

Human Resource Accounting Based On Flamholtz Model

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ABSTRACT

During the past decade, numerous articles have appeared in the literature discussing human resource value accounting. Flamholtz [1971, 1972A, 1972B], Lev and Schwartz [1971, 1972] and Morse [1973] are some of the more noteworthy contributors to the field. The first purpose of this paper is to present the human resource value models suggested by the author. The second purpose is to propose a human resource value model which builds upon and expands the conceptual frameworks suggested in these studies.

HRA also provides the HR professionals and management with information for managing the human resources efficiently and effectively. Such information is essential for performing the critical HR functions of acquiring, developing, allocating, conserving, utilizing, evaluating and rewarding in a proper way. These functions are the key transformational processes that convert human resources from 'raw' inputs (in the form of individuals, groups and the total human organization) to outputs in the form of goods and services. HRA indicates whether these processes are adding value or enhancing unnecessary costs.

Keywords: Human resource accounting, HRA measurement model, measurement of human capital.

Introduction:

Human resource accounting is concerned with the development of theory and methods of measuring the cost and value of people to formal organizations. Its ultimate objectives are

- ✓ To develop a theory of the nature and determinants of the value of people to formal organizations and
- ✓ To develop valid and reliable methods of measuring the cost and value of people to organizations.

The need for measures of human resource cost and value has been discussed extensively during the past few years (Likert, 1961, 1967; Hermanson, 1964; Hekiman and Jones, 1967; Brummet, Flamholtz, 1969 1971a and Lev and Schwartz, 1971). The need for a theory of human resource value has received less attention (Flamholtz, 1969, 1971a).

Literature review:

Bricker (1965), Haire (1967), and Flamholtz (1971a) have argued that the management of human resources in organizations is less effective than it might be because it lacks a unifying framework to guide it. Flamholtz (1971a) has suggested that a theory of human resource value may provide such a paradigm to facilitate managing services in organizations.

Flamholtz (1972) has also suggested that a theory of human resource value is a prerequisite to helping solve the problem of developing methods of measuring the value of people as organizational resources. First, a theory of human resource value would by definition, identify the variables which must be considered in developing valid and reliable monetary measures of human resource value. Second, by identifying the variables which determine a person's value to an organization, the theory would provide the foundation for developing surrogate or proxy indicators of human resource value.

Flamholtz studies:

Flamholtz trace the movement of an employee through organizational positions or “service states” where the individual employee is expected to render a specified quantity of services to the organization during a specified time period.

The probability of the individual occupying these service states is needed so that the "expected service" from the individual can be derived using:

$$E(S) = \sum_{i=1}^n S_i \cdot P(S_i)$$

Where S_i is the services that are expected from the individual in each service state and $P(S_i)$ is the probability that the individual will occupy a particular service state. The services that the individual will render determine his or her "value" to the organization and, according to Flamholtz, the monetary equivalent of the services can be represented in two ways.

1. The first is to determine the quantity and price of the services and use their product as the monetary equivalent, and
2. The second is to calculate the income expected to be derived from the rendered services. The expected services are discounted so that their present value can be determined.

A second study by Flamholtz (1972A) offers a model for determining an individual's value to an organization using the present value of the set of future services the employee is expected to provide during the period he or she is anticipated to remain in the organization. Flamholtz offers the individual's skills and activation level as determinants of conditional value which interact with the individual's probability of maintaining organizational membership. This interaction will determine the individual's expected realizable value to a formal organization.

The problem:

The study tests the validity of aspects of a model of the nature and determinants of a person's value to a formal organization. The model is a response to the need for a paradigm to guide the management of human resources as well as the need to identify the major variables which determine an individual's value to an organization in order to facilitate the measurement of human resource value.

Model of the Nature and Determinants Individual Value:

The model is shown schematically in Figure. Since the model's hypothesized interrelationships will not be tested only its variables will be briefly reviewed.

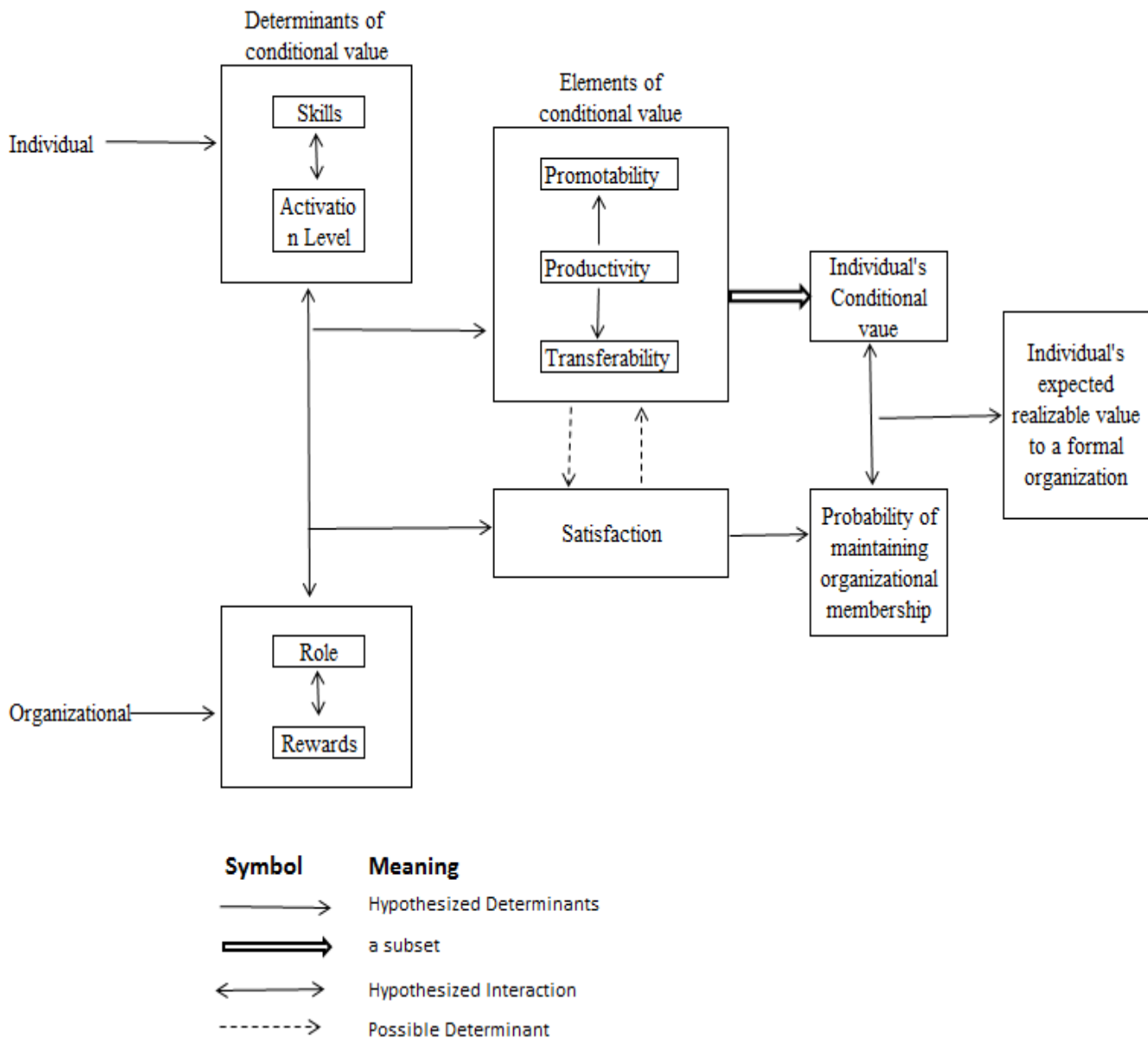


Figure: Model of the Determinants of an Individual's Value to a Formal Organization

The model is a response to the need for a paradigm to guide the management of human resources as well as the need to identify the major variables which determine an individual's value to an organization in order to facilitate the measurement of human resource value.

The model's variables:

➤ **Expected realizable value:** It is the ultimate measure of an individual's value to an organization. Derived from the generic concept of human value that, in turn, is derived from the economic value concept, this concept is defined as the present worth of the set of future services an individual is expected to provide during the period he is anticipated to remain in an organization. The underlying premise is that like all resources people possess value because they are capable of rendering future services that have economic value.

An individual's expected realizable value is comprised of two interacting variables:

- The individual's conditional value and
- The probability that the individual will maintain his expected service life.

The product of these variables is the present worth of services actually expected to be derived by an organization.

- **Conditional value** is the present worth of the potential services that are expected to be rendered to the organization, if an individual maintains membership in the organization throughout his expected service life.
- **The probability of maintaining organizational membership** is the complement of the probability of turnover. It determines the extent to which the organization will realize the individual's conditional value.
- Conditional value is a multidimensional variable and is comprised of 3 factors: productivity, transferability, and promotability.

Productivity refers to the set of services an individual is expected to provide while occupying his present position.

Transferability is the set of services an individual is expected to provide if and when he transfers to other positions at the same position level in a different promotion channel, i.e., For example, a transfer from an entry level marketing position to an entry level finance position.

Promotability represents the set of services the individual is expected to provide at higher level position in his present or different promotion channels.

- The individual determinants of conditional value are the aptitudes and characteristics which influence the elements of a person's conditional value. The major individual determinants of conditional value are the person's skills and activation level.

An individual's skills represent the currently developed potential to provide services to an organization.

- The organizational determinants of conditional value are dimensions of the organization which influence the elements of a person's conditional value. The major organizational determinants of conditional value are the individual's role and organizational rewards.

A role refers to the set of behaviors expected of all persons occupying a specified position in an organization.

Organizational rewards refer to the benefits which people expect to derive from different aspects of their membership in an organization.

- Satisfaction refers to the degree of satisfaction of certain personal needs derived from aspects of membership in an organization. It includes satisfaction with pay, task, supervision etc. It influences the probability that an individual will remain in an organization.

HUMAN RESOURCE VALUATION APPROACHES FOLLOWED BY COMPANIES IN INDIA

Some of the models to valuation of Human Resources are:

1. Historical Cost Method:

This method was developed by William C.Pyle and adopted in 1969 by R.G.Barry Corporation, a leisure footwear company in Columbus, Ohio, USA. Historical cost method calculates actual cost incurred on recruiting, selecting, hiring and training and development of human resource (HR) which is equal to the value of workforce. The economic value of HR increases overtime and they gain experience. However, according to this model, the capital cost of HR decreases through amortization.

2. Replacement Cost Model:

According to this model the value of employee is estimated as the cost of replacement with a new employee of equivalent ability and efficiency. There are two costs, individual replacement cost and positional replacement cost in this model. Cost of recruiting, selecting, training and development and familiarization cost are account in individual replacement cost. When a employee present position to another or leave the organization cost of moving, vacancy carrying and other relevant costs reflect in individual replacement cost. Positional replacement cost refers to the cost of filling different position in an organization and this model is highly subjective in nature.

3. Opportunity Cost Model:

Opportunity cost is the maximum alternative earning that is earning if the productive capacity or asset is put to some alternative use. Quantifying HR value is difficult under this method. Because alternative use of HR within the organization is restricted and at the same time the use may not be identifiable in the real industrial environment.

Table1: HRA information disclosed by some of the companies

Name of the organization	HRA introduced in the year	Model	Discount rate in %
BHEL	1973-74	Lev & Schwartz	12
SAIL	1983-84	Lev & Schwartz model with Some refinements as suggested by Eric.G.Flamholtz& Jaggi and Lev	14
MMTC	1982-83	Lev & Schwartz	12
ONGC	1981-82	Lev & Schwartz	12.25
NTPC	1984-85	Lev & Schwartz	12
INFOSYS	1995-96	Lev & Schwartz	12.96
	2006-07	Lev & Schwartz	14.97

Example:

ITL has adopted Lev and Schwartz Present Value of Future Earnings Model for Valuing its human resources on the following assumption:

- Employee compensation includes all direct and indirect benefit earned in India and abroad.
- The incremental earning based on group/age have been considered
- Future earnings have been discounted at the cost of capital of 16.99%, 14.09%, 13.63%, 12.96%, 14.97% and 13.32% in the accounting year 2002- 03, 2003-04, 2004-05, 2005-06, 2006- 07 and 2007-08 respectively.

The Lev and Schwartz model adopted by ITL has the merit of objectivity in the valuation of human resources. However, the limitations of this model adversely affect the correct valuation of HR in ITL. Moreover, the rate of discounting future earnings of employees is changing year to year. It is a mathematically proved fact that high rate of discount tends to decrease the value of HR while low discount rate presents the increased valuation of HR. This change in discount rate in each year makes the HR data incompatible and presents misleading valuation of HR in ITL.

Table2: Analysis of HRA Practices of ITL

As at March 31	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Employees (No.)						
Software Professional	14,225	24,110	34,747	49,495	68,156	85,013
Support	1,131	1,524	2,003	3,220	4,085	6,174
Total	15,356	25,634	36,750	52,715	72,241	91,187
Value of human resources						
Software Professional	9,807	19,740	26,550	43,336	53,592	92,331
Support	610	1,400	1,784	3,301	3,860	6,490
Total	10,417	21,140	28,334	46,637	52,452	98,821
Rate of discounting						

future earnings of employees	16.99%	14.09%	13.63%	12.96%	14.97%	13.32%
Total income	3,623	4,853	7,130	9,521	13,893	16,692
Total employee cost	1,677	2,451	3,539	4,801	7,112	8,878
Value added	3,043	4,185	6,053	8,027	11,879	14,820
Net profit excluding exceptional items	958	1,244	1,846	2,479	3,861	4,659
HR Ratios						
Value of HR per employee	.68	.82	.77	.88	.80	1.08
Employee Cost/HR value (%)	16.10%	11.59%	12.49%	10.29%	12.4%	9.0%
Total income/ HR value (ratio)	.35	.23	.25	.20	.24	0.17
Value added/HR value (ratio)	.29	.20	.21	.17	.21	.15
Return on HR value (%)	9.20%	5.88%	6.52%	5.32%	6.7%	4.7%

Compiled from the Annual Reports of ITL of 2002-03 to 2007-08.

To conclude, it can be said that the HRA practices of ITL is satisfactory. Despite of these facts, ITL has voluntarily adopted HRA practices and disclosing HR information regularly in its annual reports. However, ITL need some more work in the reporting of compatible data about the human resource value and HR ratios so as to make HR decision more effective.

It can be argued that the literature review carried out, only there is evidence of application in the present, the Lev & Schwartz model (1971). However, in the past and as experimental study model Flamholtz (1999) was applied to several companies, both industrial and service.

Both the proposed model and the study designed as a partial test of its validity are intended as first step towards the development of a theory of human resource value in formal organizations. Although it should not be inferred that the model purports to fully explain the nature of human resource value or that the variables are fully validated, the evidence obtained in this study supports the validity of the model's hypothesized determinants.

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