Globethics Repository



Human resource accounting and international developments

This page was generated automatically upon download from the Globethics Repository. More information on Globethics see https://www.globethics.net. Data and content policy of Globethics Repository see https://repository.globethics.net/pages/policy.

Item Type	Article
Authors	Bullen, Maria L.;Eyler, Kel-Ann
Publisher	Academic and business research institute
Rights	With permission of the license/copyright holder
Download date	2026-11-12 18:06:58
Link to Item	http://hdl.handle.net/20.500.12424/176556

Human resource accounting and international developments: implications for measurement of human capital

Maria L. Bullen
Clayton State University

Kel-Ann Eyler
Wesleyan College

Abstract

Human Resource Accounting (HRA) involves accounting for expenditures related to human resources as assets as opposed to traditional accounting which treats these costs as expenses that reduce profit. Interest and contributions to growth in HRA have been evident in a number of countries. The strong growth of international financial reporting standards (IFRS) is an indication that the environment for international financial accounting is one that potentially encourages the consideration of alternative measurement and reporting standards and lends support to the possibility that future financial reports may include nontraditional measurements such as the value of human resources using HRA methods.

Keywords: Human Resource Accounting, Human Capital, Intellectual Capital, International Accounting, International Financial Reporting, International Financial Reporting Standards

Introduction

Human Resource Accounting (HRA) involves accounting for the company's management and employees as human capital that provides future benefits. In the HRA approach, expenditures related to human resources are reported as assets on the balance sheet as opposed to the traditional accounting approach which treats costs related to a company's human resources as expenses on the income statement that reduce profit. HRA suggests that in addition to the measures themselves, the process of measurement has relevance in decision-making involving organizations. Although the origins and early development of HRA occurred mostly in the United States, interest and contributions to growth in the field have been evident in a number of other countries. This paper provides a brief overview of HRA from an international perspective.

In recent years, the financial reporting standards used in the United States, often referred to as Generally Accepted Accounting Principles (GAAP), have been moving toward adoption of more complex measurement methods compared with the traditional historical cost approach to asset measurement. The strong growth of international financial reporting standards (IFRS) is another indication that the environment for financial accounting reporting is one that potentially encourages the consideration of alternative measurement and reporting standards. Accountants and others in the financial reporting environment have become accustomed to using more complex measurement approaches to the financial statement reported amounts. This would lend support to the possibility that future financial reports may include nontraditional measurements such as the value of human resources using HRA methods.

Early Developments of HRA in the United States

Research during the early stages of development of HRA was conducted at the University of Michigan by a research team including the late organizational psychologist Rensis Likert, founder of the University of Michigan Institute of Social Research and well known for his work on management styles and management theory (Likert, 1961, 1967), faculty member R. Lee Brummet, and then Ph.D. candidates William C. Pyle and Eric Flamholtz. The group worked on a series of research projects designed to develop concepts and methods of accounting for human resources. One outcome of this research (Brummet, Flamholtz & Pyle, 1968a) was a paper representing one of the earliest studies dealing with human resource measurement-- and the one in which the term "Human Resource Accounting" was used for the first time. Brummet, Flamholtz & Pyle (1968b) also published another article in which they assessed the impact that HRA can have on management. Flamholtz's (1969) Ph.D. dissertation, an exploratory study in the area of HRA, developed a theory of an individual's value to an organization and how it could be measured though HRA. Brummet, Flamholtz & Pyle (1969) focused on HRA as a tool for increasing managerial effectiveness in the acquisition, development, allocation, maintenance, and utilization of its human resources. The authors' work represented one of the first attempts to develop a system of accounting for a firm's investments and studied the application of HRA in R.G. Barry Company, a public entrepreneurial firm.

The early work in HRA provided inspiration for the next phase of early HRA development, basic academic research developing measurement models. Interest in HRA was evident in the many studies conducted since its inception, as noted in Sackmann, Flamholtz &

Bullen (1989), Flamholtz, Bullen & Hua (2002), and Flamholtz,Kannan-Narasimhan & Bullen (2004.

Human Resource Accounting and International Financial Reporting Standards

In recent years United States GAAP has been moving toward adoption of more complex measurement methods in financial reporting compared with the traditional historical cost approach to asset measurement, including a focus on the measurement of the time value of money and present value calculations. Meeting, Luecke & Garceau (2001, p. 57) indicate that in many cases the expected cash flow approach is a better measurement tool than traditional methods, and that CPAs should use it to report asset and liability values in the absence of specific contractual cash flows. Certain current assets are now reported at their fair market values at each balance sheet date, and many items on the balance sheet that are noncurrent are measured at the present value of the estimated future cash flows. Campbell, Owens-Jackson, & Robinson (2008, p. 31), note that fair value accounting, which SFAS No. 157 requires in some areas of financial statement reporting starting in fiscal years beginning November, 2007, attempts to calculate and report the present value of future cash flows associated with an asset or liability.

As accountants have become more accustomed to complex measurement approaches, some similar to the approaches taken in developing HRA value measures, it seems reasonable that nontraditional HRA measures may become more accepted in future financial reports. In addition there has been increased interest in accounting for intangible assets in financial reporting by both the Financial Accounting Standards Board and the Securities and Exchange Commission. As noted in Flamholtz, Bullen & Hoa (2002, p. 948), since human resources are a primary component of intangible Assets, the state is being set for a renewed interest in HRA from a financial accounting perspective.

U.S. GAAP is not the only set of financial accounting standards affected by these developments. In fact, the Securities and Exchange Commission (January 4, 2008) recently announced in November 2007 that non-U.S. companies listed on the U.S. stock exchanges could use International Financial Reporting Standards (IFRS) instead of U.S. GAAP, and if they choose to use IFRS, would no longer be required to provide a reconciliation between their reported numbers and U.S. GAAP. Additionally, the Securities and Exchange Commission (November 14, 2008) released a "roadmap" of proposed dates by which U.S. based publicly traded companies would be expected to adopt the IFRS in the future. However, in recent months, the adoption of the IFRS by U.S. companies has been strongly debated, and it will be seen in the years ahead whether this materializes. Yet, the consideration of international reporting standards is another indication that the environment for financial accounting reporting is one that potentially encourages the consideration of alternative measurement and reporting standards.

Since 2001, the International Accounting Standards Board (IASB) has been developing and promulgating the IFRS (International Accounting Standards Board, 2009). Prior to 2001, the International Accounting Standards Committee (IASC) issued International Accounting Standards (IAS), which were adopted initially by the IASB when it replaced the IASC. While the IFRS do not currently have standards requiring HRA, it could be argued that they are moving closer to providing more flexible approaches to accounting measurements and reporting. For example, the international standards IAS 38 Intangible Assets and IFRS 3 on Business Combinations allows for the recognition of the intangible asset goodwill, which indicates a

willingness to allow for valuation of assets that are not traditional tangible assets, such as human resources. The valuation of goodwill often involves complex assessments of fair values as well as periodic reassessments to determine whether the fair values have become impaired. These more difficult and challenging measurements of goodwill and other fair values are similar to some of the challenges documented in the past related to the measurement of human resources, particularly when using the value approach to HRA. Thus, the movement toward fair value accounting seen in recent years for both U.S.GAAP as well as for international standards indicates a more sophisticated approach to the measurement of assets, tangible as well as intangible. This might suggest a willingness to recognize the need for, and consider the measurement and use of HRA in future external financial reporting.

Human Resource Accounting in Managerial Reporting and Decision-Making

In addition to external financial reporting, HRA may be useful as a managerial tool to aid in making managerial decisions that will benefit the long-run strategic goals and profitability of the company. As opposed to external financial reporting, managerial reporting does not require adherence to a strict set of GAAP in specific financial statements in acceptable format reported to the public (Bullen, 2007, p. 89). However even if human assets are not reported on the face of external financial statements, HRA can play a crucial role in internal managerial decision-making, and HRA measures can be used to show that investments in a company's human resources may result in long-term profit for the company (Bullen, 2007, p. 89).

When managers go through the process of HRA measurement treating human resources as capital assets, they are more likely to make decisions that treat the company's employees as long-term investments of the company. Flamholtz (1979) describes the HRA paradigm in terms of the "psycho-technical systems" (PTS) approach to organizational measurement. According to the PTS approach, the two functions of measurement are: 1) process functions in the process of measurement and 2) numerical information from the numbers themselves. Whereas one role of HRA is to provide numerical measures, an even more important role is the measurement process itself. The HRA measurement process as a dual function attempts to increase recognition that human capital is paramount to the organization's short and long-term productivity and growth. When managers go through the process of measuring human resources, they are more likely to focus on the human side of the organization and are more likely to consider human resources as valuable organizational resources who should be managed as such (Bullen, 2007, p. 89).

For example in a potential layoff decision, with use of HRA measures in addition to only traditional accounting measures, management is better likely to see the hidden costs to the company's human resources and the long-term implications to the human assets. This is because HRA views human resources as assets or investments which must be maintained for long-run productivity (Bullen, p. 90). Layoffs may affect future long-term profits from lost productivity, costs of rehiring and retraining when business returns, and costs of lower morale of existing workforce. If management quantified the actually costs of layoffs, management might be less inclined to use layoffs as a way to cut costs and boost short-term profits at the expense of long-run productivity and profits (Bullen, p. 90).

Flamholtz, Bullen & Hua (2003) utilized the HRA measure of expected realizable value, and found that employees' participation in a management development program increased the value of the individuals to the firm. In addition the authors noted (p. 40) that the HRA measures provided upper level management with an alternative accounting system to measure the cost and

value of people to an organization. Thus HRA represented both a paradigm or way of viewing human resource decisions, and the set of measures for quantifying the effects of human resource management strategies upon the cost and value of people as organizational resources

Davidove & Schroeder (1992) indicate that too may business leaders have no generally accepted definition or accounting procedure for tracking training investments, and note that a lower training investment is not automatically better for an overall return on investment. The authors suggest that although many business leaders still view training as an overhead expense, with thorough ROI evaluations training departments can convince business to view them as partners in creating the assets crucial to organizational success.

Other authors have expressed similar views suggesting the benefits of HRA measurements and the process of measuring human resources. For example Johanson & Mabon (1998) indicate that expressing human resource interventions in financial terms and /or cost benefit terms is more effective than using soft accounting information such as data on job satisfaction. Because the classical function of accounting is the determination of the value of the economic activity, performing analysis with hard numbers such as cost-benefit analyses helps us determine how resources should be used by human resources for various interventions. Toulson & Dewe (2004) conducted a survey study utilizing component analysis and found two reasons why measuring human resources is important. The first is that measurement reflects the strategic and competitive importance of human resources, and the second suggests that to earn credibility, human resources must be expressed in financial terms. McKenzie& Melling (2001) suggest that, if properly implemented, the human capital planning and budgeting process will become a key driver of strategy in that strategic human capital planning and budgeting ensures that the best resources are mobilized for each internal process They indicate that too often organizations focus 100% on meeting the financial budget first without consideration of the effect the cost slashing will have on strategy, and note that the financial numbers are a lagging indicator of where a firm has been and should not be substituted for leading indicators of where the firm is going. Rather management should focus clearly on causal, leading indicators that drive successful financial measures, and that it is through skills-based budgeting that the fallacy of financial focus can be avoided.

Moore (2007) suggests that the value of human capital should be more fully considered when making decisions about the acquisition and disposal of people—and notes that the accounting practices currently employed by companies can have an undue influence in driving the strategic decisions of these companies. Moore notes that there are parallels between the process of acquiring an employee (a human capital asset) and that of acquiring a fixed capital asset. However while most companies acknowledge the contributions of its employees, they do not think of the acquisition or disposal of human capital assets in the same way or with the same thoughtful planning or strategic thinking as they do fixed capital assets.

HRA Measurement Models

Human Resource Accounting may be measured in terms of human resource cost or in terms of human resource value. According to Flamholtz's model for measurement of original human resource costs (1973, 1999, p. 59), human resource costs may be explained in terms of the two major categories of acquisition costs and learning costs. Acquisition costs include the direct costs of recruitment, selection, hiring and placement, and the indirect costs of promotion or hiring from within the firm. Learning costs include the direct costs of formal training and

orientation and on-the-job training. In a human resource accounting system, these costs are reported in asset accounts with future economic benefits rather than as expenses.

Flamholtz (1999, p. 160) noted that the concept of human resource value is derived from general economic value theory, and like all resources people possess value because they are capable of rendering future service. Thus as Flamholtz notes, an individual's value to an organization can be defined as the present value of the future services the individual is expected to provide for the period of time the individual is expected to remain in the organization. The Stochastic Rewards Valuation Model, originally developed by Flamholtz (1971) for human resource valuation, and further explained in Flamholtz (1999), is a five step process that begins with defining the various service states or organizational positions that an individual may occupy in the organization. The next step is to determine the value of each state to the organization, the service state values, which can be calculated either by using a number of methods such as the price-quantity method or the income method. Then the person's expected tenure or service life in the organization is calculated and the person's mobility probability or the probability that a person will occupy each possible state at specified future times is derived from archival data. Next the expected future cash flows that the person generates are discounted in order to determine their present value. According to Flamholtz (1999, pp 160-161), there is a dual aspect to an individual's value. First, the person's "expected conditional value," is the amount the organization could potentially realize from his or her services if the person maintains organizational membership during the period of his or her productive service life. Second, the person's "expected realizable value." is the amount actually expected to be derived, taking into account the person's likelihood of turnover.

Using the Flamholtz model, Flamholtz, Bullen & Hua (2003) showed a practical method for calculating ROI on management development, and showed the incremental cash flows that an organization will receive due to investment in management development. The article concluded that use of HRA as a tool to measure the value of management development enhances not only the value of human capital but also the value of management accounting.

Similar to the Flamholtz model, another earliest model of human resource value measures human capital by calculating the present value of a person's future earnings (Lev & Schwartz, (1971). Dobija (1998) proposes an alternate model for capitalization, where the rate of capitalization is determined through the natural and the social conditions of the environment. Utilizing a compound interest approach, this method takes into account the three factors for valuing the human capital embodied in a person. These include the capitalized value of cost of living, the capitalized value of the cost of professional education, and the value gained through experience. Alternately, Turner (1996) refers to the framework issued by the International Accounting Standards Committee and recommended the use of the present value of the value added by enterprise, and measures assets by the four methods of historical cost, current cost, realizable value and present value. Cascio (1998) proposed a method for measuring human capital based on indicators of human capital of innovation, employee attitudes and the inventory of knowledgeable employees. According to this method, innovation commands a premium and therefore needs to be measured, for example by comparing gross profit margins from new products to the profit margins from old products. Employee attitudes predicting customer satisfaction and retention are an important indicator of human capital and therefore need to be measured, as well as measures of tenure, turnover, experience and learning.

International Developments in Human Resource Accounting

Interest in HRA related reporting has grown in a number of countries across continents. In discussing "HR metrics," Hansen (2007) notes that two thirds of the 250 largest companies in the world now issue sustainability reports along with their financial reports in order to capture the full value of the organization. Global standards for sustainability reporting require the disclosure of workforce data that reflect the potential for future performance and profitability. Sustainability reporting has been formalized under guidelines by the Global Reporting Initiative, an international network of business, labor investors and accountants. Schwartz and Murphy (2008) also comment on human capital metrics, suggesting that a class on the subject would benefit all undergraduate management majors. They suggest that primary among those benefits is a change in mind set toward using data and metrics to design and evaluate management policy rather than relying on experience, fad or hype; and suggest that students familiar with HR metrics should be better equipped to prove and enhance the contributions of human resources to their organizations.

Some research has included aspects of HRA in studies examining and comparing reporting practices of a number of countries. A study by Subbarao & Zehgal (1997) gave a macro-level perspective to HRA disclosure in financial statements by analyzing the differences across countries in the disclosure of human resources information disclosure in annual reports across six countries. The authors found differences in disclosures of HR information across countries and provided accounting and financial professional insights on the HR information areas they need to focus on in their country. In another study, Boedker, Mouritsen & Guthrie (2008) examined contemporary trends from Europe, Australia, and the United States, in "enhanced business reporting" (EBR), which includes aspects of HRA. The authors found a vast diversity in international EBR practice, including measurement and reporting models, and suggested the need for further research about the barriers to and consequences of harmonization. The paper covers contemporary debate on EBR and seeks to inform the US SEC Advisory Committee on Improvements to Financial Statements (Prozen Committee). Other research has focused more specifically on the authors' country, but often with implications for the international development of HRA. Examples of this work follows.

Scandinavia

The Scandinavian countries have taken a particularly strong interest in the area of HRA. For example, the Value Driving Talks (VDT) model was developed by Arne Sandervang (2000), and tested in an empirical study in a Norwegian business firm in the electrical sector. The model, which calculates financial returns on an organization's investments in competence development, focuses on employee training or competence development as its strategic focus, and aligns investment in competency development to the overall business strategy to help organizations with their strategic human resource management goals. The participants assess the benefits of the competency program through a benefit description statement that shows a comparison of the potential benefits and experienced improvements. A calculation is made of the benefits to the company and compared to the costs of training in order to arrive at the Return on Investment of training and development.

Two Swedish studies experimented with reporting HRA measures in financial statements. The Statement of Human Resources, published by Telia, a Swedish National telecommuting

Company (Telia , 1996) and the Statement of Human Resources provided by the Swedish Civil Aviation (Swedish Civil Aviation Administration, 1998) provided some insights on the reporting formats. In case of Telia, in addition to a human resources report, the financial statements included a profit and loss account and a balance sheet that included investments in human resources. The statement provided by the Swedish Civil Aviation Administration provided the human resource income statement and a human resources balance sheet showing the change in the percent of value of human capital, number of employees and the calculated value of human capital, in addition to other key personnel indicators.

Roy (1999) reports on a case study on Skandia Group- one of the first companies known for its work on intellectual capital, and provides an interesting example for organizations desirous of managing their intellectual capital. Included in the case study is the process of development of the Skandia Navigator and the Dolphin Navigator under the guidance of Leif Edvinsson, one of the first persons to be documented as a knowledge manager, The Skandia Navigator successfully introduced new business ratios that emphasized an organization's intangible assets rather than tangible ones. The Dolphin Navigator developed was an IT infrastructure that would help to distribute information regarding Skandia Navigator business planning world wide in a cost effective manner.

Grojer (1997) gives an interesting perspective on why HRA has taken roots in Scandinavia especially Sweden, as compared to other parts of Europe, by suggesting that human resource accounting measures can be successfully introduced only when it suits the social order in organizations—and Scandinavian management and the Swedish organizational social order suits HRCA. Grojer notes that introduction of new personnel key ratios in financial key ratio pages in organizations may result in the change in the social order between the management elite, and will therefore be a problematic process. A possible conclusion from this perspective is that human resource measures may be introduced smoothly in organizations when these measures would conform to the organizational social order, but that further research needs to study this area of HRA and social order in organizations in order to help us understand the full implications of this factor.

Olsson (1999) studied measurement of personnel through human resource accounting reports as a procedure for management of learning in the hospital sector of Northwest of Stockholm, and reported that learning in smaller groups is an effective means to make organizational communication regarding intellectual capital within the organization, helping organizations learn better on how to report human resources value. Olsson (2001) provided information on annual reporting practices related to human resources in corporate annual reports of major Swedish companies.

Vuontisjarvi (2006) explored by means of content analysis the extent to which the largest Finnish Companies have adapted socially responsible reporting practices in a research study focusing on Human Resource (HR) reporting in corporate annual reports with criteria set on the basis of the analysis of the documents published at the European level in the context of corporate social responsibility with special attention to the European Council appeal on CSR. The results of the content analysis indicate that although social reporting practices are still at an early stage of development in Finland, the most reported theme was training and staff development. A positive sign was that the majority also disclosed themes of participation and staff involvement and employee health and well-being, and nearly one third made references to their work atmosphere or job satisfaction survey. However disclosures lacked overall consistency and comparability with each other, and quantitative indicators were disclosed by few.

United Kingdom

Morrow (1996 & 1997) investigated the concept of football players in the United Kingdom as human assets and the importance of measurement as the critical factor in asset recognition. In another publication Wagner (2007) suggested that human capital (people and teams) is one of the intangible assets that investors look for in valuing a company, along with structural capital (processes, information systems, patents) and relational capital (links with customers, suppliers, and other stakeholders). However, according to an analysis of more than 600 manufacturing and service companies in research led by Dr. Chris Hendry, Centenary Professor of Organizational Behaviour and Human Resource Management at the Cass Business School, City University of London, Wagner notes that annual reports now overemphasize the role of relationship capital in company performance and minimize the role of human capital, giving a skewed view of companies' future performance. A conclusion was that the long-term value of innovative workers is not getting enough attention from companies preparing annual reports for investors, according to research for Britain's Economic and Social Research Council. Although the annual reports provide glowing accounts of R&D spending and numbers of patents, including those generated by the innovators have left the company, the reports are less likely to focus on the numbers of innovators that have left the company and have thus reduced the company's future prospects for innovation.

Australia and New Zealand

Gusenzow and Tower (2006) note that the Australian Football League (AFL) is Australia's premier spectator sport involving millions of people across a wide range of communities, and that it is not surprising that the most valuable assets as regarded by AFL clubs and the AFL hierarchy are the players, the organization's biggest revenue drivers. However in the authors' survey of 79 AFL-linked individuals and 58 accountants and accounting academics to assess whether key stakeholders considered putting the value of players on a balance sheet a plausible idea, findings showed that the majority of respondents disagreed with the concept of showing the value of AFL players in their clubs' balance sheet. However it is interesting to note that the results from the logistic regression analysis and ANOVA analysis show there is a significant relationship between the concept of valuing AFL players, and both the type of respondent and their knowledge of accounting. Gusenzow and Tower note that although player valuation is a plausible and arguably important idea, a reason for the resistance by AFL respondents could be that AFL has a salary cap to limit amounts paid to players and no transfer fee system. Although the evidence from study did not demonstrate a need to implement player valuations, a move towards financial statement player valuation may be needed if AFL clubs emulate other overseas sporting codes and list on the stock exchange.

Other Australian authors Whiting & Chapman (2003) also investigated the merits of HRA in a professional sport—rugby. The authors comment that the Australia and New Zealand rugby union is a combination guaranteed to stir patriotic feelings across the Tasman. The authors raise the question that since rugby players are the team's most valuable assets, should their value be placed on the balance sheet, and does doing so make any difference to decisions made by financial statement users. They comment that professional sport has been prevalent in the United Kingdom and the United Stated for nearly 200 years, but arrived much later in Australia and

New Zealand. In the United Kingdom and the United States, professional sports teams' financial accounts often incorporate HRA, in which a value for the employees is placed on the balance sheet and is amortized over a period of time, instead of expensing costs. The authors refer to the big question being whether HRA information is more useful to the decision- maker than the alternate expensing treatment, and that past research has shown that sophisticated users of financial information do make significantly different decisions with the different presentations. The outcome was tested in New Zealand in a survey questionnaire responded to by 64 members of the professional body Institute of Chartered Accountants of New Zealand. On an overall basis, the study shows that generally accountants will make the same investment decisions regardless of whether human resource information is expensed or capitalized. The authors noted, however, that their exercise only explored one type of decision-making process, and that prior studies may have been of a wider nature, thus explaining the differing result. They then suggest that if HRA is to follow the international trends emerging in intangibles reporting, capitalized human resource information may become more prevalent.

India

Interest in measuring human capital has also been apparent in India. Mahalingam (2001, p. 19) notes that "Pundits of today assert that while the other forms of capital, including material, equipment, tools and technology, only represent inert potentialities, it is the human capital that converts this potential and energises the creation of wealth." This author suggests a human resource value approach based on a person's skills and the returns these skills are expected to return over the next five years, with future years discounted to arrive at the current value. Mahalingam notes that each person has a set of competencies and a value is assigned to each, with the sum total of these values making up the value of the employee and the value of all the employees making up the human capital of the organization—which together with the customer and structural capital produces the revenue. In a case study conducted in India, Patra, Khatik & Kolhe (2003) studied a profit making heavy engineering public sector company which used the Lev & Schwartz (1971) model to evaluate HRA measures. The authors examined the correlation between the total human resources and personnel expenses for their fitness and impact on production. They found that HRA valuation was important for decision-making in order to achieve the organization's objectives and improve output. Bhat (2000, p. 1) provides a definition of "HUMAN resources accounting" as depicting the human resources potential in money terms while casting the organization's financial statements. The author refers to several measurement models including the Brummet et al. model (1968a, 1968b, 1969) based on historical cost method with provisions for appropriate depreciation and replacement cost of acquiring, training and developing the entire human resources, and competitive bidding proposing the capitalizing of the additional earning potential of each human resource in the organization. The author also mentions the Jaggi & Lau (1974) model estimating the human resources worth on a human resource groups basis with the groups accounting for productivity and performance, and Hermanson's (1964, 1986) unpurchased goodwill method in which the marginal higher earning potential of human resources in comparison with similar industries is capitalized. Bhat notes that with global trade and foreign exchange transactions becoming more complex with innovations in derivatives, more uniformity in accounting practices and transparency will emerge. The authors suggests that accounting and financial management issues will soon be integrated in accounting statements facilitating more meaningful use of accounts, as opposed to history and bookkeeping.

China

Tang (2005) focused on a measurement of human resource cost in developing a heuristic frame addressing the link between human resource replacement cost and decision-making, in a human resource replacement cost (HRRC) system. The system measures direct and indirect costs of human resources, which is then applied to a company within the metro industry in China. The author includes a suggested measure of learning cost, cost of lost productivity, and cost of job vacancy and discusses the usefulness of the HRRC model in decision-making in such areas as employee turnover, separation indemnity, duration of labor contracts, and personnel budgets in monetary terms. Tang (p. 2) notes that an increased focus on human resource management and improved information technology has led to a saying "what you cannot measure, you cannot manage." The author adds that since the time when China espoused an open policy of reform there have been many brave attempts to seek new ways for handling organization and management. Tang (p. 14) also suggests that HRA information can aid in budgeting of human resources recruitment and development. The hard costs in human resource replacement cost are the actual investments in human resources which reflect the historical direct costs of recruiting, orientating, and training people. Combining these hard costs with human resource demand can help a company budget its personnel activities more reliably. Tang (p. 15) notes that the system of accounting for replacement cost in people is an attempt to improve the quality of information available for facilitating effective human resource management, providing information necessary for a cost/benefit analysis and decision making in areas such as employee turnover, separation indemnity, duration of labor contract and personnel budgets in monetary terms. Care should be taken to recognize that high human resource costs should not be viewed as negative and low costs as positive in that, for example higher costs could indicate higher-quality training. Although the HRRC system developed was based on a pilot study and still requires refinement and extensions, it does represent a meaningful contribution to the practice of HRA, and an expected result is a new awareness by management of the high costs of turnover.

Ng (2004, p. 26) further comments on the benefits of HRA related information and notes that measuring and managing human capital is not rocket science, but is (p. 26) "simply a defined framework to maximise the only real competitive advantage companies have in the knowledge economy—their human capital assets." Ng notes that to derive and quantify value from this human asset requires human capital analytics—an entirely new class of systems that aggregates HR data financial, customer and supplier information for exploration, analysis and presentation. According to the author, human capital analytics supports rapid decision backed by quantifiable, accurate information and defensible forecasts, and in addition helps identify essential insights that allow organizations to proactively apply strategic human capital initiatives to meet corporate objective.

Portugal

Bras & Rodrigues (2008) analyzed two competing approaches to accounting for a firm's investment in staff-training activities: the accounting and labour economics approach which argues that no asset should be recognized from training activity and the human resources management approach, espoused by HRA, that advocates recognition of an asset. The authors used document analysis and interviews in their attempt to understand the training phenomenon

from the company's point of view. The paper provided a case-based empirical analysis of accounting and human capital and asset recognition arguments, and clarifies the situation in which assets should be recognized as generated by training expenditures.

Germany

Schmidt & Minssen (2007) explored to what extent human resource practitioners value and account for international assignments, and to relate these findings to the human resources cost accounting context. The authors drew on data from a quantitative survey among 415 German chemical companies and expert interviews with human resource managers from eight chemical companies. They found that human resource managers appreciate the positive effect of overseas assignments on personal development, but often underestimate the long-term benefits of an international assignment for the company.

Canada

Jones (2000, p. 9) writes that "Financial reporting systems need to account for people. The author indicates that the issue of providing bottom line worth for training, wellness programs or employee satisfaction surveys remains an ongoing struggle with HR executives in Canada, and laments why one is required to make the business case for something that is intrinsically known to be important to financial importance. The author refers to the International Accounting Standards Committee (IASC) recently published standard on Intangible Assets (IAS 38) and comments on reports that investment and awareness of the importance of intangible assets have increased significantly in the last two decades. Furthermore the author notes that while the standard is expected to have no direct impact on how Canadian chartered accountancy firms report and file (unless the firm is multi-national with offices in countries required to comply with IASC standards) it does give a global definition to intangibles. Jones (p. 2) called for researchers to team up with practitioners to create the knowledge base required for the development of a whole new measurement system for value creation that would operate in parallel with the existing value realization measurement system. The author noted how the Canadian Performance Reporting Initiative Board is being established to advance knowledge in the intellectual capital management and other areas critical to performance measurement, providing a golden opportunity for HR leader to work together to ensure that people count.

Greece

Andrikopoulos (2005) attempted to bridge the gap between traditional financial theory and intellectual capital (IC) reporting by proposing a model where organizational priorities were set as the solution to a portfolio selection problem. The solution to this problem provides priorities for organizational change. The author notes that the quantitative approach in the paper requires extensive use of data on organizational performance found in IC statements, and that when it comes to human capital IC reporting, works on results from HRA, which have been extensively applied in the academic and business communities. Andrikopoulos found that that the model helps discover corporate strengths and uses them to set organizational priorities for IC value creation.

Conclusion

International contributions made to the field of HRA have resulted in growth of both the field HRA and the wider study of human capital, human resource metrics, intellectual capital, and organizational management. Along with advances in HRA theory, it is encouraging to note that some studies have been based on empirical research, case and field studies. Both the process and inclusion of HRA measures in human resource decisions are expected to have implications from the standpoint of providing measures that can compete with other investment proposals for the firm's resources, and demonstrate that the long-term benefits from such investments can be positive. The movement toward fair value accounting seen in recent years, for both U.S.GAAP as well as for international standards, indicates a more sophisticated approach to the measurement of assets, tangible as well as intangible. This might suggest a willingness to recognize the need for, and consider the measurement and use of HRA in future external financial reporting.

References

Andrikopoulos, A. (2005). Using intellectual capital statements to determine value drivers and priorities for organizational change: a portfolio selection approach. *Knowledge Management Research & Practice 3* (3), 166.

Bhat,V.P. (2000, January 13). India: Towards transparency and uniformity. *Businessline.* Chennai, 1.

Boedker, C., Mouristan, J. & Guthrie, J. (2008). Enhanced business reporting: internationaltrends and possible policy directions. *Journal of Human Resource Costing & Accounting, 12* (1), 14.

Bras, F. A. & Rodrigues, L.L. (2007*). Accounting for firms' training programs: An exploratory study, 11* (3), 229.

Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1968a, April). Human resource measurement: A challenge for accountants. Accounting Review, 217- 224.

Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1968b, March). Accounting for human resources. Michigan Business Review, 20-25.

Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1969, August). Human Resource Accounting: A tool to increase managerial effectiveness. Management Accounting, 12-15.

Bullen, M.L. (2007). Human resource accounting: A useful tool for measurement and management in organizations. *Leadership and Organizational Management Journal.* 85-103.

Campbell, R., Owens-Jackson, L., & Robinson, D.. (2008). FAIR VALUE ACCOUNTING from theory to practice. *Strategic Finance*, 90(1), 31-37.

Cascio, W.F. (1998). The future world of work : Implications for human resources costing and accounting. Journal of Human Resource Costing and Accounting, 3 (2), 9-19.

Davidove, E. A., & Schroeder, P. A. (1992, August). Demonstrating ROI of training. Training and Development,46, 8, 70

Dobija, M.(1998). How to place human resources into the balance sheet. Journal of

Human Resource Costing and Accounting, 3 (1), 83-92.
Flamholtz, E. G. (1969). The theory and measurement of an individual's value to an organization. Unpublished Ph.D. dissertation, University of Michigan. Ann Arbor)
Flamholtz, E.G. (1971, April). A model for human resource valuation: A stochastic process with service rewards. The Accounting Review, 253-67.
Flamholtz, E.G. (1973, Spring). Human Resource Accounting: Measuring positional replacement costs. Human Resource Management. 8-16.
Flamholtz, E.G. (1979, January). Towards a psycho-technical systems paradigm of organizational measurement. Decision Sciences, 71-84.
Flamholtz, E.G. (1999). Human Resource Accounting: Advances, Concepts, Methods and Applications, Boston, MA: Kluwer Academic Publishers.
Flamholtz, E.G., Bullen, M.L., & Hua, W. (2002). Human Resource Accounting: A historical perspective and future implications. Management Decision, 40 (10), 947-54.
Flamholtz, E.G., Bullen, M.L., & Hua, W. (2003). Measuring the ROI of management development: An application of the stochastic rewards valuation model. Journal of Human Resource Costing and Accounting, 7 (1-2), 21-40.
Flamholtz, E. G , Kannan-Narasimhan, R., & Bullen, M.L.(2004). Human Resource Accounting today: Contributions, controversies and conclusions. Journal of Human Resource Costing & Accounting, 8 (2), 23-37.
Grojer, J.E. (1997). Editorial. Journal of Human Resource Costing and Accounting, 2 (2), 7-8.
Gusenrow, C. & Tower, G. (2006,, March). More than a game? CPA Australia.
Hansen, F. (2007). A home for HR metrics. Workforce Management 86 (2), 10-11.
Hedlin, P. & Adolphson,J.(2000). Strategies for change in financial reports. Journal of Human Resource Costing and Accounting, 5 (1), 27-35.
Hermanson. R.H. (1964). Accountng for Human Assets. Occasional Paper No. 14. East Lansing, Michigan: Bureau of Business and Economic Research, Michigan State University, East Lansing). (republished in 1986;see below)
Hermanson, R. H. (1986). Accounting for Human assets. Research Monograph No. 99. (Atlanta. Georgia: Business Publishing Division, College of Business Administration, Georgia State University) (Originally published in 1964 by Michigan State University).
International Accounting Standards Board (2009). www. iasb.org.
Jaggi, B., and S. Lau .(1974, April). Toward a Model for Human Resource Valuation. The Accounting Review, 321-29.
Johanson, U. & Mabon, H. (1998). The personnel economics institute after ten years : What has been achieved and where we are we going?" Journal of Human Resource Costing and Accounting, 3 (2), 65-76.
Jones, G. (2000). Viewpoint: Accounting for people. Benefits Canada, 24, (1), 9.
Lev, B., & Schwartz, A. (1971, January). On the Use of the Economic Concept of Human Capital in Financial Statements. Accounting Review, 103-112.
Likert, R.M. (1961). New Patterns of Management. New York: McGraw Hill Book Company.
Likert, R. M. (1967). The Human Organization: Its Management and Value (New York: McGraw-Hill Book Company.

McKenzie, J.L., & Melling G.L.(2001). Skills-based human capital budgeting: A strategic initiative, not a financial exercise. Cost Management, 15 (3), 30.
Mahalingam, S. (2001, May). Of human capital. Praxis, Business Line.
Meeting,D.T., Luecke,R.W. & Garceau,L. (2001). Future cash flow measurements. *Journal of Accountancy*, 192(4), 57-67.
Moore, R. (2007). Measuring how 'human capital' appreciates in value over time. Plant Engineering 61 (4), 29.
Morrow, S. (1996). Football players as human assets. Measurement as the critical factor in asset recognition: A case study investigation. Journal of Human Resource Costing and Accounting, 1 (1).
Morrow, S. (1997). Accounting for football players. Financial and accounting implications of 'royal club liégois and others V Bosman' for football in the United Kingdom,Journal of Human Resource Costing and Accounting, 2 (1).
Ng, J. (2004, April). Human capital analytics: Not rocket science. China Staff. Hong Kong,10 (5),26-28..
Olsson, B. (1999). Measuring personnel through human resource accounting reports: A procedure for management of learning. The hospital sector in Northwest Stockholm, Journal of Human Resource Costing and Accounting, 4 (1), 49-56.
Olsson, B. (2001). Annual reporting practices: information about human resources in corporate annual reports in major Swedish companies. Journal of Human Resource Costing and Accounting, 5 (1).
Patra R., Khatik, S.K., & Kolhe, M. (2003). Human resource accounting policies and practices: A case study of Bharat Heavy Electricals Limited, Phopal, India. International Journal of Human Resources Development and Management, 3 (4), 285.
Roy, S. (1999). Managing intellectual capital: The work with the Navigator in the Skandia Group. Journal of Human Resource Costing and Accounting, 4 (1), 59- 67.
Sackmann, S.A., Flamholtz, E. & Bullen, M.L., (1989) Human Resource Accounting: a state-of-the-art review. Journal of Accounting Literature, 8, 235-264.
Sandervang, A. (2000). From learning to practical use and visible results: A case in competence development from a Norwegian business firm. Journal of Human Resource Costing and Accounting, 1 (2), 87-100.
Schmidt, S. & Minssen, H. (2007). Accounting for international assignments: The case of the German chemical industry. Journal of Human Resource Costing and Accounting, 11(3), 214.
Schwarz, J.L., & Murphy, R. E. (2008). Human capital metrics: An approach to teaching Using data and metrics to design and evaluate management practices. Journal of Management Education 32 (2), 164.
Securities and Exchange Commission (January 4, 2008). Acceptance from foreign private issuers of financial statements prepared in accordance with international financial reporting standards without reconciliations to GAAP. Retrieved from http://www.sec.gov/rules/final/2008/33-8870fr.pdf
Securities and Exchange Commission (November 14, 2008). Roadmap for the potential use of financial Statements prepared in accordance with international statements prepared in accordance with international financial reporting standards by U.S. issuers.

Retrieved from http://www.sec.gov/rules/proposed/2008/33-8982.pdf.
Subbarao, A.V., & Zehgal, D.(1997). Human resources information and disclosure in annual reports : An international comparison. Journal of Human Resource Costing and Accounting, 2 (2), 53-73.
Swedish Civil Aviation Administration (1998). The Swedish Civil Aviation administration Statement of Human Resources. Journal of Human Resource Costing and Accounting, 3 (1).
Tang, T. (2005). Human Resource Replacement Cost Measures and Usefulness. Cost engineering, 47(8), 70.
Telia AB. (1996). The Statement of Human Resources. Journal of Human Resource Costing and Accounting, 1 (1), 99-116.
Toulson, P.K. & Dewe, P.(2004). HR Accounting as a Measurement Tool. Human Resource Management Journal, 14 (2), 75-90.
Turner, G. (1996). Human resource accounting – Whim or wisdom." Journal of Human Resource Costing and Accounting, 1 (1), 63-73.
Vuontisjarvi, T. (2006). Corporate social reporting in the European context and human resource disclosures: An analysis of Finnish companies. Journal of Business Ethics, 69, 331-354.
Wagner, C.G. (2007). Valuing a company's innovators. The Futurist, 41 (5), 7.
Whiting, R. Glory & Chapman, K. (2003, February). Sporting glory – the great intangible.CPA Australia.