A comparative study of cost approach on implementation of HRA system in India and Kurdistan region of Iraq – A special reference to process industry.

DR. NAVULUR KRISHNA SURARCHITH

Accounting Department, Tishk International University (Formerly known as Ishik University)
Email: krishna.navulur@tiu.edu.iq

Abstract: The current study focused on understanding human resource accounting practices of India and Kurdistan region in the process industry. The companies chosen for the current study are Cement Corporation of India Ltd., India and Al Mansoori Petroleum Services Ltd., Kurdistan Region of Iraq. Researcher observed the impact of various cost approaches on implementing Human Resource Accounting systems. The data was collected by constructing a questionnaire and distributed to respondents in two organizations. For the purpose of the data analysis and testing of hypothesis, 570 (386 from Cement Corporation Limited and 184 from Al Mansoori Petroleum Services Limited) have been considered for general evaluation. 46 (26 from CCI and 20 from AMPS) from the above lot has been taken separately confined only to the employees of HR & Finance departments considered for the evaluation. The valuation methods i.e. Historical Cost of Acquisition, Replacement Cost, Standard Cost, Present Value of Future Earnings and Discounted present value of future earnings have significant influence on HRA implementation.

Keywords: Cost approaches, implementation of HRA and process industries.

INTRODUCTION

According to (Hekimian J. A., 1967) historical cost method suffers from weakness is the viable dearth of nexus between human assets' book value and actual/market value. As per Rhode et al. 1976, calculation of depreciation on human assets is challenging and employees may exit the company earlier or later than anticipated and will grow at various rates. This method does not consider potential of the employee where as it takes acquisition cost into account. This method is ambiguous on duration of years on the amount of amortization. The amount of amortization is not rigid. Amortization will decrease capital cost.

According to the observations made by (Sarkar D. , 2012) the nature of replacement cost of an employee was extremely subjective and most of the times impossible. An employee at the level of top management leave the organization may considerably change human assets' value. It is challenging and impossible to find replacement exactly at management level employee.

Another name for Opportunity Cost model is "Market Value method" where it measures the value of human resources as per opportunity cost concept derived from economists. There is no opportunity cost in this method for employees where the number of employees is not sufficient or scarce. The value of human resources is formed based on scarce people. (Hekimian J. A., 1967).

Opportunity costs are treated as value of the assets where the aim of using human resource alternatively. Human resources that are scarce will have value at specific time. The calculation of opportunity cost is made based the efforts rendered by various units in the organization, departments and profit centers. (Hekimian J. A., 1967).

(Campbell K. , 2011) did research to examine organization's adoption regarding IFRS and international practices related accounting firms by considering theoretical framework. Researchers proposed that organizations may adopt "international accounting regulatory standard" to make employees work "trans-nationally" for auditing where audit job will be hassle free in different nations.

LITERATURE REVIEW

According to (Shawai A. S., 2015) pitfall of opportunity cost method was not considering the reality regarding scarcity of employees who were not considered to be scarce. Another reality is that an individual who has knowledge and specialization in one area will have zero value for the work he does alternatively.

Standard cost model can surpass the difficulties in calculation of replacement cost model and standard cost of recruiting, hiring, training and developing according to employee's grade are thrived, administered and prevalent every year. Standard cost is used for the purpose of accounting in valuing human resources. The sum

of standard cost will increase due to new entrant's standard cost in the organization. (Kumar, Sanjay, Krishnan, & Tamilrasu, 2019)

Un-purchased goodwill which is not reflected in the balance sheet of the organization. This method faced criticism in considering the human resource's role in generating return when the organization generates return higher than normal return and ignored the role of same human resource's role in performing normal operations or generating normal returns where the outcomes of valuing human resources are underestimated. (Kumar, Sanjay, Krishnan, & Tamilrasu, 2019)

Eric G. Flamholtz propounded Stochastic Model in 1971. The present model was furtherance of the model propounded by Lev and Schwartz that is "present value of future earnings model". The current model takes the possibility of movement of employees from one department or position to another due to career advancement as well as exit of employees from the organization prior to death and retirement.

(Boudreau, 1998) Propounded a model "People Vantage" where firms try to link employees with business results. Researcher proposed that metrics and human resources are tools for assessment or a method to judge the human resources' investment and it does not simply represent the expression operationally towards the theory regarding peoples' contribution to organization's success and the process related investments in human resources may convert into success.

Research Objectives:
1) To compare HRA practices of two regions.
2) To examine the impact of cost approaches on implementation of HRA system in India and Kurdistan region.

Hypothesis Formulation:
H_0: Human Resource valuation methods (Historical Cost, Replacement Cost, Standard Cost, Present Value of Future Earnings and Expected Realizable Value) do not have a significant influence on HRA process.
H_1: Human Resource valuation methods (Historical Cost, Replacement Cost, Standard Cost, Present Value of Future Earnings and Expected Realizable Value) have a significant influence on HRA process.

RESEARCH METHODOLOGY
The present research utilized quantitative, descriptive and explanatory. The descriptive research design was utilized to analyze, identify and describe the relationship between predictor variables and predicted variables. Quantitative research design was utilized to quantify the hypothesized nexus between the variables. The current research used quantitative method and descriptive research. Primary data was collected by administering questionnaire and conducting personal interview with group of respondents.

Data Analysis:

Table 1: Opinions of following the evaluation methods in implementation of HRA system

	Scale	CCI	(%)	AMPS	(%)	Total	(%)
Item-1	SA	11	42.31	8	40.00	19	41.30
	A	13	50.00	10	50.00	23	50.00
	N	0	0.00	0	0.00	0	0.00
	D	2	7.69	2	10.00	4	8.70
	SD	0	0.00	0	0.00	0	0.00
Item-2	SA	25	96.15	18	90.00	43	93.48
	A	1	3.85	2	10.00	3	6.52
	N	0	0.00	0	0.00	0	0.00
	D	0	0.00	0	0.00	0	0.00
	SD	0	0.00	0	0.00	0	0.00
Item-3	SA	3	11.54	0	0.00	3	6.52
	A	22	84.62	18	90.00	40	86.96
	N	0	0.00	0	0.00	0	0.00
	D	1	3.85	2	10.00	3	6.52
	SD	0	0.00	0	0.00	0	0.00
Item-4	SA	19	73.08	13	65.00	32	69.57

A	6	23.08	5	25.00	11	23.91
N	0	0.00	0	0.00	0	0.00
D	1	3.85	2	10.00	3	6.52
SD	0	0.00	0	0.00	0	0.00
SA	0	0.00	8	40.00	8	17.39
A	25	96.15	11	55.00	36	78.26
N	0	0.00	0	0.00	0	0.00
D	1	3.85	1	5.00	2	4.35
SD	0	0.00	0	0.00	0	0.00

The Table-1 is about the opinions collected from the two companies on various cost related elements which are used in valuation of HR presented below:

11 (42.31) of CCI employees from HR & Finance department strongly feel that Historical Cost of Acquisition is one of the right evaluation methods in calculating HR and 13 (50.00) have agreed, 2 (7.69) have disagreed, and 8 (40.00) of AMPS employees have strongly agreed with the above statement, 10 (50.00) have agreed and 2 (10.00) have disagreed.

25 (96.15) of CCI employees from HR & Finance department have strong agreed that Replacement Cost approach is useful in evaluating the HR and 1 (3.85) have just agreed, and 18　(90.00) of AMPS employees have agreed with the Replacement Cost approach and 2 (10.00) have agreed.

3 (11.54) of CCI HR & Finance employees have strongly agreed that Standard Cost approach is a better method in valuation of HR, 22 (84.62) have agreed and 1 (3.85) have disagreed, 18 (90.00) employees from AMPS have agreed and 2 (10.00) have disagreed with the statement.

19 (73.08) of HR & Finance department employees of CCI have strongly agreed that Present Value of Future Earnings is the finest method of approach in valuation HR, 6 (23.08) have just agreed and 1 (3.85) have disagreed and employees from HR & Finance department of AMPS, 13 (65.00) have agreed, 5 (25.00) have agreed, 2 (10.00) have disagreed with the method of approach.

25 (96.15) of CCI employees have agreed that Discounted present value of future earning is an effective methods of approach in evaluating HR 1 (3.85) have disagreed, 8 (40.00) of AMPS employees have strongly agreed this method of approach is better, 11 (55.00) have just agreed and 1 (5.00) have disagreed.

Human Resource valuation methods (Historical Cost, Replacement Cost, Standard Cost, Present Value of Future Earnings and Expected Realisable Value) have significant influence on HRA process.

Table 2 : Testing of Hypothesis on HR valuation methods in HR process

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Historical Cost of Acquisition	Between Groups	21.965	1	21.965	92.885	.000
	Within Groups	10.405	44	.236		
	Total	32.370	45			
Replacement Cost	Between Groups	8.217	1	8.217	120.522	.000
	Within Groups	3.000	44	.068		
	Total	11.217	45			
Standard Cost	Between Groups	9.019	1	9.019	68.586	.000
	Within Groups	5.786	44	.131		
	Total	14.804	45			
Present Value of Future Earnings	Between Groups	18.685	1	18.685	77.422	.000
	Within Groups	10.619	44	.241		
	Total	29.304	45			
Discounted present value of future earnings	Between Groups	5.176	1	5.176	21.739	.000
	Within Groups	10.476	44	.238		
	Total	15.652	45			

*Significance at 0.05 level

Table-2 reveals that the values of p<0.005 (0.000) where F = 92.885, 120.552, 68.586, 77.422 and 21.739 respectively clearly indicates that the valuation methods i.e. Historical Cost of Acquisition, Replacement Cost, Standard Cost, Present Value of Future Earnings and Discounted present value of future earnings have significant influence on HRA implementation. Hence, the formulated hypothesis "Human Resource valuation methods (Historical Cost, Replacement Cost, Standard Cost, Present Value of Future Earnings and Expected Realisable Value) have significant influence on HRA process" is accepted.

1. Which of the following method your organization following in HRA System?

Table 3 Monetary Measurement methods following in HRA System

Monetary Measurements	CCI	AMPS
Historical cost of acquisition	0	0
Replacement cost	0	0
Standard cost	0	0
Present Value of Future Earnings	26	0
Discounted present value of future earning	0	0

The values from the Table -3 shows that following measurement methods viz. Historical cost of acquisition, Replacement cost, Standard cost, Present Value of Future Earnings and Discounted present value of future earnings, Only CCI company using Present Value of Future Earnings method in evaluating HR.

Table 4: Variances: (Group number 1 - Default model)

Support variable to Implement HRA System	Estimate	S.E.	C.R.	P
Cost and Replacement Cost Approach	.544	.113	4.801	***
Implementation of HRA System	.000	.000	4.743	***

The probability of getting a critical ratio as large as 4.801 in absolute value is less than 0.001. In other words, the variance estimate for Cost approach is significantly different from zero at the 0.001 level (two-tailed).

CONCLUSION AND IMPLICATIONS:
Researcher concludes by answering research questions framed in the study where the valuation methods i.e. Historical Cost of Acquisition, Replacement Cost, Standard Cost, Present Value of Future Earnings and Discounted present value of future earnings have significant influence on HRA implementation. The implementation of Human Resource Accounting practices in both industries were not sufficient due to accounting procedures of different countries locally and guidelines issued from GAAP and IFRS. The concentration of organizations may start on revising their cost approaches during implementation of Human Resource Accounting practices.

Limitations and scope for further research
The researcher has geographical limitation and limited sample size due to time factor. Research may be conducted at larger geographical location and increased sample size by considering more cost approach methods under different industries.

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