Impact of Accounting Measurement and Disclosure of Human Resources on Financial Statements: An Empirical Study

Hasan Y. El-Mousawi[1] & Hasan H. Kanso[1]

[1] Faculty of Business Administration, Lebanese University, Beirut, Lebanon

Correspondence: Hasan Y. El-Mousawi, Faculty of Business Administration, Lebanese University, Beirut, Lebanon. Tel: 96-1328-1831. E-mail: h_mousawi@hotmail.com

Abstract

In recent years, there has been an argument about whether or not human resources costs should be reported in the balance sheets or in the income statements as costs. This research aims at studying accounting measurement and disclosure of human resources and their impact on an organization's financial statements, which are considered the main source of decision-making. The researchers adopted the analytical descriptive approach, utilizing an empirical study. A questionnaire was constructed and distributed to a population of Lebanese Certified Public Accountants and professors at public and private universities. The research yielded some important findings, mainly that investment in human resources can be considered as an asset of the organization, just like other intangible assets. The researchers also found that accounting disclosure of human resource costs actually affects financial statements.

Keywords: human resource accounting, investment, disclosure of human resources, financial statements, human capital

1. Introduction

1.1 Background

Competent and skilled human resources are as essential for any organization as its investments and properties. Owners and managers of organizations invest large sums of money in training and supplying knowledge for their employees to enhance the effectiveness of the organization which they manage. However, Human Resource Accounting (HRA), which is primarily used to process information related to human resources has not been used yet in any organization in Lebanon.

Investing in the intellectual potentials of human resources is among the priorities in managing the strategic investment portfolio which affects the present and future of an economic unit. Although investment in human resources is not physical, there is an evident influence in maximizing the market share of the economic unit as a result of evolving its competitive characteristics on both the short and the long term. Interest in Human Resource Accounting (HRA) began as a result of awareness about the importance of individuals at economic and social organizations since 1965, being the resources which motivate production. That interest increased since then, and recognition of human capital is considered an essential component of the total organization value. However, disclosure of human resources in financial statements has not been implemented yet because of the difficulty in finding an acceptable, objective measurement for the value of human resources despite the existence of costs related to employment, training, salaries and wages, promotions and other costs.

Some accountants and accounting firms are becoming more used to employing complicated ways of measurement of the reported amounts in the financial statement. This might lead to the potentiality that financial reports may get to include some nontraditional ways of measurement like the human resource value used in Human Resource Accounting (HRA).

1.2 Statement of the Problem

The main problem discussed in the research is how to perform accounting measurement and disclosure of human resources in financial statements of organizations for managerial purposes and decision making related to the efficiency and quality of work, which is also closely related to developing expertise and skills of individuals and uncovering their managerial talents in order to make use of them in increasing the value of the services or

products they supply. This would enhance and empower the competitive status of the organization.

a. Is it important to implement HRA at an organization?

b. Is it possible to reach an objective, reliable accounting measurement for the value of human resources?

c. Is it possible to consider the cost of investment in human resources as one of the assets of the organization?

d. Does disclosure of human resource cost in financial statements add reliability toward the management and others of interest?

e. Are there differences in views of academics and certified Lebanese accountants about the possibility of measurement and accounting disclosure for human resources and their impact on financial statements?

1.3 Objective of the Study

One of the most essential goals of the Human Resource Accounting (HRA) is to supply the management with the necessary information to help make managerial and financial decisions related to human resources in the organization. Thus, this study aims at clarifying the possibility of accounting measurement and disclosure of human resources through clarifying the concept of human resource accounting and identifying models of measurements resulting from previous studies. Also, the main goals of this study are based on finding standards for recognizing and applying objective measurements for human resource accounting costs.

1.4 Literature Review

During the past few decades, supporters of HRA such as Lev and Schwartz (1971), Hendricks (1976), Flamholtz et al. (2010), Herman and Mitchell (2008) and others proposed that Human Resource Accounting (HRA) may have some benefit on external users of financial statements. Decision makers should get informed about changes in human resources to be able to accurately evaluate income and assets. If the situation of human resources changes during the period, the traditional accounting profit could be misstated and the asset base could be inaccurate (Flamholtz& Main, 1999). Related to this, Hendricks (1976) presented a study utilizing students of accounting and finance as subjects of the study. His replicated investors who made two stock decisions (investment and capital allocation). One of the decisions utilized human resource cost data, while the other one did not. Hendricks concluded that HRA had a difference of statistical significance on adopted decisions. In addition, Shukla and Naghshbandi (2014) determined that managements of organizations have a problem, which is the difference in views and the presence of defects in methods used to evaluate and measure human resources in addition to not having adopted one objective and acceptable method by all parties who are specialized in the accounting domain.

Flamholtz et al. (2010) employed the HRA measurement of estimated realizable value to find out that participation of employees in a management development program enhanced the value of the individuals to the organization. In addition, the researchers found it noteworthy that HRA procedures supplied higher level management with a substitute accounting system to measure the employees' costs and value to the firm. On a similar level, Appleby (1994) notes that only when various assets are joined with human assets, the organization becomes at its full potential. Also, in their book, Frank Wood's Business Accounting, Wood and Sangster (1999) note that one of the essential drawbacks of financial accounting is that there is no inclusion of the human resources as an asset of an organization. Similarly, in his research, Human Resource Accounting, Hosseini (2012) concludes that continual training program and specialized learning for human resources at the organization enhance its productivity and supply higher capability of problem-solving, which make their relation with others more positive and increase their expertise and skills to become an essential intellectual capital for the organization.

Murumba (2014) states that investing in human resources, like other fixed assets, provides benefits which emanate for two or more accounting periods; consequently, human resources should be capitalized instead of expensing them when they happen. Theeke and Mitchell (2008) argued that reporting within a human resource liability model is appropriate for the traditional accounting structure of potential liabilities as it studies the financial impact of such reporting on market valuation and planning and investigates human resource liabilities measurement. The research supplies support for the need and feasibility of adopting a human resource liability model for managing, reporting and valuing human resources.

Fariborz (2011) concludes that lack in disclosure of accounting information related to human resources in financial statements will have a negative impact on users; while disclosing costs of investment in human resources in the financial statements gives a positive indication about achieving an increase in profit on the long run. Fariborz also notes that using financial statements which include information about human resource costs

has an essential impact on making managerial and financial decisions, particularly those related to investment. In a similar study, Bullen (2010) concludes that the method and addition of human resource accounting procedures are projected to have positive impacts the knowledge of financial statements' users about future benefits resulting from investment in human resources. In addition, both Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) have an inclination to use a more complicated method of measuring both tangible and intangible assets, which might propose their readiness to assert the need for measuring and using human resource accounting in future external financial reporting of organizations.

Ö zera and Ç amb (2016) consider Human Capital (HC) as a value which is related to participants in the market because of the essential relationship with the market value of a security; thus, disclosure of such human capital indicators is central in making valuation decisions. From the accounting standards standpoint, the researchers present practical evidence explaining that participants in the market treat personnel expenses, as an investment which creates value. Thus, information related to human capital must be reported in financial statements. Similarly, Enyi (2014) concludes that there is need to valuate and capitalize investment in human resources, considering it an asset like other intangible assets such as fame. Enyi also considers disclosure of investment expenditure in financial statements as essential. Enyi then states that principles of International Financial Reporting Standards (IFRS) are in accord with the necessity of capitalizing human resource costs and disclosing them in financial reports since it is basic in making good decisions at organizations.

In their empirical study, Shreelatha and Sinha (2018) determine that costs brought upon human resources represent a main constituent of the total operating cost. However, findings of their study reveal that expenditure on human resources does not contribute greatly to profit, justifying that organizations which know how to manage human resources well can accomplish greater results. Nevertheless, Juhi Chatterjee (2018) concludes that expenditure on training and development of the human resources can render more profit to the organization. Juhi Chatterjee reached this conclusion after conducting a comparison between two companies, one of which has more expenditure on human resources than the other; thus, gaining more profit.

In this paper, the researchers explore the impact of accounting measurement and disclosure of human resources on financial statements from the practitioners' viewpoint, who are mainly represented by the Lebanese Association of Certified Public Accountants (LACPA) and academics' viewpoint who are mainly professors at public and private universities in Lebanon.

1.4.1 Measurement Models of Human Resources

Researchers have classified measurement models used in human resource accounting into three groups (Flamholtz, 1972):

   i.   Cost

   ii.   Value

   iii.   Behavior

1.4.2 Measurement Models of Human Resources Depending on Cost

Human resources cost is represented in cost which the organization takes in order to get workers or replace them. There are three main methods to measure human resources based on cost (Flamholtz, 2007):

    a.   Historical cost model

It is the economic sacrifice which an organization takes in order to attain workers and develop their qualifications and skills.

    b.   Cost of replacement model

It is the cost of replacement for human resources which the organization takes to replace existing human resources with others that have the same potentials and expertise of the human resource being replaced.

    c.   Alternative cost model

This means that managers of investment centers offer bids for uncommon human resources that they need. Consequently, employees who are not considered uncommon have no internal alternative cost and are excluded from valuing human resources at the organization.

1.4.3 Measurement Models of Human Resources Depending on Value

These models are based on the concept of economic value of human resources such that the main determinant of whether or not something has value is the ability to present future economic benefits or services. Following are

the main models used in measurement and valuation of human resources based on value (Flamholtz, 2007):

a. Present value of future revenues model

This model is also referred to as the discounted value. It is the value of a projected income which is determined as of valuation date. The future value is always more than or equal to the present value since money has the potential of earning interest, which is a quality referred to as time value of money (Lev & Schwartz, 1971). It is calculated using the following formula:

$$E(V_Y^*) = \sum_{I=Y}^{T} P\, y(t+1) \sum_{i=y}^{t} \frac{I_I^*}{(1+y)^{t-y}}$$

where:

$E(V_y^*)$ is the projected value of the human resources for a person whose age is y years.

t is the retirement age.

Py(t) is the possibility of someone's death (quitting or retirement).

I_I is the projected revenue of a person during the period i.

b. Adjusted discounted future wages model

This is also called Lev and Schwartz model. They conclude that the capital is known for the source of inflow whose value is the present value of the sum of all future calculated incomes at a specific interest rate (Hermanson, 1964). It is calculated using the following formula:

$$ER = \frac{5\frac{RF_0}{RE_0} + 4\frac{RF_1}{RE_1} + 3\frac{RF_2}{RE_2} + 2\frac{RF_3}{RE_3} + \frac{RF_4}{RE_4}}{15}$$

where:

ER is the Efficiency Ratio.

RF_i is the average accounting income of the assets owned by the organization per year i.

RE_i is the average accounting income of the assets owned by all organizations of the economy per year i.

i is the years (0 to 5) data of five years.

c. Valuation of independent rewards model

This model is also referred to as the Flamholtz model. It is based on the economic theory stating that the value of human resources is not their costs; rather, it is in the rate of revenues resulting from employing the resources (Flamholtz, 1971). It is calculated using the following formula:

$$E(RV) = \sum_{i=1}^{n} \left[\sum_{i=1}^{m} \frac{Ri - P(Ri)}{(1+r)^k} \right]$$

where:

R is the external discount rate.

Ri is the value of R derived from the organization for every possible service case i.

P(Ri) is the possibility that someone will occupy case i.

n is the case of quitting work.

r is the appropriate discount rate.

d. The Myers and Flowers five-dimension model

This model comprises the dimensions of human assets knowledge, skills, health, abundance, and physical status. To valuate the first four dimensions, personal evaluation reports should be employed. While reports about the general outlook should be used in valuating the physical status (Myers & Flowers, 1974).

e. Ogan's discounted net benefit model

Pekin Ogan suggested a model which openly includes cost and benefit of the human resource value at some organization. It is calculated using the following formula:

$$K_{Kj} = \sum_{i=1}^{n} \sum_{k=t}^{L-T} \frac{1}{(1+r)^k} Vai$$

1.4.4 Measurement Models of Human Resources Depending on Behavior

Based on the great development in the theory of organizations in the late first half of the twentieth century and the appearance of the term 'organization' which is based on a group of individuals including capital owners, workers, and management, many researchers adopted accounting measurement for human resources relevant to behavior. These include the following:

a. *Likert Model for the Relation Between Cause and Intervention and Final Result*

Likert is interested in the value of individuals, considering them as vital factors in the organization's success. He presents a model that depends on the calculated relation among three groups of variables as follows:

i. Negative Variables: Those reflect changeable, independent variables through the management of the project, which, in turn, specifies the developments of domains at the organization. It includes the organizational framework of the management, behavior of the management, and behavior of the staff.

ii. Intervening Variables: Those variables represent the internal status of the organization, which is expressed through the extent of loyalty toward the organization in addition to standpoints, motives, performance and goals of all parties and their ability as a team to improve performance and decision-making using effective communication tools.

iii. End Result Variables: Those are dependent variables, which depict attained goals at the organization, such as productivity, costs, growth, market-price of shares and amount of profit.

According to Likert, the mathematical form of this model depends on the type of relation among the variables. Thus, is the relation is linear, the model takes the following form (Likert& Pyle, 1971):

$$Y = B + X_1B_1 + X_2B_2 + \ldots\ldots E$$

However, when the relation is non-linear, the model takes the following form:

$$Y = B + X_1B_1 + X_2B_2 + X_1B_2B_3 + X_1X_2B_4 + \ldots\ldots E$$

where:

X_1 is the result of causality variables.

X_2 is the result of mean variables.

Y is the result of end result variables represented in the projected services from human resources.

B is the constant term.

E is the random variable.

b. *Likert Model for Measuring the Value of Change in Productivity of Human Resources*

In his 1973 study, Likert points out that the variable of human resource productivity can be measured by an organization from period to another using the currency unit, where it is viable to capitalizing and shows the changes which occurred in the value of human resources. Likert uses the term "Total Productive Capacity", which depends on the accumulated information to measure performance relative to productivity, costs, and profits (Likert & Bowers, 1973).

c. *Flamholtz's Determinants for the Value of an Individual*

Flamholtz tried to determine the main variables that show the value of an individual to an organization and the relation among these variables. This model illustrates that the main measurement of the value of an individual to an organization is the value of what the individual is projected to accomplish in his/her work. Based on this model, it is evident that the value of an individual is not the mere individual characteristics; rather, it is the intervening variables in addition to his/her role at the organization (Flamholtz, 1972).

1.5 Hypotheses

Based on the questions and previous studies, the researchers have the following hypotheses to be discussed and proved or disproved.

H_1: It is not important to implement HRA at an organization.

H_2: There is no difficulty in reaching an objective, reliable accounting measurement for the value of human resources.

H_3: It is not possible to consider the cost of investment in human resources as one of the assets of the organization.

H$_4$: Disclosure of human resource cost in financial statements does not add reliability toward the management and others of interest.

H$_5$: There are no differences of statistical significance in views of academics and certified Lebanese accountants about the possibility of measurement and accounting disclosure for human resources and their impact on financial statements.

2. Methodology

2.1 Population and Sample Selection

The population of the study consists of both members of the Lebanese Association of Certified Public Accountants (LACPA) and academics who are mainly professors at public and private universities in Lebanon. A random sample of 155 was taken, of which 102 were certified accountants and 53 were academics. It is worth mentioning that 29% of the accountants hold CPA certificates.

2.2 Instrumentation

Based on the literature review and discussions with university professors, who are specialized in accounting studies, the researchers constructed a five-point Likert-style scale and asked members of LACPA and professors in public and private universities in Lebanon whose majors are accounting, management or economics to respond to 40 items of the questionnaire which is divided into four main domains, and aim at the capability of measuring and accounting disclosure of human resources and their impact on financial statements. The scale ranges as follows:

Table 1. Results of the Five-point Likert scale

Agreement	Never	Sometimes	Neutral	Often	Always
Mean	Less than 1.8	1.8 – 2.59	2.6 – 3.39	3.4 – 4.19	Greater than 4.2
Relative Weight	Less than 36%	36% – 51.9%	52% – 67.9%	68% – 83.9%	Greater than 84%

2.3 Reliability

Findings of the current study show that Cronbach's Alpha for all items of the questionnaire are as shown in table 2 below.

Table 2.Cronbach's Alpha

Domain	Reliability using Cronbach's Alpha	
	Number of Items	Cronbach's Alpha
First Domain	9	0.733
Second Domain	13	0.616
Third Domain	9	0.741
Fourth Domain	9	0.410
Questionnaire	40	0.690

2.4 Validity

Normal distribution of data is considered an important condition for using Parametric Tests. To test this condition against the research variables, the Kolmogorov-Smirnov test was used to test the normal distribution of data after isolating the extreme value. Table 3 below illustrates:

Table 3. Normal distribution test

Test	Test Statistic	P-value
Jarque-Bera	5.090	0.078
Kolmogorov-Smirnov	1.288	0.072

The table above shows that all variables of the research follow the normal distribution; consequently, parametric tests can be relied on.

3. Testing and Discussing the Hypotheses

3.1 Data Analysis

1) The first hypothesis states "**There is no importance to implement human resource accounting at the organization**."

The study used mean, standard deviation, relative weight and degree of agreement. To test this hypothesis, the study used the One-Sample T-Test which tests the null hypothesis. The results came as shown in table 4.

Table 4. Statistical analysis of the first hypothesis

Item	Mean	Std. Dev.	Rel. Wt.	T-Test	Deg. of agreement	Rank
Human Resource Accounting plays an important role in planning, control, and valuation.	4.62	.595	92.40%	33.877**	Always	1
The organization needs information about human resources to help in making decisions related to managing, using and investing in these resources.	4.53	.668	90.60%	28.518**	Always	2
Human Resource Accounting helps the organization properly manage its workforce.	4.44	.730	88.80%	24.522**	Always	3
Human Resource Accounting helps the organization make appropriate decisions about orienting the workers' efforts and improving their skills.	3.86	1.129	77.20%	9.537**	Often	9
Data about human resources can be used in setting projections about future needs and the size of human resources to be invested.	4.15	1.086	83.00%	13.167**	Often	6
Human Resource Accounting plays an essential role in controlling personnel expenditure and evaluating it as to benefits resulting from their services.	4.24	.919	84.80%	16.774**	Always	5
Human Resource Accounting contributes to shedding light on the organization's competitive ability in the market especially under the technological advances.	4.13	1.085	82.60%	12.951**	Often	7
Human Resource Accounting helps in supplying a real image of the financial statements of an organization to make proper decisions about it.	4.30	.846	86.00%	19.072**	Always	4
Human Resource Accounting helps in controlling changes in human resource investment costs and in showing their impact on increasing productivity.	3.94	1.052	78.80%	11.146**	Often	8
All the domain	4.25	.375	85.00%	41.301**	Always	

**Significance at 0.05 level.

From the above table, the mean for the sample's responses was 4.25 which is greater than the median whose value is (3); also, the value of calculated T-Test was 41.301 which is greater than the value of tabulated T at the significance level 5%. This means refusing the null hypothesis; thus, **it is important to implement human resource accounting at the organization** from the academics' and certified accountants' viewpoint.

2) The second hypothesis states that "There is no difficulty to reach an objective, reliable accounting measurement for the value of human resources."

Table 5. Statistical analysis of the second hypothesis

Item	Mean	Std. Dev.	Rel. Wt.	T-Test	Deg. of agreement	Rank
An organization can easily prepare data relative to human resources.	3.45	1.397	69.00%	4.026**	Often	2
The organization works on documenting and preparing human resource data.	3.46	1.186	69.20%	4.877**	Often	1
The organization has records for processing human resources data.	3.18	1.119	63.60%	2.009*	Neutral	3
The organization has an information system for human resource accounting to supply the necessary data.	1.99	.970	39.80%	12.914**	Sometimes	8

Item	Mean	Std. Dev.	Rel. Wt.	T-Test	Deg. of agreement	Rank
The historical cost method can be used in measuring human resources.	1.86	.908	37.20%	15.663**	Sometimes	9
The replacement cost method can be used in measuring human resources.	1.85	.877	37.00%	16.271**	Sometimes	10
The opportunity cost method can be used in measuring human resources.	2.02	.997	40.40%	12.251**	Sometimes	7
The present value of future revenues cost method can be used in measuring human resources.	2.06	1.067	41.20%	10.914**	Sometimes	6
The adjusted discounted future wages cost method can be used in measuring human resources.	1.85	.945	37.00%	15.126**	Sometimes	10
The Myers and Flowers five-dimension model can be used in measuring human resources.	1.70	.658	34.00%	24.645**	Never	13
The discounted Ogan net benefit model can be used in measuring human resources.	1.71	.654	34.20%	24.551**	Never	12
The Likert model for the relation between reason, involvement and final result can be used in measuring human resources.	2.12	1.206	42.40%	9.126**	Sometimes	5
The Likert model can be used in measuring the value of the change in human resources productivity.	2.18	1.230	43.60%	8.294**	Sometimes	4
All the domain	2.21	.380	44.20%	25.736**	Sometimes	

**Significance at 0.05 level.

From the above table, the mean for the sample's responses was 2.21 which is less than the median whose value is (3); also, the value of calculated T-Test was 25.736 which is greater than the value of tabulated T at the significance level 5%. This means refusing the null hypothesis; thus, **there is difficulty to reach an objective, reliable accounting measurement for the value of human resources** from the academics' and certified accountants' viewpoint.

3) The third hypothesis state that, "It is not possible to consider the cost of investment in human resources as one of the assets of the organization."

Table 6. Statistical analysis of the third hypothesis

Item	Mean	Std. Dev.	Rel. Wt.	T-Test	Deg. of agreement	Rank
The organization separates current expenditure from investment expenditure on human resources.	4.14	.963	82.80%	14.760**	Often	6
The organization finds it necessary to allocate human resource expenditure over the level of annuity.	4.21	.951	84.20%	15.788**	Always	5
The organization spends costs on human resources which have future benefits extending to coming accounting periods.	4.25	.951	85.00%	16.391**	Always	3
The organization increases investment expenditure on human resources to raise the value of its assets.	2.28	1.293	45.60%	6.895**	Sometimes	9
The organization can consider the cost of investment in human resources as an asset.	4.28	.887	85.60%	17.937**	Always	2
Cost of teaching and training human resources can be considered an intangible asset according to IAS 38.	4.25	.963	85.00%	16.105**	Always	3
The condition of property cannot be relied on to recognize the cost of investment in human resources as an asset of the organization.	4.53	.668	90.60%	28.518**	Always	1
Cost of investment in human resources helps in settling debts of the organization through future benefits, not from the asset itself.	4.13	.998	82.60%	14.083**	Often	7
Cost of investment in human resources is considered an asset since it is depreciated for more than one accounting period.	3.30	1.047	66.00%	3.606**	Neutral	8
All the domain	3.93	.429	78.60%	26.992**	Often	

**Significance at 0.05 level.

From the above table, the mean for the sample's responses was 3.93 which is greater than the median whose value is (3); also, the value of calculated T-Test was 26.992 which is greater than the value of tabulated T at the significance level 5%. This means refusing the null hypothesis; thus, **it is possible to consider the cost of investment in human resources as one of the assets of the organization** from the academics' and certified accountants' viewpoint.

4) The fourth hypothesis states that "**Disclosure of human resource cost in financial statements does not add reliability toward the management and others of interest.**"

Table 7. Statistical analysis of the fourth hypothesis

Item	Mean	Std. Dev.	Rel. Wt.	T-Test	Deg. of agreement	Rank
The organization supports the principle of disclosing costs of human resources in financial statements.	3.07	1.223	61.40%	.723	Neutral	9
Disclosing the cost of human resources reflects objectivity, credibility, and trust in financial statements.	4.12	1.021	82.40%	13.683**	Often	4
Disclosure of human resources cost helps in good planning for the workforce of an organization to face present and future expenses.	4.44	.625	88.80%	28.656**	Always	1
Disclosure of human resources costs in financial statements helps judge the organization's ability to benefit its human resources the best way.	3.76	1.221	75.20%	7.721**	Often	7
Disclosure of teaching and training costs helps measure the value of investment in an organization's human resources.	3.86	1.148	77.20%	9.307**	Often	6
Disclosure of human resources costs supports the organization's competitive position in the financial market.	3.17	1.253	63.40%	1.667	Neutral	8
Disclosure of human resources costs helps in evaluating the whole value of the organization objectively.	3.96	1.074	79.20%	11.139**	Often	5
Disclosure of human resources costs in financial statements has an effect on making financial decisions.	4.45	.704	89.00%	25.661**	Always	1
Disclosure of human resources costs in financial statements contributes to achieving the organization's goals and those of interest.	4.30	.839	86.00%	19.248**	Always	3
All the domain	3.90	.434	78.00%	25.966**	Often	

**Significance at 0.05 level.

From the above table, the mean for the sample's responses was 3.90 which is greater than the median whose value is (3); also, the value of calculated T-Test was 25.966 which is greater than the value of tabulated T at the significance level 5%. This means refusing the null hypothesis; thus, **disclosure of human resource cost in financial statements adds reliability toward the management and others of interest,** from the academics' and certified accountants' viewpoint.

5) The fifth hypothesis states that "**There are no differences of statistical significance in views of academics and certified Lebanese accountants about the possibility of measurement and accounting disclosure for human resources and their impact on financial statements.**"

Table 8. Statistical analysis of the fifth hypothesis

	Mean	Rel. Wt.	Std. Dev.	Test Statistics	P-Value	Result
Differences relative to the category (Certified Accountant, Academic)						
Academic	3.65	73.0%	.267	7.614	0.000**	There are differences.
Certified Accountant	3.33	66.6%	.178			
Differences relative to the academic qualification						
Bachelor's Degree	3.32	66.40%	.179	31.156	0.000**	There are differences.
Masters Degree	3.52	70.40%	.258			
Ph. D	3.67	73.40%	.264			

Differences relative to the field of major						
Accounting	3.38	67.60%	.232	12.792	0.000**	There are differences.
Economics	3.67	73.40%	.233			
Business Administration	3.73	74.60%	.234			
Finance and Banking	3.65	73.00%	.226			
Differences relative to years of experience						
Less than 5 years	3.76	75.20%	.231	10.391	0.000**	There are differences.
5 to less than 10 years	3.60	72.00%	.292			
10 to less than 15 years	3.45	69.00%	.206			
More than 15 years	3.38	67.60%	.247			
Differences relative to professional certificates						
CPA	3.40	68.00%	.260	1.023	0.362	There are no differences.
CIA	3.60	72.00%	.304			
other	3.45	69.00%	.256			

To test this hypothesis, the researchers used the independent samples T-Test and "One Way ANOVA" to test the null hypothesis. From the above table, the results showed that there are differences of statistical significance among the viewpoints of academics and certified public accountants in Lebanon about the possibility of accounting measurement and disclosure of human resources and their impact on financial statements relative to the category they belong to (certified public accountants, academics), academic qualification, major, and years of experience. Whereas there are no differences of statistical significance among the viewpoints of academics and certified public accountants in Lebanon about the possibility of accounting measurement and disclosure of human resources and their impact on financial statements relative to professional certificates held by the accountant or the academic.

4. Conclusions and Recommendations

The results of the research showed that it is important to implement Human Resource Accounting at an organization for several reasons from the viewpoint of academics and certified public accountants in Lebanon. One reason is that an organization needs information about human resources to help make decisions related to managing, using and investing in these resources. Another reason is that Human Resource Accounting helps the organization make appropriate decisions about orienting the workers' efforts and improving their skills. A third reason is that Human Resource Accounting helps in supplying a real image about the financial statements of an organization to make proper decisions about it. Moreover, an objective and reliable accounting measurement for human resources cannot be reached from the viewpoint of academics and certified public accountants in Lebanon. In addition, it is possible to consider investment cost in human resources as an asset of the organization from the viewpoint of academics and certified public accountants in Lebanon. Also, accounting disclosure of human resource costs actually affects financial statements from the viewpoint of academics and certified public accountants in Lebanon. A final result was that there are differences of statistical significance among views of academics and certified accountants in Lebanon about the possibility of measuring and disclosing human resources and their impact on financial statements related to category (academics, certified accountants), academic qualification, major, and years of experience.

It is noteworthy that the results of the research agreed with the findings of the study conducted by Flamholtz, Bullen, and Hua (2010) where they suggested that HRA procedures supplied higher level management with a substitute accounting system to measure the employees' costs and value to the firm. The results of the research also agree with Enyi (2014) in that there is a need to valuate and capitalize investment in human resources, considering it an asset like other intangible assets. The researchers also were in accord with Fariborz (2011) and Chatterjee (2018) in that disclosing costs of investment in human resources in the financial statements gives a positive indication about achieving an increase in profit on the long run; while lack in disclosure of information on human resources in the financial statements has a negative impact on users. However, on the same point about profit, the results of the research disagree with Shreelatha and Sinha (2018), who found that expenditure on human resources does not contribute greatly to profit.

Based on the above findings, the researchers recommend the following:

1) The Lebanese Association of Certified Public Accountants (LACPA) should adopt standards to differentiate between revenue expenditure and capital expenditure on human resources.

2) Organizations should concentrate on the importance of accounting measurement and disclosure on all

human resources costs in financial statements to enhance their reliability.

3) Developing the Lebanese Accounting Code, especially that related to recognition of investment cost in human resources so that it is possible to be oriented towards the modern accounting trend through processing this type of costs.

References

Appleby, R.C. (1994). *Modern Business Administration* (6th Ed.). London: *Financial Times Pitman*.

Bullen, M. L. (2010). Human Resource Accounting and International developments: Implication for Measurement of Human Capital.*Journal of International Business and Cultural Studies*. Retrieved from http://www.aabri.com/manuscripts/09342.pdf

Chatterjee, J.,&Chatterjee, P. (2018). Human Resource Accounting- Role and Challenge for Accountants. *International Journal of Business and Management Invention, 7*(6), 1-6. Retrieved from http://www.ijbmi.org/papers/Vol(7)6/Version-2/A0706020106.pdf

Enyi, E. P. (2014). Human Resource Accounting and Decision-Making in Post-Industrial Economy.*American International Journal of Contemporary Research*, 4(2), 110-118. Retrieved from http://www.aijcrnet.com/journals/Vol_4_No_2_February_2014/15.pdf

Fariborz, A. (2011). Decision-Making Based on Human Resource Accounting Information and Its Evaluation Method.*Asian Journal of Finance & Accounting, 3*(1). E14. https://doi.org/10.5296/ajfa.v3i1.883

Flamholtz, E. (1971). A Model for Human Resource Valuation: A Stochastic Process with Service Rewards. *The Accounting Review, 46*(2), 253-267. Retrieved from https://www.jstor.org/stable/244333

Flamholtz, E. (1972). Assessing the Validity of a Theory of Human Resource Value.*Journal of Accounting Research, 10*, 241-266. https://doi.org/10.2307/2489878

Flamholtz, E. (1972). Toward a Theory of Human Resource Value in Formal Organizations.*The Accounting Review, 47*(4), 666-678.Retrieved from https://www.jstor.org/stable/245330

Flamholtz, E. (2007). Human resource accounting: A review of theory and research. *Journal of Management Studies, 11*, 44-61. https://doi.org/10.1111/j.1467-6486.1974.tb00872.x

Flamholtz, E.G., Bullen, M. L., &Hua, W. (2010). Measuring the ROI of Management Development: An application of the stochastic rewards valuation model.*Journal of Human Resource Costing and Accounting*, 7(1-2), 21-40. https://doi.org/10.1108/eb029077

Flamholtz, E., & Main, E. (1999).Current Issues, Recent Advancements, and Future Directions in Human Resource Accounting.*Journal of Human Resource Costing & Accounting, 4*(1), 11-20. https://doi.org/10.1108/eb029050

Hendricks, J.A. (1976).The Impact of Human Resource Accounting Information on Stock Investment Decisions.*The Accounting Review*, 292-305. Retrieved from https://www.jstor.org/stable/244840

Hermanson, R.H. (1964). *Accounting for Human Assets*.Occasional Paper No. 14. East Lansing, MI: Bureau of Business and Economic Research, Graduate School of Business Administration, Michigan State University.

Lev, B., & Schwartz, A. (1971).On the Use of the Economic Concept of Human Capital in Financial Statements.*The Accounting Review*, 103-112. Retrieved from https://www.jstor.org/stable/243891

Likert, R., & Bowers, D. (1973).Improving the Accuracy of P/L Reports by Estimating the Change in Dollar Value of the Human Organization.*Michigan Business Review, 15-24.*

Likert, R.,& Pyle, W. (1971). Human Resource Accounting, A Human Organizational Measurement Approach.*Financial Analysts Journal, 27*(1).https://doi.org/10.2469/faj.v27.n1.75

Murumba, I. (2014). Towards Sustainable Economic Development and Security in Nigeria: The Public Sector Audit Perspective.*International Journal of Public Administration and Management Research*, 2(3), 156-163. Retrieved from http://www.rcmss.com/2014/IJPAMR-VOl2-No2/TOWARDS%20SUSTAINABLE%20ECONOMIC%20DEVELOPMENT%20AND%20SECURITY%20IN%20NIGERIA%20THE%20PUBLIC%20SECTOR%20AUDIT%20PERSPECTIVE.pdf

Myers, S.,& Flowers, V. (1974).A Framework for Measuring Human Assets.*California Management Review*, 16*(4), 3.https://doi.org/10.2307/41164522

Ogan, P. (1976). A Human Resource Value Model for Professional Service Organizations.*The Accounting Review, 51*(2), 306-320. Retrieved from https://www.jstor.org/stable/244841

Özera, G.,&Çamb, İ.(2016). The Role of Human Capital in Firm Valuation: An Application on BIST.*Procedia – Social and Behavioral Sciences,* 235, 168-177. https://doi.org/10.1016/j.sbspro.2016.11.012

Shreelatha, H. R.,&Sinha, R. (2018).Measuring Personnel through Human Resource Accounting Reports – A Case Study of Hindustan Petroleum Corporation Ltd. *International Journal of Recent Scientific Research, 9*(3), 25241-25244.https://doi.org/10.24327/ijrsr.2018.0909.2758

Shukla, A.,&Naghshbandi, N. (2014).*Impact of Human Resource Accounting on Managers Decision Making in Organizations*(Vol. 1). Retrieved from https://core.ac.uk/download/pdf/35356048.pdf

Theeke, H.,& Mitchell, J. B. (2008).Financial Implications of Accounting for Human Resources Using a Liability Model.*Journal of Human Resource Costing & Accounting, 12*(2), 124-137.https://doi.org/10.2139/ssrn.2767865

Wood, F., &Sangester, A. (1999).*Frank Wood's Business Accounting* (Vol. 2, 8th ed.). Great Britain: Financial Times Professionals.

Copyrights