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Human resource accounting: An historical perspective

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HUMAN RESOURCE ACCOUNTING: AN HISTORICAL PERSPECTIVE

Recent years have witnessed the emergence of numerous treatises on the relative merits of human resource accounting. While the unprecedented pervasiveness of human resource literature suggests that the topic is new to our era, the debate itself is by no means novel. Indeed, the concept of human resource accounting is deeply rooted in the history of economic thought.

To provide a desirable perspective of the current debate and thus a basis for an accurate assessment of the probable impact of human resource accounting, a familiarity with the development of the concept is necessary. The intent of this article is to trace the historical evolution of human resource accounting to its present stage of development. Its purpose is to impart the perspective essential to a thorough understanding of the pros and cons of human resource accounting systems.

Human Capital In Early Economic Thought

Throughout history economists have been concerned with the concept of human capital, but their treatment was limited to including human beings and their skills in a definition of capital.

Several motives for treating human beings as capital and valuing them in monetary terms were expounded. Of these a central motive is apparent—to serve as a basis for making a decision or to influence the decisions of others.

Meanwhile, a small group of relatively unknown economists undertook to develop techniques to measure the worth of human capital. Basically, two methods of estimating the value of human beings emerged—(i) the cost-of-production and (ii) the capitalized earnings procedures.

In the cost-of-production approach costs incurred in "producing" a human asset are estimated. The capitalized earnings procedure consists of estimating the present value of an individual's future income stream. As described below, these two early approaches parallel closely the two basic approaches to human resource accounting currently advocated in the current literature.

Early Valuation Methods

Specific methods of human asset valuation, while consistent with one of the two general approaches, varied widely from one advocate to another. One of the first attempts to estimate the money value of human beings was made around 1691 by Sir William Petty [10]. Petty considered labor the "father of wealth" and thus felt that labor must be included in any estimate of national wealth. Accordingly, this first attempt at human asset valuation estimated the value of the stock of human capital by capitalizing the wage bill in perpetuity at the market interest rate; the wage bill being determined by deducting property income from national income.

The first truly scientific procedure for finding the money value of human beings was devised in 1853 by Farr [4]. He advocated the substitution of a property tax for the existing English income tax system. The former would include property consisting of the capitalized value of earning capacity. His procedure for estimating capitalized earning capacity was to calculate the present value of an individual's net future earnings.

Ernst Engel's writings around 1883 recommended a cost-of-production procedure for estimating the monetary value of human beings [3]. He reasoned that expenditures for rearing children were costs to their parents and that this cost might be estimated and taken as a measure of their monetary value.[1]

In 1867, a "composite" version reflecting Farr's capitalized earnings and anticipating Engel's cost-of-production approach surfaced when Wittstein argued that an individual's lifetime earnings are equal to his lifetime maintenance cost plus education [19].

Alfred Marshall was perhaps the most forceful proponent of the concept of human assets [14]. His theoretical approach took on a capitalized-net-earnings flavor. However, departing from his conceptual arguments, Marshall held that it would be out of touch with the marketplace to treat humans as capital in practical analysis.

Human Resources As Consumption Expenditures

Marshall's view of human capital as being "unrealistic" was perhaps a major contribution to the virtual exclusion of the concept of human resources from the main stream of economic thought from the beginning of the twentieth century to the recent renewal of interest. Marshall's view, if not a causal factor, is certainly descriptive of the general view that it was neither appropriate nor practical to apply the concept of capital to human beings.

Besides this accepted assessment, various other reasons probably help explain the exclusion of humans from the concept of economic capital. Generally, the mere thought of investments in humans was offensive to most people. Additionally, it has been all too convenient in marginal productivity analysis for economists to treat labor as if it were a unique bundle of innate abilities that are wholly free of capital.

These reasons were probably sufficient to exclude human capital from the core of economic thought for several decades. Expenditures for humans were viewed as "consumption," in economic jargon, rather than as "investments." This treatment by economists had a significant impact upon the treatment accorded human resource expenditures by accountants.

Several of the underlying concepts of modern accounting theory are derived from classical economic theory and many of these matured during the period in which human capital was excluded from practical consideration by economists. Because of the close conceptual relationship between early accounting and economics, accounting theorists ignored human assets as the concept was simultaneously ignored in economic analysis.[2] When economists began to treat investments in human resources as "consumption" rather than "investments," accountants established that these expenditures were "expense" rather than "assets."

Renewed Interest in Labor Intensive-Specialized Economy

The advent of massive governmentally supported social programs in the decade of the 1960's rekindled the interest of economists in human assets. Particularly, economists sought to influence the direction of the massive investment in these social programs. They sought to evaluate these programs in terms of return on investment. This desire led to the necessity of thinking of such expenditures as capital rather than consumption expenditures.

Increasingly massive investments by industry in human assets have been cited as compounding the impact of the error of excluding human assets from capital [17]. The large increases in real earnings of workers, essentially unexplained by classical analysis, can reasonably be attributed to return on investment in humans.

Moreover, Mincer has demonstrated the causal relationship between amount of training and interoccupational differentials in personal income [15].

The contribution of labor toward the growth rate of real national income is increasing as a percentage while the percentage contributed by physical capital is decreasing. Labor's increasing marginal product can be attributed in part to expenditures for training. Research by Thurow directed attention toward the existence of human capital resulting from investments in training programs [18].

The Beginning of Human Resource Accounting

The revival of interest by economists in the topic of human capital was accompanied by, or perhaps caused, an examination of the concept of human resource accounting by accounting theorists. Until then, accountants had considered the problem of valuing human resources to be part of the larger problem of valuing goodwill.

The recent research in this area attempts to distinguish economic values attributable to the human resources of a firm from the values attributable to other components of goodwill. These projects and limited implementation of research results is subsumed under the title of human resource accounting.

Research in human resource accounting reflects the two routes evidenced in contemporary accounting theory. One segment of the research is directed toward the investigation of concepts for the measurement of human resource costs: original cost, replacement cost, and opportunity cost. Another segment investigates the determinants of the value of human resources of employees as a group or of individual employees. This branching of current research in human resource accounting closely parallels the "cost-of-production" and "capitalized earnings" measurement approaches taken by early economists many decades ago.

Attempts to measure human resource cost have resulted in the development of three different concepts and measurement models. The first of these measurement concepts, original cost, is illustrated in the works of Brummet, Flamholtz, and Pyle who individually and collectively have developed concepts, models, and techniques for measuring the historical cost of human resources [1]. Concern has been expressed over the historical cost concept—namely, that the real economic value of the investment may be significantly different than its cost [15].

The model of Brummet, *et. al.* is a generalized model which can be extended to incorporate replacement costs. Other researchers have developed models for the measurement of human resource replacement cost [6]. The end result of the operation of such models is a measure of the cost to replace individuals occupying organizational position.

Perceived deficiencies in the replacement cost approach to measurements led others to develop the concept of opportunity cost to value human resources. Hekimian and Jones, for example, have suggested a system of competitive bidding to obtain managerial assessments of opportunity cost of human assets. Like the other measurement concepts, opportunity cost measurement has its critics as well [8].

Essentially, the suggestions to value human assets at historical or original cost are accounting adaptations of the "cost of production" techniques developed by Engels in 1883 and suggested by Shultz in 1960. Proposals to obtain replacement or opportunity cost measures parallel the current conceptual debate in accounting theory to find an acceptable alternate to historical cost.

While one segment of accounting research in human resource accounting has been directed toward measurement concepts, another is directed toward the investigation of the determinants of the value of human assets. The development of this theory is proceeding from two different approaches.

Growing out of the studies on organization and leadership at the University of Michigan's Institute for Social Research, Likert [13] and others have attempted to develop a model of determinants of a group's value to an organization. Hermanson proposed two possible techniques for the monetary valuation of the total human assets of a firm [7]. Additionally, Brummet, Flamholtz, and Pyle [1] as well as Lev and Schwartz [12] have suggested methods to arrive at the value of employees as a group. In a different approach, Flamholtz has attempted to develop a model of the determinants of an individual's value to a firm [5].

With the exception of Likert's model, the methods proposed for determining the value of employees or groups of employees to an organization are similar in principle to the proposal of the economist William Farr. At the core of the proposals is the realization that the value of people to an organization is the present worth of the future services they are expected to render—the "capitalized earnings" approach.

Likert's model *per se* is not intended to measure the value of human resources, but the efficiency of various types of management systems. Likert, Flamholtz, Pyle, and Brummet have suggested that measurement of the present state of the causal and intervening variables would provide a basis to forecast future end-result variables. The forecasted end-result variables would serve as a basis to forecast future contributions by employees. This would serve as a basis to value human resources.

Hermanson's suggested methods attempt to provide protection against manipulation by management. The proposals utilize capitalized current excess earnings or modified future employee earnings as a measure of human capital. In both proposals the impact of the economic concept of value is apparent.

The proposal of Lev and Schwartz to capitalize future compensation is an adaptation directly comparable to that of William Farr. Flamholtz's suggestion for the valuation of an individual utilizes a series of capitalizations corresponding to the service states the individual is expected to occupy.

Summary

The recent interest in human resource accounting represents a renewal of a long, though frequently dormant, debate rather than a novel dispute. Reservations by economists concerning the treatment of humans as assets as being immoral or at least impractical relegated the topic to a dormant position for many years. These reservations expressed in neo-classical economics will likely continue to help confine the effects of human resource accounting to internal rather than external reporting purposes.

FOOTNOTES

[1]This reasoning assumes a rational choice on the part of parents to incur the child-rearing expenses and thus could be described as a "planned-parenthood" approach.

[2]The influence of early economics is, of course, not the only reason accounting has chosen not to capitalize human resources.

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