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AWARENESS OF HUMAN RESOURCE ACCOUNTING PRACTICES AND COSTING: EVIDENCE FROM THE PHILIPPINES

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ABSTRACT

This study focused on the awareness of the Human Resource Accounting Practices and Costing (HRAC) of companies located in Carmelray Industrial Park 1 (CIP 1), Canlubang, Calamba City. The respondents were 8 human resource managers, 18 human resource supervisors, 8 finance officers, 9 chief accountants, and 5 accounting supervisors of the forty-eight (48) companies of CIP 1. The researchers used a questionnaire to collect the data. The study disclosed that the companies were not aware of the HRAC Cost Based Approach Models. The results also revealed that CIP 1 companies used the traditional or conventional accounting for human resources, where costs incurred for human resources were charged to expenses. The level of awareness and acceptance of the forty-eight companies of CIP 1 is very low. Based on the findings, the researchers recommended an accounting system that the companies might be able to use.

JEL: M40, M41, M48

KEYWORDS: Awareness, Human Resource Accounting

INTRODUCTION

Human resource is the most important asset of an organization. Without human resources, the other resources in production (namely materials, machines, money and methods) will not operate effectively. The efficient and effective utilization of these resources depend largely on the quality, caliber, skills, creative abilities, innovative thinking, intuition, imagination, knowledge, experience and perception of the human resources. Companies, therefore exert efforts to attract and retain employees with unique professional and technical capabilities. Companies invest in training and developing these employees also, offering them attractive compensation package and fringe benefits The traditional concept advocates that all expenditures of human capital formation be treated as expenses charged against the revenue of the period; rather than assets that will provide future benefits. At present, this concept has changed and the costs incurred on any asset (as human resources) are capitalized because they yield benefits measurable in monetary terms.

Human Resource Accounting (HRA) is a new branch in accounting. HRA means accounting for people as organizational resources. It is the measurement of the cost and value of people to organizations. It involves measuring costs incurred by private firms and public sectors to recruit, select, hire, train and develop employees. HRA is the process of accounting people as an organization resource. It tries to place a value on the organizational human resources as assets and not as expenses. The recognition that corporations have valuable human assets led to the development of the field of Human Resource Accounting in the 1960s (Flamholtz, 2002). The concept of HRA, which was established primarily for the service sector, has started gaining so much relevance that at present many companies in developed countries in all sectors have been applying HRA.

Empirical researches on Human Resource Accounting and Costing (HRAC) have justified the need to capitalize human assets and present them properly in the financial statements. Due to the current trends and progress of HRA in developed countries, this study was undertaken to determine if companies in the Philippines were aware of HRA. Awareness was determined using HRAC Cost Based Approach Models, namely: Historical, Replacement, and Opportunity Model. The study focused on the acceptance of the companies to the different costs pertaining to human resources. The respondents were 8 human resource managers, 18 human resource supervisors, 8 finance officers, 9 chief accountants, and 5 accounting supervisors of the forty-eight (48) companies of CIP 1. The researchers used questionnaire to collect data. The survey was conducted in January 2015. This study has important implications to generally accepted accounting principles and concepts. It is the objective of the researchers to recommend an accounting system integrating human resource as part of the financial statements. It advocates changes in the preparation of financial statements. It will add to the literature in the field of accounting. Statistical analysis of data gathered using questionnaires would collaborate the conclusions of the study. The remainder of this study is organized as follows: related studies on HRA, which included the Human Resource Costing-Cost Based Approach Model, methodology, results and discussions, conclusions, and recommendation of an accounting system to be used for human resources.

LITERATURE REVIEW

Unlike developed countries, which are replete with researches on human capital, there are very few studies on HRA in developing countries like the Philippines. The first attempt to value the human beings in monetary terms was made by Sir William Petty in 1691. Petty considered that labor was "the father of wealth" and it must be included in any estimate of national wealth without fail. Further efforts were made by William Far in 1853 and Earnest Engle in 1883. The real work started in the 1960's when behavioral scientists vehemently criticized the conventional accounting practice of not valuing the human resources along with other resources. As a result, accountants and economists realized the fact that an appropriate methodology has to be developed for finding the cost and value of the people to the organization. In this light, a number of experts have worked on it and produced certain models for evaluating human resources. Behavioral scientist (R.Likert 1960) concerned with the management of organizations pointed out that the failure of accountants to value human resources was a serious handicap for effective management. To correct the issue, appropriate methodologies were initiated to find the value of human resources to the organization.

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, faculty member R. Lee Brummet, and then Ph.D. candidates William C. Pyle and Eric Flamholtz. Likert was the 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), 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 was a paper representing one of the earliest studies dealing with human resource measurement. In this paper, the term "Human Resource Accounting" was used for the first time (Brummet, Flamholtz & Pyle, 1968). In 1969, Brummet, Flamholtz and Pyle researched on HRA as a tool for increasing managerial effectiveness. 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 to R.G. Barry Company, a public entrepreneurial firm. The study focused on the acquisition, development, allocation, maintenance, and utilization of human resources. Flamholtz et al continued their study in 2002. The authors believed that HRA has three major roles: to provide organizations with objective information about the cost and value of human resources; to provide a framework to guide human resource decision making; and to motivate decision makers to take human resource perspective. The traditional focus of accounting has been on numbers not on people; in practice, this meant that if dollar values cannot be assigned to transactions objectively, then they are of secondary importance.

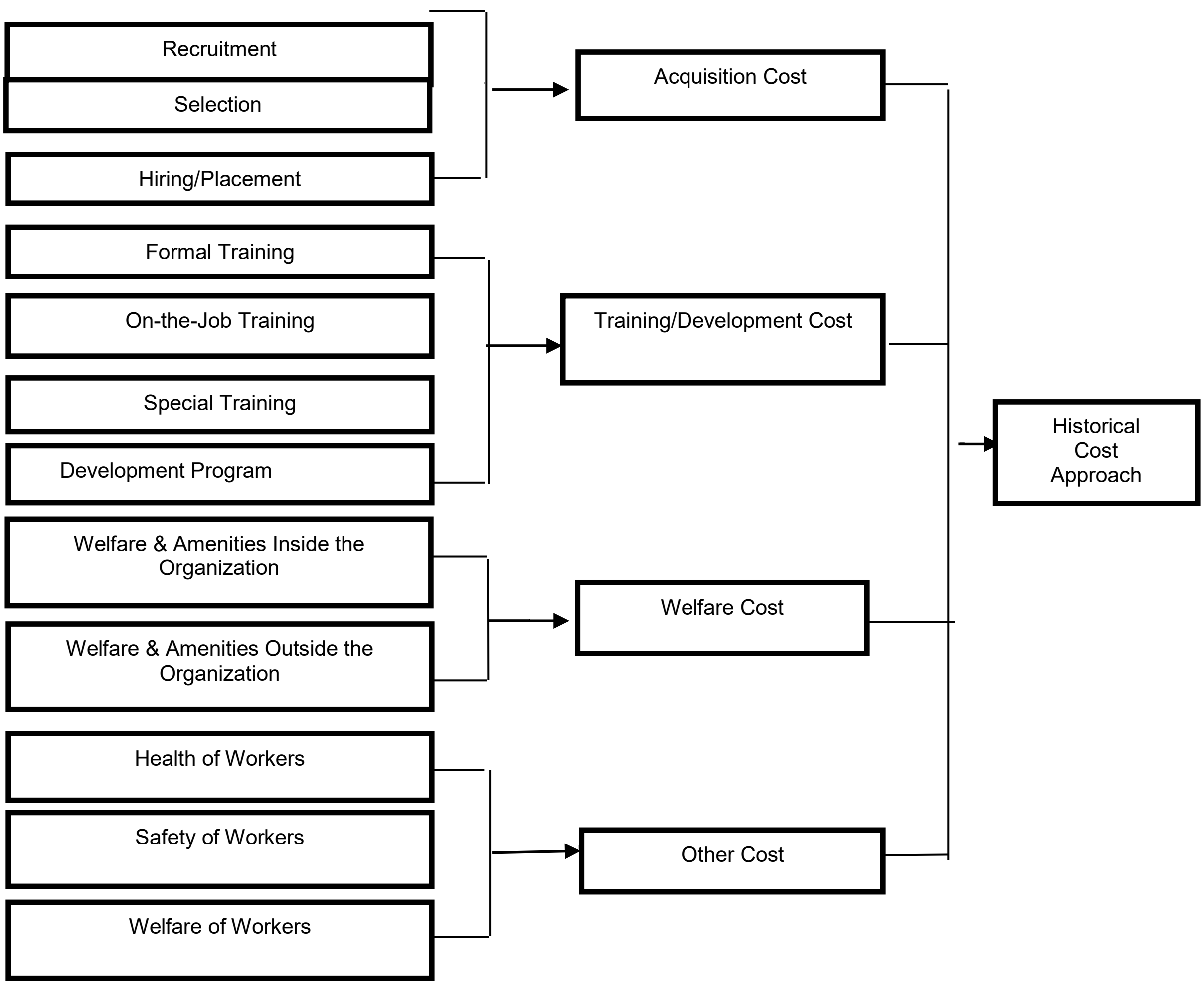
According to Bullen (2007), HRA can play a crucial role in internal managerial decision-making. Bullen strongly believe that measuring HRA can be used to show that investments in a company's human resources may result in long-term profits for the company. He further stressed that when managers go through 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. In a deeper perspective, Flamholtz, Bullen and 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 that the HRA measurements provide upper level management with an alternative accounting system to measure the cost and value of people to an organization. Davidove and Schroeder (1992) admitted that too many business leaders have no generally accepted definition or accounting procedure for tracking training investments, and noted that a lower training investment is not automatically better for an overall return on investment. The authors suggested that although many business leaders still view training as an overhead expense, with thorough return-on-investments (ROI) evaluations, businesses could be convinced to view them as part of assets crucial to organizational success.

Lev and Schwartz (2001) and Flamholtz et al. (2002) also noted that the cost and value of human resources are often expensed rather than capitalized, reducing the net income of the company, because of measurement difficulties. These measurement difficulties emanate from the uncertainty of the future benefits from the investment; for example, expenditures for employee training are expensed because the organization does not have a legal claim to the employee's future services. Roslender (1997) noted that little progress has been made into "taking humans into account" and that the major reason for this is that the "worth of employees has hitherto been too closely bound up with the problematic of financial accounting and financial reporting". Moreover, Lev and Schwartz (1971) noted, "this has resulted in the widespread practice of conceptualizing employee worth in terms of the hard accounting numbers normally associated with the discipline". Some value-based models have attempted to resolve this problem of measuring human costs by assigning probabilities of exit together with probabilities of promotion, mortality and future wages.

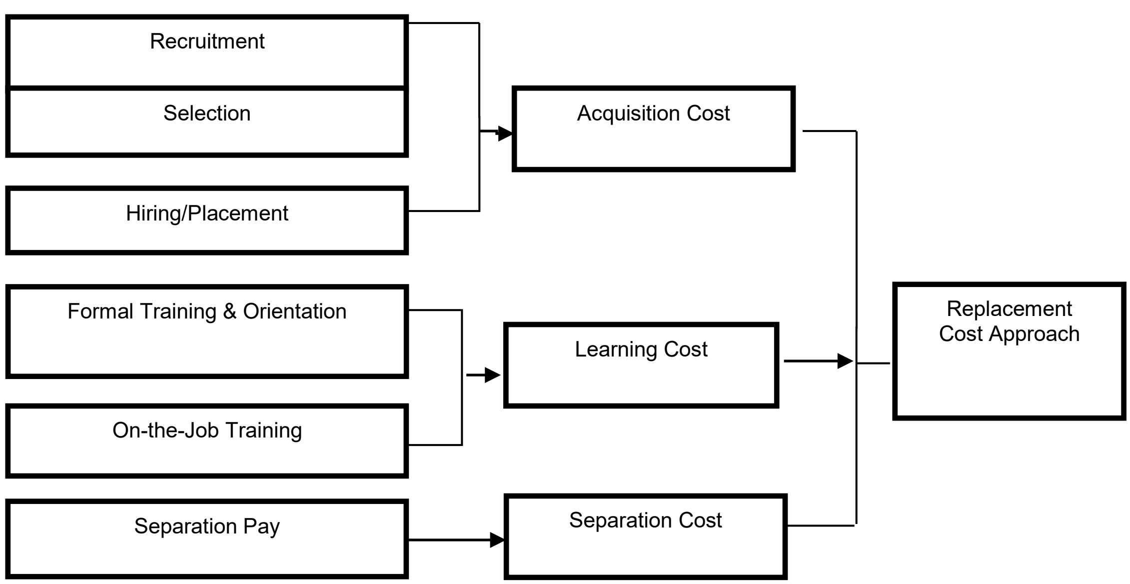
HaiMing Chen and Ku Jun Lin (2004) attested that many companies nowadays derive their competitive advantages mainly from human capital. However, under generally accepted accounting principles, all human-related expenditures are treated as expenses, which are deductions of revenues, thus misleading decision-makers into inappropriate judgments. To covert conflicting issues, Afiouni (2007) recommended integrating human capital resources and organizational capital resources in establishing effective management systems. Human capital resources include "training, experience, judgment, intelligence, relationships, and insight of individual managers and workers in a firm". Capital resources are "the firm's formal reporting structure, its formal and informal planning, controlling, and coordinating systems, as well as informal relations as among groups within a firm and between a firm and those in its environment". Included in this review is the Human Resource Costing-Cost Based Approach Model, which is of special importance in HRA. This model comprises of three sub-models namely: Historical Cost Approach, Replacement Cost Approach, and Opportunity Cost Approach.

Figure 1: Human Resource Costing-Cost Based Approach Model

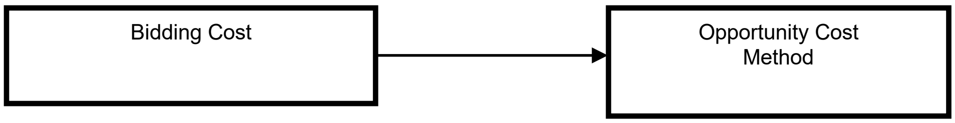
A-Historical Cost Model



B-Replacement Cost Model



C- Opportunity Cost Model



William C. Pyle assisted by R. Lee Brummet and Eric G. Flamholtz and R.G. Barry Corporation, a leisure footwear manufacturer based in Columbus, Ohio (USA) in 1967, developed the Historical Cost model. Replacement Cost approach was first propounded by Rensis Likert, and was developed by Eric C. Flamholtz. Opportunity Cost model was first advocated by Hekimian and Jones (1967). Source: Opportunity Cost, Approach Human Resource Accounting: Advances in Concepts, Methods and Application, Flamholtz (1999 pp.55- 57).

The Cost Based Model Approach involves computation of the cost of human resources to the organization. This method measures the organization's investment in employees using the following parameters: recruiting, acquisition; formal training and, familiarization; informal training, informal familiarization; experience; and development. The costs are capitalized and amortized over the useful life of the asset. An item is capitalized when it is recorded as an asset, rather than an expense. This means that the expenditure will appear in the balance sheet, rather than in the income statement.

A. Historical Cost Approach: William C. Pyle assisted by R. Lee Brummet and Eric G. Flamholtz and R.G. Barry Corporation, a leisure footwear manufacturer based in Columbus, Ohio (USA), developed this model in 1967. In this approach, actual cost incurred on recruiting, hiring, training and developing, welfare cost, and "other cost" of the human resources of the organization are capitalized and amortized over the expected useful life of the human resources. Thus, a proper recording of the expenditures incurred on hiring, selecting, training and developing the employees are maintained and a proportion of it is written off to the income of the next few years during which human resources will provide service. If the human assets are liquidated prematurely, the amount not written off is charged to the income of the year in which such liquidation takes place. If the useful life is recognized to be longer than originally expected, revisions are made in the amortization schedule.

The historical cost of human resources is very similar to the book value of the other physical assets. When an employee is recruited by a firm, he is employed with the obvious expectation that the returns from him will far exceed the cost involved in selecting, developing and training in the same manner as the value of fixed assets is increased by making additions to them. Historical cost of human resources is the investment in human resources, which has expense and asset components. Various cost items representing human resource investment subsystem can be categorized under four groups: Acquisition Cost, Development Cost, Welfare Cost and Other Costs. This method is simple to understand and easy to work out. It meets the traditional accounting concept of matching cost with revenue. It can provide a basis of evaluating a company's return on its investment in human resources.

Acquisition cost refers to the cost incurred in acquiring the right man for the right job at the right time and in right quantity. It includes the expenses incurred on recruitment, selection, hiring and placement; entire costs are taken into consideration including those who are not selected. The following costs are included in the acquisition costs:

Recruitment cost is the cost incurred to identify sources of human resources both from within and outside the organization. Selection cost is the cost incurred to determine who should be offered employment. The cost of selection depends on the position for which a person is being selected. The higher the position, the greater is the selection cost. The major components of selection costs are administrative cost of processing applications, conducting tests, interview, medical examination and the salaries, and consulting fees of the selectors.

Acquisition costs also include hiring and placement cost. These are costs incurred to bring an individual into the organization and place him or her on the job. Hiring and placement cost include moving and travelling allowances and other related costs, such as temporary housing and house hunting costs.

Training (Development) is a learning experience, which seeks permanent change in an individual to improve his ability to perform on the job. It can involve the changing of skills, knowledge attitudes or social behavior. The training techniques can help to improve employees' job performance, gain confidence in their attitude towards their job and their interactions with co-workers and supervisors. Training improves the productivity potential of both the individual and the organization. The costs include formal training, on the job training, special training, and development programs.

Welfare Cost and Other Costs. Employers have an obligation to provide its employees with an atmosphere to perform their work in healthy, congenial climate conducive to good health and high morale. The expenses incurred for this purpose will facilitate the employee to increase the quality of his civic life. It includes welfare and amenities within the organization, welfare outside the organization and other costs. Other costs include expenditure on employee safety, ex-gratia, multi-trade incentives and others.

B. Replacement Cost Approach: This approach was first propounded by Rensis Likert, and was developed by Eric C. Flamholtz based on the concept of replacement cost.

The concept of replacement cost refers to the sacrifice that would have to be incurred today to replace a person occupying a specified position with a substitute capable of rendering equivalent services in the given position. There are three basic elements of positional replacement costs: Acquisition Costs, Learning Costs, and Separation Costs as shown in Figure 1. According to Replacement Cost Approach, acquisition cost refers to the costs incurred in acquiring the right man for the right job at the right time and in right quantity. It includes the expenses incurred on recruitment, selection, hiring and placement; entire cost is taken into consideration including the costs of those who were not selected. Learning Costs refers to training costs. Training costs refers to the cost incurred in conventional training for the orientation of an individual so that he can operate the work. On-the-job training costs are costs incurred to train an employee to do the job efficiently and effectively from which the employee learns while he is on his job. Separation costs are incurred because of a position holder leaving an organization. Another element of separation costs is the cost of lost productivity prior to the separation of an individual from an organization assuming that there is a tendency for performance to decrease at such a time. Relocation also induces separation. Separation requires replacement; immediate cost-effect is on loss of production.

C. Opportunity Cost Approach: Hekimian and Jones (1967) first advocated this method. This method is based on the concept of opportunity costs. Opportunity cost is the value of an asset when there is an alternative use for it. There is no opportunity cost for those employees that are not scarce. As such, only scarce people should comprise the value of human resources. The opportunity cost of an employee in one department is computed based on the offer made by another department. Moreover, the authors of this approach believed that a bidding process is a promising approach towards more optional allocation of personnel and a quantitative base for planning, evaluating and developing human assets of the firm.

METHODOLOGY

This study covered the different companies in Carmelray Industrial Park 1 (CIP 1), Canlubang, Calamba City, Laguna. CIP 1 is the first integrated industrial park outside Metro Manila constructed in 1972 consisting of two hundred thirty (230) hectares, fully integrated industrial estate of international standards. Developed in stages, phases 1 and 2 covering 95 and 135 hectares respectively. Aside from the industrial complexes, the park includes Administrative and Support Service Centers, Commercial District, a park, schools, Carmeltown Residential Communities and the 41-hectare Special Export Processing Zone (SEPZ) where investors enjoy simplified import/export documentation and several tax incentives. It has been given an A-1 ranking by the Philippines Economic Zone Authority.

Questionnaire used by one of the researchers in a previous study, was used to record the perceptions of the respondents. The first part contains questions, pertaining to the demographic profile of the companies, while the second part consists of questions pertaining to human resource costing using the Human Resource Costing-Cost Based Approach Models. Participants' perception on their companies' level of agreement to the questions is tantamount to the company's acceptance and practice on costing human resources. The descriptive ratings are shown in Appendix B. The total population is fifty (50) companies; however, two (2) companies did not participate due to workloads. Each company was given one set of questionnaires. The survey was conducted during the month of January 2015. The total respondents were forty-eight (48) purposely selected by each company. They were 8 human resource managers, 18 human resource supervisors, 8 finance officers, 9 chief accountants, and 5 accounting supervisors of the forty-eight (48) participating companies. Profiles of the participants are shown in Appendix A. Gathered data were encoded on Microsoft Excel and validated using Data Analysis ToolPak.

RESULTS AND DISCUSSIONS

<u>Human Resource Accounting Practices Used by Companies in CIP 1</u>

Human Resource Accounting practices used by companies in CIP 1 are shown in Table 1. These accounting practices were derived from the three HRAC Cost Based Approach Models namely: Historical, Replacement, and Opportunity Model.

Table 1: Human Resource Accounting Practices Used by Companies in CIP 1 (N=48)

Practices	Weighted Mean	Frequency of Practice
A.1 Your company practices capitalizing and amortizing over the expected useful life of human resource the acquisition cost of acquiring human resource	1.87	Rarely Practiced
A.2 Your company practices capitalizing and amortizing over the expected useful life of human resource the training & development cost of your human resource	3.35	Occasionally Practiced
A.3 Your company practices capitalizing and amortizing over the expected useful life of human resource the welfare cost of your human resource	2.00	Rarely Practiced
A.4 Your company practices capitalizing and amortizing over the expected useful life of human resource the " other costs" of your human resource	2.13	Rarely Practiced
B.1 Your company practices capitalizing and amortizing over the expected useful life of human resource acquisition cost to replace human resource presently employed	2.37	Rarely Practiced
B.2 Your company practices capitalizing and amortizing over the expected useful life of human resource learning cost to replace human resource presently employed	3.39	Occasionally Practiced
B.3 Your company practices capitalizing and amortizing over the expected useful life of human resource separation cost to replace human resource presently employed	1.74	Never Practiced
C.3.1 Your company practices capitalizing and amortizing bidding cost of scarce employees within the organization	1.97	Rarely Practiced
AVERAGE	2.35	RarelyPracticed

This table shows the weighted mean (WM) of Human Resource Accounting Practices Used by Companies in CIP 1. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

Companies at Carmelrey Industries Park 1 (CIP 1) rarely practiced human resource accounting. Occasionally companies capitalize and amortize training/development cost and learning cost to replace human resource presently employed over the expected useful life of the human resource. "Occasionally" means they recognize these as costs and record them as expenses. The average indicates that the companies rarely recognized human resource accounting. Companies in CIP 1 practice conventional or traditional accounting of human resource. The expenses related to human resource, such as acquisition cost, training cost, welfare cost, separation cost and bidding cost are charged to expenses. Table 2 below, shows the frequency of human resource costs recognized by companies in CIP 1 as expenses. The costs particularly include acquisition cost, learning/training and development cost, welfare cost, separation cost and bidding cost. These costs are recognized as expenses and are shown in the income statement.

Table 2: Human Resource Costs Recognized by Companies in CIP 1 (N=48)

Costs	Weighted Mean	Verbal Interpretation
A.1.1 Your company utilizes the following acquisition costs		
a. Recruitment	4.10	Frequently
b. Selection	3.98	Frequently
c. Hiring	3.96	Frequently
d. Placement	3.97	Frequently
A.1.2 Your company utilizes the following training and development cost		
a. Formal Training	4.12	Frequently
b. On-the-Job Training	4.03	Frequently
c. Special Training Program	4.08	Frequently
d. Development Training Program	3.74	Frequently
A.1.3 Your company utilizes the following welfare cost		
a. Welfare and amenities within the organization	4.21	Very Frequently
b. Welfare and amenities outside the organization	3.81	Frequently
A.1.4 Your company utilizes the following "other costs"		
a. .Health of Workers	4.14	Frequently
b. Safety of Worker	3.74	Frequently
B.1.2 Your company utilizes separation cost to replace human resource presently employed"	3.35	Occasionally
C.1.1 Your company utilizes bidding cost for scarce human resource within the organization	1.79	Never
AVERAGE	**3.79**	Frequently

This table shows the weighted mean (WM) of Human Resource costs recognized by Companies in CIP 1. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

On the average, participants believe that their companies recognized costs pertaining to acquisition, training and development, and welfare of human resources including other costs such as health and safety of employees. However, separation and bidding cost are never recognized as expenses by the companies.

The results are paralleled with the findings of a study by Logasakthi and Rajagopal (2013), which revealed that employees enjoy not only the satisfaction of their jobs but also various welfare facilities given by the firm. In return, human resources extend their maximum support for the improvement of the company. The personnel department takes care of the total human resources in the company. The management provides all the health safety and welfares to the employees that will help produce better performance in the work and working environment.

<u>Degree of Awareness of Companies in CIP 1 on HRA Cost Based Approach Models</u>

Table 3 presents the degree of awareness of companies in CIP 1 on the three Models on human resource accounting.

Table 3: Degree of Awareness of Companies in CIP 1 on the Three Human Resource Accounting Approach Models (n=48)

Cost	Weighted Mean	Level of Awareness
A. Historical Cost Approach		
A.1 Your company capitalize and amortize over the expected useful life of human resource the acquisition cost of acquiring human resource	1.92	Very Low
B. Replacement Cost Approach		
B.1 Your company practice costing to replace human resource presently employed which includes acquisition cost	3.06	Low
C. Opportunity Cost Approach		
C.1 Your company practice bidding scarce employees within the organization	1.88	Very Low
AVERAGE	2.29	Very Low

This table shows the degree of awareness of Companies in CIP 1 to the Three Human Resource Accounting Approach Models. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

Historical Accounting Cost Based Approach that capitalizes and amortizes over the expected useful life of human resource the cost to acquire human resources got a mean of 1.92 and degree of awareness pertaining to this statement is "Very Low." Awareness of companies pertaining to Replacement Accounting Cost Based Approach that capitalizes and amortizes the cost to replace human resource presently employed is " low". Likewise, awareness to Opportunity Cost Based Approach that bids scare human resource within the company is "very low". This simply implies that companies in CIP1 are not aware of HRA Cost Based Approach Model. In a research journal in Finance and Accounting, Oluwatoyin (2014) stated that the level of awareness and acceptance of HRA is still low because companies have no initiative to make the information available to the shareholder despite the availability of data. Further, many companies do not want to go into the intricacies of finding the value of their human resources because of the need of extensive research that it entails. The result is consistent with the findings of the review by Cherian and Farouq (2013) who clearly stated, "firms particularly lawyers, corporate acquisition specialists, accountants, company management and HR professionals are not willing to execute HRA." Extensive research on developing HRA is complicated since it requires the organization's cooperation to act as research sites and research involves implementation in organization, hence the cost of operation is high.

Acceptance of Human Resource Costs

The following discussions pertain to the level of acceptance of the companies to the different costs involved in accounting for human resources. This will give the researcher a basis for recommending an accounting system those companies in the Philippines might be able to use. The costs that are included under the Historical Cost Based Approach Model in acquisition and costing of human resources are shown in Majority of the participants agree that their companies are aware of acquisition cost, recruitment, selection, hiring and placement costs in acquiring human resource. Although their companies recognize hiring and placement costs, they are not aware that costs include moving allowances, travelling allowance, temporary housing and house hunting costs. The costs that most companies recognize are advertising costs, administrative cost of processing applicants, and medical examinations.

Table 4: The Table Shows the Agreement of Companies in CIP 1 in Using These Recruitment and Selection Costs to Value Their Human Resources. in Human Resource Accounting (N=48)

Acquisition Cost	Weighted Mean	Level of Agreement
1. Your company is aware that acquisition cost should include recruitment cost	4.08	Moderate
2. Your recruitment cost should include the following:		
a. Recruitment material Cost	3.64	Moderate
b. Administrative cost	3.56	Moderate
c. Advertising cost	4.07	Moderate
d. Agency fees	3.45	Moderate
e. Recruitment's salary	3.69	Moderate
3. Your acquisition cost should include selection cost	3.83	Moderate
4. Your selection cost should include the following:		
a. Administrative cost of processing applicants	3.87	Moderate
b. Cost of conducting tests	3.50	Moderate
c. Interview	3.50	Moderate
d. Medical examination	3.82	Moderate
e. Consulting fees of selector	3.03	Low
5. Your acquisition cost should include hiring and placement cost	3.79	Moderate
a. Moving allowance	1.75	No awareness
b. Travel allowance	1.60	No awareness
c. Temporary housing	1.78	No awareness
d. House hunting cost	1.19	No awareness
AVERAGE	3.18	Low

This table shows the weighted mean (WM) and the level of acceptances of the participants to the statements pertaining to Historical Cost Based Approach – Acquisition Cost. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

On the average, participants believe that their companies agree to recognize the six acquisition costs pertaining to recruitment under the Historical Cost Based Approach Model in computing for the values of their human resources. The costs pertaining to Historical Costing Cost Based Approach on training and development are shown in Table 5.

Table 5: Level of Agreement of Companies in CIP1 on HRC Historical Cost Based Approach-Training and Development Cost (N=48)

Cost	Weighted Mean	Level of Awareness
Training & Development		
1. Your company is aware that training/development costs should include formal training	4.11	Moderate
2. Your formal training cost should include the following		
a. Remuneration of training staff	3.56	Moderate
b. Fixed cost of training schools	3.46	Moderate
3. Your training and development costs includes on-the-job training	4.03	Moderate
4. Your on-the-job cost should include supervisory salaries during training	3.63	Moderate
5. Your training/development costs should include special training cost (specific training costs)	4.07	Moderate
6. Your training/development cost should include development program costs	3.76	Moderate
7. Your development program cost should include the following		
a. Local & international conferences and seminars	4.09	Moderate
b. Delegate fees	4.00	Moderate
c. Travel/transportation cost	4.10	Moderate
d. Accommodation	4.10	Moderate
AVERAGE	3.90	Moderate

This table shows the weighted mean (WM) and the level of acceptances of the participants to the statements pertaining to Historical Cost Based Approach – Training and Development cost. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

The participants firmly acknowledged that training and development cost plays a vital role in their company's HRC, as evidenced by the positive responses of the participants to all statements. The participants believe that their companies are aware that training and development costs should include formal and on-the-job training; special and specific training; and development training, which should include local and international conferences and seminars. Formal and on-the-job training top the costs, followed by conferences and seminars. Table 6 presents the level of agreement of companies in CIP 1 on HRC Historical Cost Based Approach Model, specifically on welfare cost.

Table 6: Level of Agreement of Companies in CIP 1 on Using HRC Historical Cost Based Approach – Welfare Cost in Human Resources Accounting (n=48)

Cost	Weighted Mean	Level of Awareness
Welfare Cost		
1. Your company is aware that welfare cost should include amenities within the organization	4.21	High
.2. Your welfare and amenities within the organization should include the following		
a. Rest areas	4.12	Moderate
b. Canteens/cafeterias	4.45	High
c. .Restrooms	4.45	High
d. Washing and bathing facilities	4.21	High
e. Drinking water	4.44	High
f. Occupational safety	4.53	High
3. Your welfare cost should include welfare and amenities outside the organization include the following	3.82	Moderate
a. Insurance measures	4.00	Moderate
b. Maternity benefits	4.20	Moderate
c. Medical facilities	4.18	Moderate
d. Educational facilities	3.03	Low Awareness
e. Housing facilities	2.76	Low Awareness
f. Recreational facilities	3.58	Moderate
AVERAGE	4.00	Moderate

This table shows the weighted mean (WM) and the level of acceptances of the participants to the statements pertaining to Historical Cost Based Approach – welfare cost. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

Occupational Safety pertaining to company's welfare cost and amenities within the organization is regarded as the most important cost under this model. Majority of the participants are aware that their companies recognize occupational safety important role in a manufacturing company. On the other hand, company's agreement on adding welfare and amenities outside the organization is the lowest. On the average, participants believe that their companies are moderately aware of the inclusion of welfare cost in the human resource costing. Table 7 illustrates the level of agreement of companies in CIP 1 on HRC "other cost" under Historical Cost Based Approach Model.

Table 7: Level of Agreement of Companies in CIP 1 on HRC Historical Cost Based Approach- "Other Cost" (N=48)

Other Costs	Weighted Mean	Degree of Agreement
1. Your company is aware that "other cost" of your human resource should include health of workers	3.83	Moderately Agree
2. Health of workers' cost should include		
a. Disposal of waste	4.21	Strongly Agree
b. Ventilation	4.38	Strongly Agree
c. Temperature	4.23	Strongly Agree
d. Overcrowding	4.05	Moderately Agree
e. Lighting	4.33	Strongly Agree
3. "Other cost" of your human resource should include safety of workers' cost	3.85	Moderately Agree
4. Safety of workers' cost should include the following		Moderately Agree
a. Casing of new machines	3.67	Moderately Agree
b. Hoists and lifts/lifting machines	3.67	Moderately Agree
c. Protection of the eyes	3.67	Moderately Agree
d. Precautions against dangerous fumes	3.81	Moderately Agree
AVERAGE	3.97	Moderately Agree

This table shows the weighted mean (WM) and the level of acceptances of the participants to the statements pertaining to Historical Cost Based Approach – welfare cost. The questions were structured using the Likert format. Responses were given weight from 1 to 5 points. Scales are shown in Appendix B.

Companies consider health of workers' as the most important other cost. Although companies include safety of workers as part of other cost, they believe that costs pertaining to safety are less important than health of workers.

CONCLUSIONS

This study was undertaken to determine if companies in the Philippines are aware of HRA. Awareness is determined using HRAC Cost Based Approach Models namely: Historical, Replacement, and Opportunity Model. The study focused on the acceptance of the companies to the different costs pertaining to human resources. The respondents were 8 human resource managers, 18 human resource supervisors, 8 finance officers, 9 chief accountants, and 5 accounting supervisors of the forty-eight (48) manufacturing companies of CIP 1. Gathered data were encoded on Microsoft Excel and validated using Data Analysis ToolPak. Companies at CIP 1 are not aware of HRA. The companies in CIP 1 have very limited knowledge in HRAC Cost Based Approach Models. The degree of awareness of companies in CIP 1 on HRA Cost Based Approach Models namely Historical, Replacement and Opportunity is very low, low, and very low, respectively. The companies recognized as expense most of the human resources costs presented in each model. However, they did not include under hiring and placement costs moving allowance, traveling allowance, temporary housing and house hunting costs. It is evident that the companies practiced the traditional or conventional accounting and costing for human resource. The company's investments in human resource are treated as expenditures reflected in the income statement rather than assets recorded in the balance sheet. This study was limited to the awareness of the companies to human resource accounting. It was further limited by focusing on companies located in one area, Calmelray Industrial Part I in Canlubang. It is an exploratory research on which, further studies will have to be undertaken to determine the impact of HRA to companies' financial status, the extent of its applicability, costing problems and other limitations.

RECOMMENDATION

Human resources accounting is no doubt a developing discipline in the field of accounting. More accurate methods to quantify human capital for financial reporting will be beneficial to internal and external users of companies' financial statements. As society becomes more knowledge-based, more firms are keeping an eye on their human capital, investing in employee recruitment and training. The following accounting for human resource is recommended. Once the human resource is hired by the company, the value of the human resource should be assessed using ratings and ranking based on the following criteria: educational attainment, work experience and skills acquired. The entry salary package of newly hired human resource will depend on the criteria. The amount/percentage corresponding to each criterion will be at the discretion of the company based on the company's policy and standard. This is tantamount to human resource valuation as reflected in the human resource salary package. The following accounting entries will be used: Dr. Salaries and Wages Expense Cr. Cash/Cash in Bank To record salaries of human resource All cost incurred by the human resource associated with training, development and learning costs will be capitalized and amortized over the expected useful life (retirement age) of the human resource. If the human resource leaves the company due to resignation, death or dismissal, the whole amount not written off is charged to the current revenue as impairment loss. The following accounting entries will be used to record training development and learning cost incurred by the human resource, amortization of HR investment and impairment loss.

Dr. Human Resource Investment Cr. Cash/Cash in Bank To record training and development, learning cost of human resource

Dr. Amortization of Human Resource Investment Cr. Human Resource Investment To record yearly amortization of human resource investment

Dr. Impairment Loss Cr. Human Resource Investment To record amount written off due to resignation, death or dismissal

The job design (job description, specification and qualification), Awards and Recognition received by the human resource from various Professional affiliations/social and civic organizations will be used to value the human resource. The company can give incentive bonus or fringe benefits to the human resource. The accounting entries to be used:

Dr. Human Resource Investment Cr. Cash/Cash in bank To record human resource investment (job design, awards and recognition).

Performance and productivity rating resulting from the performance and productivity evaluation of the human resource immediate supervisor will be the basis for the performance/productivity bonus of the human resource. The accounting entries to be used:

Dr. Human Resource Investment Cr. Cash/Cash in bank To record human resource investment (performance/productivity bonus)

All expenses are shown in the income statement. The account Human Resource Investment will be shown in the balance sheet under assets, and classified as "Other Investments".

APPENDIX

Appendix A: Profile of Participants

Profiling Variable	Category	Frequency	Percent
(N=48)			
Type of Business as to Ownership	Corporation	48	100%
Type of Company as to Nationality	Purely Domestic	23	48%
	Semi-Domestic	25	52%
Country of Foreign Ownership	Britain	2	8%
	Japan	10	40%
	Malaysia	4	16%
	Singapore	3	12%
	Switzerland	1	4%
	Taiwan	5	20%
Percentage of Foreign Ownership	10-20%	3	12%
	more than 40%	22	88%
Type of Business as to Activity/Operation	Service	4	8%
	Manufacturing	44	92%
Capitalization	More than 25M	48	100%
Years of Operation	1-5	2	4%
	6-10	4	8%
	11-15	4	8%
	16-20	18	38%
	More than 20 years	20	42%
Number of Employees	10-50	4	8%
	51-100	5	10%
	51-300	4	8%
	351-400	20	43%
	More than 400	15	31%

Profile of 48 companies in CIP 1, Canlubang Calamba City that participated in the survey conducted during the month of January 2015.

Appendix B: Range of Values, Interpretations

Range of Values		Level of Agreement	Verbal Interpretations	
			Level of Awareness	Level of Practice
4.21	5.00	Strongly Agree	High	Always Practiced
3.41	4.20	Moderately Agree	Moderate	Frequently Practiced
2.61	3.40	Agree	Low	Occasionally Practiced
1.81	2.60	Uncertain	Very Low	Uncertain
1.00	1.80	Disagree	No Awareness	Do not Practice

Likert type Scale used in interpreting the weighted mean.

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BIBLIOGRAPHY

Afiouni, F. (2007). Human Resource Management and Knowledge Management a Road Map toward Improving Organizational Performance. *Journal of American Academy of Business, 11(2),* 124-130

Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1968a). Human Resource Measurement: A challenge for Accountants. *Accounting Review, XLIII,* 217-224.

Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1968b). Accounting for Human Resources, *Michigan Business Review, 20(2),* 20-25.

Bullen, M.L. (2007). Human Resource Accounting: a Useful Tool for Measurement and Management in Organizations. *Leadership and Organizational Management Journal, 2 (8),* 85-103.

Chen, H., and Lin, K., (2004). The role of Human Capital Cost in Accounting. *Journal of Intellectual Capital, 5(1),* 116-130.

Cherian, J., & Farouq, S., (2013). A Review of Human Resource Accounting and Organizational Performance. *International Journal of Economics and Finance, 5 (8)* 74-79. http://dx.dpo.org/10.5539/ijef.v5n8p74

Davidove, E. A. & Schroeder, P. A. (1992). Demonstrating Return on Investment. [Online] Available: www.traininganddevelopment

Flamholtz, E. G., Bullen, M. L., & Hua, W. (2002). Human Resource Accounting: A Historical Perspective and Future Implications. *Management Decision, 40 (10),* 947-54. http://dx.doi.org/10.1108/00251740210452818

Flamholtz,E.G., Bullen, M.I., and Hua, W. (2003), Measuring the ROI of Management Development: An Application of the Stochastic Reviews Valuation Model, *Journal of Human Resource Costing & Accounting, Vol 7 Nos 1 /2*, pp.21-40.

Flamholtz Eric G., (1999), Human Resource Accounting: Advances in Concepts, Methods and Applications, Boston 3rd ed., 412, MA: Kluwer Academic Publishers.

Flamholtz, E.G., Kannan-Narasimhan, R., & Bullen, M.L. (2004). Human Resource Accounting today: Contributions, Controversies and Conclusions. *Journal of Human Resource Costing and Accounting, 8(2)* 23-37.

Hekimian, J. and Jones, C. (1967), Put People on Your Balance Sheet, *Harvard Business Review, Vol. 45 No.1*, pp. 105-113.

Lev, B., & Schwartz, A. (1971). On the Use of the Economic Concept of Human Capital in Financial Statements. *Accounting Review*, *49 (1),* 103-112.

Likert, R., New Patterns of Management, McGraw-Hill, 1961

Likert R, The Human Organization: Its Management and Value, International Student Edition, McGraw-Hill, 1967

Logasakthi K. and Rajagopal K. (2013): A Study on Employee Health, Safety and Welfare Measures of Chemical Industry in the View of Sleam Region, TamilNadu (India). *International Jour. of Research in Business Management, Vol. 1 (1)* pp. 1 - 10.

Oluwatoyin, A.S. (2014) Human Resource Accounting and Disclosure in Financial Statement: Literature Review. *Research Journal of Finance and Accounting* 5 (22) 72. Retrieved from http://www.iiste.org/journals

Roslender, R. (1997). "Accounting for the Worth of Employees: Is the Discipline Finally Ready to Respond to Challenge?" *Journal of Human Resource Costing and Accounting 2 (1):*9-26.

Swanson, R.A, Holton, E.F. (2001). Foundations of Human Development 2nd Edition, San Francisco California: Berrett-Koehler Publisher Inc.

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