

# Human Resource Valuation: Perspectives on External Financial Reporting in terms of Decision Usefulness

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## ABSTRACT

Globalization has made its way into the business world and it demands true and fair financial information to be reported in the financial statements of companies around the world. To ensure that, businesses should prepare their statements in such a way that embody the financial and physical assets along with human assets. The benefits generated if human resources are expressed numerically are manifold. Despite that, questions are raised regarding the applicability of human resource accounting models. This is an exploratory study where the decision usefulness of human resource accounting information presented in external reports is assessed. In this study, existing literatures of the widely used qualitative human resource valuation models are carefully examined against the prescribed qualitative characteristics of external financial accounting information. Whether the models comply, and if not, the extent of non-compliance is analyzed. In addition, the loopholes in the valuation models that form the basis of such non-compliance are identified. This ultimately represents scope for further research study. Finally, this study acknowledges that reported information can only be made decision useful for external parties only if the information follows the combination of qualitative criteria established by major bodies around the world. It is then recommended that future models should be aligned considering such qualities so as to produce fruitful external information for decision making.

**Keywords:** human resource accounting, decision usefulness, external reporting, human asset valuation models, faithful representation, relevance

## INTRODUCTION

Human resource accounting, although not yet fully recognized by the accountants and professional accounting standard setting bodies all over the world, has a history of going back decades. It commences with the definition provided by American Accounting Association as a process of quantifying human resource employed or human asset data and communicating it to interested stakeholders (Akintoye, 2012). Starting from the 1960s when human resource accounting ideas first started to develop, researchers continuously advocated for human resource accounting on the ground that it will make financial statements more useful for decision making. Since then, the world has witnessed a global transition for the couple of decades (Sharma and Shukla, 2010), resulting in a change in the



value creation drivers. Reich (1992) points out that in today's business environment; the capability of companies to make profit is primarily a function of human capital, not tangible capital. He further asserts since intellectual capital is overtaking physical capital as the key of producing higher profit, shareholders are in a situation where they are facing difficulty in making an appropriate decision since the most important asset is not available in the financial statements. Noting the trend of business we can't disagree with the point made by Reich, but Akintoye (2012) takes these issues to next level by saying that the current accounting standards are resulting into distorted financial statements since these standards don't provide means of accounting for human assets. The financial statements are losing relevance as the total assets in there exclude human assets. Akintoye claims that manipulated financial statement may not only result from recognizing expenses as assets but also from failure to recognize actual investments (e.g. investment in human resources) as assets.

Despite researchers arguing how important human resources might be, the benefits of human resource accounting can only be realized if there were perfect human resource accounting models that could report the human capital in its precise value. But Peterson (1972) points out, although there are several models, not even a single one of them is appropriate for inclusion in a certified financial accounting system. The decision usefulness of the information provided by different Human Resource Accounting models can, therefore, be reasonably doubted.

#### **Human resource valuation models:**

Over the past several years, different proponents came up with different models for the valuation of human assets of a company. Such models can be divided into two basic types, one based on the cost of human inputs and another on the value derived from them by an organization (Rao, 2014). The model proposed by Lev and Schwartz uses the present value of the estimated future earnings of any employee for the rest of his or her service life. Another valuation model, Flamholtz's model is one of the most popular till date. It was observed that the human asset valuation is related to the economic value theory and that one individual is quantified by putting together present values of all the future economic benefits he shall render for his remaining service life (Flamholtz, 1999). This model, popularly known as the Stochastic Rewards Valuation Model, if analyzed, is primarily comprised of five steps. First, the probable positions an employee may occupy are identified and then the value of each service position is determined on part of the business organization. The expected number of service year the employee may provide is then calculated along with the probability of moving to each of the service positions. Afterward, the expected cash flows ascertained by the organization through the employee are discounted into present values (Bullen & Eyler, 2010). When employees are rather difficult to hire and recruit, another valuation model is set in place commonly known as the competitive bidding model. The employees form the total asset base of an investment center and are subject to bid price asked by managers. The value of an employee is determined when someone among those managers bids the highest amount (Akintoye, 2012). While it comes to considering both the costs incurred and value derived on the employees or staff in the organization, the model proposed by Morse known as the net benefit model, plays a lead role. The assertion of the discounted net benefit through finding out the gross value of future services to be rendered and matching those against the costs to craft an effective and efficient employee base answers the question of how (Akintoye, 2012). As this method incorporates contributions from both ends, it might rather be called a combination of cost-

benefit approach. For the purpose of this study, we evaluate these four models against the criteria of decision usefulness.

### **Decision usefulness criteria:**

Decision usefulness is one of the prime objectives of financial reporting & may be the only objective that really matters. For accounting information to be decision-useful, certain normative qualities must be present & discussion about those qualities in literature started long before standard setting bodies adopted them (Eierle and Schultze, 2013). According to different accounting literatures, there are various factors that apparently help generate better accounting information for decision making. Those factors include relevance, reliability, verifiability, comparability, practicality, significance, understandability, materiality etc. (see for example - Ijiri and Jaedicke, 1966: 475; Snively, 1967). But all those factors are not equally important in creating decision usefulness; therefore standard setting bodies had to prioritize some qualities over others.

World's major standard setting bodies IASB & FASB took an initiative to create a joint & universal conceptual framework that is now accepted as a major source of inference for external financial reporting. As per the joint conceptual framework of IASB & FASB decision useful information has two primary characteristics: Relevance & Faithful representation and four enhancing characteristics: Comparability, Understandability, Verifiability and Timeliness (IASB 2010; Kieso & Weygandt et al., 2015). For the purpose of this study we focus on the decision usefulness criteria as set by the joint framework.

### **Organization of the study:**

The main discussion of the study is ordered by the importance of decision usefulness criteria as asserted in the conceptual framework of IFRS 2010, namely faithful representation, relevance, comparability, verifiability, timeliness & understandability. Under the heading of each of the qualitative characteristics, four human resource accounting models are evaluated based on past literatures and deductions based on those literatures. The study ends with findings of the discussion, recommendation for future development of human resource accounting models & concluding remarks.

## **DISCUSSION**

The primary aim of financial reporting lies in the basic fact that existing and potential investors, lenders and creditors should be able to make proper decisions, based on financial information regarding any economic entity (IFRS, 2010). The financial statements of a company provides information to the external parties, both about the resources the entity has and the claims against those resources. Previously, measuring whether underlying information in the statements meet the quality criteria was itself regarded as a problem (Van Beest, Braam, & Boelens, 2009). According to the revised conceptual framework of IFRS (2010), these financial information must encompass two fundamental and some enhancing qualitative characteristics to be classified as quality financial information for the stakeholders. As noted earlier, financial statements reflect the resources an entity has and in line with the contemporary human resource accounting, such resources may include the human assets of a company as well. The business world witnessed some massive transitions for the past few decades and brought light into the need for the valuation of human resources (Sirisetti & Mallesu, 2011). Akintoye (2012) states that current sustainability reporting standards urge for the disclosure of human asset information to ascertain the total value of any economic entity. To make sure human resource data meets the needs of external users of accounting information, they need to be matched against the qualitative

characteristics set by IFRS conceptual framework. In this regard, the established models and their required information to quantify the human inputs are assessed thoroughly confirming to the qualitative characteristics of accounting information.

### **Compliance of Human Resource Information with respect to Fundamental Qualitative Characteristics:**

#### ***Faithful Representation:***

Faithful representation as one of the fundamental qualitative characteristic renders that financial information be depicted faithfully in the financial statements of an organization. Any economic information should cover three dimensions in this regard- completeness, neutrality and free from error (IFRS, 2010). The combination of the above three features in information should be maximized to ensure appropriate decision making.

Although the underlying assumptions of Lev and Schwartz model are scientific enough, this method can only be applied in real life scenarios if the top management, responsible for the preparation of financial statements, is dealing with quantifiable data (Akintoye, 2012). Also, this method uses particular age groups of employees and falls short of measuring the actual input provided by them for overall effectiveness (Ojokuku & Oladejo, 2015). As a result, users are presented with a vague understanding of the total asset base because of the lack of completeness of information in using this method.

While determining the value of each individual under the Rewards Valuation Model, this method comes up with the fact that it ignores the value of employees working as a group (Ojokuku & Oladejo, 2015), in other words, the synergy effect. The synergy effect implies that employees may work more efficiently and might have higher value when they work together rather than working independently. Therefore, the model falls outside the boundary of faithful representation as it lacks completeness of information. Moreover, this model allows for estimating probabilities of an employee to move from one position to another potential position within the organization, for example, it takes into account the probable promotions of the human assets. The transfers and promotions within an organization depend largely both on such individual determinants as motivational level, energy, enthusiasm, perceived benefit of particular employees and on such organizational aspects as monetary and social incentives provided, opportunities explored to harness the skills and capabilities of the employees associated (Akintoye, 2012). Such determinants vary from employee to employee and across departments of the same organization. All these elements circle around the fact that Flamholtz's model does not fully agree to the neutrality aspect of faithful representation. The possibility as to when an employee might leave the organization or depart is considered alongside in this human capital valuation model. Such estimated probabilities may breed error while being reported in the financial statements, precluding the model to be mostly error free, the third important aspect of the faithful representation of financial information. The future is always uncertain, and a model that is based solely on future probabilities is just doors away in coming up with wrong estimations and misleading end results subsequently.

Again when a skeptical insight is provided into the competitive bidding model, it is found that no standard or particular benchmark is set for asking the bids. As a result, executives count on their personal judgment which relates to individuals only, not harmonious throughout an organization and come up with human resource values that may not be consistent since the same individual is valued with different numbers from the bidders. Therefore, the competitive bidding model is put aside the big picture where information is

represented faithfully because it is somewhat biased due to personal judgment used and not error free as well.

Looking through the lens encapsulating the qualitative characteristics mandatory for financial reporting, it is obvious that there is no certain assumptions laid down for determining the future benefits and also for choosing a discount rate in case of net benefit model. In addition, there can be numerous external factors waiting out there in the future having material effect on the assumptions founded today, followed by erroneous outcome for human resource valuation. Perfections are seldom achievable (IFRS, 2010), yet the more the above three parameters of faithful representation are ensured while reporting an accounting information in the financial statements of a company, the better decisions are made by the stakeholders.

### ***Relevance:***

External users need accounting information for decision making. Decision making can be defined as selection of a course of actions from alternatives (Koontz & Wehrich, 2010) and it is common sense that irrelevant information is useless for making the correct choice. Information can only be relevant if it has predictive value (usefulness as an input in predictive process) or feedback value (usefulness in correcting or confirming past prediction) or both, because existence of these criteria can make a decision more appropriate (IASB 2010; Kieso & Weygandt et al., 2015).

The model given by Lev & Schwartz attempts to determine the value of human resources based on the earnings which are in other words salaries and wages received by the employees (Hoque, 2015). Since salaries and wages received by employees don't represent the relative worth of the employees & level of contribution by the employees in profit, investors prediction of future result based on human assets reported by this model is bound to be misleading. Bukowitz, Williams, and Mactas (2004) puts significant doubt on the relationship between employee earnings and their performance and argues against all models that use salaries & wages to determine the value of human resources. Further this model fails to consider employees role in other positions in the organizations and that an employee may choose to leave organization not only because of death or retirement but also for other reasons (Hoque, 2015). In USA, average workers don't last in a job more than 4.5 years (Fottrell, 2015), and it is not because they die or retire rather because they switch jobs. Ignoring such important factors makes information provided by Lev & Schwartz model loose its power to predict the future for investment decisions. And since, another important element of relevance, feedback value, is related to the confirming or correcting past predictions, if the predictions are too over the board, it can't exist as well.

The Reward Valuation Model proposed by Flamholtz and Net Benefit Model proposed by Morse both lack relevance for decision making to a noticeable extent. According to Batra (2011), first problem encountered by an accountant using Flamholtz model is the measurement of probabilities of possible states of service of the employees and the second problem is valuation of service states in monetary terms. These measurements, because of their inherent difficulties will have to depend highly on personal judgments, making Flamholtz model look like an attempted quantification of human assets. Attempted quantifications are never good for relevance, as Baker (1974) points out that this kind of attempted quantification causes decisions to be more unreliable than un-clarified uncertainties. Another drawback in terms of reliability, that relate to both the model, stems from the attempt to calculate the value of human assets based on present value of future expected benefits provided by employees. But there is no guarantee that an employee will generate future benefits (Jauch and Skigen 1974). Although Flamholtz model accounts for

the different positions an employee may occupy but the value of the benefit from Human resources can only be equal to the value calculated under this model if the employee works until retirement, but the employee may choose to switch job or die (Liao, 1974: 20). The scenario is graver under Morse model since this model doesn't even consider changes in employee positions. Moreover none of these two models advocate for amortization of the human resources, as a result human assets will have to be expensed the moment the human resource stops working for the organization forcing the organization to show large expenses now & then in a random manner making prediction of human resource related expense recognition impossible and confirmation or correction of such prediction fruitless.

The last important model that fails us in terms of relevance is Hekimian& Jones Competitive Bidding Model. This model proposes human resources to be recorded in the financial statement using the cost of purchasing the resource from the internal market of labor within the organization (Akintoye, 2012). The first limitation to Hekimian model comes from the fact that capitalizing cost of acquisition is inappropriate specially in case of human resources, unlike other resources the value of human resources come from intelligence and reliability of the employees which vary from person to person (Jauch and Skigen 1974). Since the benefit of having human resource doesn't come from the cost of acquisition & therefore not significantly correlated, the cost can't allow appropriate prediction about the expected output of the human resource. The second relevance problem of the model arises from the definition of asset. IFRS (2010) defines asset as only those resources that are controlled entirely by an entity, and the entity gets future benefit from the use of those resources. Since humans are not entirely controlled by an entity and future benefits are uncertain, therefore human resources are not assets; Jauch and Skigen (1974) also agrees to this deduction. The implication of human resource not being an asset for the relevance of this model comes from the unavailability of a universal market for the exchange of the human resource. Unavailability of universal market implies once again the benefit can only be received from the human resource if it works until the retirement, which fails to consider impact of job switch or death (Liao, 1974: 20). Again treating employees like assets doesn't work since amortizing human resources will be irrelevant since increase in work time increase employees experience & expertise (Pophal, 2003: 54).

### **Compliance of Human Resource Information with respect to Enhancing Qualitative Characteristics:**

#### ***Comparability:***

Comparability being one of the four enhancing qualities means that users ought to be able to comprehend the similarities of information presented, not only within the same company for different years but also among companies with similar focus (IFRS, 2010). Now, if comparability is the destination to set off, consistency is the road through it. Valuing the human resource, the strategic assets of an organization and imprint it in the external reports has been a yes-no decision for the accountants at all times (Bokhari & Qureshi et al., 2012), and dealing with diverse models to do so just multiplies the dilemma. Comparability, on a narrower note, consistency seems to be sacrificed while moving towards external human resource reporting. If the within company comparability is emphasized, the competitive bidding model is cut off from the line. Here, bidders use their personal subjective judgment and results come out to be inconsistent, hence cannot be considered comparable. Moreover, many a times, companies use their weighted average cost of capital as the discount rate (Ojokuku & Oladejo, 2015) to determine the present values. Such rates might vary across different companies operating in the same industry, showing another sign of



inconsistency. Even when conducting a study on human resource practices, Shukla and Naghshbandi (2015) found that different companies were following different valuation models to quantify human resources within the same industry, consequently losing comparability of external reporting information.

### ***Verifiability:***

Verifiability, of a certain method, is assumed to exist if two or more independent measures using that certain method results into similar output (Kieso & Weygandt et al., 2015). Valuation and accounting for of human resources is problematic (Steen & Welch, 2011). In case of human resource accounting almost all the quantitative model proposed rely heavily on judgment of the accountant, and since judgments vary from person to person, we can't expect to get similar output from a single human resource accounting model when applied in different organizations. Bukowitz et al. (2004) therefore sheds doubt on the verifiability of HRA models by saying that human resource accounting models only provide users with retrospective viewpoint of the preparer with incorrect precision. The problem of verifiability of human assets also result from its intangibility, since its contribution can't be measured precisely in tangible monetary terms, it has created a gap in verifiability, & therefore has always been given less importance (Mishra & Anita et al., 2009). Sveiby (1997) asserts, In terms of verifiability, traditional accounting system is not yet ready to deal with human resource accounting.

### ***Timeliness:***

Although organizations goals and management of manpower are closely related, managers generally face difficulty in deciding about its human resources because of lack of timely & reliable information in this area (Flamholtz & Gerald et al., 1988). Obviously, if there is an organized process for accounting for human resources in an organization, the organization will be able to keep track of any quantitative changes in the human resource in a timelier manner than if there were no human resource accounting process. Another confirmation, of human resource accounting possessing timeliness criteria, comes from Jaarat (2013). He portrays, purchase and control of asset comes first and then comes benefit out of it; same is applicable for human resources, we must have the resource first to get the benefit, implying recognition of human assets before reporting the benefits of having that resource ensures timeliness in the financial statements.

### ***Understandability:***

The quality of reported information in the externals report is enhanced even more when information is presented in a classified manner aiming to make it understandable to the readers and all parties concerned (IFRS, 2010). The Lev and Schwartz model ignoring different age groups of employees and rather focusing on one at a time (Ojokuku & Oladejo, 2015), falls short in this category. The Flamholtz model also comes in short for understandability as it is a set of some complex procedures with one that incorporates discounted future cash flows. A reader might question the measure to ascertain future information. How actually these methods work is vague might violate the understandability of information on part of the readers.

## **FINDINGS AND CONCLUSION**

International development initiatives are continuously taken in the field of human resource accounting and countries like Australia, New Zealand, Canada, Scandinavia, Nigeria, and India etc. have shown quite a progress. However, a gap still remains between numerous

developments and their actual external representation in the financial statements. The findings from the study presented give us some directions as to the loopholes of current quantitative human asset valuation models being used globally. The widely used models taken into consideration for this study are found to be off the track in terms of incorporating almost all of the qualitative characteristics of external reporting. In one side, all the models violate the faithful representation criteria by ignoring the three-dimensional aspects of faithful representation, while, on the other side, the models taken into consideration lack relevance of generated information for the purpose of decision making. All models require biased and differing valuations to be made on the basis of personal judgment hampering verifiability of the information. Again, although all the models except for competitive bidding model possess intra-organization comparability, all the models fail to satisfy comparability when it comes to inter-organization comparison. The only qualitative characteristic that is satisfied by all the models of human resource accounting is the timeliness.

Examining the above, it is no more a matter of surprise as to why the major accounting standard boards are still not issuing any standard regarding the recognition, measurement and presentation of human resource for external reporting. But the fact that external parties like existing and potential investors can make appropriate investment decision in a company by evaluating the utilization of resources including human asset, cannot be ignored. That's why a broad focus should be placed on the decision usefulness criteria set by the qualitative characteristics in the future research of human resource accounting. Financial statements are prepared for external reporting purposes. For human assets to occupy a place in the balance sheets in near future, they should not only be reasonably measured, but should also encompass other qualitative aspects to meet the varying needs of accounting information users.

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**ISSN: 2218-5666**