A Study on the relationship between human development and intellectual and human capital in banking industry

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Abstract

In the current era, the main challenge of managers is to provide an environment suitable for development of human minds in the science-based organizations. Therefore, their ability in knowledge management and intellectual capital management has become a substantial skill of managers in these organizations. The purpose of this paper is to consider the relationship between human development index and intellectual and human capital. In the paper, pulic Model 2000 has been used to measure intellectual capital. Also, in order to collect data, information of 7 banks, which have been accepted in Tehran stock market during 2007-2011 (35 firm years), has been analyzed by using statistical method of data panel in STATA and EVIEWS softwares. The results of the study show that there is no significant relationship between human development and intellectual capital. Moreover, the results indicate that the relationship between human development and human capital is not significant.

Keywords: Intellectual capital; Human capital; Human Development

Introduction

Continuous research and development with the purpose to cover the requirements of the society and trying to discover the phenomenon and creating innovation, has always been a motivating element. Accordingly, research centers and management methods, are constantly growing and improving (Moosai, and Mansoori, 2006) today, the organizations competitive advantage in the knowledge effective development as a strategic valuable resource as well as an asset is proposed, providing products and services in an appropriate and economical quality without management and the use of this valuable resource can be difficult and sometimes impossible. In this approach, knowledge as a valuable resource along with labor, land and capital resources, which had been considered earlier in the economy and also as a capital asset is introduced. In structures industry is not the axis anymore, but the axis is the knowledge, in which the knowledgeable people are working and consequently, the type of work in the organizations is changing to knowledge work (Demoriand-NazarZadeh, 2012).On the other hand, manpower of every country is the real wealth of that country. And, the main objective is to create conditions, so that this manpower has long, healthy and creative life. Before 1970s, the per capita income level of the every country was considered as the index basis of that country's development rate.But now, to cover the human life more, researchers have introduced human development index as the human development measurement (Asefzadeh And Jahandideh, 2013).In this regard, the role the banking system in the country's economic development is unmatched and considering joining the World Trade Organization (WTO), it encounters new challenges, such as the entry of foreign banks, private banks starting to work and the increase of the activity of financial and credit institutions. So in order to stay in this dynamic environment, the banks of the country require to pay more attention to their human resource status, which is one of their main foundations, because it is the human resources' performance of any organization, which causes the survival or destruction of that organization. This requires the intellectual capital share in the value of the organization (Fetros, 2010).

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Statement of problem

At the same time, with the globalization and growth of capital markets, other financial resources are not available the same as the past. In addition, the influence of the physical and tangible resources does not necessarily mean, the market penetration; because the firms, which have more investments and fixed assets, may suffer a lot of losses due to asset protection, re- investment, and the restrictions caused by them.. In fact, the financial and physical capitals are considered as commodities. And intangible assets of an organization emerge as a new factor in the production of products and creating value for an organization. In traditional accounting, for the evaluation of intangible assets, which goodwill was its obvious index, the difference between a company's market value and office value was used.

With the development of intangible assets' activity area, in the new economic environment, reporting and estimation of the value of the intangible properties, which henceforth is referred to by the name of intellectual capital, seems highly difficult work and impossible.. Many companies seek to identify them and provided totally different samples of financial information provided, which we can call them 1"intellectual capital report", 2 "invisible balance sheet", 3"intangible assets report", etc . But they all had the same purpose in providing these reports, beyond the financial statements (Mahfoudh Abdul Karem Al-Musallia, 2012). Considering the change in today's economy world and moving from the industrial economy to the knowledge-based economy, the identification, valuation and management of the intellectual capital has turned into a very important and vital case for the companies. Managers should be aware of the existing amount of intellectual capital in the company, in order to be able to effectively manage the company's intellectual capital. Financial statements users should also be aware of the amount the company's intellectual capital to be able to predict the future of the company, and make knowingly decisions(TalibniaandHusseini, 2012). Intellectual capital management has a positive impact on the performance of organizations.

On the other hand, we all know that a prerequisite for the progress of communities, in addition to, achieving economic prosperity is education and expansion of human capacities and talents, which scientific growth in societies is one of the effective factors on human development index. This index seeks to measure an average achievement of a country in three dimensions (life expectancy, illiteracy rates, and annual income). As a result, human resources make up the main base of

wealth of Nations. The capital and natural resources are the subordinate factors of production, which aggregate the funds, utilize the natural resources and make social, economical, political organizations and take forward national development. Because of such importance, nowadays people-centered development is at the center of attention of development discussions. Therefore, study of different aspects of human development such as: economic and cultural, social situation, etc. within the framework of sustainable development, is one of the inevitable necessities of development topics for each area. So the role of intellectual capital and human development in the strategic and economic analysis is important (AlikhanandAsefzadeh, 2012).Of course, considering this point is essential that paying attention to the banking system is one of the activities, which should be done in order to realize the knowledge-centered economy, because the financial and credit institutions and banks have massive sources of intellectual capital, that if they do not take action to create some frameworks for accounting and intellectual capital report and its hidden values, they will be exposed to the loss of this intangible resources. In fact, intellectual capital is one of the vital resources for the development of productivity and the performance of banks (Roos,1997). This study is important, because the assessment of the human development index in the country's development plan and overall image for important policy making and planning, as a factor of economic decision making can have a role in the study of intellectual capital and human capital of Iran banking industry and will also be effective in the managers and investors' policy making and strategies. We are seeking to find the answer to this question, whether there is a relationship between human development and intellectual capital and human capital in the banking industry or not?

Theoretical backgrounds and literature review

The term intellectual capital was introduced by John Kenneth Galbraith (1996) for the first time. Galbraith believed intellectual capital is an ideological process and includes the flow of thought. But Stewart (2001) claimed that this issue was first raised in 1958, when he and Itami cooperate with each other for the intellectual capital movement. Generally, the intellectual capital has more meaning than the intelligence and it is associated with some degree of intellectual operations.(Bontis,1998) Considering the importance of intellectual capital and the necessity of payingattention to resources in organizations for competitive advantage and consequently, the importance of the strategic

management of these resources, the intellectual capital management model, includes the following points: 1. Identifying the key intellectual capital that causes the realization of the strategic function of an organization. 2. Visualizing and portraying the routes and developments of the creation of key intellectual capital value. 3. Measurement of performance and especially its dynamic developments 4- Education and creation of the intellectual capital by using the knowledge management process 5- External and internal performance reporting (Marr, 2004).The concept of intellectual capital is one of the richest explained frameworks in the context of contemporary sociological, economic and management considerations. This category has undergone a transformation during the recent decades, which because of them; it has witnessed the emergence of new theories of human, intellectual, cultural and organizational capital(JafarNejad and Ghasemi, 2008).

Without studying and becoming aware of the extent of progress and achievement of the goals and without identifying challenges facing the industry and getting feedback and information on the extent of implementation of formulated policies and identifying the points, which need serious improvement, continuous improvement of performance will not be achieved, and this work without measuring and evaluating the organizational performance is not possible. Intellectual capital consists of the company's value creation of non-physical resources, which has been related to the ability of the staff, organizational resources and operational procedures and relationship with the partners (Lonnqvist, 2004).

Some explanations, which have been presented on intellectual capital byspecialists, are as follows:

Intellectual capital includes value creation factors of an organization, which is not shown in the traditional balance sheet, but it is vital in forming long term profitability of an organization (Andreou and Bontis, 2007) Intellectual capital is an intangible asset with a value creation potential ability for the company and society (Mavridis,2005).Brooking definesthe intellectual capital as a combination of market intangible asset, intellectual asset, human asset and infrastructural asset, which empowers the organization in performing its activities (Brookin, 1996).

According to the definition of Ross et al. (1997), the staff of an organization creates human capital through their merits and competencies, ways of thinking and intellectual brilliance. These competencies include the staff's skills, education, and the way of thinking, which covers their behavioral components (Roos, 1997). Human development is the

process of expanding choices and human capacities (Sadeghi and Abdullah zadeh, 2007).

Intellectual capital measurement techniques

(A) Models that evaluate the intellectual capital in the form of monetary and financial, which are: 1- Economic value added 2-Method of return on assets rate 3- Method of forming a capital market 4- Method of direct intellectual capital 5- Methods of financial measurement of intellectual capital 6- Method of Tobin

(B) Models which evaluate the intellectual capital in the form of non-monetary are:

1- Invisible balance sheet (intangible) 2- Intangible asset control 3- Balanced score card 4- Intellectual capital index 5- Technology broker 6- Method for Scandia (Edinson, 1997) 7- Intellectual capital management model 6- Method of Joia.(Hong, 2007)

Method of measuring intellectual capital

pulic used a model entitled "Intellectual added value coefficient" through which he measured the intellectual capital performance of Australian banks since 1993 to 1995 and the banks of Croatia since 1996 to 2000. The results of both studies showed significant differences in the ranking of financial institutions based on traditional accounting standards based on efficiency. One of the quantitative methods for measurement of the material and intellectual capital efficiency is value added intellectual coefficient or VAIC. This coefficient specifies that per monetary unit, which is invested in material and intellectual resources, how much new value and interests is created. The higher the amount of this coefficient is, the appropriate and optimal use of intellectual and material resources has been made (KiranSahrawat, 2008).

Foreign history

Mahfoud Abdul Karimal Masali and Ismail (2012) studied the relationship between the characteristics of Board of Directors and the intellectual capital performance in the 147 banks in the GCC member countries. The research results show that there is a meaningful relationship between the characteristics of Board of Directors and the intellectual capital performance.Ahmad al Dojli (2012) studied the intellectual capital impact on organizational innovation. Research results suggest that human capital and structural fund have a positive and significant impact on innovation, while the customer's capital does not have any impact on innovation. Fethi Cali sir et al. (2011)studied the intellectual capital on development and investment some banks of Turkey. In today's competitive banking sector, the bank needs to

increase the diversity of their services and value added of these services and the spiritual capital, has a great impact on the quality of bank services. Phusavat et al. (2011) in a research entitled, "the relationship of intellectual capital and performance" studied the role and impact of intellectual capital on organizational performance. The research findings confirm positive and meaningful impacts of physical capital on organizational performance. The findings also revealed that intellectual capital has impact on all four indicators such as return on equity, return on investment, the growth of revenue and staff's productivity. Chang et al. (2011) studied the relationship between the components of the intellectual capital and three operational, financial and market performance in Taiwan Stock Market. The results of the research show that the relationship between operational performance and the applied capital is positive and do not have any relationship with the human and structural capital. Also the intellectual capital components with the financial and market performance has a negative relationship. Indra, Abeysekeraet al. (2011) researched on the relationship between financial reporting and intellectual capital performance in the Indian IT industry. The results indicate that there is a significant relationship between the profitability and the intellectual capital performance, but there is no meaningful relationship between this productivity, market value and the intellectual capital performance.Maditinos et al. (2010) studied the impact of the intellectual capital on the market value and the financial performance of the companies. The research results indicate that there is a meaningful relationship only between human capital and equity return rate and there is no meaningful relationship between other criteria of financial performance (return on assets rate and income growth rate) and intellectual capital. Also there is no meaningful relationship between intellectual capital and its components and market value. Z ghal and Maaloul(2010) studied the impact of the intellectual capital on the economic performance (the ratio of operational profit ratio to the total sales), financial performance (return on assets) and the stock market (the ratio of market value to the book value). The results of the research suggest that the intellectual capital has a positive impact on the economic and financial performance, but the relationship of the intellectual capital and market performance is only meaningful for high-tech industries. Tink and Lin (2009) conducted a research in Malaysia, with the aim of evaluating the performance of the intellectual capital. The research results indicated that intellectual capital has a positive meaningful relationship with the return on assets. The other result of this re-

search was that intellectual capital components also have a significant relationship with profitability.El-Bannany (2008) evaluated the intellectual capital performance of the banks. He measured the intellectual capital through using variables such as: bank's profitability, information technology systems, banks' efficiency, bank's risk and investment efficiency. The research results indicate that the Investment in information technology, bank's efficiency and investment efficiency in intellectual capital have meaningful impact on intellectual capital performance. He also showed that profitability and bank risk variables are also important.

In a research, Kamat (2008) studied on the relationship between intellectual capital components with financial performance traditional criteria, including profitability, productivity and market value. To measure the intellectual capital, he used Pallig model and studied a number of 25companies relating to the pharmaceutical industry. The research findings indicated that there is no meaningful relationship between the intellectual capital components and financial performance criteria but among the components of intellectual capital, human capital had the highest effect on performance. Appuhami (2007) studied the relationship between intellectual capital and profit per share of industry-funded companies, banking and insurance stock exchange of Thailand. The research results suggest that share there is a significant and positive relationship between the intellectual capital (intellectual added value coefficient components) and the capital profit per share.

Studies done in Iran

Hosseini Sadr (2012)studied the relationship between intellectual capital and its components (physical capital, human capital, structural capital) with the human development index. In this research for the measurement of intellectual capital Pulic model has been used. Also the human development index has obtained through the criteria (life expectancy + the rate of illiteracy + annual income). Theresults of research indicates that between the physical capital, intellectual capital, human capital, structural capital and human development index, there is no significant relationship.Kordestani et al. (2012) studied the comparison between the ability to explain the stock prices by the intellectual capital and revenue accounting. To test the research hypothesis through using the model the remaining profit was estimated and then the research model has been estimated. The results of the research showed a significant relationship between the intellectual capital and the stock prices. Hamidian poor et al. (2012) studied the

importance and the role of intellectual capital in choosing the portfolios among the companies accepted in Tehran Stock Exchange. In this research, through using the data covering analysis method2 groups of portfolios (each group 36 portfolios) in the period of (2004-2006) were selected. The results of the research indicate that the intellectual capital can have an important role inthe-investors ' decisions., Ghorbani et al. (2012)studied the relationship between intellectual capital management and organizational innovation among 155 individuals of National Bank staff and concluded that there is a positive and significant relationshipbetween intellectual capital and organizational innovation. These results also indicates that the intellectual capital indirectly affecton occupational and personal factors.Darabi et al. (2012) studied the relationship between the intellectual capital and the profit quality in Tehran Stock Exchange. The research results indicate that between the intellectual capital and its components (physical capital, human capital, structural capital) with the quality of profits, there is a positive and significant relationship. Ahmadian, et al. (2010) studied the impact of intellectual capital efficiency on the companies' profitability in Tehran Stock Exchange. The results of the research show a significant relationship between the profitability index andthe intellectual capital efficiency.Darabi et al. (2012) studied the relationship between the intellectual capital components impact on the quality of financial reporting in Tehran Stock Exchange. The research results indicated that the physical capital and human capital have a significant positive relationship with the quality of financial reporting. But the structural capital has negative and significant relationship with the quality of financial reporting. Poor Zmani et al. (2010) studied the impact of intellectual capital and financial performance. The research results indicated that between the intellectual capital and the market value (the ratio of market value to the office value) there is no significant relationship. Also the efficiency coefficient oftheintellectual capital has a significant positive impact on financial performance (return on asset rate) of the company. Demori et al. (2012)studied the status definition ofthe intellectual capital on financial improvement of the companies accepted in Tehran Stock Exchange. The results of the research showed that there is a significant relationship between the market value and the intellectual capital and its components.Abbaszadeh et al. (2012)studied the intellectual capital impact on the financial performance of the companies in Tehran Stock Exchange, which indicates that the financial performancecriteria of the return on assetsrate,return on equity rate, the ratio of market value to book value and economicvalueadded has

been considered. The results of the research showed there is a significant relationship between all five criteria and the intellectual capital. Talibnia et al (2012) studied the intellectual capital impact on market value and financial performance of the cement industry companies. The results indicate that between intellectual capital and the financial performance in the cement industry, there is a significant relationship. Gharai and Ahangar (2011) studied the relationship between the intellectual capital and financial performance, which includes profitability, efficiency of staff and the sales growth andconcluded that the intellectual capital can explain the profitability and efficiency changes.Abbasi et al (2010) showed the impact of the intellectual capitalelementsefficiency on the financial performance of the companies in Tehran Stock Exchange. The efficiency coefficient of each of the intellectual capital elements on the rate of returns on equity have had significant positive impact. The impact of physical and human capital performance coefficient on the dividend per share was positive, but the impact of structural capital performance coefficient was meaningful and negative. The impact of efficiency coefficient of the structural and physical capital on annual return rate is positive, but the impact of human capital with it is meaningful and negative. The results also showed that companies that have higher intellectual capital,havebetter financial performance. In addition, they have different meaningfulintellectual capital average coefficient.Shams, et al. (2011) tested the impact of intellectual capital and its components on each of the financial performance indices through using the linear regression model. The research results indicate that intellectual capital has a direct relationship with the return on equity rate indices andthe staff's productivity and the ratio of market value to the book value per share return on assets and the profit per share. MohammadiPirasteh et al. (2011) research is to identify the role of intellectual capital components (communication, human, structural capital) on the banking efficiency in Lorestan province. The study of the intellectual capital elements' efficiency impact on the financial performance of the companies in Tehran Stock Exchange showed that the performance coefficient of each of the intellectual capital elements on returns on equity rate have had a significant and positive impact. The impact of physical and human capital performance coefficient on the dividend per share was positive, but the impact of the structural capital was significant and negative. The impact of the physical and structural capital on the annual return rate was positive, but the impact of the human capital efficiency coefficient on it was negative and meaningful. The results also showed that the companies, which have

higher intellectual capital, also have higher financial performance. Besides, they have different meaningful intellectual capital average coefficient significant.Ghorbani et al. (2010) conducted a research with the aim of evaluating the effects of intellectual capital on the financial performance of the pharmaceutical industry.The results of their research showed that effective and optimal use of the companies from the material and intellectual resources affects on their profitability. Also, the human capital efficiency has negative impact on the productivity and the structural capital efficiency has positive impact on equity. Researchers believed that the Iranian drug market still shows more sensitivity to thematerial capital rather than intellectual capital. Namazi and Ebrahimi (2009) studied the intellectual capital impact on the financial performance of the companies accepted in Tehran Stock Exchange. The research results showed that regardless of the size of the company, the liability structure and the financial performance of the past, between the intellectual capital and the current and future financial performance and intellectual capital of the company, both at the level of all companies and at the level of industries, there is a significant positive relationship.

Research hypothesis

1- There is a significant relationship between human development and human capital.

2- There is a significant relationship between human development and intellectual capital.

Methodology

This research in terms of classification depending on the purpose, is from the type of applied researches and its research type is correlation and in terms of methodology, it is a post-event research The purpose of this type of research is to study of the relationship existing between the variables and the data from the environment, which have been existed in a natural form or from the past events that have occurred without the researcher's direct intervention, are collected and analyzed (Delaware, 2005). In this study, in order to collect data and information, a library method, theoretical basis for research from the English and Latin specialized journals and books, and the required data through the extraction of financial statements and explanatory notes have been compiled.

Statistical population, sample size and sampling

With regard to the nature of the research among the banks accepted in Tehran Stock Exchange, considering the following conditions, a number of 7 banks for 5 years (35 company years) have been chosen.

1- It is listed on the Stock Exchange before the year 2007-2- Their fiscal period is ends up to the end of March. 3 during 2007-2012, it does not have fiscal year change or operation disconnection. 4-financial statements and explanatory notes along with the companies in the aforementioned time frame are available in the stock exchange.

Research variables

A: Independent variable: 1- Human development (lifeexpectancy + illiteracy rate + annual income)

A: Dependent variable: 1- Human capital 2. Intellectual capital

Intellectual capital by using pulic model is calculated with the following relationship:

IC= (VACA + VAHU + STVA)

Intellectual Capital = (Physical capital + Human capital + Structural capital)

Table 1. Intellectual Capital

Symbol	Method of calculation	
VA	Depreciation expense+ Staff salary & wage cost+ operational profit= economical value added	
VACA	Economical value added / Tangible physical assets	Physical capital
VAHU	Economical value added / Staff salary & wage cost	Human capital
STVA	(Value added − Human capital) / Economical value added	Structural capital

To test the hypothesis the following models are used:

1-VAHU=B0+B1 HD+€V2-VAIC=B0+B1 HD +€

HD= Human Development

Data analysis methods

In this study in order to study the relationship between the intellectual capital and human development and also the relationship between the human

capital and human development in banking industry, the information available in seven banks during the years 2007 to 2011 has been used. Considering the type of data in choosing the panel technique with the pool method F-Test has been used. Houseman Test has been used to choose between two methods of fixed effects and random effects and Hadderi Test to study the variables stability. Statistical analysis has been done by Eviews software.

Descriptive statistics

Based on the average results of table 2, on the average the most human capital and intellectual capital belong to Persian Bank and the least human capital and intellectual capital belong to the Mallet Bank. The results indicate that human development in all the Banks are the same.

Table 2.Statistical description of research variables by separation of the banks

Human capital	Average	2.65203
	Criteria error	0.514250
	Minimum	1.492
	Maximum	10.774
Intellectual capital	Average	5.38734
	Criteria error	0.540797
	Minimum	1.839
	Maximum	11.707
Human development	Average	0.7400

Persistence of the variables either about the time series data or panel data causes false regression problem. Therefore, before estimating the research models it is necessary to test the persistence of all variables used in the estimations. The composition data unit root tests byQuah (1992 and 1994) and Breaton (1994) were founded. These studies by Lin and Levin (1992 & 2003) and Anooshin's son Imm (1997 & 2003) were completed.

Levin Lin Chu test, Imm and sons and Shim test, Bertong test, Fisher test and Hadritest are from the panel unit root tests. In these tests with the rejection of H_0, the lack of persistency is rejected and it indicates the variable persistency. Sometimes variables become persistence on the surface or with getting the difference once or getting the difference twice become fixed and steady. In order to distinguish this section, the probability values (P-value) will be consideredandthey must be smaller than 5%. In this research, because of the period limitation (2007-2012) the possibility of the unit root test is only for Hadri method has been existed.

Table 3. Results of likewise accumulation Test

Variables	Statistics amountKao	(P-Value)
Kao Test	-9.84	**0.000

** Meaningful in the level of 1 percent

Model detection Test

Two prominent method used in dealing with panel data are Fixed Effects model and Random Effects model. In the fixed effects model, the width from the source is allowedto change between the sections, to reflect the unique characteristics of individual units. This is done by using virtual variables. The random effects model is an alternative for fixed effects model. In this templateitis assumed that the value of the intercept from a single unit is a random image from a much larger statistical community with a constant average (or mean). [Chatterjee] In the econometrics literature related to the panel models, usually F-test has been used to apply the fixed model against the pooled model (the estimated model of combined data). The F value is calculated from the following formula:

$$F = \frac{(R_{UR}^2 - R_R^2)/m}{(1 - R_{UR}^2)/(n-k)}$$

Thedetermination coefficients are pooled OLS regression models (binding model) and the Fixed effects regressions FEM (unbound model).. In this test H0 represents shows the absence of the fixed effects, which indicates a bound regression (pooled). The amount of Fisher statistics with the value of 26,119 and the probability value less than 0.05indicatesthe rejection of H0 in the research first hypothesis, also the amount of Fisher statistics with the value of 26. 981 and the probability value less than 0 .05shows the rejection of H0 in theirresearch second hypothesis. Therefore, in both researchhypotheses, fixed effects model is accepted. Thus, it can be said that the banks in terms of human capital and intellectual capital have significant difference.

Table 4. Fixed effects Test

	Model	Fisher statistics (F)	Probability value
F Test	Research first hypothesis	26.119	** 0.000
	Research second hypothesis	26.981	** 0.000

The most common test to recognize the model is either appropriate fixed effect or random effect model is Hausman test. The zero hypothesis indicates the randomness of its effect. According to the probable

values given in Table 5, the zero hypotheses based on the suitability of random effects is accepted (because the probability values are higher than meaningful of 5 percent). In other words, a model suitable for both research hypothesis is the random effect model.

Table 5. Random effects test

	Fisher statistics (F)	Probability value
Research first hypothesis	0.0001	1.00
Research second hypothesis	0.0001	1.00

Model fitness

The amount of t-statistics to the value of 1.195 and the probability value of 0.833 indicate that there is no meaningful relationship between human capital and human development (P-Value >0.05). The amounts of Durbin Watson statistics in the range of 1.5 to 2.5 indicates lack of correlation between the errors. So according to the amount of Durbin Watson statistics of 1.65, it is concluded that there is errors' non-correlation hypothesis.

Table 6. The first hypothesis estimation results of regression model of Panel random effect

	Model	Determination coefficient	Regression coefficients	T statistics	Probability value (P-value)	Durbin Watson statistics
Research first hypothesis	Fixed amount	0.0013	5.622	1.195	0.24	1.65
	Human development		1.311-	0.212-	0.833	

Table 7. The second hypothesis estimation results of regression model of Panel random effect

	Model	Determination coefficient	Regression coefficients	T statistics	(P-Value)	Durbin Watson statistics
Research second hypothesis	Fixed amount	0.0014	6.424	1.316	0.197	1.69
	Human development		1.401-	0.219-	0.837	

The amount of t-statistics 0.827 and probability value 1.316 shows that there is no meaningful relationship between human development and intellectual capital (P-Value of 0.05 >), also Durbin Watson statistics shows that the hypothesis of non-correlation errors exists.

Conclusions

Intellectual capital disclosure through different methods provides valuable information for investors. In a way that will help to reduce the uncertainty about the company's prospects and facilitate the evaluation. In General, the financial statements' data provide information, which causes to reduce the information asymmetry in the market and show that the investors should completely apply these types of information in decision making investments.

The inability of traditional financial statements is in this point that the ability to create value does not show the intellectual capital, so that this issue would lead to an increase in information asymmetry from accounting data. Therefore, intellectual capital disclosure in the financial statements or it is separately effective on the capital market and on the other hand, capital market through its performance and activities can be effective on human and economic development of the countries. The purpose of this research is to study the relationship between human development and human capital and intellectual capital in banking. The results obtained from the first hypothesis analysis indicate that there is no meaningful relationship between human development and human capital, which its result is the same as (HusseinSadr, 2012) research results.

Also the results of the second hypothesis indicates that there is no meaningful relationship between the human development and intellectual capital, which are the same as (HusseinSadr, 2012) research results

Research limitations

1- One of the research limitations is low number of, active banks in the banking industry in Tehran stock exchange, which also out of this number some firms have been deleted according to the sample limitations.

2. One of other limitations of the research is the different quality reporting of thesample banks, which can affect on the research results.

Based on the results of the research the following suggestions will be offered:

1. Studying the relationship between human development with human capital and intellectual capital in the industry of petroleum and pharmaceutical products, according valuable role of these industries on the country's economy.

2. Studying the relationship between the real ownership with intellectual capital and human capital in the banking industry.

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