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Providing a Qualitative Model to Determine return rate on Human Capital using Hucametric Approach in Mobarakeh Steel Company

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Abstract:
Calculating return rate on human capital using Hucametric approach is including competence, attachment (participation), and organizational opportunity .This study was done to calculate return rate on human capital using Hucametric approach. 420 people including managers, employees and experts involved in the activities of human resources, formed statistical society of this study, which 200 people selected randomly and according to Morgan table as sample. The questionnaire made by the researcher has been used to collect data, and its content validity was determined by selecting scientific components from valid literatures regarding to management and obtaining opinion of 10 experts in academy and industry, also, questionnaire validity was calculated 0.963% using Cronbach Alpha sufficient. The SPSS software (one sample t-test, Anova, LSD, Friedman and two sample t-tests) was used to analyze information , also, results indicates that return rate on human capital on competence, participation and opportunity aspects are 3.40,3.61 and 3.44 respectively and generally is 3.48 of 5.

Key words: Competence, Opportunity, Participation, Human Capital, Return Rate On Capital.

Introduction:
Intangible assets of companies are usually ignored aside from their importance. This category of assets is frequently forgotten due to their nature and this increases their significance. (Zahedi, Lotfi Zadeh, 2009).
Today's organizations must establish their sustainable competitive advantage foundations, on their intangible assets and intellectual capital. Competitive advantage more comes from wisdom of human power and it's important to attend the fact that knowledge, capabilities and skills of employees are one the most important resources which organization can use for their performance.

Intellectual capital is essential axis of business, have has a dramatic growing acceptance as a valuable and academic review subject and full of practical concepts. Although the importance of intellectual capital is increasing steadily, However many organizations are faced with issues related to manage it, mainly due to measurement problems. Increasing observable gap between the book value and market value of many companies, leads consideration towards studying the missing value in the financial statements. According to researcher's opinion, intellectual capital is a hidden value that is not visible in the financial statements and is a subject, to lead organizations towards gaining a competitive advantage. Therefore, a suitable approach is necessary to define influence extent of the assets, to invest better and more clearly on them, so, the basis of the present study has been performed to determine return rate on human capital.

Concept and dimensions of the intellectual capital:

Intellectual capital provides a base for new resources, through, organization can compete. (Bentis, 1996).intellectual capital is an effort for the effective use of knowledge (final product) versus data (raw material). Intellectual capital is a term used to incorporate market intangible asset, intellectual asset, human asset and substructure asset that will capable organization to do its activities. (Broking,1996).In view point of Ross et al.(1997) intellectual capital involves total of processes and assets that normally are not shown in the balance sheet and also, is including all intangible assets under consideration in modern accounting methods. In other words, intellectual capital is the sum of member's knowledge and application of their knowledge. Stewart believes that intellectual capital includes knowledge , information , intellectual asset and experience that can be used for wealth creation. *Intellectual capital is the collective intellectual ability or key knowledge as a collection.*

In terms of time, this word dramatically drew public attention in mids-1990. *Intellectual capital is the stock of knowledge that exists at a particular point in time in an organization. Intellectual capital includes all sources of knowledge to produce value in the organization, however, will not be in the financial statements. (Pablos, 2004).In other words, intellectual capital involves: having knowledge, experience application , organizational technology , relationship between customer and supplier, as well as , professional abilities which makes a competitive advantage in the market for the company.(Edvinson & Mallon,1997).*

Dimensions of the intellectual capital:

In summing up various definitions of intellectual capital and its components can be stated that, intellectual capital is divided into three categories including human capital, structural capital and communication capital.

1-Human Capital:

Human capital is the most important assets of organization and source of creation and innovation. Tacit knowledge assets of employees of organization are one of the most vital components that have a great impact on its performance .However, only the existence of tacit knowledge in an organization is not sufficient for good performance. The purpose is changing tacit knowledge of employees to evident one in all of organization levels. So, wealth making will be possible in organization. Human capital is sum of employee's professional knowledge,

leadership abilities, risk and problem –solving ability (Bozbura, 2004).According to Bentis (1998, 2001), human capital indicates knowledge stock in organization that lies in employees. Also, human capital is combination of knowledge, skill, innovation power and personnel's ability to perform their tasks and consist with company's values, culture and philosophy. (Edvinson & Malon, 1997).In other words, organization employees will create intellectual capital thorough their competence, attitude and acuity in organization. Competence includes skills and education, whereas, describes attitude of employees behavioral components on job (employees behavioral component involves their justification and motivation for work) and capable people acuity to change daily activities and solving problems through creative thinking.(Roos & Roos,1997).

Human capital forms base of intellectual capital. In other words, it is considered as a primary and main component to perform activities of intellectual capital. Human capital consists of factors such as knowledge, skill, ability and attitude of employees. As a result of these factors, employees are encouraged to a performance that customers are willing to pay for and company's profit will achieve through this. Communication capital and structural capital (two other components of intellectual capital) depend on human capital. In other words, human capital is able to convert organization knowledge to the market value and it will be done through converting to two other capitals (customer and structure).

Human capital represents individual tacit knowledge that has taken place in mind and it is an important source of innovation and restructuring of organization strategy and company to use this in the knowledge-based economy can produce and identify wealth. Among this , competence and abilities of staff known as hardware and their attitude as software parts of the human capital. This cause most companies give more importance to attitude than competence (Chen & Zhu, 2004).

2- Relations capital:

Communications capital is a knowledge exist in relations between organization and customers, suppliers of raw material, stock holders, partners with similar strategies etc. (Pablos,2003).

Communicative capital is value of communications that organization have with various groups outside.(Castro,2004).

As well as, communications capital includes fields of produce income outside of organization. Trademarks, fame, strategic allies, relationship between customers and suppliers, even a list of low-income clients of company potentially cause to generate and produce revenue. Communicative aspect of intellectual capital represents communications capital. Communications capital is the whole assets that manage and regularize company's relations with its environment. Communications capital involves relations with clients, stockholders, suppliers, competitors, government, public institutions and society. Although, the most important criteria of the communications capital is customers relations. But, relations with clients are not the only criteria. Communications capital is an image of company. Communication capitals measurement depends on what image the environment has from company. Communications capital includes trademarks, loyalty criteria and image of company in the society and information feedback systems of customers and supplier. (Bozbura,2004).

3- Capital structure:

Edvinson and Mallon (1997) define capital structure as hardware, software ,data base, organizational structure, organization exclusive rights, trademarks and all abilities of organization that support productivity of employees.

Capital structure is what, when employees go home at night remains at company.(Roos & Roos 1997). In other words, it involves all of inhuman cumulative knowledge in an organization (engstrome,2003).

Bontis (1998) believes capital structure is a guidance for doing procedures, strategies , daily activities and whatever produce value for organization.(A value more than monetary value exist in organization).If an organization have had poor procedures for pursuing and doing its activities ,whole intellectual capital can't achieve to its extreme potential.

Capital structure is divided to several categories including organization culture, organization structure, organizational learning, operating process and information system.

Organizational structure can be dynamic or static. Because it not only contains formal organizational relations (including relations of power and controller systems) but also involves informal organizational relations.

One of the experts in intellectual capital assumes structure capital as a main pillar for making learning organizations. In his opinion, if organization has employees with high compatibility, but poor systems and procedures, this will prevent organization from achieving high level of performance. In contrast, a strong structure makes a supportive atmosphere of employees towards environment and guide personnel to risk after failure. Strong structure, will increase profitability and productivity and reduce the overall cost of organization.(Bontis, 1998, 1999, 2001, 2003).

Models and methods of measuring intellectual capital:

In traditional models, financial statements and available accounting provisions are exactly disable to reflect and display intangible assets and new directions for generating value in organization. Considering specifications of intangible assets it's easy to understand that financial indexes of accounting are inappropriate for measuring a value would be gotten for an organization in the future. Although there is consensus about the strategic importance of intangible assets, but there are always a lot of discussions to find the best tool for measuring and reporting them. The main challenge for researchers is to develop better theories of intellectual capital in order to deal with this vague notion precisely.(Oliveras,2008).the most evident way to measure value of intellectual capital is the difference between market value and net book value.(Poland,2001).

With studying available history in the field of intellectual capital, methods that performed it better are divided into four main categories.

1-direct method 2-scorecard methods 3-market capitalization method 4-return-on-assets (ROA)

Some of the existing models for measuring intellectual capital are given in Table…….

Different models are described in the following table have been used in various levels by many companies in the world, but However, acceptability of each depends on carefully manage and organization needs.

Table1: available models of intellectual capital measurement

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row	English name for pattern	Pattern Designer/designers	Year
1	National intellectual capital index	Bentis	2004
2	Toplinjen/Business IQ	SANDVIK	2004
3	Measuring and Accounting Intellectual Capital	Research project in Europe Union	2004
4	Danish guideline	Moritzen,Bach et al.	2003
5	Dynamic valuation of intellectual capital	Banfore	2003
6	Intellectual capital rating	Edvinson	2003
7	Financial model for impalpable asset measurement	Raaf and Liliart	2002
8	Value chain score board	Lief	2002
9	Meritum guideline	Meritum project	2002
10	Knowledge accounting cycle	Marou Shiyuma	2001
11	Value creation index	Baam,Itner et al.	2000
12	Value explorer	Andrisen & Tisen	2000
13	Intellectual asset Valuation	Sullivan	2000
14	The comprehensive value creation	Anderson & Mac lyne	2000
15	Knowledge capital income	Lief	1999
16	Tobin sq	Bentis	1999
17	Inclusive valuation methodology	Mac Ferson	1998
18	Accounting for the future	Nash	1998
19	Investors aspect of market value	Stenfild	1998
20	Hr statement	Ahounan	1998
21	Market to book value	Loei	1998
22	Calculated intangible value	Stewart	1997
23	Economical added value	Stewart	1997

24	**Skandia navigator**	**Edvinson and Mallon**	**1997**
25	**Intangible asset measurement**	**Asvibay**	**1997**
26	**IC Index**	**Roos, Roos,Dragonty and Edvinson**	**1997**
27	**Value added intellectual coefficient**	**Polis**	**1997**
28	**Technology Broker**	**Broking**	**1996**
29	**Weighted patent documentation**	**Bentis**	**1996**
30	**Accounting and costing human resource**	**Johansson**	**1996**
31	**Holistic accounts**	**Ramble group**	**1995**
32	**Balanced scorecard**	**Kaplan & Norton**	**1992**
33	**Intangible balanced sheet**	**Asvibay**	**1989**
34	**Human resources costing and accounting**	**Felmholtz**	**1985**

According to methods of calculating return rate on capital results of external and internal investigations can be expressed as follows:

Riyahi Balboki(2003) studied effect of intellectual capital on the performance of U.S. multinational corporations.

He chose the number of applications for the trademark protection as a measure of intellectual capital and the ratio of added value to total assets as criteria of the company performance so, concluded that there is a a significant positive relationship between the performance of U.S. multinational companies and intellectual capital.

Tan et al.(2007)using the Palik model for evaluating intellectual capital , examined the relationship between intellectual capital and its component with the financial performance of accepted companies on the Stock Exchange of Singapore . The results showed a positive relationship between intellectual capital and its components with the current performance. Intellectual capital has a significant impact on the future performance of the commercial unit. Growth of intellectual capital is positively related to financial performance and the performance of intellectual capital in every industry is different.

Komats(2008),In a research examined the relationship between intellectual capital components with traditional criteria's of financial performance, including profitability, productivity and market value. Research findings indicate that there is not a significant relationship between the components of intellectual capital and financial performance measures; however, among the components of intellectual capital, human capital has the greatest impact on performance.

Kiong Tin & Lyn (2009)using the Palik model for evaluating intellectual capital ,studied performance of intellectual capital and its relationship with the financial performance among Malaysian companies and concluded that intellectual capital has a significant positive impact on

profitability. As well as, results represented that there is significant relationship between profitability and intellectual capital component.

Modishnez et al.(2010)in a research using data of studying 96 Greek companies examined impact of intellectual capital on the market value and financial performance of companies. Results showed that the only significant relationship is between human capital and one of the financial performance criteria's named as capital efficiency (ROE) and there is not any significant relation between other components of intellectual capital and itself with other financial performance criteria. Also, other results of this survey represented that there is not any relationship between intellectual capital and its components with the market value.

Zo & Haan(2011),regarding to financial data specially financial ratios and using

Data Envelopment Analysis Technique, at first calculated performance of under studied commercial units, then examined impact of intellectual capital on the performance of the commercial unit. Results of their research showed that relationship between utilized capital and structure capital with performance is negative and it's positive between human capitals with performance and there wasn't a significant relationship between utilized capital and human capital with performance.

Setayesh & Kazem Nejad (2009), using the Stewart measurement model of intellectual capital examined the impact of intellectual capital on the financial performance of accepted companies in Tehran Stock Exchange.The result of this study showed that intellectual capital positively and significantly affects the rate of return and asset turnover ratio, also has a Positive impact on the Company's future performance and its influence on performance is various in different industries.

Namazi & Ibrahim (2009), examined the impact of intellectual capital on the financial performance of accepted companies in Tehran Stock Exchange. Results showed that, regardless of company size, debt structure and the past financial performance between intellectual capital and current and future financial performance there is a significant positive relationship in level of all companies and industry.

Abbasi & sedghi (2010), in a research examined effect of intellectual capital indexes (performance of intellectual – structure and utilized capital) on the financial performance (share profit, efficiency rate, rights of stockholders and annually efficiency rate) of accepted companies in Tehran stock exchange. Results showed that influence of performance coefficient of each intellectual capital component on the efficiency rate of stockholders rights is positive and significant, influence of performance coefficient of human and utilized capitals on profit of each share is positive; however, influence of performance coefficient on structure capital is negative and significant. As well as, effect of performance coefficient of structure and utilized capitals on the annually efficiency rate is positive but performance coefficient of human capital on it was significant and negative.

Hucametric Model:

Peter Dakar commonly known as the founder of new organizations believes that the best way to predict the future is to create it. Maybe he was thinking about when the directing managers will use predictive scales of human capital or Hucametric to manage their business. It's necessary thanks of the advances in technology and scientific understanding more than the potential value of human capital, that day has come to senior executive managers.

Managers, who are ready to actively direct their business using the scales toward the future,. Hucametric is the new science for tracking data of human capital and its usage to predict employee's performance, business and causation. Hucametric is used to predict the results of a successful business as sub-scales. It means predicting the best routes to win and numerically predicts customer buying preferences. The assumption is that most organizations have a considerable collection of data on human capital that can be formulated to predict future and brighten the best routes for performance with a high degree of accuracy. The collection of Hucametric data and information strengthen through commitment profiles of staff give senior managers the opportunity to create their own future by forward thinking.(Mahdavi,2011). Key axis of Hucametric model predictive for calculating the return rate on human capital can be shown in the following formula:

Competence * Participation (Attachment) *organization opportunity= return on human capital

For those who want forward and reliable matrices to increase return on invested money in human capital, and yet, are looking for synergistic activities to satisfy the customer, it is the easiest possible way. Economic assistance of human resources is at the heart of maximizing productivity of capital (profit).Human capital is usually the most expensive form of capital. Because some predictions about the return on human capital have the potential of adding noticeable value, so in the perfect form, success formula for the executive managers provides meaningful indices and data columns that record the Hucametric scales on spreadsheet of their computers monthly, with baseline for investment return (ROI) it means figures of human capital and a predicted ROI for figures of human capital. Thus, each of the leaders for each of formula indices for their group and connecting those statistical relationships to the group performance and business output data are accountable. It means many predicative relations are applicable in the level of group. Many of organizations have this Hucametric form that is unused and it's required to be gathered and mathematically calibrated to work in combination. (Mahdavi, 2011).

Represented formulation simply means" ready, interested, and capable". Hence, competence without participation (attachment) cause poor return on human capital because, capital remains stagnant and need to use organization opportunity. Generally, components of Hucametric model can be summarized as follows to calculate the rate of return on human capital.

Competence:

Psychologists have defined competence as a stimulant, attributes or a prominent skill that leads to a better job performance. Merabil & Richard (1997) say to choose the best, abilities, behavioral indices, beliefs, attitudes, skills and characteristics should be noted. Spensor & Spensor(1993)define competence as a substructure characteristic that generally is related to the effective performance based on criteria or superior performance in a job or situation. Boya Tesis(1982,1995),say, in general, competence is emphasized on the basic characteristics of a person.

These characteristics are including motivation, behavior, skill and individual imagination of social role or set of knowledge that person uses to do the tasks and activities . This approach is in contrast with the approach of Rabertson,Kalinan and Bartram(2003)that says competence is a set of behavior to be used to achieve the desired results or outcomes.

Waroo Konour(1992),assumes The conflict between the two perspectives, the contrast between the traditional view of the evaluation model of characteristics (Boyatzis,1989) and the newer view as a carrier model(Rabertson,Kalinan and Bartram2002). Hornby and Thomas (1989) define competence as a set of knowledge, skills and behavioral specifications and personal characteristics. Spencer (1993) is divided competence into two categories:

1-Competence requirements that specify necessary skills for the minimum performance in a work or doing a task.

2-Superior competence based on them, achieved results are higher than average and have higher performance.

In general, the competence of is a set of knowledge, skills ,personal specifications ,interests, experience ,and job- related that that enables the holder to carry out its responsibilities in a higher level of average

In fact, competencies provide a model that indicates the person with superior performance in a given job (organization of Industrial Management,2003).

Participation (attachment):

Attachment is defined as the degree of positive or negative emotional attachment of person to organization, him self, job and colleagues. In the meaning attachment is defined as an individual phenomenon that varies from very negative to very positive spectrum. In the Middle of the range, attachment has a neutral position that is known as satisfaction by mistake.

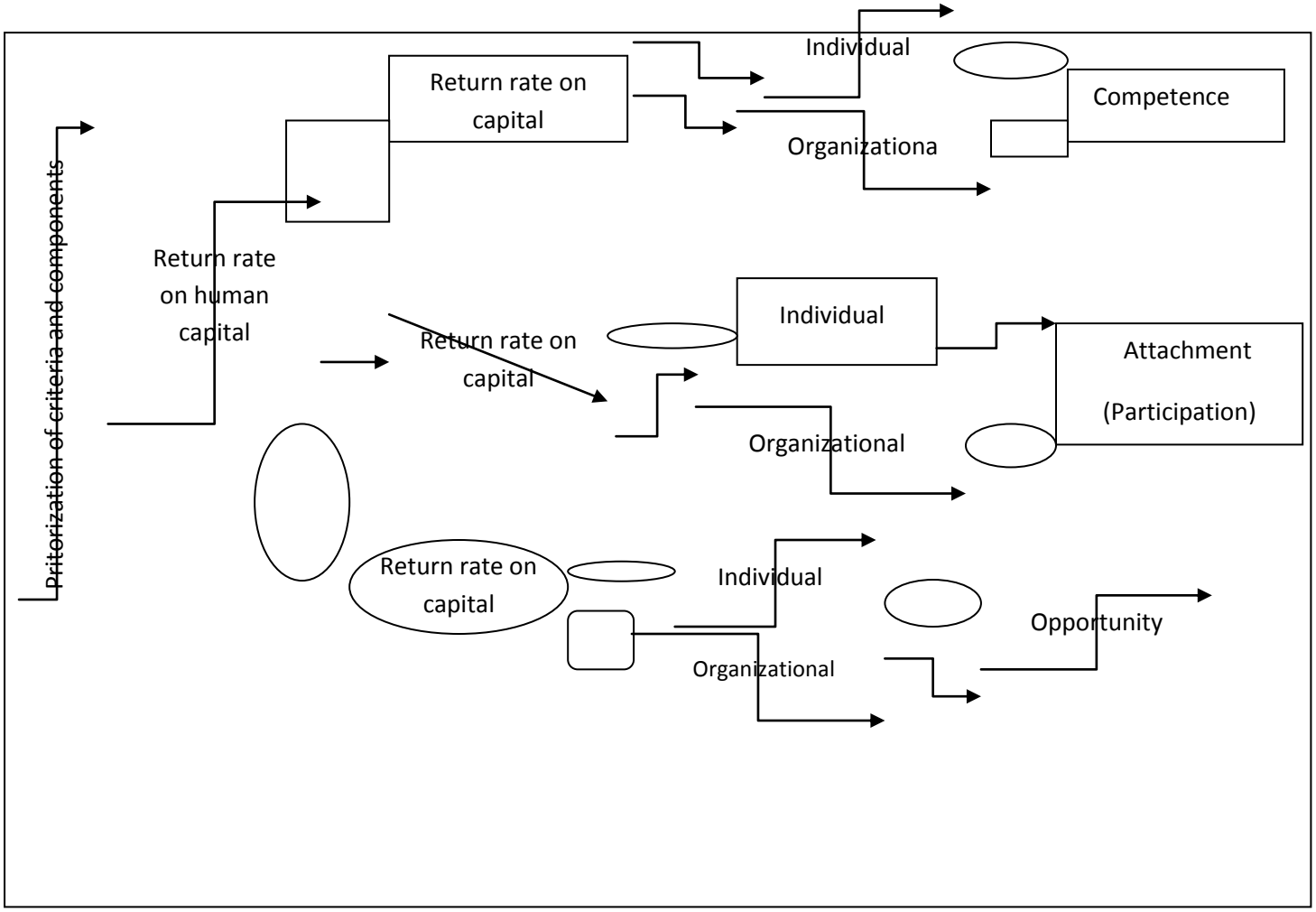
In fact attachment or it is better to say emotional attachment is very impressed with, experience of employee or employees ,leader ship, policies and procedures, company's image, concerning aspects of the workplace, job, rewordings, friendships and workplace. New research done by two professors at Harvard University shows that a large group of employees are seeking to engage more in the organization works to gain greater decision-making authority in their workplace. Three quarters of workers believe that if worker involved more in operational decisions company will gain more competitive power. More than three-quarters believe that the quality of goods and job satisfaction will increase. In addition, a research on the group theories of more than 700 expert leaders about the promising and innovative trends in the field of Human Resources Management revealed that, the clearest trend is considering employees involvement and atmosphere participative management. John Disbit believes this tendency as major changes are needed in the future that can be predicted

Organizational opportunity:

Organization opportunity means giving chance to people to become extremely successful without having obstacle. It means predictably increases the return on human capital and exponentially grows their business. Herzberg once stated that if you want someone to do something good give him a good job to do. This sentence is located in the heart of the organizational opportunity subject. Putting the right people in the right place at the right time to do the job because they love it. Gathering scales of organization opportunity are a little more complicated than ones that exist for competence and attachment .Because these scales are not ready. Generally, employees go to work due to the economic stability to understand who they are and to have achievement so should be respected for their achievements. On the other hand company owners want people to come to work and generate greater economic value than they receive. These two motives can connect to each other via bridge of organizational opportunity.If the competence and systems related to the opportunity and attachments of the

organization create and implement in organization, return rate on capital can be calculated. Now, according to Hucametric model to measure the return on human capital model, developed model has been used that is expressed in model (1) as Conceptual framework of the research.

Model 1: Conceptual framework for investigation



Research objectives:

The overall objective:

Providing a Qualitative model for calculating the return rate on human capital in Isfahan Mobarakeh Steel Company

Secondary objectives:

1-Determining the evaluative components of the return rate on human capital in Mobarakeh Steel Company in participation aspect.

2- Determining the evaluative components of the return rate on human capital in Mobarakeh Steel Company in competence aspect.

3- Determining the evaluative components of the return rate on human capital in Mobarakeh Steel Company in organizational opportunity aspect.

Questions:

The main question:which model is appropriate To calculate the rate of return on human capital in the Mobarake Steel Company:

Sub- questions:

1-How can be evaluated rate of return on human capital in the aspect of partnership(attachment) in the Mobarakeh steel company?

2- How can be evaluated rate of return on human capital in the aspect of competence in the Mobarakeh steel company?

3- How can be evaluated rate of return on human capital in the aspect of organizational opportunity in the Mobarakeh steel company?

Investigation Method:

The study is a menstruation one and its statistical society involves 420 of managers and experts in human resources field and 200 of them according to Morgan table and randomly was selected as sample.

For gathering data has been used questionnaire made by researcher that was including 66 measures with Likret spectrum from very low to very high. For validity of the questionnaire content has been used. Thus , using scientific and valid literature measure and options of questionnaire chose and then with assistance of 10 academic Experts and researchers in Mobarakeh steel company its validity determined.

The questionnaire reliability was obtained by the Cronbach coefficient alpha of 0.963 .To analyze data One-sample independent t -test (to determine significant differences between mean),Nova test(to determine significant differences between components),LSD test (to determine significant differences)and Friedman test(to rank) were used .

Findings:

According to the analysis of data in general summary of the research findings can be found in Table 2.

Table 2: calculation of return rate on human capital in Mobarakeh steel company

	Number	Minimum	Maximum	Average	Standard deviation
Return rate on human capital on aspect of individual competence	200	2.44	5	3.71	0.475
Return rate on human capital on aspect of organizational competence	200	1.08	5	3.09	0.604
Return rate on human capital on aspect of individual participation	200	2.10	5	3.82	0.596
Return rate on human capital on aspect of organizational participation	200	1	5	3.40	0.593
Return rate on human capital on	200	1.57	5	3.59	0.654

aspect of individual opportunity					
Return rate on human capital on aspect of organizational opportunity	200	1	5	3.28	0.621
Return rate on human capital on aspect of competence	200	2.11	5	3.40	0.466
Return rate on human capital on aspect of participation	200	1.80	4.90	3.61	0.519
Return rate on human capital on aspect of opportunity	200	1.29	4.86	3.44	0.566
Generally return rate on human capital	200	1.91	4.92	3.48	0.469

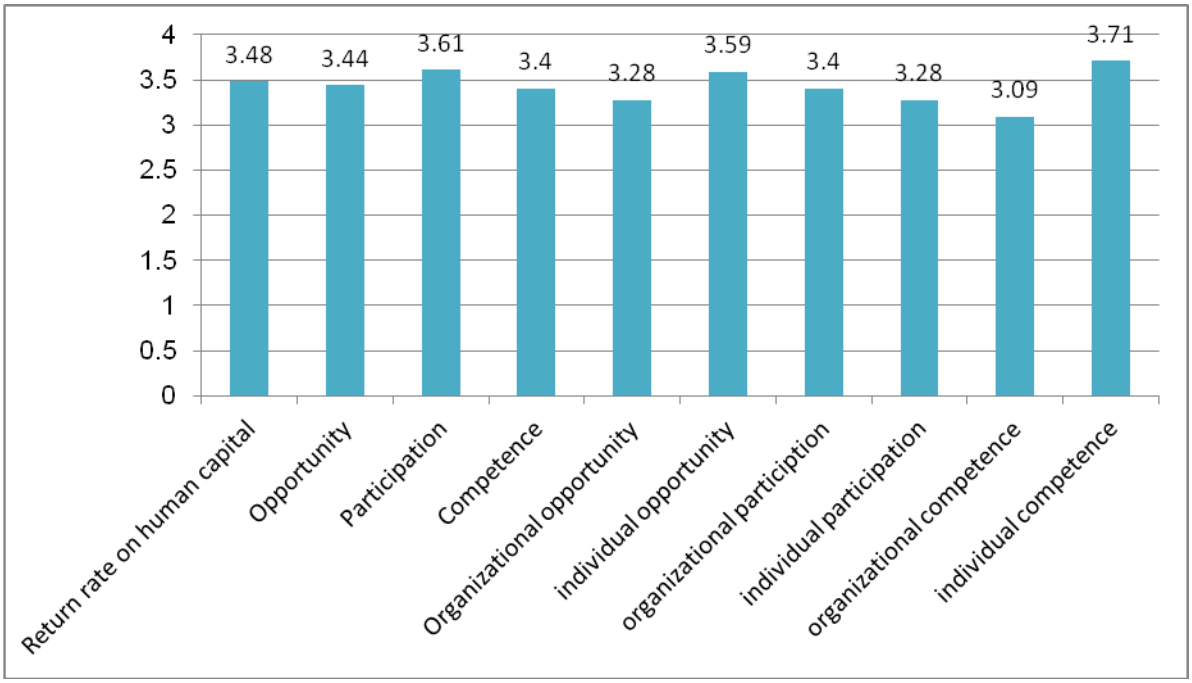


Table 3: calculation of return rate on human capital in Mobarakeh steel company using independent one-sample t test

Test value=3						
	T-statistic	Freedom degree	Significance level	difference of average	high level	low level
Return rate on human capital on aspect of individual competence	21.02	199	0.000	0.706	0.640	0.772

Return rate on human capital on aspect of organizational competence	2.19	199	0.000	0.093	0.009	0.177
Return rate on human capital on aspect of individual participation	19.40	199	0.000	0.817	0.734	0.900
Return rate on human capital on aspect of organizational participation	9.66	199	0.000	0.405	0.322	0.488
Return rate on human capital on aspect of individual opportunity	12.95	199	0.000	0.599	0.508	0.690
Return rate on human capital on aspect of organizational opportunity	6.51	199	0.000	0.285	0.199	0.372
Return rate on human capital on aspect of competence	12.12	199	0.000	0.400	0.344	0.465
Return rate on human capital on aspect of participation	16.67	199	0.000	0.611	0.539	0.683
Return rate on human capital on aspect of opportunity	11.04	199	0.000	0.442	0.363	0.521
Generally return rate on human capital	14.61	199	0.000	0.484	0.419	0.550

Table 4: Comparison between the averages of return on human capital based on age in Mobarakeh steel company

Return rate on human capital	F-Test	Significance level
Return rate on human capital on aspect of individual competence	2.128	0.079
Return rate on human capital on aspect of organizational competence	0.062	0.062
Return rate on human capital on aspect of individual participation	0.330	0.330

Return rate on human capital on aspect of organizational participation	0.142	0.142
Return rate on human capital on aspect of individual opportunity	0.220	0.220
Return rate on human capital on aspect of organizational opportunity	0.048	0.048
Return rate on human capital on aspect of competence	0.022	0.022
Return rate on human capital on aspect of participation	0.206	0.206
Return rate on human capital on aspect of opportunity	0.108	0.108
Generally return rate on human capital	0.055	0.055

Table 5: Comparison between the averages of return on human capital based on education in Mobarakeh steel company

Return rate on human capital	F-Test	Significance level
Return rate on human capital on aspect of individual competence	2.967	0.033
Return rate on human capital on aspect of organizational competence	2.398	0.069
Return rate on human capital on aspect of individual participation	0.586	0.625
Return rate on human capital on aspect of organizational participation	0.756	0.520
Return rate on human capital on aspect of individual opportunity	0.250	0.861
Return rate on human capital on aspect of organizational opportunity	1.270	0.286
Return rate on human capital on aspect of competence	3.393	0.019
Return rate on human capital on aspect of participation	0.745	0.526
Return rate on human capital on aspect of opportunity	0.304	0.822
Generally return rate on human capital	1.163	0.325

Table 6: Comparison between the averages of return on human capital based on Occupational rank
in Mobarakeh steel company

Return rate on human capital	F-Test	Significance level
Return rate on human capital on aspect of individual competence	0.369	1.001
Return rate on human capital on aspect of organizational competence	0.347	1.065
Return rate on human capital on aspect of individual participation	0.532	0.633
Return rate on human capital on aspect of organizational participation	0.027	1.428
Return rate on human capital on aspect of individual opportunity	0.242	1.495
Return rate on human capital on aspect of organizational opportunity	0.227	1.495
Return rate on human capital on aspect of competence	0.253	1.386
Return rate on human capital on aspect of participation	0.395	0.934
Return rate on human capital on aspect of opportunity	0.181	1.752
Generally return rate on human capital	0.214	1.552

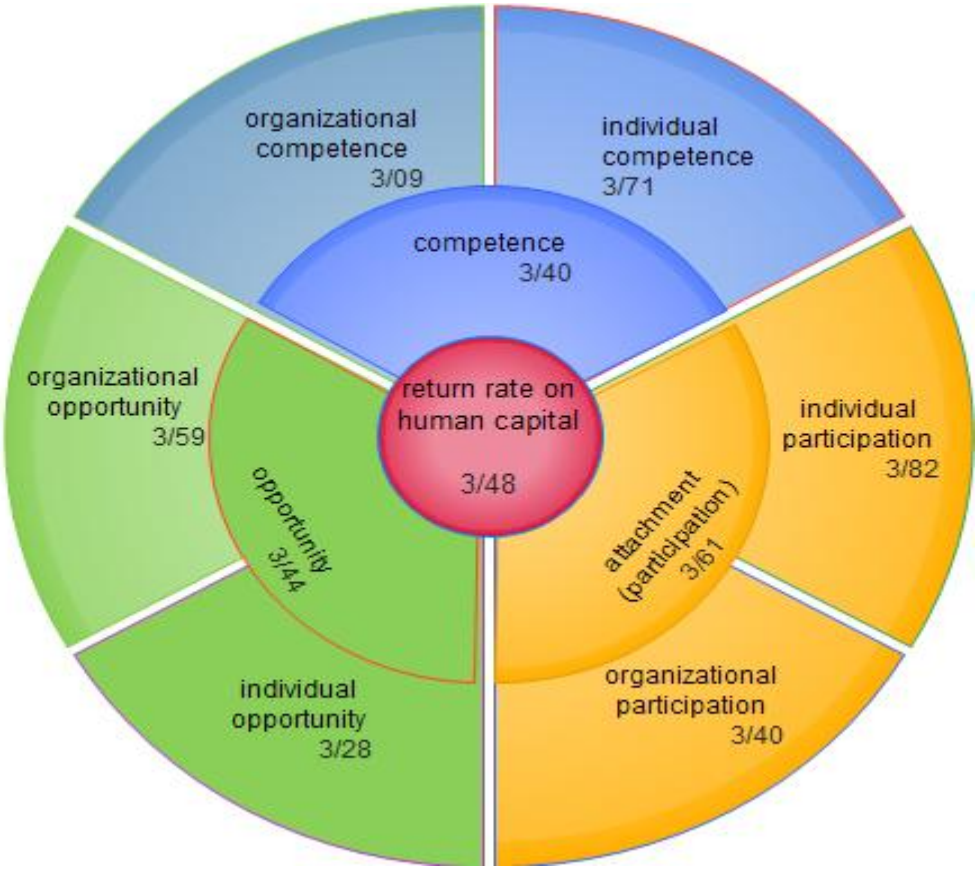
Table7: ranking of the Friedman test

	Rank average
Return rate on human capital on aspect of individual competence	6.41
Return rate on human capital on aspect of organizational competence	2.48
Return rate on human capital on aspect of individual participation	7.24
Return rate on human capital on aspect of organizational participation	4.39

Return rate on human capital on aspect of individual opportunity	5.73
Return rate on human capital on aspect of organizational opportunity	3.65
Return rate on human capital on aspect of competence	4.29
Return rate on human capital on aspect of participation	6.10
Return rate on human capital on aspect of opportunity	4.27

Summary and Conclusions:

Based on the results, rate of return on human capital in the competence aspect at the individual level was obtained 3.71.Based on the averages obtained; the greatest mean is related to the spirit of learning. So the spirit of learning among employees of Mobarakeh steel company is high .Rates of return on human capital in the competence aspect was obtained 3.09at the organizational level. Based on the results obtained from studying the mean of the index, the greatest means is related to the continuous improvement system. It means Mobarakeh steel company uses the continuous improvement system in a high level. Return rate on human capital on the competence aspect was obtained 3.40 totally. Based on the results, rate of return on human capital in the participation aspect (attachment) at the individual level was obtained3.82. Based on the averages obtained; the greatest mean is related to employees loyalty and commitment. Rate of return on human capital in the participation aspect (attachment) at the organizational level was obtained 3.40. Based on the results obtained from studying the mean of the index, the greatest means is related to the communications system. it means communications and verbal meeting has a great impact on strengthening participation and involvement in Mobarakeh steel company. Rate of return on human capital in the participation aspect (attachment) was obtained3.61 totally. Based on the results, rate of return on human capital in the opportunity aspect at the individual level was obtained 3.59. Based on the averages obtained from questions; the greatest mean is related to learning opportunity. Rate of return on human capital in the opportunity aspect at the organizational level was obtained 3.28. Based on the results obtained from studying the means of the index, the greatest mean is related to the offering system. It means offering system has provided chance of giving offer for employees. Rate of return on human capital in opportunity aspect was obtained3.44 totally. In this survey, return rate on human capital in three dimensions including competence (3.40),opportunity(3.44)and participation (3.61) was obtained, so, return rate on human capital was obtained 3.48 to tally. So, results of survey can be represented in the Model 2.



Model 2: Return Rate on Human Capital

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