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Human resource accounting: A theoretical note on its origin and growth

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Abstract
Human resources symbolize the potential and skills of individuals contributing to an organization's productivity. Companies invest significantly in developing their workforce to enhance their expertise and efficiency. The crucial role of human resources in driving continuous and rapid company growth is undeniable. The undeniable importance of human resources as a driving force for sustained and rapid company growth necessitates the valuation and reporting of human resources in company reports. This practice is known as human resource accounting (HRA), which aims to reveal the true value of an organization's human capital and communicate it to stakeholders. The purpose of this paper is to underscore the significance of HRA and explore the evolution and development of human resource accounting as an academic discipline. The study follows a descriptive approach. The findings reveal that human resource accounting has evolved over the years, shifting from being a standalone statement to a managerial tool that adds value to the organization. The initiative to recognize human resources in financial records has transformed into a technique enhancing managerial decisions, leading to improved performance and a favourable company image in the market.

Keywords: Human resource accounting, company performance, corporate reporting, human resource valuation

1. Introduction

In the era of globalization, human resources have become a vital determinant of success for corporate enterprises. Just like tangible assets and investments, skilled and specialized human resources are crucial for organizational success. In fact, human resources, equipped with their natural skills and expertise, possess the ability to effectively direct and utilize all other resources for establishing economic enterprises. The rapid expansion of the global service sector, where the knowledge, skills, expertise, and experience of employees and managers are central to a company's success, underscores the need to quantify the value of human resources. Human resource accounting has emerged as a concept rooted in the actual value of human resources rather than a theoretical or notional one. While organizations diligently report their capital and other assets in financial documents, they often neglect reporting human resources beyond considering them as mere costs. Expenditures on hiring, recruiting, training, and developing human resources are typically categorized as costs rather than investments. As the money spent on developing skill and expertise are going to help the organisation in improving its performance. Service industries, in particular, invest significantly in human resources, necessitating better ways to report information about them. The current financial information provided in organizational statements is often insufficient due to various reasons, including the inability to account for and report human resources. Organisations allocate substantial resources to training, development, employee retention, and motivation to enhance performance and efficiency. Hence, establishing a systematic approach to evaluate human resources and measure the impact of managerial activities on their performance, efficiency, and overall contribution to the company is essential. This approach would assist managers in identifying the role of human resources in the company's profits and shaping appropriate HR policies. Measuring human resources allows companies to track the impact of their investments over time. This need has given rise to the development of Human Resource Accounting (HRA), a process aimed at identifying and measuring the cost and value of human resources and reporting this information to facilitate managerial and investment decisions

In this regard, present study has been undertaken to achieve the below mentioned objectives:

- To examine meaning, nature and objectives of HRA.
- To analyse growing significance of HRA in the financialreporting.
- To investigate origin and development of HRA as an field of study.
- To discuss factors restricting application of HRA.

2. Human Resource Accounting- Definition

The concept of human resource accounting was originally introduced by Sir William Petty in 1691, although systematic research on the topic began in 1960 by Rensis Likert. The "American Accounting Association's Committee on Human Resource Accounting" (1973) defined human resource accounting as "the process of identifying and measuring data about human resources and communicating this information to interested parties." HRA encompasses not only the assessment of costs and investments related to employee recruitment, placement, salaries, benefits, training, and development but also evaluates the economic value that individuals contribute to an organization. According to the American Accounting Association (AAA), the purpose of HRA is to augment the quality of financial decisions made within and outside the organization regarding the company's operations. Flamholtz (1971)[11] provided a similar definition, stating that "HRA involves the "measurement and reporting of the cost and value of human resources within an organization." Accountants have now recognised the importance and worth of the workforce of an organisation. Lamenting the lack of HRA reporting, Paton, (1962) [45] observed, "in business enterprise, a well organised and loyal personnel may be a much more important 'asset' than a stock of merchandise….At present, there seems to be no way of measuring such factors in termsof dollars; Hence they cannot be recognised as specific economic assets. But let us accordingly admit the serious limitations of the conventional balance sheet as a statement of financial condition." This awareness of the lacunae of traditional accounting practices paved way for research in the area of human resource valuation and their accounting. Myers (1976) [39] stated that "human resources should be regarded as equal to other physical assets within an organization. They need investment to enhance their productivity. This investment includes expenses related to recruitment, training, and development, which should be recorded as capital investment and spread out over the assumed productive lifespan of the human resource, considering factors like turnover and ultimate degeneration".

HRA originated as an approach to identify, measure and report the human workforce ofan organisation that is lacking under traditional accounting practices. There are several definitions to the term HRA. Some of these definitions are mentioned below.

According to Flamholtz (1974) [15-16] "Human Resource Accounting, refers to the process of recognizing people as a valuable organizational resource. It encompasses the measurement of expenses incurred by business firms and other organizations in activities like recruitment, selection, hiring, training, and development of human assets. Additionally, it involves quantifying the economic value that individuals bring to the organization." This offers understanding about which human resource expenses should be recognized for valuation and reporting purposes. According to Flamholtz, "Human Resource Accounting (HRA) isn't just an accounting system for evaluating the cost and value of individuals within the organization; it also represents a mindset regarding the management of people within formal organizational structures".

Rensis Likert (1967) [34], one of the leading proponents of HRA observes "human asset accounting refers to activity devoted to attaching dollar estimates to the value of a firm's human organisation and its customers' goodwill." He preferred to use the term "human asset accounting" for placing dollar value on the firm. He also included the assessment of customer goodwill into the overall value of the company.

A more inclusive explanation was provided by Brummet, Flamholtz, & Pyle (1969) [8] which states that "HRA is the process of developing financial assessment for people within the organisation and society and the monitoring of these assessments through time. It deals with investments in people and with economic results of those investments. It is a means by which managers are encouraged to give more serious consideration to human resources impacts to all of their decisions. It provides anecessary supplement to conventional income measurement and thus broadens the coverage of measure of financial well-being and financial success of organisation".

According to Bassi *et al*. (1997) [5] "Human resource accounting involves documenting transactions associated with the value of human resources, encompassing the costs incurred to acquire their knowledge and utilize their energy for optimal production of goods and services, ultimately aligning with the organization's objectives".

According to R. L. Woodruff Jr., VP of R G Barry (Flamholtz, 1999) [13] "HRA is an endeavour to identify and report investments made in an organization's resources that are currently not accounted for under conventional accounting practices. Essentially, it serves as an information system that informs management about the changes happening to the human resources of the business."

While these definitions focused on the expenses associated with enhancing human resources, certain authors delved into the 'contribution' dimension of human resources. For instance, Friedman and Lev (1974) [19] and Lau and Lau (1978) [32] view HRA as "a systematic approach for assessing both the asset value of labor and the extent of asset creation resulting from personnel activities. This definition expands beyond acknowledging costs and encompasses the economic benefits linked to human resources".

Initially, Human Resource Accounting (HRA) concentrated on gauging the cost and value of individuals within an organization, involving the identification and measurement of expenses related to acquiring and nurturing human resources. Subsequent research has shifted towards assessing the impact of HRA data on managerial and investment choices. For instance, studies by Hendricks (1976) [26] and Tomassini (1976) [58] emphasizing the significance of HRA data for enhanced managerial and investment choices, stated that it has become acknowledged as a tool that prompts managers to thoroughly assess the human resource implications of their decisions. It acts as a crucial supplement to traditional income measurement, expanding the scope of evaluating an organization's financial health and success Hence the revelation of HRA information-both internally and externally

is now an essential component of Human Resource Accounting. HRA is also considered a crucial element of the management information system. Gupta (1991) [24] defines "HRA serves as an information system that offers managers insights into the dynamic shifts occurring within the human resources of the enterprise over time". This encompasses accounting for investments in personnel, covering their replacement costs, and quantifying the monetary value of workforce within the business. This definition views HRA as an "information system" that aids management in making well-informed decisions.
According to Newman (1999) [41], HRA involves evaluating the competencies of all employees across various levels, encompassing management, supervisory, and ordinary staff, in their ability to generate value through their knowledge and mental capabilities. This definition takes into account the growing significance of the service industry, in which the expertise and intellectual abilities of employees play a crucial role in achieving success. Consequently, HRA isregarded as the wealth of employees' knowledge and intellectual capabilities, contributing to a company's profitability and overall success.
Jasrotia (2002) emphasizes the reporting dimension of HRA, perceiving it as a means to measure and disclose the expenses incurred on workforce and worth created taking them as organizational assets. This perception is based on the recognition that in contemporary corporate investment decision-making, the knowledge and intellectual capacities of employees hold increasing significance. As service industries gain prominence overmanufacturing, the worth of employees' knowledge and intellectual capabilities becomes more crucial than tangible assets in the realm of service delivery businesses.
Based on above discussion, HRA comprises of the following process *viz.*

a. Identification of data on cost and investment in human resources;
b. Measurement and valuation of financial outcomes of this outlay that is measuring the value of employees;
c. Presentation of value of workforce in final reports for internal and external reporting forvarious stakeholders; and
d. Comparing the human resource value over the years to find out what changes are occurring overtime to human resources of business.

In essence, HRA is a structured method encompassing the identification, assessment, documentation, and presentation of the value of human resources within a company's financial documents. Serving as an information system, it enables management to discern and quantify the alterations occurring in the company's human resources. It involves systematically evaluating the value of an organization's human resources, monitoring and recording the changes that transpire over a specific period, and subsequently presenting this data to the users of the company's financial statements. In this manner, HRA comprises three consecutive elements. Figure 1 outlines thesecomponents..

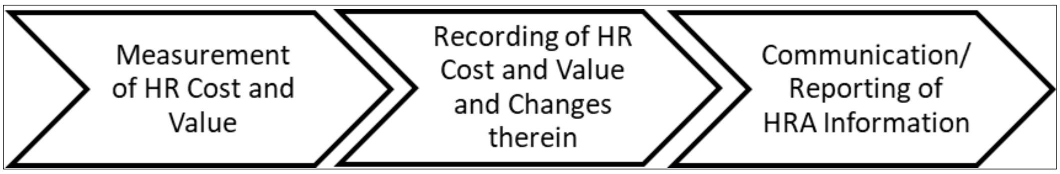

Fig 1: Human Resource Accounting System

HRA operates as an information system that achieves the following objectives: a) assesses and recognizes the expenses and worth of employees within an organization's financial records; b) acknowledges employees as an intangible asset, enabling the precise representation of the company's actual value in an appropriate manner; and c) efficiently conveys this information to financial statement to stakeholders, assisting them in making well-informed decisions.

3. Human Resource Accounting (HRA) - Objectives

There is a continuing debate about the objectives of HRA. An idea that initially started as a thought to givehuman resources their place in books of accounts has now transformed into a technique to improve managerial decisions resulting in improved performance and image of company in market. The aim of HRA extends beyond merely acknowledging the monetary worth of resources controlled by a company; It also involves improving human resource management to enhance products and services manufactured. Flamholtz (1974) [15-16] and McRae (1974) [35], suggest that the focus of HRA is to furnish data for managerial decisions concerning human resources, including recruitment, allocation, development, and layoffs, based on a value-for-money approach.. On a broader perspective the idea is to develop a theory that can identify components representing the valuation of employees and explain the determinants of such components. The objectives of HRA as listed by Rensis Likert (1967) [34] are given below:

a) To enable management personnel to efficiently monitor the usage of human resources.
b) To furnish data relating to employee cost and value thereby assisting in managerial decisions regarding acquisition, allocation, development, and retention of human resources, ultimately facilitating cost-effective organizational objectives.
c) To establish a robust basis for asset control, assessing whether resources are preserved, depleted, or allocated appropriately.
d) To assist in formulating effective principles/practices for managing human resource by categorizing the financial outcomes of different strategies.

In addition to these, some other objectives of HRA are listed below

a) To offer numerical data concerning human resources, that will help the managers and investors in making decision.
b) To assess return on money invested in human resources.
c) To communicate the value of HR to company and other stakeholders.

Implicitly, Human Resource Accounting (HRA) introduces new dimensions to human resource management. The entire process of quantifying and accounting for the value of human resources aids in shaping appropriate management strategies by comprehending the financial implications of different practices. Consequently, research in the field of HRA has been conducted to achieve these goals. Flamholtz (1974) [15-16] a prominent researcher in this area, outlined the following objectives of HRA:

a) To establish methods for measuring the cost and value of human resources, providing a quantitative foundation for managerial decisions. These decisions encompass aspects like acquiring, developing, allocating, compensating, and replacing workforce based on cost-value considerations. Additionally, investors can utilize this measure to evaluate the value of a portion of a company's intangible assets, offering a better basis for assessing the overall enterprise's value.
b) A second purpose of formulating these models is to assess the effectiveness of managerial utilization of human resources. This evaluation determines whether managerial decisions have led to the appreciation, conservation, or depletion of human resources and to what extent.
c) The underlying aim is to construct a theory that can elucidate the nature and factors influencing the valuation of individuals within formal organizations.

Nevertheless, the objectives outlined by the "American Accounting Association Committee" (1973) regarding HRA carry widespread consensus in the accounting community. These objectives are as follows:

a) To create accurate and dependable models for quantifying cost and value of individuals to organizations. This involves researching the development of both monetary and non-monetary methods.
b) To design practical HRA systems for real-world implementation within organizations.
c) To assess the behavioral consequences of HRA measurements on performance and psychology of human resource.

4. Significance of Human Resource Accounting

The application of HRA is beneficial for managers and investors alike as communication (reporting) of HRA information can result in improved investment decisions. Though at times it is argued that putting value on human resources will either demoralise them or instigate them to demand more pay, if their value happen to increase. However, application of HRA will bring positive effect on its employees also, as many motivational theories have discussed that individuals often exhibit enhanced performance when they perceive themselves as significant and by putting a value on them, the organisations are in-fact telling their employees that they are important to the organisation and management is striving hard to increase their value. Human resources are not easily replaceable and hence are more valuable in comparision to any other asset as their replacement is not as easy. As it is observed in many cases that whenever a key person (CEO or key leader) leaves the company the its share value falls which implies that investors perceive human resources as valuable.HRA is in fact not seeking something new but it just aims to put value on record by measuring it properly.

Therefore a well-developed system of HRA could contribute significantly both to internal management decisions and to external investment decisions. Several research studies have investigated the significance of Human Resource Accounting (HRA) disclosures for various stakeholders including investors, employees and managers. Gul (1984)[23] highlighted "the role of human resources as a profit lever in a knowledge economy" emphasizing that employees possess the necessary knowledge, expertise and skills to contribute significantly to the firm's objectives. Steven and Hannie (1993)[55] argued in favor of HRA, stating that employees collaborate and utilize other firm resources to create value, and this transformation through the collective human resources pool is reflected in the firm's profits.

Khan and Ali (2010) [30] conducted a study on users' perceptions of intellectual capital disclosures, emphasizing the need for clear and objective disclosure of information about intellectual capital for better understanding. Many users, according to their research, preferred the reporting of training and development costs. Several studies, including those by Edvinsson and Sullivan (1996), Bontis (2003), and Anam et al. (2011), [10,7,4] have indicated a positive correlation between the management and reporting of human resources and companies' performance and value. These studies concluded that investors tend to have higher expectations for the future earnings of firms with high-quality human resources and vice versa. Huang et al. (2008) [60] found that institutional investors, such as investment managers, bankers, and financial analysts, search for information about management of a company management and resources it owns including human resources. However, these disclosures are inconsistent and not quantifiable and hence incomparable, leading them to rely on alternative sources for necessary information, which can be a costly process for private shareholders. Therefore, Human Resource Accounting (HRA) holds significant importance for managers, investors and employees alike.

Implementation of an effective system of accounting and reporting of human resource can result in several advantages to a company some of these advantages include,

a) Improved morale, motivation and loyalty of employees, by indicating their value in comparison to the cost;
b) Providing data to improve managerial decisions concerning investing and managing human resources for improved outcomes;
c) Inform (though financial statements) that employees are valuable assets;
d) Help measure the efficiency of company's investment on human resources; and
e) Help meet statutory and ideal principle of full disclosure practices and provide comprehensive information on the company's value to investors and other stakeholders.
f) Provide information to investors for informed investment decisions.

Further considering the increasing concern regarding the development of human capital, it has become imperative to develop universally acceptable method for HR valuation, accounting and reporting.

5. Origin, Growth and Development of Human Resource Accounting (HRA)

In the 1960s, behavioral scientists, economists, and accountants realised that while businesses and industries had developed advanced methods for controlling physical assets, an equivalent level of attention had not been given to human resources.

This led to the development of Human Resource Accounting (HRA) as a tool for quantitatively measuring and reporting the contributions of human resources to enhance industrial productivity. The idea of considering people as assets and incorporating them into accounting practices makes sense, especially while considering their potential for future economic benefits and the feasibility of measuring their contributions.

According to accounting historians, Flesher and Flesher (1980) [18], Nash and Flesher (2005) [40] "the beginnings of human resource accounting can be traced back to a medieval European tradition where the anticipated future earnings of a prisoner were computed and weighed against the expenses of his maintenance". During this era, a captive was regarded as the collective asset of the capturing party and therefore after the victory, decision had to be made as to whether to keep the prisoner or kill him depending on cost benefit analysis. If expected benefit outweighed the cost, he was captured but if cost was greater than benefithe was killed. Indeed, back in 1864, Austria and Sweden reached an agreement on the price list (expressed in Taler)of prisoners, ranking field marshal the highest at 20,000 Talers, followed by colonel at 1,000 Talers, cavalry captain at 200 Talers and infantry captain at lowest 150 Talers. Non- commissioned officers and private soldiers were at the lowest end with 16 and 8 Talers respectively.

While this method was rudimentary, it underscores the idea that human resources possess value, and this value can be assessed using a suitable methodology.

The interest in measuring the cost and value of human resources began with economists in the modern world. They aimed to create models for quantifying worth of human resources at the organizational level. This interest piqued the attention of accountants in the early and mid-1960s, making them aware of the potential impact of neglecting such information in their economic and human resources decisions. These concerns from both economists and accountants led to the emergence of a new field in accounting known as Human Resource Accounting (HRA). The initial attempt to assign a monetary value to human beings dates back to 1691 by Sir William Petty. Subsequent efforts in this area were taken by William Farr (1853) and Earnest Engel (1883). Early accounting theorists like Scott (1925) [53] and Paton (1962) [45] supported the idea of treating workforce as assets and accounting for their value. Only in the last five decades, significant efforts have been taken in this direction. This recognition prompted accountants and economists globally to acknowledge the necessity of devising suitable methods and protocols for assessing the cost and value of human resources within an organization. Since then, academic work on the concept of HRA gained momentum. Most prominent among them include Shultz (1960) [52], Hermanson (1964) [27], Pyle (1967) [47], Likert (1967) [34], Flamholtz (1971 to 1999) [11, 13], Schmidt *et al.*(1982) [51], Lev and Schwartz (1971), Friedman and Lev (1974) [19], Jaggi and Lau (1974) [8], Sadan and Auerbach (1974) [50], Morse (1973) [37] and Ogan (1976) [42].

In the early stages of HRA development, a research team comprising Likert, Brummet, Pyle, and Flamholtz (1968) [8] conducted significant research in this area at the "University of Michigan". The research team embarked on a series of projects to conceptualize and develop methodologies for human resource accounting (HRA). It was in these studies that the term "HRA" was introduced. Their primary focus was on utilizing HRA as a tool to enhance managerial efficiency in decisions related to human resources, including acquisition, training, allocation, and utilization. Likert emphasized that long-term planning, with a strong focus on the qualitative aspect of human resources, leads to greater long-term benefits. In 1964, Hermanson [27] proposed an approach known as the 'unpurchased goodwill method' to evaluate human assets. Hekimian and Jones (1967) [25] stressed the importance of incorporating information about human resources in the planning and resource allocation. Prominent accounting organizations such as the "American Accounting Association" (AAA) and the "American Institute of Certified Public Accountants" (AICPA) also expressed support for HRA, noting its potential impact on individuals within both public and private organizations. The American Accounting Association (1966) provided much needed theoretical support for reporting HRA in its theory of basic accounting. It stated that by recognising that costs devoted to such activities as personnelrecruitment and training involves future usefulness that would be recognised in accounting reports if quantifiableand verifiable. Flamholtz *et al*. (2002) [17] has categorised the growth and development of HRA in five stages. Examining recent advancements in the field of HRA over the past few decades indicates that the last stage can be further divided into two segments. An overview of these stages and researchers contributing towards the same is given in Table 1.

Table 2: Stages of HRA Development and main Contributors

Stage	Focus	Main Contributors
I (1960-66)	Primary focus on derivation of concepts of human resource accounting from other theories	Shultz (1960) [52], Hermanson (1964) [27]
II (1966-71)	Primary focus on developing different frameworks for human resource accounting (HRA)	Pyle (1967) [47], Likert (1967) [34], Flamholtz (1971) [11]
III (1971-76)	Experiments to assess practical application of human resource accounting in corporate setting	Lev & Schwartz (1971) [33], Flamholtz (1972) [12], Morse (1973) [37], Friedman and Lev (1974) [19], Jaggi & Lau (1974) [8], Sadan and Auerbach (1974) [50], Myers and Flower (1974) [38]
IV (1976-80)	Minimal research in the field of HRA due to various complex issues involved in valuation and lack of funding by businesses	Ogan (1976) [43], Chakraborty (1976) [9], Flamholtz (1974) [15-16]
V (1980-90)	Renewed global attention towards Human Resource Accounting (HRA) due to the recognition of the vital role played by human resources in fostering growth, profitability, and survival of businesses in service-oriented economies	Schmidt *et al*. (1982) [51], Bayes (1983) [6], Rao (1983) [48], Ferdinand and Gul (1984) [23], Flamholtz (1985),
VI (1990 onwards)	Emphasis on implementation of HRA in business management, with a focus on developing tailored HRA models to meet the requirements of each organization	Telia (1996) [57], Morrow (1997) [36], Patra *et al*. (2003) [46], Kodwani and Tiwari (2007) [31], Sharma (2012) [54], Talebi *et al*. (2012) [56], Okwy and Christopher (2010) [44]

Six stages in growth and development of HRA are explained below

Stage-I: Derivation of Fundamental HRA Concepts from relevant Theoretical Frameworks (1960 - 1966)

During this stage of research, the focus was on exploring and deriving the basic theoretical framework of HRA for developing it as a separate academic field by drawing from various disciplines, particularly psychological and economic theories of capital. Researchers recognized the need to establish a framework that could effectively assess and account for the value of employees within organizations. To achieve this, they turned to insights from fields such as psychology and economics to develop a comprehensive understanding of human capital and its implications for accounting. From a psychological perspective, researchers delved into studies on human behaviour, cognition, and skills development. They sought to understand how individuals' knowledge, skills, and abilities contribute to their productivity and, consequently, the overall operational effectiveness of the organization. Thisunderstanding allowed researchers to explore ways to quantify and represent these assets in financial terms, leading to the development of concepts like "knowledge capital" and "skill-based capital."

From an economic standpoint, researchers examined theories of capital that traditionally focused on physical assets like machinery and equipment. They sought to extend these concepts to encompass the human element, recognizing that they plays a critical role in driving organizational success. This entailed evaluating the relationship between investments in human resources, such as training and development initiatives, and the resulting gains in terms of enhanced productivity and innovation. By integrating insights from psychological and economic theories, researchers began to develop a more comprehensive framework of Human Resource Accounting. They recognized human capital as an intangible asset that adds value to an organization over time, similar to physical capital. However, it required a novel approach to measurement and reporting, as conventional accounting practices were ill-equipped to capture the true worth of human capital.

This stage of research marked the commencement of an ongoing effort to define and refine the concepts of HRA. It laid the groundwork for future studies and discussions on how to effectively recognize and account for human resources' contribution to organizational success. The quest for suitable metrics and methodologies to measure and report human capital's value became central to the evolving field of HRA leading to further developments and improvements in the years to come.

Stage-II: Basic Research in Developing Measurement Models (1966 - 1971)

In this stage of exploration and advancement within the realm of Human Resource Accounting (HRA), attention turned towards formulating diverse models to accurately document workforce within corporations. The objective was to establish inclusive structures capable of encompassing both monetary and non-monetary facets of human resource's worth and expenditure. Scholars acknowledged that conventional financial reports failed to fully represent the genuine value of human capital, a factor increasingly acknowledged as pivotal to organizational triumph. They sought to develop innovative models that would go beyond merely quantifying the cost of human workforce and delve deeper into measuring their true worth. The models developed during this stage encompassed different dimensions of value of human resources:

- **Monetary Value:** These models were designed to measure the concrete financial impacts of human resources on the organization. This process entailed evaluating elements like employee efficiency, revenue generation, and cost reductions arising from enhanced human resource management strategies. Scholars endeavored to assign a monetary figure to human capital by gauging its direct influence on the organization's financial outcomes.
- **Non-Monetary Value:** In addition to the economic contributions, researchers recognized the significanceof non-monetary aspects of human resources. These intangible elements included employee morale, job satisfaction, innovation and creativity. The challenge here was to develop methods for measuring and valuing these intangible contributions in a meaningful way.
- **Cost of Human Resource:** Alongside measuring value, researchers also focused on evaluating the costs associated with human resources. This involved assessing recruitment and training expenses, employee turnover costs, and other expenses related to managing and maintaining the workforce. Evaluating the expense associated with human resources was essential in determining the effectiveness of investments made in human capital management initiatives.

The establishment of these diverse models marked a significant advancement in this field. It provided organizations with a more comprehensive understanding of their human resource assets, enabling them to makeinformed decisions regarding workforce planning, talent management, and performance evaluation. Moreover, these models laid the foundation for future research and refinement in HRA, as scholars continued to explore new approaches for measurement of the value and impact of human workforce on organizational outcomes. As the recognition of human capital's importance continued to grow, the growth of sophisticated models and methodologies for HRA became vital in shaping modern HR practices and strategic decision-making in organizations.

Stage-III: Rapid Surge in Interest regarding HRA (1971 - 1976)

During this period characterized by a significant uptick in academic research on HRA, scholars and researchers directed their focus towards exploring the potential applications of HRA in diverse business organizations. This surge in interest was not confined to the Western World; it extended to countries such as Australia and Japan. Many researchers actively delved into assessing the feasibility and advantages of implementing HRA practices in organizations. Their goal was to quantify and gauge the value of human resources and their impact on the overall financial performance of companies. The "American Accounting Association" (AAA) played a pivotal role during this era by establishing dedicated committees specifically focused on studying human resource accounting. The AAA's involvement acted as a catalyst, stimulating and fostering a continuous flow of research on this field.

The committees within AAA facilitated knowledge sharing, collaboration, and discussion among researchers and practitioners, helping to shape the direction of research in this field. The academic community was driven by a shared goal to comprehend the potential implications of valuing human resources as a strategic asset in organizations. As the interest in the field of HRA grew, scholars explored various methodologies and models to integrate human capital valuation into financial reporting and decision-making processes. They explored methods to quantify the contributions of HR in accomplishing organizational goals and enhancing performance. The studies carried out in this era provided the groundwork for constructing frameworks and guidelines for human resource accounting. Additionally, these findings generated increased curiosity in investigating the connection between managing human capital and the success of organizations. The findings and insights from these studies influenced discussions and debates on the role of HR in shaping business outcomes.

During this era of rapid academic expansion in HRA, a pivotal moment occurred in acknowledging the vital role of human capital within organizations. This period initiated a continual exploration into leveraging human resources to foster enduring growth and attain strategic goals for organizations. The active participation of AAA in encouraging research cemented HRA as a vital area of study within the larger realms of accounting and finance.

Stage-IV Period of Waning Interest of Academia and Corporations (1976- 1980)

This phase was marked by a dearth of research in the field of HRA. The subject encountered several intricate challenges that impeded its progress. The earlier, simplistic model of HRA proved inadequate in addressing the complexities inherent in valuing and measuring human capital. Consequently, insightful pragmatic research and more thorough exploration were imperative to obtain a holistic comprehension of the field. A primary reason for the scarcity of research during this era was the complexity in devising a standardized, generally accepted method for quantifying the worth of human resources. HR, being multifaceted, encompasses a wide array of intangible attributes, such as skills, knowledge, experience, and creativity, which resist easy quantification in financial terms. Consequently, researchers grappled with crafting robust methodologies capable of effectively assessing the contributions of HR to an organization's overall performance.

Another hindrance to research in this area was the lack of consensus among scholars and practitioners regarding the appropriate accounting treatment for human capital. Some argued that human capital must be included as an asset on the balance sheet, while others believed that it should be written off as an expense on the statement of operating results. This lack of consensus created ambiguity and uncertainty around the best practices for incorporating human resource values into financial reporting. Furthermore, the intangible nature of human capital posed difficulties in presenting the findings of human resource accounting research in a tangible and meaningful manner to stakeholders. Communication of the value indicators of HR to investors, shareholders and other stakeholders is a complex task, as traditional financial statements did not adequately capture the full extent of human capital'scontribution to an organization's success. In response to these challenges, scholars acknowledged the necessity for in-depth empirical studies to delve into the intricacies of HRA, aiming to offer more nuanced insights into its potential applications. They realized that a more comprehensive understanding of the subject required in-depth analysis of real-world scenarios, case studies, and longitudinal studies that could capture the dynamic nature of human resources in different organizational contexts.

In this stage, the area of HRA faced significant challenges that limited its progress. The simplistic models and approaches of the past were not sufficient to address the complexities surrounding the measurement and valuation of human capital. Researchers acknowledged the necessity for more extensive empirical studies to develop more sophisticated methodologies and gain a comprehensive understanding of the subject. Thisperiod of minimal research marked a crucial phase in recognizing the intricacies of HR valuation and accounting and laid the groundwork for future advancements in thefield.

Stage V: Resurgence of Global Interest in Human Resource Accounting Theory and Practice (1980 -90)

The transition from manufacturing-based economies to service-oriented economies in many countries sparked renewed interest in the area of HRA. As industries evolved, the role of human workforce became increasingly critical in driving organizational success and competitive advantage. This shift in economic focus led researchers and practitioners to re-evaluate the importance of human capital and its impact on business performance. The growing realization of the worth of HR in facilitating growth, profitability, and the overall survival of businesses further fueled the renewed interest in its accounting and reporting.

Organizations recognized that their employees' skills, knowledge, and expertise played a pivotal role in enhancing productivity, fostering innovation, and establishing sustainable competitive positions in the market. Moreover, the changing landscape of business environmentsemphasized the need to effectively manage human capital. As companies expanded their operations globally, faced increasing competition, and navigated through dynamic market conditions, human resources emerged as a key differentiator in achieving success. The renewed attention of researchers in this area was not only driven by practical considerations but also by academic curiosity. Researchers were intrigued by the complexities and challenges of measuring and valuing human capital, especially in the context of service-based industries. They sought to develop comprehensive frameworks and methodologies to a value an important intangible asset represented by human workforce and integrate them into financial reporting.

However, despite the growing interest in the academic realm, the implementation of HRA in corporate setting remained limited during this period. The complexities involved in accurately measuring and valuing human capital, coupled with the lack of universally acceptedaccounting standards for human resource valuation, made it challenging for organizations to adopt human resource accounting practices in their financial reporting. Moreover, certain organizations hesitated to adopt HRA, citing concerns about its potential impact on financial statements and overall financial performance. The intangible nature of human workforce posed challenges in quantifying its value in monetary terms, causing uncertainties about the consequences of integrating human resource values into financial reports. To sum up, the shift from production to service economies and the growing recognition of the pivotal role of human resources in business success revitalized interest in HRA. Both researchers and practitioners acknowledged the vital importance of efficient human capital management and endeavored to create robust methodologies for measuring and valuing human resources. However, despite academic interest, the practical implementation of HRA remained limited due to complexities and challenges. Nevertheless, this era established the foundation for future advancements in HRA, paving the way for further exploration and progress in the field.

Stage-VI: Research oriented towards Implementation of HRA to Business Management and Decision making (1990 onwards)

During the 1990s, there was a notable shift in focus towards the practical use of HRA information in business management. Researchers and practitioners recognized the potential benefits of integrating HRA information into organizational strategies and decision-making processes. This era marked a significant advancement in the structuring of models that encompassed both tangible and intangible assets, catering to the specific needs of different organizations. The growth of HRA models during this stage is aimed to address the complexities and challenges associated with measuring and valuing human capital. These models sought to capture not only the tangible aspects of human resources, such as training costs and recruitment expenses, but also the intangible aspects, such as employee skills, knowledge, and expertise, which were critical to organizational success.

With the growing awareness of the worth of HR in driving business performance, more and moreorganizations began adopting HRApractices as part of their accounting and reporting processes. HRA provides valuable insights about the organization's human capital investments and the returns on these investments. It allowed organizations to assess the efficacy of their human resource management practices and make informed decisions regarding recruitment, training, and talentdevelopment. Using HRA in financialand managerial accounting practices helped organizations improve their resource allocation and performance evaluation processes.

It enabled them to allocate resources more efficiently, optimize employee skill utilization, andalign human resource strategies with overall business goals. Furthermore, human resource accounting provided a basis for aligning human resource practices with the organization's long-term strategic objectives. Through monetary measurement of the value of HR, organizations could betterunderstand the impact of human resource related decisions on overall business performance and develop strategies to leverage this valuable asset for sustainable growth. The application of HRA in business organisations also facilitated better communication between the HR department andother functional areas of the organization. Human resource professionals could present data and insights infinancial terms, making it easier for top administration and other stakeholders to comprehend the implications of human capital management in achieving organizational objectives.

In conclusion, the 1990s marked a crucial period in the evolution of HRA, shifting its focus from theoretical research to practical application in business management. The structuring of models incorporating both physical and intangible assets provided organizations with a more comprehensive understanding of the worth of their human capital and contribution to business success. As a result, more organizations recognized HRA a valuable tool in financial and managerial accounting practices, enabling them to make data-driven decisions and optimize their human resource strategies for improved organizational performance.

6. Deterrents to HRA

There are certain deterrents restricting the implementation of HRA systems even as it attempts to measure intangibles, and subjective factors. There are certain conceptual barriers as some theorists are of the view that human resources cannot be regarded as assets as companies do not own these. Some behavioural theorists are also against the idea of HRA. They believe that HRA can demoralise human resources by putting a value on them as they may feel themselves like any other asset with a tag. Management too may not like it as it involves sharing a great deal of information with others thereby losing competitive edge. Overall, deterrents can be divided in three categories:

Conceptual Issues

a) **Humans are not assets:** The very first and foremost objection to HRA is that human are not assets owned by the companies. As a company owns its machines, buildings, human resources are not owned by them. Hence the question of valuing them and showing them alongside other assets does not arise at all. Although this objection to HRA is cleared from time to time by pointing out that it is not the persons that HRA is going to value and record, but the value of their services which is to be accounted for.
b) **Dynamism of some industries:** According to Jasrotia (2004) [59], in industries such as information technology, the situation is highly dynamic due to frequent discoveries and technological advancements. Predicting future requirements in terms of knowledge, skills of human resources, and how technology will evolve in the near future becomes challenging in such industries. Other researchers like Flamholtz (1985), Roslender (2004) [49], Abubakar (2006) [1], and Kodwani and Tiwari (2007) [31] have also pointed out that humans have some special attributes, which might be valuable now, but in coming times with change in technology same skill and knowledge may become useless. This makes their valuation complex
c) **Quantification of Human Resources:** According to Jasrotia (2004) [59], contribution of workforce to businesses may be measured, but such measurement

might not be accurate and reliable cent percent. This is due to various reasons such as uncertainty of service period, uncertainty of the impact level of recruits, external factors' influence on the employees' future reward, and inability of resource managers to understand the accounting function.

Application or Practical Issues

a) **Lack of Clear Guidance and Universal Practice/Standard Norms:** Akinsoyinu (1992) [2] and Gates and Langevin (2010) [22] highlighted that the lack of a universal approach to reporting HRA information is a significant obstacle to its widespread application. Lack of standardized definitions makes it challenging to make valuable and meaningful comparisons. Consequently, proactive companies that choose to measure HRA often do it as per their suitability (Gates 2002) [21]. Although it is recognized that there must be room and freedom for companies to take their own initiatives and adapt their metrics to their industry, there should be some standards that could be put in place to help "kick-off" the practice. Not only this, companies use various modelsof HRA. Therefore, comparing companies following different models for HRA valuation would become difficult. Lack of uniform standards necessitated each company to design its own policies, which is a cumbersome process, especially when most companies are already focused on enhancing their core business operations.

b) **Lack of Legislation regarding HRA and Reporting:** According to Jasrotia (2004) [59], there is no legal binding on HRA and reporting the same on the financial statements of an organization in India as well as inother countries. "International Financial Reporting Standards" (IFRS) have also not provided any standardfor HRA and reporting. In India too, the Companies Act, 1956, does not have a provision for the integrating human assets value in the financial statements.

c) **Awareness and Acceptance:** The level of awareness and acceptance of HRA remains relatively low, with many companies showing little initiative to exchange the information with their managers, l*et al*one external stakeholders like shareholders, even though they possess the necessary data.

d) **Reliability of Methods:** According to Jasrotia (2004) [59] companies could misuse HRA to enhance their image. In fact a company could use the information to prop up its image in the investor's mind, and change assumptions, to keep the value positive. Therefore care must be taken to ensure that it is an honest exercise.

Behavioural issues

a) **HR Information too sensitive to be sharedexternally:** According to Akinsoyinu (1992) [2] and Gates (2002) [21], the primary obstacle to reporting human capital externally is the sensitivity of the information, as companies may view it as confidential and not suitable for external sharing. Although many companies do measure their human capital to some extent, they are often hesitant to disclose it in theirannual reports or other publications. This reluctancemay be due to the concern that such information could provide valuable insights to Competitors or be misinterpreted by various stakeholders in a negative manner. Therefore, competitive advantage and sensitivity of such report commercially accounted for non-reporting of the value of human resource by companies.

b) **Lack of Priority:** Companies often do not prioritize the valuation of human assets, as they are preoccupied with more urgent issues like human resource allocation and atrition (Akinsoyinu, (1992; Gates, (2002) [2, 21].

c) **Insufficient Time and Resources:** Human resource managers may not give enough importance to the concept of HRA, and senior management may allocate even fewer resources and time for measurement (Akinsoyinu, 1992; Gates, 2002) [2, 21].

d) **Extensive Research Requirements:** Jasrotia (2004) [59] strongly stressed on the requirement for extensive research works to improve acceptance of HRA. Many companies are reluctant to set up HRA systems for measuring the value of their human resources. While large companies might afford such practices, it may not be economically feasible for small and medium-sized companies.

e) **Lack of Awareness about Clear Return on Investment:** According to Akinsoyinu (1992) [2] and Gates (2002) [21], managers may perceive that establishing formal performance indicators for HRA adds no value to external stakeholders. In other words, many managers do not see a fruitful return on the financial investment and effort required in setting up HRA systems.

f) **Adverse Behavioural Impact on Employees:** Incorrect or improper measurement of human resources under HRA could potentially lead to dehumanization within companies. If the valuation process lacks accuracy or if the results are not used effectively, it may undermine the recognition of employees as valuable assets and reduce their worth to mere numbers on financial statements. It is crucial to handle human resource accounting with utmost care andconsideration to avoid any adverse impact on the employees' well-being and overall work environment. In addition, its adoption of might be viewed as an effort to treat humans as commodities and doubting an individual's abilities, knowledge, talent and experience. There is a possibility that trade unions may oppose the usage of HRA. On another perspective, trade unions may use it as an excuse to raise wages/salaries of employees.

g) **Global and group issues:** According to Gates (2002) [21] and Akinsoyinu (1992) [2], The application of HRA faces challenges related to the issue of autonomy, particularly in global and group companies. In such organizations, different subsidiaries or divisions often operate with varying levels of autonomy, which canmake it difficult to implement a standardized HRA approach across the entire organization. Each unit may have its own unique HR policies, practices, and reporting methods, making it challenging to consolidate human resource data and ensure consistency in HRA measurements. As a result, achieving a unified and comprehensive HRA framework becomes complex, requiring careful consideration and adaptation to accommodate the diverse nature of the organization's structure and operations. While some of the group companies may not have a human resource function in their headquarters and leave the management of human resources to each subsidiary, the global companies has offices in different countries, with some degree of autonomy in their management of human resource. In both cases, there are issues with integrating such information in the Head Office because of differences in requirements either across countries or businesses.

However, many of these problems are of operational or attitudinal nature. These may be overcome by developing objective methods of HR valuation, accounting and reporting. Suitable organizational climate and culture for implementation of HRA can be created by making managers aware of uses of HRA.

7. Conclusion

In the era of globalization, cost-cutting has become a critical aspect for organizations to remain competitive and efficient. Human resources are instrumental in creating a competitive advantage for businesses by ensuring a skilled and engaged workforce, a strong organizational culture, effective leadership, and adaptability to change. A strategic focus on human resources can drive business success and help companies stay ahead in today's competitive landscape. This has led to emergence of Human Resource Accounting (HRA) as a valuable tool to guide organizations in recognizing the significance of their human resources (HR) and incorporating them into their accounting practices. Despite the importance of human capital, its adoption by the companies is very low.

Several factors restrict the widespread use of Human Resource Accounting (HRA) by companies. Firstly, HRA involves complex calculations and methodologies, which can be time-consuming and challenging to implement, especially for smaller organizations with limited resources. Secondly, the intangible nature of human resources makes it difficult to quantify their value accurately, leading to potential subjectivity and lack of standardization in HRA practices. Additionally, traditional accounting practices tend to focus primarily on tangible assets, leading to a lack of awareness and understanding of the benefits of incorporating HRA in financial reporting. Furthermore, the absence of specific accounting standards and guidelines for HRA further hinders its adoption. Finally, some companies may hesitate to disclose sensitive employee-related data for fear of compromising confidentiality and privacy. Addressing these challenges through education, standardization, and innovative approaches could potentially enhance the integration of HRA into corporate accounting practices, enabling businesses to better recognize and utilize the true value of their human capital. As a result, there is a pressing need for accounting bodies at both national and international levels. Therefore, the study recommends that the accounting bodies should collaborate and work towards development of comprehensive accounting standards that address the proper measurement and reporting of human resources in an organization's financial statements. These accounting standards would enable organizations to better understand the value contributed by their human assets, helping them make informed decisions, allocate resources wisely, and effectively manage their workforce.

By integrating human resource data into financial reporting, organizations can gain insights into the real worth of their employees' knowledge, skills, and contributions, thereby fostering a culture of recognizing HR as a valuable asset rather than just an operational expense. Such holistic accounting practices can assist organizations in optimizing their workforce, fostering talent development, and promoting sustainable progress in the dynamic global business landscape. In conclusion, integration of HRA to traditional accounting is imperative to augment the transparency and efficiency of corporate reporting and facilitate well-informed decision-making for organizations operating in a globalized economy.

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