leading to a potential undervaluation of their human resources. This gap highlights the need for greater awareness and possibly regulatory intervention to ensure that the true value of human capital is recognized and reported accurately. By doing so, organizations can better appreciate their workforce's contributions and make strategic decisions that enhance overall performance and sustainability.

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