

A Review of Human Resource Accounting and Organizational Performance

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Abstract

Human Resources are important assets of an organization. However, there is no legal regulation for accounting human resources in any of the organization's annual report. The main aim of this review is to study the benefits of HR practices to the firm. This review highlights the theoretical definitions for HRA and challenges faced during implementation of HRA measurement models to predict the organization's performance. The Human Resource Accounting is defined as "the process of identifying and measuring data related to human resource and communicating this information to interested parties" (American Accounting Association's Committee on Human Resource Accounting 1973). However, several challenges are faced by organizations during the execution of HRA. Since disclosures on human assets act as an evidence for wealth creation, it is resisted by several entrepreneurs. Human Resource Accounting helps to calculate the human resource capital, worth of management development, and enhances the value of management accounting.

Keywords: human resource accounting (HRA), intangible assets, human assets, employees, performance measurement

1. Introduction

A group shares a paradigm, shares examples and they share symbolic generalizations when they collectively rely on specific models as suggested by Thomas Kuhn (1996, p.182-4). In accordance to this definition, researcher who advocated the human resources accounting has certainly created a paradigm. Today, HR practitioners agree and realized that the employees are valuable assets and are considered more important than the intangible and physical assets of the organizations. Further, HR people generally agree that assets measured in terms of physical value should be reported in the financial statements of the organizations but not recommended for the organizational human assets reporting. However, due to shift and change in the paradigms it has become a part of the intellectual capital domain to be reported in the accounting statements with the notion that accounting for the value of HR, change the relationship of the organizations (Kuhn, 1962).

In the past decade, there are several studies on human resource accounting (HRA) that focused on wide and diverse range of research concerns. For an instance, researchers have linked a HRA measures with firm or organizational performance (Afiouni, 2007; van der Zahn et al., 2007; Johansson, 2007; Martin-de-Castro et al., 2006; Youndt & Snell, 2004; Roos et al., 2004; Perez & Ordonez de Pablos, 2003). Few others have focused on the valuation or measurement of HRA (Carrell, 2007; Catusus & Grojer, 2006; Burr & Girardi, 2002; Bontis et al., 1999; Boudreau & Ramstad, 1997) while some addressed the issues of regulations, standards or reporting of HRA (Cuganesan, 2007; Bozzolan et al., 2006; Catusus & Grojer, 2006; Roslender et al., 2006). Although several articles have been debated the importance of accounting HR in the organizational performance but still research are not conclusive that HR assets are important in creating value of organizations.

This paper identifies and discusses the different perceptions of HRA. The primary objective of this review is to understand whether accounting HR practices creates value to the firm? In order to answer the question framed, the review will identify the conceptual definitions of HRA from financial accounting perspective by examining the difference in ontological foundations of accounting and HRM's scientific discipline; and basic difference between corporate management and human resource as well as the value of the employee contribution to

corporate performance. Further the challenges faced in studies on predicting organizational performance from HRA measurement models is debated. Finally, the review concludes with remarks on how the present work can be built upon for future research.

2. Accounting for Human Resources: An Introduction

According to the American Accounting Association's Committee on Human Resource Accounting (1973), Human Resource Accounting is nothing but "the process of identifying and measuring data related to human resource and communicating this information to interested parties". From this definition, we could recognize that HRA is not only involved in the measurement of data related to placement, training and development of employees but also involved in the evaluation of financial condition of people in an organization. This has been supported by Flamholtz (1971) who defined HRA as "the measurement and reporting of the economic value of people in organizational resource. "Overall, the HRA can be defined as the process of identifying and measuring data related to human resource for the development and enhancement of economic value of interested parties associated with corresponding organization.

Human Resource is one of the biggest assets of an organization. Unfortunately, there's no legal regulation in any of the organization annual report. Sometimes, the HR value might increase beyond the tangible assets value of organization but conventional accounting method does not facilitate recording and recognizing the HR values. For example, the announcement of Bill Gates retirement from the Microsoft Corporation drastically reduced the share price of the company. But, firm's conventional accounting method suggests no such impact on the financial aspect of the company while in reality the situation is completely different from what is claimed. The primary function of Human Resource Accounting (HRA) is to manage organizational expenditures which provide future benefits for the development of organization. Here the expenditure related to human resource are recorded as assets on the balance sheet contrary to the older system of accounting where these costs are considered expenses that reduce net profit of an organization. In addition, HRA process of measurement has a role to play in any decision making process related of the organization. Though the history of HRA can be traced back to USA, its contribution for the growth of HRA has come from various other countries.

According to scholars and HRA experts, the HR valuation is unsuccessful. This is because, they consider that treating people as assets is incorrect (Mayo, 2004). To execute proper HRA practice, the proponents must aware of two important aspects. First of all, they have to be clear about how their explanation works and also demonstrate how it fix's with other works and accepted theories. For example, their demonstration should answer this simple query "How would a human asset concept fit and work with the other current business concepts? "Subsequently, the proponents should explain how to measure the concept of their theory. These aspects are very basic and important scholarly requirement as for instance, if the asset value could not be measured properly then it is unfeasible to exhibit the value affects of assets.

In general, accounting and finance managers do not agree with the HR evaluation proposals. As a result, HRA asset supporters have failed in terms of implementing HR practices. The main reason for their objection is that the proposed HR accounting practice is extremely varied from the known HR evaluation techniques and thus it is difficult to show that employees meet two tests of an asset. Assets should produce a future income for accountants and can be controlled by organization. But, in the case of human resources, the actual or marginal flow of income has attributed to an inaccurately measured HR values which could not be accepted by accountants and other finance managers. Moreover, the HR assets could not be owned or sold by organization and thus it would differ from other class of assets. Similarly, the widespread perception on knowledge economy has developed the intellectual property concept to include intellectual capital as one of the important assets for the reporting purpose of firms (Guthrie, 2001; Mouritsen et al., 2004; Roslender 2009). This has been supported by Flamholtz et al. (2003) who noted that intellectual capital in the enrolment of investment capital statement is highly emphasized. To incorporate managerial decision making, accounting users should have more accurate information with respect to financial and managerial accounting. Such information can offer additional value to both financial and managerial accounting.

Despite of all such facts, still there is some area that remains elusive in HRA, which is defined by Roslender (2009) as "accounting for people" (AFP) and by Guthrie and Murthy (2009) as human competency accounting (HCA) which intimates the complexity in determining the competency of employees (Roslender & Dyson, 1992; Mayo, 2005; Verma & Dewe, 2008). In spite of the mutual efforts, there has been a continuous aloof among the accounting and financial professionals on the subject of "human resources". A general argument among financial and accounting experts is that the human assets measurement often deals with more subjectivity than physical assets measurement and this issue makes them to be excluded from financial statement. As intellectual property

capitals are considered as the major reporting elements, there may be chances for moving beyond such debates. For instance, the concept of intellectual capital is considered as crucial in reporting the value of company's intellectual assets. In spite of all these factors, this context is highly focused on the general evaluation issues like dilemma on capitalizing or expending investment in HR and whether human resources meet the criteria of assets with respect to accounting sense.

Based on a survey conducted with business professionals, Khan et al. (2010) revealed that most Human Resource directors consider healthy workforce as an important asset. But the accounting and financial experts who worked in private sectors were found to have least concern about the well-being of the employees. Considering all such concerns, Covaleski and Aiken (1986) said "no theory gave greater impetus to the need for accounting in organizations than Taylor's scientific management". Due to influence of economics, there is much emphasis on monetary measurement since it is believed to lead to a dominant financial reporting regarding the perspectives of company's performance measurement, managerial control and efficacy (Hopper et al., 2001). However, such emphasis on monetary measurement hasn't been applied to the context of human resources.

Considering human as assets has become morally repulsive following the abolition of slavery. As a result, it is expected that it would take more time to apply this concept in accounting agenda. With the liberation of the eighteenth century debates, humans have been excluded from financial statements. But since company's production lacks human contribution, as evidenced in the financial statements, has probably made the recognition and rewarding of employees' contributions more challenging. The present debate after the Second World War is focused on the question whether humans can be considered as assets; this contention is based on 18th and 19th century ideals. Since the labour cost is seen as an expense rather than acknowledged as an asset it could be considered to be in line with the consumer model followed by the modern capitalist economies.

Similar to the field of accounting, HRM is also found to be influenced by economics and scientific management thinking, as it is a scientific field of inquiry. As a result, the resource based view (RBV) of the firm has become popular in recent years. The main objective of the RBV is to provide accurate information on how certain rare, peerless and unique source could provide competitive advantage (Verma & Dewe, 2008). In HRM literature, various studies are available on the contribution of HR for improving productivity and performance of the firm (Boxall & Purcell, 2000). But, there is no adequate information on the role of HR measurement on firm's growth (Bowen & Ostroff, 2004). Thus HR and accounting could share a common theoretical base but there is a lot of confusion and assumption in terms of people. For example, in accounting literature, the term "human resource" has traditionally denoted as "human assets". But the term "human resource" was chosen to replace "personnel" to indicate employees within the firms. At last, these issues have come to an end in 1980 and both HR and accounting are being mentioned in the name of "human capital".

In spite of all such different perspectives, HRA suggests how to combine the different professional concerns while looking for a solution. Basically, accounting has involved with reporting and managing non-human resources by means of developing accurate rules and regulations. Likewise, Human resource has involved with the development of financial benefits by means of improved training and other HR related system and practices. In fact, HRA has also involved in the progress of managerial decision making and at the same time, it provides supporting data to HR managers for the development of human resources. Though the adoption of HRA practices has been accepted only to a small extent, most of them are arguing that metrics such as ROI may lead to the failure of the HR professions (Pfeffer, 1997). As a result, the adoption of more economic and less welfare-oriented perspective has become questionable (Rynes, 2004).

Accordingly, the emerging fields including HRA has demonstrated the migration of knowledge across the artificial edifices those have been erected by scientific disciplines (Daft & Lewin, 2008). Moreover, HRA assists the proponents to seek an accurate way to determine the competency of employees as well (Roslender & Dyson, 1992). In order to implement effective HRA practices, it is essential to focus three main settings: (1) profound knowledge on human resource cost, values, outcome and how to calculate these (2) high management demands (3) high target settings. Finally, it is essential to execute HRA from strategic-management perspective.

3. Issues in HRA Measurement Models

In the progression of Human Resource Accounting, researchers have centred on the theoretical aspects ingrained in calculating the worth human resources. HRA can be calculated pertaining to human resource outlay or according to human resource worth. In accordance to Flamholtz's method for the calculation of fundamental human resource outlay (1973, 1999, p. 59), human resource outlay could be described as two main classifications acquisition costs and learning costs where acquisition costs comprises of direct expenses of staffing such as enrolment, choosing, appointment and assignment, and indirect expenses of promotion or hiring

from inside the establishment. Learning costs comprises of direct costs like official training and guidance and on-the-job instruction. In a HRA structure, acquisition and learning costs are considered as benefit accounts with assures fiscal advantages in the years to, hence are not seen as expenditures. Flamholtz (1999, p. 160) stated that the notion of human resource value is got common economic value theory, and similar to all resources individuals have value as they have the capacity to offer services in the years to come. Therefore like Flamholtz states, a person's worth to an establishment could be described as the current worth of the potential services the person is anticipated to offer for the time frame the person is projected to stay in the establishment. The Stochastic Rewards Valuation Model, initially formatted by Flamholtz (1971) for human resource assessment, and described in more detail in Flamholtz (1999), consists of a five stage procedure that starts with describing the different service or institutional posts that a person could hold in the establishment. The following stage is to decide the worth of every post to the establishment, the service state values that could be measured by utilizing several means like the price-quantity approach or income approach. Further the individual's anticipated stay in service in the establishment is measured and the personnel's mobility likelihood or the likelihood of the individual holding every probable position in the specific years to come is calculated from archival statistics. After that, the anticipated cash flows in the years to come, that the individual produces are marked down so as to decide their current worth. As per Flamholtz (1999, 160-161), one can note a dual characteristic to a person's worth. Initially, the individual's "anticipated conditional value," is the extent the establishment can possibly attain from their employment if the individual retains institutional membership all through the time of their useful employment tenure. Secondly, the individual's "anticipated realizable value," is the quantity really anticipated to be obtained, considering the individual's probability of turnover.

Sveiby (1997) suggested a different means for calculating intangibles termed "Intangible Assets Monitor." The 'intangible assets monitor' recommends a method for calculating intangible resources like the capability of a staff member, in-house composition like patents and patterns, and the exterior composition of the establishment like correlation with consumers and the like. This method incorporates pointers of development and restitution, and pointers of competence and constancy. Nevertheless, utilizing Flamholtz method, Flamholtz, Bullen & Hua (2003) revealed a convenient methodology for measuring ROI on management advancement and revealed the increased funds flows that an establishment will get owing to investing in management advancement. The literature summarized that employing Human Resource Accounting as an instrument to calculate the worth of management development improves the worth of human resource capital and enhances the value of management accounting. Parallel to Flamholtz's method, yet another previous method of human resource value assesses human resource by measuring the current worth of an individual's earning capacity in the years to come (Lev & Schwartz, (1971). Dobija (1998) suggests a different method for capitalization, wherein the proportion of capitalization is decided with the help of natural and the societal circumstances of the surroundings. Employing a multifaceted interest attitude, this methodology considers three features for valuing the human resource personified in an individual. These comprise of capitalized value of living expenses, the capitalized value of educational expenses to get professional qualifications and the value attained with experience. Turner (1996) puts forward a different theory, where he points out to the structure released by the International Accounting Standards Committee and suggests the utilization the current value of the value added by enterprise, and calculates resources by the four methodologies, such as historical outlay, present outlay, realizable worth and current worth. Cascio (1998) suggested a methodology for calculating human resource on the basis of pointers of human resource of innovation, personnel attitudes and the record of well-informed staff members. As per this methodology, modernization decrees a premium and thus requires to be calculated, for instance, by contrasting gross profit margins from latest goods to the profit margins from existing goods. Staff approaches envisaging consumer contentment and retention are significant pointers of human resources and consequently require to be calculated, in addition to measures of term, proceeds, experience and learning.

One explanation pertaining to the part of Human Resource Accounting suggested by investigators is connecting HRA to the Balanced Scorecard, for example, Johanson and Mabon (1998). By connecting the two, HRA will be grounded on business approach and the Balanced Scorecard can utilize the means that were formatted by HRA. A symbolic correlation between the two features would offer the needed recognition to HRA in business planning and the Balanced Scorecard will be extremely competent when it utilizes the weathered methods formulated by Human Resource Accounting. Although investigators happen to accept the notion of connecting the two theoretically, there is difference of opinion on the means that could be utilized to attain this. Flamholtz and Main (1999) suggest a different approach for grounding HRA in business policies. As per this method, one can note six important features of institutional functioning, comprising of markets, goods, assets, functioning structure, management structure and tradition. Yet another crucial feature comprises of fiscal outcomes of an establishment. Generally, one can note seven aspects or important outcome fields that require being observed and

kept in control by the administration of the establishment. Measurement is a vital element of control and HRA might hence be a helpful instrument for assessing human capital that consequently will be of use to the establishment, for efficiently controlling and managing human capital.

Lev (2001) in his ground-breaking book, 'Intangibles', talks about human capital as being one amongst several intangibles, that maybe the most difficult to calculate. Intangibles frequently have constructive response impacts, that is, employing them in one field could in reality augment benefits in another area. This is termed as the network advantages. For instance, the personnel who currently get training may eventually train others. Nevertheless, the worth of intangibles in common and human capital in specific is hard to calculate owing to difficulty in being purchased and sold and the absence of control over advantages in the years to come. The personnel oriented by one firm might eventually seek employment in another firm. In the event of this taking place the value generated by orienting the employee is not attained totally by the first firm that trains the employee. The value "spills over", as it is termed, as the investment in training the employee goes to the second firm that employs him. Nevertheless, 'spill over' setback offers human resource managers with a distinctive chance to augment company value. If human resource strategies are built to decrease spill over, additional value from orientation is effectively held within the establishment. Effort should be taken to decrease spill over, this could take the strategy of particular instead of generalized training (Becker, 1975), strategies structured to augment worker allegiance that brings about decreased turnover and service agreements that hold "no compete" clauses.

4. HRA and Organizational Performance

Numerous investigations centred on showcasing a connection Human Resource Accounting methods and organization or company performance (Afiouni, 2007; van der Zahn et al., 2007; Johansson, 2007; Martin-de-Castro et al., 2006; Youndt & Snell, 2004; Roos et al., 2004; Perez & Ordonez de Pablos, 2003). Additionally investigations were also centred on the impact of HRA knowledge on decision making (Herman & Mitchell, 2008; Flamholtz et al., 2003; Ogan, 1988; Chris Dawson, 1994; Flamholtz, 2004; Lev & Schwartz, 1971; Elias, 1972; Hendricks, 1976).

Herman and Mitchell (2008) illustrated the way to report under a human capital liability concept which corresponds with the conventional accounting structure of contingent liabilities; scrutinize the fiscal influences of these reporting on market assessment, internal scheduling and investigate extents of human resource liabilities. Based on appraisals of fiscal influences of human resource liability reporting, the investigation rationally widens the findings to back the projected concept. The investigation offers backing for the possibility and necessity to take up a human resource liability concept for valuing, reporting and organizing human capital. Flamholtz et al. (2003) employs Human Resource Accounting method of anticipated realizable value, and noted that workers' involvement in a management development program improved the worth of the people to the company. Additionally the investigators found that HRA methods offered upper level executives with an different accounting structure to calculate the outlay and worth of workers to an establishment. Therefore HRA symbolized a concept or a method of looking at human resource decisions, and the group of methods for enumerating the influences of human resource management plans on the outlay and worth of individuals as institutional assets.

Chris Dawson (1994) illustrated a correlation between two narrow methods of HRA – the replacement cost model (RCM) and the stochastic rewards valuation model (SRVM). Researchers concentrated on the functioning of the two methods and further the analysis utilized by executives in deciding or getting at the data. He further talks about the common advantages and restrictions of simulation methods and the way they correlate to prescriptive and descriptive attitudes to the investigation of management. Ogan (1988) stated that the findings a case study formulated to evaluate the influence of HRA data on layoff actions taken by executives. The results of this investigation reveal that HRA data, in fact has an impact in staff layoff decisions and allows managers to augment their degree of self-assurance pertaining to decisions of this kind. Tomassini (1977) offered to a sample group made up of accounting students, conventional monetary data and data comprising HRA. Human Resource Accounting data resulted in extraordinary dissimilarities in decision-making. Hendricks (1976) conducted a research utilizing accounting and finance students as subjects. His simulated depositors completed two stock investment/capital allocation decisions, one with and one without human resource cost statistics. In this investigation, HRA showed a significant influence on adopted decisions numerically.

Schwan (1976) measured the outcome of human resource cost methods on banker decision-making. He noted that the including HRA information in published financial statements lead to, considerably dissimilar grading of management's awareness to confront problems and chances they may face in the years to come and numerically

diverse prophecies of a company's net income. Acland (1976) choice an example of 500 financial analysts and supplied fiscal reports for a few of them and reports having behavioural indexes to a few other analysts to enable them to decide on investments in one or two firms. Inclusions of behavioural data ensured that a few analysts might make decision dissimilar to the ones who were only given financial statistics. This dissimilarity was seen in the analysts who had got HRA data along with behavioural indexes. Examination was done on relative influence of revelation of HRA financial data as compared to non-monetary data. Flamholtz (1976) requested professional accountants to choose between two individuals for taking up a post. He supplied three types of data to the accountants, conventional data about performance, non monetary data about HRA and monetary data about HRA. This data was supplied for three cases A, B and C correspondingly to the accountants. Contrasting to Flamholtz's anticipation, non-monetary data had influence on decisions. Nabil Elias (1972) offered 2 sets of financial reports, that is, one was a conventional report and the other having HRA data, in his investigation to the example comprising accounting students, financial analysts and accountants. Investigative findings revealed that HRA data had wholesome influence on decisions numerically, though the correlation between HRA data and the taken decisions were not strong. Moreover the findings revealed that circumstances and experience of peoples' variables did not have any influence on decision-making on the basis of HRA data.

5. HRA Reporting Challenges

It is evident that organizations face several challenges during the HRA implementation. A case study of an Australian bank's human capital disclosures was provided by Dumay and Lu (2010). It describes the investigation of such exposed disclosure by both external and internal stakeholders. According to Dumay and Lu (2010), the adversarial stakeholders can question the firm or even change the management and disrupt the balance between staffs and management if the organisation fails to implement the rhetoric obtained from the above-mentioned disclosures. In November 2005, based on the repealing of human capital law, Roslender and Stevenson (2009, p. 861) stated "genuinely shocked interested parties and led to widespread criticism." As a result, these disclosures placate the individuals from accounting profession, especially the auditors (Roslender & Stevenson, 2009). The studies by Foong et al., (2003) describe the rationale for resisting these disclosures by entrepreneurs. The disclosure of HR information may act as a proof for wealth creation and hence this may result in increased bargaining power for both unions and employees. The critical accounting theory supports these findings. According to critical accounting theory, accounting numbers quantify the events and are used to subjugate the labour by the firm owners.

A survey was conducted by Verma and Dewe (2008) to recognise and explain the perceptions of human resources and their practices in different organization sectors of UK. A number of respondents considered the human resources measurement as vital to the organization. However, it was expected that a little or considerable improvement will occur in the measurement practices of human resources in the upcoming years. This is due to the following reasons: uncertainties in the reporting areas; sensitivities in the reporting areas; less accuracy in present measurement techniques and lack of organizational support. However, several HR personnel are not considering human capital as a fundamental element of intellectual capital. This can be illustrated by a job title mentioned in an editorial issue of a US journal, Human Resource Management (Welbourne, 2011, p. 168): "Head of human capital strategy & workforce analytics". Human capital-centric organization acts as a competitive advantage source (Lawler III, 2009). Lawler III stated that "Unlike experts in finance and experts in accounting, experts in HR typically are not on [company] boards". As per the act of US Sarbanes-Oxley, every US publicly listed organizations should have a qualified, financially experienced board member. However, the HR department does not have any such standards. This clearly reveals that organizations face several challenges during the implementation of HRA.

6. Conclusion from the Review and New Directions

From the review, it is clear that firms particularly lawyers, corporate acquisition specialists, accountants, company management and in addition to HR professionals are not willing to execute HRA. This may be the factor for less number of researches conducted in this topic. However, a majority of preliminary research conducted on this topic have been successfully completed. Further research on developing HRA was complicated since it requires the organization's cooperation to act as research sites for the purposed study. Hence, only few major studies were conducted in this field. In addition to this, this research involves the HRA implementation in organizations, and hence the cost of operation is high. The benefits of HRA implementation to the sponsoring firm and also to the field are not certain. This study includes the adaption process of HRA technology and can be extended to evaluate the different types of intellectual property. The HRA implementation helps to improve managerial decisions like layoffs, better performance evaluation measures of the firm and also acts as a guide during buying, selling and merger transactions.

7. Conclusion

Human resources are considered as building blocks for any organization. Firstly, it is necessary to identify the contribution of the employees to the firm. Then, the evaluation measures of “human resources” are carried out. The task of assessing the human resources is daunting. There are no precise evaluation measures to assess the human resources. However, by measuring these intangibles even though imprecise, it will help improved decision making on evaluating the value of the firm.

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