# Realization of intellectual capital in Physical Education Departments of Isfahan Province

Dr. Mohammad Soltan Hosseini<sup>1</sup>, Dr. Abolfazl Farahani<sup>2</sup>, Masoumeh Aghasoleimani<sup>3</sup> (Corresponding author)

Assistant Professor in Sports Management, Isfahan University
 Professor in Sports Management, Payam-e-Noor University
 MSc in Physical Education and Sport Sciences, Payam-e-Noor University, Tehran, Iran m.aghasoleimani@yahoo.com

Abstract: The purpose of this study was to determine the fulfillment of intellectual capital in the Physical Education departments. The research method is descriptive - survey and population included employees of departments of physical education was considered in 2011. After a preliminary study on a sample size of 204 was obtained from the questionnaires were completed and returned by 190. Stratified cluster random sampling method was used for the statistical community. Researcher made questionnaire of 48 questions based on intellectual capital Comments Bontis et al. (1991), respectively. The analytical data obtained from the instrument to measure one variable t method was used. Findings concerning intellectual capital resulting average (3.55) of the presumptive average (3) the larger the resulting t was larger than the critical value table. The resulting average for human capital (3.58) of the presumptive average (3) larger than the critical value of "t" obtained was a larger table. Of customer funds, resulting average (3.51) of the presumptive average (3) larger than the critical value of "t" obtained was a larger table is considered. The capital structure of resulting average (3.55) of the presumptive average (3) larger than the critical value of t obtained was a larger table. F observed at  $\alpha = 0.05$  showed a significant difference in level between employees based on gender, education level and work experience on the application level components of intellectual capital (human capital Customer capital, structural capital) was observed in Departments of Physical Education. [Dr. Mohammad Soltan Hosseini, Dr. Abolfazl Farahani, Masoumeh Aghasoleimani. Realization of intellectual capital in Physical Education Departments of Isfahan Province. N Y Sci J 2014;7(8):1-7]. (ISSN: 1554-0200). http://www.sciencepub.net/newyork. 1

**Keywords:** intellectual capital, human capital, structural capital, customer capital, physical education offices.

#### Introduction

Nowadays, many organization's assets comprise intangible assets, accounting methods can not measure them (Sullivan et al, 2000). The success of organizations depends on how the management of intangible assets. Marr et al (2003), the reasons for considering the measurement of intellectual capital is considered as follows:

- 1- To help organizations formulate their strategies.
  - 2- Evaluation of the implementation of strategies.
  - 3- Helping to expand and diversify decisions.
- 4- Use the results to measure intellectual capital as a basis for compensation.
- 5- To convey the property to the foreign beneficiary organizations.

The other reason for doing this is to completely and accurately measure intellectual capital, a measure of value and company performance, because in a society based on knowledge is an important part of the value of a commodity makes up an important part of the wealth of a company (Kannan & Aulbur, 2004).

Several concepts have been proposed in different fields of intellectual capital, intellectual capital, however, is the difference between market value and book value of assets of a company (Seetharaman).

In another definition of intellectual capital is named, as all processes and assets that are not reflected on the balance sheet (Bontis et al, 2000).

The concept of intellectual capital for the first time was introduced in 1991 when the company began to implement a series of large Swedish Skandia of innovative methods for special attention to be their intangible assets. The roots sense of intellectual capital is very deep. In 1969, economist John Kenneth Galbraith, for the first time used the term intellectual capital (Zanjirdar et al, 2007).

In 1980, General Idea of the intangible value that is often called goodwill arose and the gap between book value and market value of firms increased in the late 1980s and the first attempt was made to measure intellectual capital. Skandia prepared an addendum to the annual report of the company showed its intellectual capital. It created great interest in the Company pursuant Skandia (Edvinson&Malone, 1997). In the late 1990s, the issue of intellectual capital has been considered by many researchers and articles published in various publications and meetings were held about it. Classification of intellectual capital is far different. Martin and Lopez, (2008), as have the three main global intellectual capital, including human capital, structural capital and customer capital are

accepted. Structural capital can be anything that exists in the organization and employees (human capital) in their supports refer to (Setayesh and Kazemzadeh, 2009).

Although the precise measurement of intangible assets may not be aware of them, but at least with regard to their role in organizational performance organizations, the importance of investment on these assets will be realized (Sanchez et al, 2000). Due to the importance given to measure the effect of intellectual capital on organizational performance and research needs. Physical education offices in the governorates of the country's most important source of athletes are discovering and nurturing, the more employees that they have higher ability in this way will be more successful and dynamic sports in the country will survive. Therefore, intellectual capital and its realization in the physical education department of leadership strategies for successful athletic departments in discovering and nurturing talent and subsequent success of the city, sports are considered. But to what extent the intellectual capital of the Physical Education department has been achieved?

# Research Methodology

**Methods:** According to this study, researchers sought to determine the application of intellectual capital components in the Physical Education department of the employee's perspective, so research method is descriptive survey.

**The population:** The study population consisted of all employees in the Department of Physical Education and Physical Education departments of the province were investigated in 2011. That number is 387.

**Sample size:** According to the calculation of a preliminary study, a sample size of 204 was obtained

from the returned questionnaires and 190 completed the questionnaire.

**Sampling:** According to the Department of Personnel and physical education offices of Isfahan province varies widely dispersed and were stratified cluster random sampling method was used for the statistical community. Accordingly, the physical education offices of Isfahan province nine randomly selected office and then given the sample size and population of each city employees were selected accordingly.

Measuring instruments: questionnaires intellectual capital

In this study, questionnaires were used. The questionnaire was based on comments Bontis et al (1991) intellectual capital to have three components: human capital, structural, and customer share, was prepared. The questionnaire had 48 questions to be answered and closed with a range of five option Likert (strongly agree, agree, no opinion, disagree, totally disagree) that belongs to the order 1-2-3-4-5 score. Content validity of the questionnaire was confirmed by experts and professors. To assess the reliability of the questionnaire after a pilot study to determine the variance of questions, the Cronbach's alpha coefficient was calculated from the ratio of 0.85, respectively.

**Data analysis methods:** The analytical data obtained from the instrument to measure one variable t method was used.

The analytical study:

In this section, according to the findings of the study are presented in tables one to seven.

**The main question:** Does intellectual capital in the Physical Education department has been achieved?

Table 1: Results of univariate t-test comparing the means of achieving the level of intellectual capital in the Physical Education department hypothetical average (3)

Average hypothetical	Average	S.D.	t	Sig.
3	3.55	0.36	20.96	0.001

In order to evaluate analytical significance level of the test «t» was used in  $\alpha=0.05$ . Given that the resulting average (3.55) of the presumptive Average (3) the larger the resulting t is larger than the critical value table. Hence, we can conclude that intellectual capital

in the Physical Education department has been fulfilled and this fulfillment is statistically significant.

The first part of the question is whether a human capital office in Physical Education has been achieved?

Table 2: Results of univariate t-test comparing the means of achieving the level of human capital in the Physical Education department hypothetical average (3)

 neumon department hypothetical average (b)					
Average hypothetical	Average	S.D.	t	Sig.	
3	3 58	0.48	16 73	0.001	

In order to evaluate analytical significance level of the test «t» was used in accordance with the resulting average (3.58) of the presumptive average of

(3) is greater than the resulting t is larger than the critical value table. Hence, we can conclude that human

capital realized in the Physical Education department and this is also statistically significant.

Table 3: Results of univariate t-test comparing the means of achieving the level of human capital in the Physical Education department hypothetical average (3)

Human Capital	Average	S.D.	t	Sig.
1– Department run whenever employees work together in a team work, more efficiently than they earn	4.02	0.78	18.13	0.001
2- In general competencies (knowledge, skills, and abilities) of employees in this department are desirable	3.69	0.62	15.27	0.001
3- creative staff who are smart	3.64	1.05	11.31	0.001
4- when a key employee leaves the office, the organization will be difficult to replace him	3.49	0.85	6.48	0.001
5- The staff always do their best	3.78	1.16	12.64	0.001
6- Planners have always been governed by new ideas about the task of dealing go according to schedule (late goals to be achieved)	3.09	0.93	1.12	0.26
7- the staff is greatly appreciated	3.40	0.99	6	0.001
8- The staff of the department are satisfied	3.40	1.14	5.63	0.001
9- employees are always new ideas and excellent presentation	2.86	0.68	1.71	0.09
10- run continually on the acquisition of skills and training of staff required to support them	3.78	0.65	15.83	0.001
11- Authority to establish and maintain unity among the various working groups trying	3.75	1.14	15.81	0.001
12- According to the program's best recruiting job applicants are selected	3.12	0.73	1.47	0.14
13- As a result of your actions reflect on the staff		0.98	11.28	0.001
14- Whose run a lot of tasks to learn from each other?		1.08	10.83	0.01
15- staff are encouraged to discuss their ideas in team meetings		0.84	9.85	0.001
16- Office productivity from your staff gets most active		0.71	12	0.001
17- In general, all employees of the department are trying to differentiate themselves from other organizations in the Department of Physical Education	3.90	0.72	17.48	0.001

In order to evaluate analytical significance level of the test «t» were used at  $\alpha=0.05$ , according to the mean of the results of the cases, gain more efficiency in the work of the staff team, the utility level of competency (knowledge, skills, and abilities) employees difficulty in replacing those who are leaving office, being smart and creative staff to achieve the goals at the right time, valuing staff satisfaction, staff management, training staff to reflect on things, encouraging employee ideas, doing things the best employees, create and maintain unity among working groups, and learning from one another in matters of administration, the mean assumption (3) is larger, it can be concluded that the cases of human capital in the physical Education department has been achieved.

The second part of the question is whether the customer capital (client) in the Physical Education department has been achieved?

In order to evaluate analytical significance level of the test «t» was used at  $\alpha=0.05$ , in accordance with the resulting average (3.29) of the presumptive average of (3) is greater than the resulting t is larger than the critical value table. Hence, we can conclude that customer capital (client) in the Physical Education

department has been achieved and this is also statistically significant.

Table 4: Results of univariate t-test comparing the means of achieving the level of customer capital (client) in the Physical Education department hypothetical average (3)

 Average hypothetical
 Average
 S.D.
 t
 Sig.

 3
 3.51
 0.46
 15.16
 0.001

In order to evaluate analytical significance level of the test «t» was used  $\alpha=0.05$  in accordance with the averages obtained in all cases (except for the people and athletes and coaches have easy access to accurate and complete information office) Hypothetical Average (3) be larger, It concluded that such services valued clients desired effect of exercise on reducing the exercise of satisfaction of stakeholders and clients , and the public exercise of agency operations, the majority of staff awareness of the needs and demands of athletes and trainers, disseminating customer feedback data (eg, satisfaction or complaint) throughout the run, athletes and coaches need to capitalize on the continuing effort to placate them, the satisfaction of athletes to continue their relationships with administration, replies received

by referring to the correct authorities, having no rules unfair and one-sided, with clients timely action than the commitments made by the Department of athletes, coaches and people, the client (the client) has been achieved in the physical Education department.

The third part of the question whether structural capital in the Physical Education department has been achieved?

In order to evaluate analytical significance level of the test «t» was used  $\alpha=0.05$  in accordance with the resulting average (3.55) is greater than the hypothetical mean (3) and the resulting t is larger than the critical value table. Hence, we can conclude that structural capital in Physical Education department has achieved this level to achieve significant and acceptable.

In order to evaluate analytical significance level of the test «t» was used  $\alpha = 0.05$  in accordance with the averages obtained in all cases (except in three cases presenting ideas and products (services) in the area of sport and physical education, and support the lack of culture and organizational climate) issues, effective management, office support ideas and new products (new services); management systems and procedures to facilitate innovation, lack of bureaucracy in administration, publishing high-minded employees within the office, having the lowest costs in conducting activities within the State Sports Bureau, the majority ruled that facilitates the development partners, and easy access relevant information for the users and staff of the hypothetical average (3) is larger, and therefore concluded that the capital structure of the physical Education department has been achieved.

Table 5: Results of univariate t-test comparing the means of achieving the level of customer capital (client) in the Physical Education department hypothetical average (3)

Human Capital	Average	S.D.	t	Sig.
18- Authority to provide valuable services to clients than any other, has made good progress	3.37	1.30	3.90	0.001
19- Administration of Sports has the desired effect on	3.36	1	4.90	0.001
20- Exercise of problems could greatly reduce administration	3.29	0.08	4.05	0.001
21- Exercise of stakeholders are satisfied with the performance department	4.02	0.81	17.55	0.001
22- The majority of staff are aware of the needs of athletes and coaches	3.78	0.84	12.72	0.001
23- data on client feedback (eg, satisfaction or complaint) around the handle is released	3.34	0.98	4.75	0.001
24- the stuff of sports coaches and athletes in the area, according to the Department	3.15	1	2.02	0.04
25- We're in constant contact with athletes and coaches to understand their demands	3.64	0.64	13.81	0.11
26- on the needs of athletes and coaches through ongoing efforts to placate them is invested	3.73	0.62	16.25	0.001
27- State officials from communicating effectively with athletes and coaches are satisfied	3.54	0.65	11.40	0.001
28- We are sure that our relations with our athletes will continue	3.71	0.97	10.20	0.001
29- Feedback from clients and people show that they are satisfied with the position of our office	3.81	0.57	19.55	0.001
30- people, athletes and trainers to easily manage access to accurate and complete information	3	1.21	0	0.99
31- clients get correct answers from authorities	3.81	0.57	19.55	0.001
32- Office of Regulation No unfair and one-sided with no clients		0.87	11.46	0.001
33- run-time commitment to the athletes and coaches and people do	3.83	1.21	1.98	0.001

Table 6: Results of univariate t-test to compare the mean levels of the capital structure to fulfill the Physical Education department hypothetical average (3)

Average hypothetical	Average	S.D.	t	Sig.
3	3.55	0.28	26.96	0.001

Table 7: Results of univariate t-test to compare the mean of realized capital Structural Issues in Physical Education department's hypothetical average (3)

Human Capital		S.D.	t	Sig.
34- It was meant to run an efficient office	3.91	0.66	18.88	0.001
35- The organization of the design ideas and new products (new services) will support	3.81	0.57	19.55	0.001
36- office systems and procedures facilitating innovation	3.53	0.89	8.19	0.001
37- This is the bureaucracy involved in administering	3.63	0.77	11.30	0.001
38- Every department has been able to achieve higher positions	3.80	0.94	11.78	0.001
39- governed in large part by new ideas and implements its excellent	3.99	0.94	15.87	0.001
40- high-minded employees within the department are published	3.64	0.86	11.21	0.001
41- Office of the lowest costs in carrying out activities in the field of sport and the country		0.78	18.68	0.001
42- Organizational structure is such that it facilitates co-workers		0.66	0.11	0.91
43- Culture and organizational climate is supportive and facilitating		1.35	3.46	0.001
44- The majority of people managing partners are facilitating progress		0.71	0.07	0.94
45- Administration notification system enables easy access to relevant information for users and staff provide		1.04	23.33	0.001
46- Costs in the Department of Physical Education is based on sound principles		0.67	18.76	0.001
47- toward success per employee in the department of physical education is the best among the other agencies		0.73	5.77	0.001
48- Administration of ideas and products (services) to any other organization in the area of additional new sports and physical education offers	2.83	0.88	2.47	0.01

### **Result and Discussion**

Overall findings regarding the amount of intellectual capital in achieving the Physical Education Department indicates that the resulting average (3.55) a hypothetical average (3) is larger therefore conclude that the intellectual capital of the Physical Education department realized. In other words, the Physical Education department has provided conditions for the optimal use of human resources. According to Roos (2005) intellectual capital is the art and science of how to deal with the most value out of the resources you have and to choose the way in which these resources can extend in this regard, intellectual capital is the most and most basic investments important organizations can best use their own goals and to achieve excellence and success. Also, Martin and Lopez (2008) also argue that intellectual capital not only allows organizations to understand the nature of the various resources available in the organization, but also allows the evaluation of their lowest thorough understanding of the sources of error exist and the resulting is such that the lowest cost major gains to be achieved by a dynamic enterprise organization and proper form. The organizations, in which they occur intellectual capital defect, can not succeed because they do not know the competitive human capital, customer, and they have a structure of how to use them to go to waste.

Alavi and Qureshi (2007), Tabarsa et al (2007), Zanjirdar et al (2008) showed in their study that the organizations studied, they will realize why the

intellectual capital of the organization failed to achieve the goals faced with many problems and activities over the years have failed to achieve significant gains. The studies Bontis et al (2004), Potei (2009), Wankel (2007), and Mohammadi (2007) shows the relationship between intellectual capital (human capital, structural capital, customer capital) Sports Success Teams and Clubs is that it can be somewhat consistent with the findings of the present study. The Physical Education department for further success requires the full realization of intellectual capital in their organizations and their managers should pursue the matter more seriously.

Results concerning the level of human capital realized in the Physical Education Department show that the resulting average (3.58) of the presumptive average of (3) is larger. Hence, we can conclude that human capital could be realized in the Physical Education department. In other words, the Physical Education department on issues such as human capital, gain more efficiency in the work of the staff team, the utility level of competency (knowledge, skills, and abilities) staff, difficulty in replacing those who leave while being smart, creative staff to achieve the goals at the right time, valuing staff satisfaction, staff management, training staff to reflect on things, encouraging employee ideas, doing things the best employees, create and maintain alliance between the working groups and learn from each other's affairs department has been achieved among only provide great new ideas and continually staffed by the Office of human Capital is unrealized. However, organizational scholars, researchers and more generally on the importance of human capital compared to other types of intellectual capital (structural and customer) are emphasized.

Hsun shih k. (2010) showed in their studies of human capital, structural capital and customer capital has a significant effect, and priority of the two funds is that organizations pay more attention to the intellectual capital have been able to double intellectual capital dimensions (structural and customer) reach the human resources of all abilities and their creativity and dedication to the success of the effort will be. The studies Bontis et al (2004), Potei (2009), Wankel (2007), and Mohammadi (2007) shows the relationship between intellectual capital (human capital, structural capital, customer capital) Sports Success Teams and Clubs is that it can be somewhat consistent with the findings of the present study. The Physical Education department for further success requires the full realization of intellectual capital in their organizations and their managers should pursue the matter more seriously.

Results concerning the level of human capital realized in the Physical Education Department show that the resulting average (3.58) of the presumptive Average (3) was greater than could therefore conclude that human capital realized in physical education offices of Isfahan. In other words, the Physical Education department on issues such as human capital, gain more efficiency in the work of the staff team, the utility level of competency (knowledge, skills, and abilities ) staff, difficulty in replacing those who leave while being smart, creative staff to achieve the goals at the right time, valuing staff satisfaction, staff management, training staff to reflect on things, encouraging employee ideas, doing things the best employees, create and maintain alliance between the working groups and learn from each other's affairs department has been achieved among only provide great new ideas and continually staffed by the Office of human Capital is unrealized . However, organizational scholars, researchers and more generally on the importance of human capital compared to other types of intellectual capital (structural and customer) are emphasized. Hsun shih (2010) showed in their studies of human capital, structural capital and customer capital has a significant effect, and priority of the two funds is that organizations pay more attention to the intellectual capital have been able to double intellectual capital dimensions (structural and customer) reach the human resources of all abilities and their creativity and dedication to the success of the effort. Also, the role of human capital in a manner that Samargand (2008) and Asounytis and Koustagyoulas (2010) in their study on the impact of human capital, structural capital and customer organizational commitment than has been reported. However, the Bontis et al (2004), Potedi (2009), Wankel (2007), and Mohammadi (2007) in their study showed that successful sports teams and sports clubs that are needed to realize the full intellectual capital issue should be considered by managers of physical education.

Findings regarding the amount of capital to fulfill the customer (client) Physical Education Department show that the resulting average (3.51) of the presumptive Average (3) therefore concluded that capital is larger than the client (the client) in physical Education department has been achieved. And such, provide valuable services to clients desired effect of exercise on the reduction of physical problems, satisfy stakeholders and clients and the people of the State Sports Bureau, the majority of staff awareness of the needs and demands of athletes and coaches, the release of related to customer feedback (eg, satisfaction or complaint) throughout the run, athletes and coaches need to capitalize on the continuing effort to placate them, the satisfaction of athletes to continue their relationship with the department responsible for the correct responses received by clients, having no rules unfair and one-sided, with clients timely action than the commitments made by the Department of athletes, coaches and people, the client (the client) has been achieved in the physical Education department and the easy access to the people and athletes and coaches accurate and complete information at the offices of the Department of physical Education is unrealized. Customer capital (client) or investment relationship is important for any organization, in other words, because the capital investment ties between structural capital and human capital (organizational) will be caused to other external stakeholders, such as an enhancer element that acts value creation for the organization. Hence the satisfaction and trust of our customers and people outside the organization to survive cause the goals to be considered. Isfahan has a lot of heroes in the fields of sports, especially football, basketball, futsal, handball, one of the heroes of the country's rich physical education departments need to be able to satisfy particular attention to athletes and coaches provide athletes thereby sports talents in this area does not go away. Therefore, the fact that the capital growth of customer interest and importance to athletes and coaches province requires that employees have a positive attitude to coaches and athletes have in their efforts to provide the conditions and opportunities to nurture and guide them towards the championship to have. According to Kazennajad Studies (2009), Skandya Group (1991), Bontis (1998), Bontis et al (2004), Chen Gu Pack (2005), Bozibera (2004), Kolakouglou, (2008), Levy (2009), and Toustiga and Tolougourova (2009), intellectual capital is an

important variable that can affect the performance of employees at all levels and have a desirable effect on efficiency and organizational effectiveness. Also, the studies Bontis et al (2004), Potei (2009), Wankel (2007), and Mohammadi (2007) also showed that intellectual capital is a factor in the provision of sporting success and it could cause development most heroes. For realization of intellectual capital and its components under study Ghassemi (2006) requires transformational leadership style, and Jafarnejad and Ghasemi Survey (2008) and a Magdi Banani (2008) requires the utilization of modern information technology systems, the present results in the amount of realized capital structural components of the physical Education department indicates that the resulting average (3.55) is greater than the hypothetical mean (3) of the capital structure (organization) in the physical Education department has been achieved. Accordingly, it appears that the transformational leadership style in Physical Education departments and administrators have the ability to change the dynamics and the application of information technology in established offices and staff can effectively make use of information technology and latest information about exercise and sports teams manage to obtain. They can cause the development of intellectual capital in the organization and be successful, and this was also reported in Mohammadi's research (2007). Kazennaiad (2009), Skandya Group (1991), Bontis (1998), Bontis et al (2004), Pack of Chen Gu (2005), Bozibvera (2004), Wankel (2007), Kolakouglou, (2008), Potei (2009), Levy (2009), and Toustiga and Toulogourava (2009).

Also, Martin and Lopez (2008) capital structure includes both organizational and technological elements (technical) know that they can orchestrate cohesion and organization to be followed. Other findings in the Physical Education Department show such, effective management, office support, design ideas and new products (new services), office systems and procedures to facilitate innovation, lack of bureaucracy in administration, publishing staff within the department, having the lowest costs of doing activities within the state Sports Bureau, the majority ruled that facilitates the development partners, and easy access to relevant information for clients and staff, has been achieved. While things like, provided ideas and products (services) are continually in the field of sports and physical training new staff and lack of a supportive

culture, organizational climate and organizational structure as well as the average of these comments not very large staff and the two options are somewhat less than the average, which indicates a failure to fulfill the above assumption is the physical education department. According to the capital structure refers to the organization of learning in everyday activities, need to promote organizational learning in Physical Education offices and workshops for employees to be created.

#### **References:**

- Zanjirdar, M., Kohan, A., And Sultanzadeh, A. (2007). Management, measurement and reporting of intellectual capital: The first part of the monthly Chamber of Commerce, No. 10, 11 November 2007.
- Zanjirdar, M., Kohan, A., And Sultanzadeh, A. (2009). Management, measurement and reporting of intellectual capital: World Journal of Economics.
- Setayesh, M., and Kazemnejad, M. (2009). Methods of measuring and reporting intellectual capital overseas. CPA Journal, twenty-fourth year, No. 207, pp. 58-63.
- Samarkand, M. (2008) examined the relationship between intellectual capital and organizational commitment in the department of physical education and sports bodies province. Master's thesis, Islamic Azad University of Mashhad.
- Qhelich Lee, B. (2009). Knowledge management: the process of creating, sharing and application of intellectual capital in business, first edition, Tehran: SAMT publisher.
- Mohammadi, E. (2007) examined the relationship between intellectual capital Birjand successful sports staff. M.Sc. Thesis, University of Mashhad.
- Yazdani, H. (2006). Examine the relationship between intellectual capital components, MS Thesis, Tehran University School of Management
- Asonitis, S.& Kostagiolas, P. (2009). An analytic hierarchy approach for intellectual capital: Evidence for the Greek central public libraries. Journal of Intellectual Capital, Vol:31,No:3,pp; 145-161.
- Bontis, N.; Keow, W. & Richardson, S. (2004). Intellectual capital and performance in sport of organizational. Journal of Intellectual capital. Vol. 1 No. 5, pp. 85-100.
- Edvinssun L; Malone M. (1997). Intellectual capital: Realizing your Company's True value by Finding Us Hidden Brain Frower, Harper collins Publisher Inc, New york, NY.
- Hsun shih k, et al. (2010). Assessing knowledge creation and intellectual capital in banking industry. Journal of Intellectual Capital, Vol. 11 No. 1, pp. 74-89.
- Martin, G. & Lopoz, P. (2008). Intellectual capital in high-tech firm's. Journal of Intellectual Capital, Vohy, No:1, pp: 25-36.
- Roos G,Roos JfEdvinsson L, Dragonetti N C. (1997). Intellectual capital-Navigating in new Business landscape. New York university press. New York, NY.
- Potei, P. (2009). Intellectual Capital and performance sport of bisbal Italian verona. Journal of Corporate Finance, Vol. 4, n. 12, pp. 96-115.
- Vancle, S. N. (2007). Intellectual capital disclosure in sport of organizational in The Netherlands, Sweden and the UK. Journal of Intellectual Capital, Vol.6, No.3,pp.417-426.

7/11/2014