

## Identifying and prioritizing inhibiting factors of human resources accounting by ahp method

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**ABSTRACT:** Due to Fundamental changes in Iran's economy, the need of transparent and high-quality data to be applied to optimal economic decisions has turned into a necessity; however, conventional accounting in the form of an information system measures and discloses financial information related to the most important asset in economic entities, that is, human resource. With this being said, the present study mainly attempts to adopt an AHP approach to identifying and prioritizing inhibiting factors of human resource accounting in Iran. This study also aims to analyze theoretical foundations of human resource accounting. The statistical population consists of 3 group involved in accounting field: PhD students of financial accounting, financial managers and university professors of accounting. The findings show that the most totally important inhibiting factor of human resource accounting is 'non-availability of a comprehensive information system of human resource', and the second totally important factor is 'non-availability of knowledge-based economy in Iran'. The findings also show that the 3rd, 4th, and 5th totally important inhibiting factors are 'non-availability of current criteria in human resource', 'complexity of measuring accounting patterns in human resource', and 'low quality of current criteria in human resource', respectively. The participants, as the study shows, consider 'applying traditional accounting system and refusal to change' the least effective factor on non-use of human resource accounting in Iran.

**Keywords -** Human Resource Accounting, Inhibiting Factors, Hierarchy Process, AHP method.

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### I. INTRODUCTION

Even a resourceful and technologically equipped organization may face the most serious financial crises and find it hard to survive unless such an entity has efficient human resource. Conventional accounting reports financial and technical resource related to assets, but it does not report one major resource, that is, human resource. In today's extremely competitive world, human resource is a major factor that can create competition, and ultimately, create wealth for an organization. With that being said, taking a fresh step, human resource accounting plays a pivotal role in human assets accounting [1].

Developments in knowledge-based economy has triggered increasing growth in globalization and information zed society, and accordingly, has changed management patterns and has turned customer-oriented approaches, employee empowerment and change in leadership styles into a necessity. Meanwhile, human assets play an important role in knowledge-based organizations and human capital management in current organizations is the key to professional success [2].

Human resource in the form of assets has been a disputable issue since early days of accounting. Similar to other resource, human has value because he can create future profitability. Therefore, one of the most important criteria against conventional accounting system is non-reporting of human resource value on financial statements on behalf of an organization. The present research first attempts to identify and prioritize inhibiting factors of human resource accounting in Iran, and then, aims to analyze theoretical foundations of human resource accounting.

In a really competitive world, human resource is one of the most effective factors that may motivate entities and organizations, and create competitive privilege, if properly managed. Organizations that are aware

of position, role and importance of human resource make permanent efforts to adopt effective approaches and strategies to properly use human resource, and one prerequisite for human resource management is to have correct, accurate and suitable information and make them available to human resource experts. A second prerequisite is to have a comprehensive information system of human resource [3].

Supporters of modern management categorize nation's wealth into human, materials, machinery and money, and label terms such as worker and human resource. However, it should be mentioned that human resource is not only the employee at work, but it is beyond that. By human resource, one may mean knowledge, skills, creative abilities, talent, and labor force attitudes in an organization, which refer to intellectual abilities, acquired knowledge and employee expertise. Human resource costs are easily reflected in profit and loss statements. However, human resource value is not mentioned on a balance sheet, and there is no simple formula to calculate it. Inaccurate interpretation of the collected data on human capital has turned human resource reporting and data quality into a challenge [4].

Dealing with human resource accounting and reporting is in need of common efforts by accounts working for managers of business, governmental organizations and experts in the field of intellectual capital accounting so that a comprehensive model of human resource reporting is designed. Accordingly, the new role of accountants in the field of human resource is to design financial systems aiming to manage and supervise human resource, auditing, paving the way for experts to identify patterns and develop standards, and reporting human resource to be valued. Therefore, in order to deal with such problems, the present research adopts an AHP approach to identify and prioritize inhibiting forces of human resource in Iran.

Since, in an organization, a large sum of annual costs is related to operating and human resource, establishing an accounting system of human resource as a new phenomenon in human resource management is of paramount importance. Previous studies show that although average human resource costs vary from one organization to another, the largest and the smallest sums belong to research organizations and industrial and manufacturing organizations, respectively. A case in point is Iranian research organizations with human resource costs sometimes amounting to 60%.

Nowadays, human resource is a significant part of capital and value in an organization. Therefore, its value as capital should appear on balance sheet so that management can take proper decisions and act accordingly. Employees are available to the organization as investors, rather than resource. Organizations should be aware of the true value of human resource so that such entities can adopt strategies to preserve and develop this resource [3].

Changing directions to economy from production sector to service sector and intangible resource-based economy globally has caused a significant increase in importance of intellectual knowledge and capital and its potential in company performance and the relationship between financial returns and company performance in emerging developing economy has become an important global issue [5].

Most organizations think of their own employees as costs, not assets to be invested and developed. For example, in conventional accounting systems, PC purchase cost is considered asset, while money spent on training a manager is considered costs [6 & 7].

Regarding the importance of human resource, Cooshing (1976) claims that some fresh issues such as human resource accounting, inflation accounting, social accounting, and scientific approaches to management should be considered in creating new information systems [4].

As mentioned above, firstly, success and survival of each organization depends on efficiency and potential of human resource, and compared to technology or money, the human element is a more essential element of success in production and services. Secondly, nowadays, for efficient and standard human resource development to be achieved globally there is a need for such factors as human resource management and planning. In the meantime, as an informational source, human resource accounting can play an important role in decision making process. In other words, sustainable development depends on human resource development, an objective reached under proper management and panning of resource. These two factors are in need of useful information a big part of which is provided through human resource accounting [8].

Ultimately, it should be mentioned that despite all the above limitations, human resource accounting is essential for all companies and organizations for different reasons:

- A) To show changes in human resource that are important in management,
- B) To identify investment profitability in human resource.

Accordingly, companies and organizations should realize the importance of accounting and replace conventional accounting with human resource accounting [5].

What is important in this regard is that efforts should be made to establish such a system and adopt the best strategy to value human resource in Iran in accordance with cultural and economic conditions.

Human resource plays an important role in development of an organization. Human resource accounting is useful in cost assessment and valuating human resource, and assists managers with vital decision making regarding employees. Using human resource accounting is an undeniable fact nowadays and it is further proved by combined information sources from human resource accounting useful in organizational development, internal and external management and investors’ decision making. Therefore, in some organizations in which activities and transactions are human and skill-based, human resource accounting systems can be used. In software companies, research organizations, universities and sports club, using human resource accounting has turned into a necessity. To say the last, but not the least, publicizing mechanisms of this accounting system should be the top agenda for accounting experts and human resource managers.

**II. MATERIALS AND METHODS**

According to the 4th agenda of EESC, no section related to human resource appears on balance sheets except on profit and loss statements where directly related costs are disclosed, costs such as welfare costs and salaries which come with remarks [9].

Harvey and Lush [10] designed human resource matrix and asked for more serious consideration of the lower matrix: they intend to show that traditional accounting can present uniform reporting to elevate the organization. They show that intangible assets do not appear on traditional balance sheets, and even the same is applied to tangible assets. They claim that such a problem occurs because traditional accountants are immersed in capital, and they work with knowledge-intensive business, rather than with knowledge-based companies.

Harvey and Lush [10] focus on a good strategic plan, and good connections with investors. It should be possible to design a tool to establish a logical relationship between traditional accounting systems and modern accounting.

**Table 1: Human Resource Accounting Matrix [11].**

<i>Resource-Assets Resource mentioned on Statements</i>	<i>Tangible Assets Factories&amp; Equipment</i>	<i>Intangible Assets Lease Premium</i>
<i>Resource not mentioned on statements</i>	<i>Employees Technology Information system Board of Directors</i>	<i>Proposal Trademark Mental image Shareholders' connections Connections with banks and investors Organizational culture</i>

The value of a business depends on assumptions about its intangible assets, and human resource is a dynamic element in such a framework, which is defined as individual capabilities, knowledge, skills and experience of employees and managers in an organization. Human resource accounting presents a measurement index of reducing the effect of strategies of human resource management on total costs, and the value of employees is included in capital resources, and is categorized as human resource. The asset-like nature of human resource has always been disputable. The concept of human resource value is based on theory of value in public economies. Similar to other resources, human is valuable since human can produce potential profitability [3].

Valuating human resource, in practice, is a potential process provided by employees to the organization. However, measurement indices and current approaches to human resource accounting can be helpful as far as such new developments as indefinite permanent employment and staff disloyalty to the organization are concerned.

Therefore, the need of an accounting system to identify and report the value of human resource within a monetary measurement unit turns into a necessity, since no quantitative criterion is as efficient as accounting.

Accounting system of current resource presents relatively comprehensive information concerning material resources and physical assets; however, the same does not apply to human resource and economic value. The essential question here is, ‘Is it possible to identify inhibiting factors of human resource accounting in Iran? If yes, how reliable and valid are these factors?’ According to AAA-affiliated Human Resource Accounting Committee, human resource is essentially different from other resource because the former facilitates the use of other natural and financial resources, and therefore, it should not be considered a mere source, but , rather, an essential factor that leads to increase in goods and services quality. In fact, human resource accounting is an analysis factor of the effects of decision making (such as dismissal) on human resource and tends to analyze the results in order to take important decisions.

Human resource accounting dates back to the 60s, and it has always been a disputable concept. Human is not an asset or property, it is not measurable and there is no proper measuring system for it. It is also very costly. In his paper, ‘Economic Capital in the Age of Digital Economics’, Gary Becker, winner of Nobel

Memorial Prize in Economic Sciences, claims that as factories, houses, machinery and other property are a part of a nation’s wealth , human capital is also part of it, and AAA advises accountants to be a constantly on the lookout for any new measuring methodology. Such information may be related to staff spirit, customer-satisfaction, product quality, or fame of an organization; this is the task of an accountant. Since the management is in need of information for decision making, human resource accounting provides the management with human information resource. Human resources accounting is almost half a century old, but there are still obstacles on the way to use it. The present study attempts to identify and prioritize inhibiting factors of human resource accounting in Iran.

The present study was carried out within the framework of field study. It is of an exploratory nature. Questionnaires were used because current accounting systems do not provide any information related to criteria of human resource, and also because like similar studies, the present research has its own limitations.

The statistical population consists of PhD students of financial accounting, financial managers and university professors of accounting. The reason for their selection is that first, they frequently use financial statements, and second, the data collected from human resource accounting system is more frequently used by them. In general, the statistical population of the present study includes:

- Faculty members of accounting
- Financial managers of private & state-run firms at home
- Trusted accountants at home

Financial accounting students Due to the wide statistical population and limitations, the researcher tries to select the best sample size of the population. Because of indefinite number of financial managers and university professors of accounting in Iran, Cochran’s formula with normal probability of 1.96 was used to determine sample size.

$$n \geq \frac{\left( Z_{\frac{\alpha}{2}}^2 (p)(1-p) \right)}{D^2} \tag{1}$$

The statistical population was selected with random sampling. The literature and research background was collected through library research, and in doing so, the researcher used books, theses and related journals. Questionnaires were used to collect data and the data was analyzed within the framework of a field study. As for the measuring scale for the participants’ views, the Likert Scale was 1-9.

In the present study, questionnaires and one-way variance analysis test of AHP were used to prove or reject the hypotheses. Then, data were collected and analyzed using Excel software and hypothesis testing was carried out using SPSS. At the next stage, in terms of the present research objectives, all necessary tests were administered, and ultimately, the results of the tested hypotheses were analyzed.

Based on the theoretical foundations and previous research, total 26 inhibiting factors of using human resource accounting in Iran were identified. Table 2 shows these factors.

**Table 2:** Identifying Inhibiting Factors of Human Resource Accounting.

o.	Inhibiting Factor
	Complexity of measuring human resource accounting patterns
	The management and its attitude towards human resource accounting
	Non-availability of standards in Iran
	Resistance of organizational staff
	Complexity of data collection
	High costs of implementing human resource
	Non-awareness of human resource accounting
	Staff disloyalty to the organization
	Indefinite permanent employment
	Non-availability of knowledge-based economy in Iran
0	Non-availability of a comprehensive information system of human resource
1	Dominance of a traditional accounting system& Resistance to change
2	Non-availability of modern economics within the framework of intangible assets in Iran
3	Non-availability of an economic theoretical model in Iran
4	Non-availability of a common criterion of valuating human resource
5	Non-reporting of human resource on blank sheets
6	Organizational indetermination to implement human resource accounting
7	No common ground for the necessity of reporting human resource on balance sheets
8	Difference between book value& market value of Iranian firms
9	Non-availability of a uniform reliable criterion of supervising by regulatory bodies
0	Dominance of an Islamic government in Iran in which there is no case of valuating humans
1	Non-consideration of the criteria by other sections in organizations
2	Indeterminacy over identifying data to be reported
3	Non-acceptance of common criteria of human resource by the public
4	Invalidity of common criteria of human resource
5	Inaccuracy of common criteria of human resource
6	

At the next stage, the above inhibiting factors were included in questionnaires, which were distributed

among total 25 university professors of accounting and management in order to help identify 6 most important inhibiting factors of human resource accounting. The factors were scored and ranked by 22 accounting authorities and 6 totally important inhibiting factors were identified. Table 3 shows these factors.

**Table 3:** Identifying Inhibiting Factors of Human Resource Accounting.

No.	6 Inhibiting Factors
1	Non-availability of knowledge-based economy in Iran
2	Non-availability of a comprehensive information system of human resource
3	Complexity of measuring human resource accounting patterns
4	Invalidity of common criteria of human resource
5	Inaccuracy of common criteria of human resource
6	Dominance of a traditional accounting system& Resistance to change

In order to prioritize the 6 totally important factors with a AHP approach, the researcher prepared and distributed total 100 questionnaires to university professors, financial managers, trusted accountants and PhD students of financial accountants. Finally, 82 completed questionnaires were collected. The Likert Scale was 1-9: 1- equally important, 2- equally/a little more important, 3- a little more important, 4- a little more important/ more important, 5- more important, 6- more/most important, 7- most important, 8- most/totally important , & 9- totally important. The participants were requested to move along the Likert Scale and check the boxes that were the most relevant item with their views.

### III. RESULTS AND DISCUSSION

With hypothesis 1, the researcher objective is to present findings regarding feasibility study of identifying inhibiting factors of human resources, accounting in Iran. The main question is, 'can any unanimity be found among authorities and professors of accounting regarding the inhibiting factors? If there is feasibility of identifying 6 totally important inhibiting factors of human resource accounting, it will be possible to prove or reject hypothesis 1. With hypothesis 2, the researcher aims to explore feasibility study of prioritizing inhibiting factors of human resource accounting with an AHP approach. In case of this hypothesis being proved, the researcher will arrive at 2 results: first, hierarchy process will be shown to be used as a proper tool in accounting, especially in prevalent challenges and paradigms in the fields of accounting and auditing. Second, the 6 totally important inhibiting factors will be presented and analyzed in terms of importance.

Based on theoretical principles, available references and previous research, potential inhibiting factors of human resource accounting in Iran were identified, some of which were observed in overseas countries and some were dominant in Iran. At this stage, total 26 factors were observed and were included in a questionnaire and delivered to 22 accounting scholars. Then, the scholars scored the factors and accordingly the factors were ranked out of which 6 totally important inhibiting factors of human resource accounting were identified. The total score of these 6 factors exceeds the average receivable score, and therefore, it can be concluded that the above 6 factors can be considered inhibiting factors of human resource accounting. Based on this, hypothesis 1 is proved. Table 4 shows prioritized totally important inhibiting factors and the scores per each factor.

**Table 4:** Identifying 6 Inhibiting factors& Scores per each.

o.	6 Inhibiting Factors	Score
	Non-availability of knowledge-based economy in Iran	108
	Non-availability of a comprehensive information system of human resource	94
	Complexity of measuring human resource accounting patterns	87
	Invalidity of common criteria of human resource	82
	Inaccuracy of common criteria of human resource	78
	Dominance of a traditional accounting system& Resistance to change	76

At the next stage, the 6 inhibiting factors were ranked with an AHP approach. According to the results

achieved with an AHP approach, the inhibiting factors can be ranked without their order of importance through a 5-stage process.

At this stage, the 6 inhibiting factors are compared in pairs, which show the importance of each factor compared to another. Table 1-5 shows the results taken from a survey with participation of total 82 participants.

**Table 1-5:** Paired Comparison of 6 Inhibiting Factors.

		1		2		3		4		5		6	
		or 1	Fact	or 2	Fact	or 3	Fact	or 4	Fact	or 5	Fact	or 6	Fact
actor 1	F	1		4	4.82	7	6.28	4	0.30	6	0.93	9	4.20
actor 2	F	7	0.20		1	4	2.60	2	0.19	7	2.83	2	0.63
actor 3	F	0	0.00	4	0.38		1	9	0.82	0	2.44	1	0.39
actor 4	F	3	3.28	7	5.21	6	1.20		1	5	0.63	6	3.90
actor 5	F	8	1.06	2	0.35	0	0.41	5	1.57		1	8	2.38
actor 6	F		0.237	82	1.5	7	2.55	6	0.25	9	0.41		1

At this stage, calculations regarding AHP were carried out in SPSS and the results were normalized in the table. The reason for this is that ultimate importance level of 6 inhibiting factors is calculated as a ratio, and the factors are ranked in order of importance. Table 6 shows the results.

**Table 6:** Paired Comparison to normalize 6 Inhibiting factors.

		or 1	Fact	or 2	Fact	or 3	Fact	or 4	Fact	or 5	Fact	or 6	Fact
actor 1	F	9	0.14	8	0.40	5	0.45	7	0.03	3	0.11	1	0.11
actor 2	F	1	0.07	5	0.19	6	0.07	0	0.52	3	0.34	9	0.29
actor 3	F	0	0.03	3	0.23	1	0.09	0	0.10	5	0.29	0	0.03
actor 4	F	9	0.48	5	0.04	9	0.10	1	0.12	7	0.07	0	0.30
actor 5	F	9	0.15	9	0.06	7	0.03	1	0.19	1	0.12	3	0.18
actor 6	F		0.103	50	0.0	2	0.23	1	0.03	1	0.05		0.077

**Table 7:** scores per each factor.

	Description	Score	Rank
actor 1	Non-availability of knowledge-based economy in Iran	12	2 <sup>nd</sup>
actor 2	Non-availability of a comprehensive information system of human resource	51	1 <sup>st</sup>
actor 3	Complexity of measuring human resource accounting patterns	30	4 <sup>th</sup>
actor 4	Invalidity of common criteria of human resource	90	3 <sup>rd</sup>
actor 5	Inaccuracy of common criteria of human resource	27	5 <sup>th</sup>
actor 6	Dominance of a traditional accounting system& Resistance to change	90	6 <sup>th</sup>

In Fig. 1, the 6 inhibiting factors are ranked in order of importance. Therefore, it can be observed that factors 2,

1, 4, 3, 5 & 6 are totally important inhibiting factors of human resources accounting, respectively.

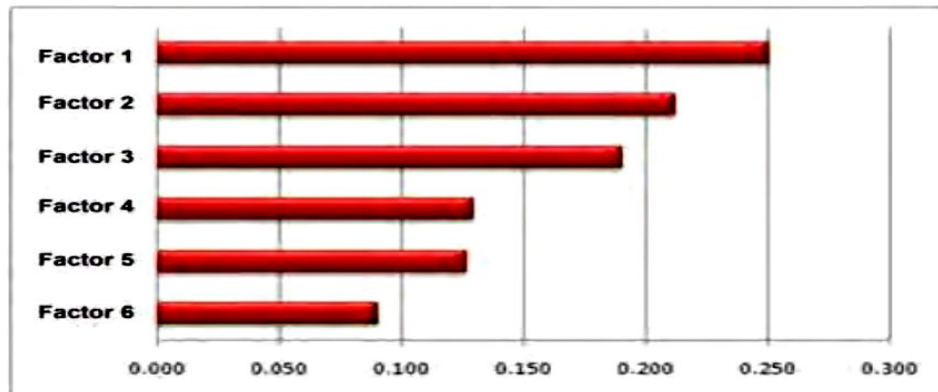


Fig 1: Prioritizing 6 in hibiting factors in order of importance (Sensivity Analysis).

Based on the 5-stage process, it was observed that AHP is capable of ranking the inhibiting factors, and therefore, hypothesis 2 is proved. Table 8 shows the 6 totally important inhibiting factors of human resource accounting in order of importance.

Table 8: 6 Totally Important Inhibiting Factors of Human Resource Accounting Ranked in Order of Importance.

	Description
Factor 1	Non-availability of a comprehensive information system of human resource
Factor 2	Non-availability of knowledge-based economy in Iran
Factor 3	Invalidity of common criteria of human resource
Factor 4	Complexity of measuring human resource accounting patterns
Factor 5	Inaccuracy of common criteria of human resource
Factor 6	Dominance of a traditional accounting system& Resistance to change

One advantage of AHP is the feasibility study of determining important factor and the effect of pairwise comparison matrix on consistency in analysis. After calculating the important factor, the feasibility of inconsistency in analysis is more important, that is, if Bi is more important than Bj and Bj is more important than Bk, therefore, Bi is more important than Bk. So, there is a need for measuring the inconsistency level. The approach proposed by Saati (1980) to measure consistency in analysis aims to calculate IR which is the result of dividing II over RI. If the IR is smaller than or equal 0.01, consistency in analysis is proved, otherwise, the factors should be reconsidered [10]. II is calculated in the following formula:

$$(2) \quad II = \frac{\lambda_{max} - n}{n - 1}$$

In which,

II stands for Inconsistency Index,  $\lambda_{max}$  is maximum special value, and n refers to the number of factors ( 6 inhibiting factors in the present study).  $\lambda_{max}$  value is calculated as follows:

$$(3) \quad \lambda_{max} = \frac{1}{n} \left[ \sum_{i=1}^n \frac{A\mu_i}{\mu_i} \right]$$

$A\mu$  is a vector calculated from multiplying matrix coefficient of pared comparison of factors by  $\mu$  vector (Important factor). Studying the consistency of factors in paired comparison matrixes aims at consistency in

analysis.

RI is calculated from Table 9 extracted by Motameni [2]:

**Table 9:** Random Index (RI).

									0	1	2	3	4	5
R		.58	.9	.12	.24	.35	.41	.45	.49	.51	.48	.56	.57	.59

As is observed above, RI equals 1.24 (n=6). Maximum value for consistency ratio is as follows:  $\lambda_{max}$  value is calculated at 6.0842; therefore, consistency ratio is calculated as follows:

$$II = \frac{6.0482 - 6}{6 - 1} = 0.00964$$

Consistency ratio is calculated based on RI (1.24) & II (0.00964):

$$IR = \frac{0.00964}{1.24} = 0.007774$$

**IV. CONCLUSIONS**

The present study aims to identify and prioritize inhibiting factors of human resource accounting in Iran. The following hypotheses are presented:

Hypothesis 1: it is possible to identify and inhibiting factors and implement human resource accounting systems.

Hypothesis 2: with an AHP approach, it is possible to rank inhibiting factors of human resource systems.

In order to prioritize the 6 totally important factors with a AHP approach, the researcher prepared and distributed total 100 questionnaires to university professors, financial managers, trusted accountants and PhD students of financial accountants. Finally, 82 completed questionnaires were collected. The Likert Scale was 1-9: 1- equally important, 2- equally/a little more important, 3- a little more important, 4- a little more important/ more important, 5- more important, 6- more/most important, 7- most important, 8- most/totally important , & 9- totally important. The participants were requested to move along the Likert Scale and check the boxes that were the most relevant item with their views. Total 30%, 10%, and 60% of the participants were university professors, certified accountants and financial managers, respectively. Also, 80% of the participants had university degrees in accounting, and 80% of them had more than 10 years of work experience in the field of accounting.

After the questionnaires were collected and analyzed with an AHP approach, 6 totally important inhibiting factors of human resource accounting were identified and prioritized. Table 10 shows the factors.

**Table 10:** 6 Totally Important Inhibiting Factors of Human Resource Accounting Ranked in Order of Importance.

	Description
actor 1	Non-availability of a comprehensive information system of human resource
actor 2	Non-availability of knowledge-based economy in Iran
actor 3	Invalidity of common criteria of human resource
actor 4	Complexity of measuring human resource accounting patterns
actor 5	Inaccuracy of common criteria of human resource
actor 6	Dominance of a traditional accounting system& Resistance to change

The findings of the present research are not consistent with the findings in a study by [12]. This study



concluded that the most important inhibiting factor of human accounting is users' non-awareness. Similarly, Flamholtz [13] found that non-awareness and non-availability of binding law were inhibiting factors of human resource accounting. The findings of the present research can be useful for real or legal entities as follows: The results show that the totally important inhibiting factor of human resource accounting is 'non-availability of a comprehensive information system of human resource'. Therefore, it is suggested that Accounting Standards authorities present binding accounting standard and regulations regarding enlightening companies and measuring different dimensions of labor force and intellectual assets because different studies prove their importance.

Based on inhibiting factor 6, that is, 'dominance of a traditional accounting system & Resistance to change', it is suggested that financial managers and accountants show no resistance to changes in applying human resource accounting. Moreover, these authorities are advised to increase their knowledge in this regard. It is also suggested that Stock Exchange markets hold courses and workshop for accountants, auditors and stock agents.

#### REFERENCES

- [1]. B. Carme. Human Resource Accounting, Soledad moya-gutierrez, 2003.
- [2]. A. Motameni, Identifying & Prioritizing Obstacles of Establishing Human Resource Accounting in Organizations. Karo Jame'e Periodical: 2012, (142), P.58.
- [3]. A. Farahanifar Mahini. Human Resource Accounting: organizational Challenges in Capital Items. Hesabdar Periodical: 2011, (10): 123.
- [4]. Cooshing B. Accounting Information Systems & Business, (3ed). 1975.
- [5]. M. Zanjirdar, A. Kohan, Management of Measuring & Reporting Intellectual Asset. Periodical of Otaghe Bazargani Iran: 2007, (101): 10-11.
- [6]. Z. Hasan Ghorban. Financial Accounting for Human Resource Policies. Periodical of Anjomane Hesabdarane Khebreh Iran. 1999.
- [7]. Z. Hasan Ghorban. Evaluating the Effect of Implementation of Human Resource Accounting System on Decision Making by Financial Managers & Investors. Scientific-Research Journal of Economy & Management, 1999, 41: 22-29.
- [8]. M. Khatanloo, R. Abdol. A Conceptual Framework for Human Resource Accounting Development. Conference on Accounting & Auditing Recent Developments. 1999.
- [9]. Flamholtz e. Human Resource Accounting, 3rd. ed, Boston. 2001.
- [10]. G. Harvey, R. Lush. Balancing the intellectual Capital Books intangible liabilities, Management Journal, 1999, 17: 38-47.
- [11]. N. Sackman. Intellectual Capital Accounts Reporting & Managing Intellectual Capital Accounts. 1989.
- [12]. K. Vadizadeh, A. Isayi. Challenges of Establishing Human Resource Accounting in Iran. Donyaye Eqtesad Newspaper: 2011, 24: 9.
- [13]. E. Flamholtz, Human Resource Accounting, Jossey-bass, Sanfrancisco,co. 2015.

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