The impact of intellectual capitals of pharmaceutical companies listed in Tehran Stock Exchange on their market performance

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Abstract

The present study examines the effect of intellectual capital on the performance of pharmaceutical companies listed in Tehran Stock Exchange. To assess intellectual capital, the Pulic value added intellectual capital (VAIC), and to evaluate the performance of market value, market value measure to book value of the assets (M / B) and Q tobin ratio are used. This research, in an analytic and separately, studies the effects of each of VAIC components on market performance value of 26 companies active in the pharmaceutical industry and listed in the Tehran Stock Exchange during 2008 to 2012 using multivariate regression based on panel. The results show that VAIC coefficient has a significant impact on market performance variables of pharmaceutical companies accepted in Tehran Stock Exchange, and among its components employed or physical capital has the greatest impact on market performance variables.

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Keywords: Intellectual Capital; Value Added Ratio of Intellectual Capital; Performance; Book Value; Market Value; Q tobin ratio.

1. Introduction

A review of the literature of intellectual capital confirms the huge interest in measuring valuation and reporting it. For strategic survival, companies should consider competitive advantage and as markets, products, technology, competition and regulations are changing quickly in society, improving knowledge and continuous innovation will
make them able to maintain a sustainable competitive advantage (Nonaka, 1995). Thus, nowadays, managers consider the knowledge and ability to create and apply knowledge as the most important sustainable competitive advantage. Because knowledge is regarded as an asset and the attempt in knowledge management and applying intellectual property has been of great success in guiding the organization. Nowadays, by knowledge based economy growth, intangible assets of companies and their intellectual capital are the keys to achieve sustainable competitive advantage (Teece, 2000). Research in recent years show that growth in corporate value is more than their book value growth. In fact, although traditional financial reporting contributes to an understanding of the business, it cannot calculate the real value of the companies and just suffices to measure short-term financial balance and tangible assets.

It should be noted that tangible assets can easily be copied or be traded in a free market, so they cannot be a company's strategic assets, on the contrary, intellectual property are usually created internally, and they are usually hidden in employees' skills and experience. These properties are unique and exclusive and cannot be copied or imitated, so they are valuable for companies and can create future competitive advantage. Intellectual and knowledge properties are much more exposed to this threat that because of the intangible nature, their impact on various performance measures is ignored and information usefulness power significantly reduces for decision-makers. Measuring and considering the true value of intangible and knowledge assets in financial statements of company improve the quality of decision-making in the users, improve internal management, improve external reporting, improve trade in and out of the company and improve accounting performance. (Pour Zamani et al., 2012).

Evaluation of corporate performance indicators has great importance in financial decision-making and is the most important factor in decision-making of aware investors. There are a lot of different criteria for classification and evaluation of corporate performance, and there are various methods for each of these criteria, but choosing an appropriate measure from among the existing criteria and a way to fits the criteria is a subject that has created many studies in financial literature in the world. In our country, especially in recent years with the development of the capital markets and the expansion of scientific publications, some steps have been taken in this regard. In the current business structure efficiency of intellectual capital used is much more important than the financial return on capital used. This means that in contrast to the intellectual capital, the importance of financial assets in determining sustainable profitability is significantly decreased. Due to the increasing relative importance of intellectual capital (an important part of the company's total assets) in a sustainable long-term profitability, most companies are trying to find answers for this question that whether statistically, intellectual capital, has no effect on firms listed in Tehran Stock Exchange? And whether the use of models based on intellectual capital can help the shareholders and investors in their future decision making? And whether the use of this model leads to a higher net profit for the company?

2. Theoretical principles and develop of hypotheses

Many theorists and researchers in describing the features of the new economic environment believe that the economy has got a global and inclusive shape, and is formed form intangible assets, and intangible complex incomes which are mixed together in a particular way. In this environment productivity and competitive advantage of firms depends on production capacity, processing and application of knowledge has been sustainable in global range.

2.1. Intellectual capital

What all authors agree on is that intellectual capital is a form of knowledge which creates competitive advantage and displays the intangible value of a company. In initial impression, intellectual capital may be defined as the set of all knowledge which has been possessed by the employees and the company and creates a competitive advantage or in other words they have defined the intellectual capital as intellectual circuits such as knowledge, information, and analysis of intellectual property, which through them companies can benefit of in order to create a fortune (Bontis, 2000). Bontis in 2000 has defined intellectual capital as a concept that classifies intangible resources and their interrelation; so, managers need to be able to measure the effect of knowledge management efforts on the performance of their organization. In this study, the three components of intellectual capital, including human capital, structure and communication is used.
2.1.1. Human Capital

Human Capital represents knowledge of the individuals of an organization. Bontis describes human capital as a collective capability to extract the best solutions from the knowledge of men (Bontis, 1998). Ross and colleagues (1997) also argue that employees create their intellectual capital through competence, attitude and their agility in thinking. Mental agility enables the individual to change the practices and thinking about innovative solutions for issues. Broking (1997) also believes that the assets of an organization include the skills, expertise, ability to problem-solving and leadership styles (Bontis, 1999).

2.1.2. Capital structure (organizational)

Capital structure includes all reserves non-human knowledge including databases, organizational charts, and processes and operating procedures, strategies, organizational action plans (Ross et al., 1997). Chen and colleagues believe that the capital structure refers to the current business structure and procedures of the organization. In their view, capital structure can more clearly classify as organizational culture, organizational learning, operational processes and information systems. Human capital and structural capital with interacting with one another can help organizations to shape costume capitals and use and develop them harmoniously (Chen, 2004).

2.1.3. Relational capital (customer)

Although the term 'customer funds were raised primarily by Hubert, new definitions, have developed its concept to relational capital, includes all relationships of the organization with customers, suppliers, trade associations or government establishes (Bontis, 1999). Chen et al classify customer capital in the form of marketing capability, the severity of market and customer loyalty. Without relational capital the market value or the performance a business or organization cannot be realized; therefore, relational capital growth depends on human capital and structural capital (Chen, 2004).

2.2. Performance criteria and its types

Numerous studies has long been conducted to achieve a sufficient criterion for assessing performance of corporate and directors of the company in order to ensure alignment with the interests of potential investors and as a basis for making economic decisions of potential investors and creditors. The results obtained from these studies provide four approaches in terms of performance criteria which include financial approach, the economic approach, integrated approach (market) and fiscal management approach. In this study, the market perspective is examined. To achieve the main objective of this research and by taking this approach, the main hypotheses can be proposed as follows:

H1: Coefficient of value added of intellectual capital (VAIC) has an effect on the market performance (with criterion M / B) of pharmaceutical companies listed in the Tehran Stock Exchange.

H2: Coefficient of value added of intellectual capital (VAIC) has an effect on the market performance (with criterion Q tobin) of pharmaceutical companies listed in the Tehran Stock Exchange.

2.2.1. Integrated approach (the market)

In this approach, a combination of accounting and market information are used to evaluate the performance such as Q tobin and the ratio of price to earnings (Malekian and Asghari, 2006). Impairment in financial and economic metrics caused interest in integrated criteria or market. These criteria use accounting data and information in the market in a combined way and can be a better measure than the accounting criteria, but as it uses a part of accounting information or due to inefficiency of market, the information from market may not show the actual situation because of different unrelated risks, thus, alone it cannot be an appropriate measure. Thus it can be posed that:

H11: Each component of added value of intellectual capital including: efficiency of employed or physical capital (VACA), human capital efficiency (VAHU) and structural capital efficiency (STVA) have effects on the financial performance of pharmaceutical companies listed in the Tehran Stock Exchange (M / B).

H21: Each component of added value of intellectual capital including: efficiency of employed or physical capital (VACA), human capital efficiency (VAHU) and structural capital efficiency (STVA) have effects on the financial
performance of pharmaceutical companies listed in the Tehran Stock Exchange (Q TOBIN).

2.3. A review of research literature

McPherson and Pike (2001), in their study entitled “Accounting, experimental measuring and intellectual capital” with an accounting approach have measured the performance of companies using cash flow and intellectual capital index by using the brand, reputation and goodwill indices. In this study, the size of the companies, the share of intangible assets to generate cash flow, and the value of business created by intellectual capital are also investigated. To experimentally prove this model, the performance and intellectual capital (IC) of a hotel have been calculated and showed a significant positive correlation between performance and intellectual capital in the hotel (McPherson and Pike, 2001). Yang Cho et al. (2006) in a study entitled "Intellectual Capital, an experimental study of ITRI» investigated the relationship between the components of intellectual capital (human capital, structural capital and relational capital) and performance in the Industrial Technology Research Institute, and concluded that the first there is a positive relationship between components of intellectual capital and firm performance and, secondly, increase of intellectual capital value depends on creating value process and their strategic storage in the organization (Cho Yang et al., 2006). Alka Bramhandkar et al. (2007) in their study titled "intellectual capital and corporate performance: an empirical study in the pharmaceutical industry," investigated the effect of intellectual capital on performance of 139 pharmaceutical companies where the performance components were return on assets, return on equity, return on their investment and riskβ, and the results suggested that there is a relationship between the components of intellectual capital and corporate performance (Alka Bramhandkar et al., 2007).

Rhodes and Myhalyk (2007) in their study, investigated the impact of IC components on financial performance in the hotel industry in Slovenia, the survey results showed that, firstly, there is a significant positive relationship between the components of intellectual capital and financial performance in the industry, secondly, communications capital has a high impact on financial performance compared to other components of intellectual capital (Rhodes and Myhalyk, 2007). Tan et al. (2007), in their study using the Pulic model with a focus on Asia and obtaining information on the 150 companies of Singapore Exchange between 2000 and 2002, using PLS test (for data analysis) examined the relationship between the three sectors (human capital, structural capital and relational capital) with financial efficiency (performance) of companies, based on return on equity, earnings per share and return on total common stock. The results indicate that firstly there is a significant positive relationship between company's intellectual capital and the current and future financial performance of the companies and secondly, the impact of intellectual capital on the financial performance of companies in various industries is different (Tan et al., 2007).

Nazari (2010), investigates and explains the relationship between the elements of intellectual capital and financial success of companies in which 775 companies between 1996 and 2006 are studied. The results suggest that human capital has a significant positive relationship with the structural capital; in addition, there is also a positive relationship between human capital and company performance. In this research to calculate the components of intellectual capital, pulic method is used; and also to measure the performance the ROA, ROE methods and the changes in sales are used (Nazari, 2010). Zegal (2010) studied value Added Intellectual Capital and financial and economic performance, and market value of 300 English companies in three groups of technology, traditional and service industries. For measuring intellectual capital of Value Added Intellectual Coefficient Pulic model was used, results of the tests show that the performance of intellectual capital has a significant positive relationship with economic performance and financial performance, but in the case of market value in the technology industry it is just an important relationship (Zegal and Maaloul, 2010).

In a study of Maditinos et al (2011), which is titled the impact of intellectual capital on the market value of the company and its financial performance, public method was used for measuring intellectual capital. one of the assumptions is that companies that have a higher intellectual capital, have higher rates of market value on book value; finally the experimental results failed to support this hypothesis and this hypothesis is rejected (Maditinos et al., 2011). Chang and Hsieh (2011) examined the relationship between intellectual capital components and three functions of operational, financial and stock market in Taiwan electronics industry to measure intellectual capital, value added Intellectual coefficient model is modified. The results show that the relationship between operational performance and
the used capital is positive and has no relationship with human capital and structural capital (Chang and Hsieh, 2011). Clark and colleagues (2011) examined the relationship between intellectual capital and company performance in Australia where a sample of Australian companies between 2004 and 2008 are examined. The results show the there is a direct relationship between intellectual capital and financial performance of Australian companies. Also a positive relationship between intellectual capital (human capital and structural) was also found in the previous year and the current year's financial performance (Clark et al., 2011). Cheng et al (2010) in a study titled "resource investment, competition and intellectual capital and firm performance aimed to investigate effects of intellectual capital, human capital, customer, process innovation on corporate performance." an was conducted in health industry and for a four-year period, experimental results indicates an important relationship between intellectual capital and company performance and the results showed companies can improve their performance by human capital value added (Cheng et al., 2010).

3. Research method

This study an applied research and it is non-experimental correlational research method. Also in terms of data it is after event type. The research population consists of companies in the pharmaceutical industry listed on the Tehran Stock Exchange. The reason for choosing these companies as the statistical community is the easy access to their audited financial statements as well as access to information on the corporate stock in different times. Regarding the 5-year period of the study (from the beginning of 2009 to the end of 2013) firms have been chosen, that have been a member of the Tehran Stock Exchange at least since the beginning of 2009 and have handed their fiscal year-end financial statements to the exchange for research period. The stocks of said companies should be traded at the beginning and end of their financial year. Their information should be available on the official site of the Tehran Stock Exchange. The sample size consists of all the all companies of statistical population with above specification. Since a major confusion and lack of resolve on activities, performance and reports of the company leads to a Long-term stop of companies logo by securities and exchange company and this leads to a lack of access to company information and affects the decision of shareholders, therefore, the characteristics of the population and the number of 3 companies were eliminated in order to create uniformity. Finally, with regard to the above requirements, the sample will be 25 companies listed in Tehran Stock Exchange and active in the pharmaceutical industry. In this study, data collection methods of research literature are Library method including books and various articles and domestic and foreign publications. Also the data collected in this study, is obtained from banks and valid software including the "Rahavardnovin 3" and the audited financial statements of listed companies in Tehran Stock Exchange and extracted from "Kadal" site, also from the official website for price announcement (www.tsetmc.ir), which gives the researcher audited information and needed data in this study. Also to sort and classify data, excel 2010, and for data analysis "Eviews" software were used.

4. Findings of the study

First the effect of added value of intellectual capital coefficient on market performance pharmaceutical companies listed in Tehran Stock Exchange is tested. And after the main hypothesis testing a separate sub-hypothesis examines the relationship between the components of intellectual capital coefficient of added value including: value added capital coefficient (VACA), human capital coefficient (VAHU), and structural capital coefficient (STVA) with the market performance of pharmaceutical companies listed on the Stock Exchange. To test research hypothesis correlation method between variables and regression equations through panel data were used.

4.1. The analysis of the first hypothesis (H1)

The hypothesis is offered about studying the presence of effect of value added intellectual capital ratio (VAIC) on the performance of the market (with M / B criteria) of pharmaceutical companies listed in Tehran Stock Exchange and tested using the following model:
The results of testing fifth main hypothesis are given in Table 1. With respect to F-statistics and the probability of it, it can be concluded that the regression equation is significant at 99% confidence level.

### Table 1: Analysis of the first main hypothesis

<table>
<thead>
<tr>
<th>Modified determination coefficient</th>
<th>0.825758</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistics</td>
<td>23.64251</td>
</tr>
<tr>
<td>Probability</td>
<td>0</td>
</tr>
<tr>
<td>Durbin-Watson statistic</td>
<td>1.9542</td>
</tr>
<tr>
<td><strong>Explanatory variable</strong></td>
<td></td>
</tr>
<tr>
<td>VAIC</td>
<td>0.022806</td>
</tr>
<tr>
<td>MV</td>
<td>1.169621</td>
</tr>
<tr>
<td>C</td>
<td>-13.3119</td>
</tr>
</tbody>
</table>

According to the test results of the model about the possibility of variables, variable coefficient of value of intellectual capital (VAIC) has a probability higher than 0.05. Therefore, this variable is not significant at the 95 percent confidence level in the model. The variable of company size (MV) as a control variable has a probability of less than 0.01, so this variable at a confidence level of 99% is significant in the model. Thus, considering the lack of significance of the coefficient value of intellectual capital (VAIC) which is the main variable of the model, is can be argued that there is no significant relationship between the rate of Value Added Intellectual Capital (VAIC) and market performance of pharmaceutical companies listed in Tehran Stock Exchange (M/B), so depending on the model results, the first hypothesis of this study is not approved.

### Analysis of secondary hypothesis (H11)

The hypothesis is offered about studying the presence of impact of components of value added of intellectual capital, including employed or physical capital (VACA), efficiency of human capital (VAHU) and efficiency of structural capital (STVA) on the market performance (with M/B criteria) of pharmaceutical companies accepted in Tehran Stock Exchange and will be tested using the following model:

\[
M/B_{lt} = \alpha_l + \alpha_1 VACA_{lt} + \alpha_2 VAHU_{lt} + \alpha_3 STVA_{lt} + \epsilon_{lt} \tag{2}
\]

The results of testing secondary hypothesis is presented in Table 2. With respect to F-statistics and its probability, it can be concluded that the regression equation is significant at 99% confidence level.

### Table 2: Analysis of the secondary hypothesis

<table>
<thead>
<tr>
<th>Modified determination coefficient</th>
<th>0.632491</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistics</td>
<td>8.655585</td>
</tr>
<tr>
<td>Probability</td>
<td>0</td>
</tr>
<tr>
<td>Durbin-Watson statistic</td>
<td>1.739533</td>
</tr>
<tr>
<td><strong>Explanatory variable</strong></td>
<td></td>
</tr>
<tr>
<td>VAHU</td>
<td>0.040732</td>
</tr>
<tr>
<td>VACA</td>
<td>0.696931</td>
</tr>
<tr>
<td>STVA</td>
<td>-0.8033</td>
</tr>
</tbody>
</table>
According to the test results, the probability related to variables: human capital efficiency (VAHU) and structural capital efficiency (STVA), respectively, have probability less than 0.05 and less than 0.01, so these variables, respectively, at 95 and 99 per cent confidence level are significant in the model, but physical or employed capital (VACA) has a probability higher than 0.05 so this variable is not significant at the 95 percent confidence level in the model. Company size variable (MV) as the control variable has a probability of less than 0.01. Thus, this variable is significant at a confidence level of 99% in the model. Thus, considering the significance of human capital performance (VAHU) and efficiency of structural capital (STVA) from among capital components, it can be argued that there is a significant relationship between human capital (VAHU) and efficiency of structural capital (STVA) with market performance of pharmaceutical companies listed on the Tehran Stock Exchange (M / B). And there is no significant relationship between employed or physical capital (VACA) and market performance of the pharmaceutical companies accepted in Tehran Stock Exchange (M / B).

4.2. The analysis of the second hypothesis (H2)

The hypothesis is offered about the presence of the effect of ratio of value added intellectual capital (VAIC) on the performance of the market (Q Tobin criteria) pharmaceutical companies listed in Tehran Stock Exchange, and it is tested using the following model:

$Q_{tobin,it} = \alpha_i + \alpha_1VAIC_{it} + \alpha_2MV_{it} + \epsilon_{it}$ (3)

The results of testing the second the hypothesis are presented in Table 3. With respect to F-statistics and its probability, it can be concluded that the regression equation is significant at 99% confidence level.

Table 3: Analysis of the second main hypothesis

<table>
<thead>
<tr>
<th>Modified determination coefficient</th>
<th>0.763018</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistics</td>
<td>16.38317</td>
</tr>
<tr>
<td>Probability</td>
<td>0</td>
</tr>
<tr>
<td>Durbin–Watson statistic</td>
<td>1.98631</td>
</tr>
<tr>
<td>Explanatory variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>VAIC</td>
<td>0.021658</td>
</tr>
<tr>
<td>MV</td>
<td>0.395294</td>
</tr>
<tr>
<td>C</td>
<td>-3.82332</td>
</tr>
</tbody>
</table>

According to test results of the model, the probability related to variables, coefficient of value added intellectual capital (VAIC) has a probability of less than 0.01, so this variable is significant at a confidence level of 99% in the model. The size of company variable (MV) as a control variable has a probability of less than 0.01. Thus, this variable is significant at a confidence level of 99% in the model. Thus, considering the significance of value-added intellectual capital coefficient (VAIC) which is the main variables of the model, it can be argued that there is a significant relationship between the rate of value added intellectual capital (VAIC) and the market performance of pharmaceutical companies accepted in Tehran Stock Exchange (Q Tobin), so according to the model results, the second hypothesis of this study is confirmed.
4.2.1. Analysis of secondary hypothesis (H21)

The hypothesis is offered about studying the presence of impact of components value added of intellectual capital including employed or physical capital (VACA), efficiency of human capital (VAHU) and structural capital efficiency (STVA) on market performance (Qto bin criteria) of the pharmaceutical companies accepted the Tehran Stock Exchange which is tested using the following model:

\[ Q_{to bin_{it}} = \alpha_i + \alpha_2 VACA_{it} + \alpha_3 VAHU_{it} + \alpha_4 STVA_{it} + \alpha_5 MV_{it} + \epsilon_{it} \]  

(4)

The results of testing the secondary hypothesis are presented in Table 4. With respect to F-statistics and its probability, it can be concluded that the regression equation is significant at 99% confidence level.

<table>
<thead>
<tr>
<th>Modified determination coefficient</th>
<th>0.696506</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistics</td>
<td>11.20859</td>
</tr>
<tr>
<td>Probability</td>
<td>0</td>
</tr>
<tr>
<td>Durbin–Watson statistic</td>
<td>1.862412</td>
</tr>
</tbody>
</table>

Table 4. Analysis of secondary hypothesis

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Coefficient</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Probability</th>
<th>confidence level</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAHU</td>
<td>0.018326</td>
<td>0.008046</td>
<td>2.277594</td>
<td>0.0249</td>
<td>95%</td>
</tr>
<tr>
<td>VACA</td>
<td>0.905726</td>
<td>0.355327</td>
<td>2.548993</td>
<td>0.0123</td>
<td>95%</td>
</tr>
<tr>
<td>STVA</td>
<td>-0.38222</td>
<td>0.25757</td>
<td>-1.48396</td>
<td>0.141</td>
<td>Non-significant</td>
</tr>
<tr>
<td>MV</td>
<td>3.81E-07</td>
<td>1.16</td>
<td>3.289267</td>
<td>0.0014</td>
<td>99%</td>
</tr>
<tr>
<td>C</td>
<td>1.125698</td>
<td>0.184349</td>
<td>6.106356</td>
<td>0</td>
<td>99%</td>
</tr>
</tbody>
</table>

According to the test results, the probability related to variables: human capital efficiency (VAHU) and the efficiency of employed or physical capital (VACA) have probability less than 0.05. Therefore, these variables are significant in the model at a confidence level of 99%. But structural capital efficiency (STVA) has a probability higher than 0.05, so this variable is not significant at the 95 percent confidence level in the model. Company size variable (MV) as the control variable has a probability less than 0.01, so this variable is significant at a 99% confidence level in the model. Thus, considering the significance of efficiency of human capital (VAHU) and the efficiency of employed or physical capital (VACA) from among capital components, it can be argued that there is a significant relationship between the efficiency of human capital (VAHU) and the efficiency of employed or physical capital (VACA) with market performance of pharmaceutical companies listed in Tehran Stock Exchange (Qto bin), and there is no significant relationship between structural capital efficiency (STVA) and market performance of pharmaceutical companies listed in Tehran Stock Exchange (Qto bin).

5. Conclusion and practical recommendations

The overall results suggest that among the components of intellectual capital, the efficiency of employed or physical capital (VACA) and human capital efficiency (VAHU) have a significant and positive impact on market value to book value of assets (M / B) and Qto bin ratio, but the efficiency of the capital structure in the market value to book value of assets (M / B) has a significant negative impact, and it is not significant Qto bin ratio level. Overall, these results indicate that the positive effect of components of intellectual capital on market performance indicators that is by strengthening the intellectual capital components, particularly the efficiency of employed or physical capital (VACA) and human capital efficiency (VAHU) market performance can be enhanced.

The results have great similarities with the findings of Tan et al (2007), Rhodes and Myhalyk (2007), Zhygal and
Malol (2010), Nazari (2010), Maditinos et al. (2011) and Clark et al. (2011) and Sepehdoust (2006), Madhoushi and Asghar Nejad Amiri (2009), Namazi and Ebrahimi (2009), Shams and Khalili (2011), Hadavi (2011), Hemati and Mehrabi (2011), Talebnia and colleagues (2012) and Poor Zamani and colleagues (2012), but they are not consistent with the results of Chang and Hesieh (2011) and Mojtahedzadeh and colleagues (2010).

These results indicate that existence of a generally positive effect of the variable components of intellectual capital on indicators of market performance, meaning strengthening the intellectual capital components and value added capital coefficient (VACA) can be used to enhance financial Performance. It is recommended to the companies studied that in order to improve the organization's intellectual capital and consequently increasing the financial performance, a system of support and encouragement for superior minds of employees be established for improving intellectual capital of the organization’s physical assets. It is recommended to all organizations and companies that by creating a separate unit within the company or through human resource management, measurement, management and development of intellectual capital as a key resource, in a competitive advantage in the knowledge-based economy help to increase learning, create value and improve the overall performance of the company. And by investing more in this non-financial asset, add more value to the company. Also it is recommended that the standard-setting organizations to consider the role of intellectual capital in improving market performance, take action on identifying and developing indicators for intellectual capital reporting in a series of reports on the financial statements, this will improve the transparency of financial information and help the decision makers and investors.

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