

**Research Article**

## **THE RELATIONSHIP BETWEEN STRATEGIC MANAGEMENT OF HUMAN CAPITAL AND GENERAL POLICIES OF ADMINISTRATIVE SYSTEM IN IRANIAN UNIVERSITIES OF MEDICAL SCIENCES**

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### **ABSTRACT**

Due to the complex and competitive environments at present and in future, a new paradigm is emerging in management which is the management of corporate intellectual capital or intangible assets and consists of human, structural, and bridging capitals. On the other hand, universities or knowledge-based organizations require informed and systematic identification of their intellectual capital or intangible assets in order to gain sustainable competitive advantages. Intellectual capital is a key factor in creating future values and is considered as the real capital and the most strategic asset of organizations at present age particularly in research centers, knowledge-oriented and knowledge-based organizations such as universities. Many factors are involved in achieving universities' goals including development, promotion and dissemination of knowledge with a view of producing powerful workforce, but the most crucial factor is manpower. The biggest challenge in the development and efficiency of universities system is the improvement of management capacity and particularly the concepts associated with human resources management. Strategic management of human capital is a process which, through the formulation, implementation, and evaluation of human resources strategies and creation of alignment between human capital strategy and higher levels strategies, contributes to superior success of organization in competitive arena of turbulent environments by optimal management of human capital. Orientation of human capital strategic management is to improve the ability of the capital in the organization in such a way that it can play a role in creating competitive advantages. Despite addressing the strategic management of human capital in universities of medical sciences, no evidence was found on the ways of adopting and implementing different kinds of human resources management strategies and its effect on determining and achieving the goals of universities of medical sciences throughout the country. Moreover, despite the notification of general policies of the system and commands to execute them as well as sporadic moves to operate them in the state departments, no study was found on definition and implementation of protocols for this purpose in universities of medical sciences and public health services. Therefore, the present study was carried out to study and describe the relationship between strategic management of human capital and the general policies of administrative systems in universities of medical sciences in Iran. In this research three questionnaires were used on the strategic management of human capital, management of human resources, and management of general policies of Iranian administrative system. The first two questionnaires were prepared by the researcher taking advantage of standard questionnaires; the third questionnaire was fully planned by the researcher and had appropriate validity. The Cronbach's alpha coefficient for three questionnaires was 0.924, 0.979, and 0.960, respectively. The questionnaires were completed by two sample groups including 119 members of the boards of directors of universities of medical sciences throughout the country and 30 experts in knowledge management. The data were analyzed by SPSS, Excel and LISREL software. The results showed that there was a relationship between strategic management of human capital and human resources management, but there was no relationship between strategic management of human capital and general polices of Administrative system in Iranian universities of medical sciences.

**Keywords:** *Strategic Management, Human Capital, Intellectual Capital, General Policies of Administrative System of Iran, Strategic Management of Human Capital, Strategic Management of Intellectual Capital*

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### **INTRODUCTION**

The revolution in information technology since 1990 dramatically changed the pattern of global economy. By moving from industrial age to the information age, knowledge is definitely counted for as a key for competitive advantages of organizations and even countries. In today's economy, knowledge as the most important capital, has replaced financial and physical capital (Moshabaki and Ghelich, 2006). Knowledge should be managed effectively among individuals and organizations so that it can provide the ground for creativity. The ability to manage knowledge is considered as an essential skill; therefore, knowledge is not only an intangible source but also the desired asset for organizations.

Intellectual capital is associated with the concept of learning organization (Bahrami *et al.*, 2011). The most important factor for the establishment of a learning organization is the recognition of intellectual capital of organizations. Nonaka believes that a learning organization increases learning among the staff and universities are clear examples of learning organizations.

Human capital which is higher than other components of intellectual capital is often associated with greater efficiency, higher incomes, salaries and benefits. Therefore, it is beneficial for human resources managers to attract and develop the best and the most appropriate staffs as a means of achieving competitive advantages.

Structural capital refers to the learning and the knowledge required in daily activities. Organizational capital is the supportive infrastructure of human capital and includes all non-human reserves of knowledge in organizations which create value for them and enhance the material values of organizations. Bridging capital specifies formal and informal relations between an organization and foreign stakeholders and their perception of the organization and also the exchange of information between them and the organization (Bahrami *et al.*, 2011).

In order to gain sustainable competitive advantages, universities and knowledge-based organizations require informed and systematic identification and management of their intellectual capitals (intangible assets). Since intellectual capital is a key factor in creating future values and is considered as the real capital and the most strategic asset of organizations at present age particularly in research centers and knowledge-oriented and knowledge-based organizations such as universities it seems like that designing and implementing an appropriate approach can be an effective strategy for the management of intellectual capitals (Dorri *et al.*, 2011).

In fact, the main concern of the universities is that to some extent each one can accomplish their mission and achieve their goals and perspectives in providing effective services for the society. Universities have been established merely to promote, develop, and disseminate knowledge for the benefit of humanity and to produce manpower with average and above average abilities in order to accelerate the growth and development of nations. Although a lot of factors are involved in achieving the above objectives, manpower is the most crucial one. The biggest challenge in the development and efficiency of universities system is the improvement of management capacity and particularly the concepts associated with human resources management. Human resource management (HRM) enhances employees' performance and assists the universities to accomplish their missions.

Universities must try to attract, improve, motivate, and determine their energetic workforce in order to accomplish their mission successfully and to achieve their competitive goals. Competitive interest is defined as anything that gives the organization a competitive advantage over its rivals. Unique talents among employees such as flexibility, creativity, higher productivity, greater efficiency, and convenient customer service are the parameters that the employees can use to play a major role in promoting the competitive position of the organization.

Human Capital includes knowledge, abilities, skills, and expertise of human resources. Human capital of a company refers to those kinds of knowledge and skills which are available for the staff and which are exclusive to a company and access to them is very difficult for the rivals. Thus, this type of human capital is very important for a company (Kung *et al.*, 2007).

According to San (researcher) the most important sources of competitive advantage in organizations are committed, motivated, and expert staff (Hassanpour *et al.*,). Lepak and Snell (1999) during their valuable

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work in relation to human resource architecture proposed a theory associated with human capital which is divided into two dimensions of value and uniqueness.

Uniqueness refers to the extent to which human capital in a company is specialized. According to this theory, human capital in companies is divided to comprehensive human capital and firm-specific human capital. Comprehensive human capital results from the development outside the scope of company and is easily transmitted throughout the company. The most common criteria for comprehensive human capital include level of formal education, years of work experience, and the level and years of managerial experience.

### **Strategic Management of Intellectual Capital**

In the past two decades a movement has been made towards the economy in which investment in human resources, information technology, research, development, and advertising seem to be necessary for keeping the competitive advantage of organizations. Therefore, it can be stated that the source of creating economic value is the development and management of intangible assets which are referred to as intellectual capital. In other words, since the organizational capabilities are based on intellectual capital and intellectual capital ownership equips organizations with special abilities, the management of such strategic capital has become very crucial for the organizations' competitiveness. Intellectual capital management will allow the organizations to identify, preserve, and restore their abilities and competence to exploit them over time. Intellectual capital management not only tries to define and measure the inventory and the storage of knowledge of organization in an appropriate way, but also pursues the issue of controlling and directing the flow of knowledge at different levels of organization in order to improve and promote the performance. From the perspective of value creation, intellectual capital management is the process of discovering and developing value in the organization. Zhu and Fink (2003) define intellectual capital management as the strategic management that is provided to enhance the organization ability to create value. Schuman and Larrow (2008) define intellectual capital management as an umbrella activity which focuses on identification, measurement, control, and development of intangible resources (Dorri *et al.*, 2011).

For better perception of different aspects of intellectual capital management, Carlos and Chiuma (2005) divided it into three levels: strategic, administrative, and executive. Strategic view encompasses approaches that reveal the strategic importance of knowledge and its management in strategic adjustment of the organization. The view relies on three source-based, merit-based, and more generally knowledge-based perspectives. In strategic view, the intellectual capital is used to create and apply knowledge in order to create value for the organization, and accomplishment depends on intellectual capital and the ability to manage this scarce source (Petty and Guthrie, 2002). Administrative view is composed of approaches and methods for evaluation and knowledge management. In this view, two main issues of knowledge development and knowledge assessment are identified. Knowledge development focuses on approaches and processes of knowledge creation and management. Knowledge management involves approaches and tools to identify, classify, and evaluate knowledge within the organization. Finally, executive view refers to a set of organizational and managerial activities and projects such as teamwork, meetings, and benchmark for the development and application of knowledge. Despite the importance of the management of this strategic capital, most organizations make very little use of their intellectual resources. They may take the maximum advantage of building permit, but for instance, they may not use the special skills of the staff sufficiently (Andrew).

Strategic management of intellectual capital is a process which, through the formulation, implementation, and evaluation of intellectual strategies and creation of alignment between intellectual capital strategy and higher level strategies, contributes to superior success of organization in competitive arena of turbulent environments. Orientation of intellectual capital strategic management is to improve the ability of the intellectual capital in the organization in such a way that it can play a role in creating competitive advantages (Taheri *et al.*).

This management provides a framework in which new initiatives are presented for application of intangible assets. Intellectual capital strategy is in fact a task level strategy which should be aligned with

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business level or competition level strategy. Excellent organizations contribute to the learning enhancement, value creation, organizational performance improvement via measuring the management and developing intellectual capital as a key source of competitive advantage in the knowledge-based economy at the organizational level. The most important key sub criteria of strategic management of intellectual capital in organizations are as the following:

- Designing and developing strategies for the intellectual capital management so that it could support the field of human resources
- Management and development of intellectual capital in support of objectives, strategies, and processes of human resources
- Creating convenient access to the users inside and outside the organization and their relevant information and knowledge
- Utilizing information technology to support interconnections and intellectual capital management
- Seeking to access the increase and the use of intellectual capital effectively (Taheri *et al.*,)

What is certain in the era of global information is that organizations will be successful than can widely use their intellectual capital reserves in all levels. The success factors can be divided into three groups: inner factor, middle or boundary factors, and outer factors. Organizations need to direct the strategic management of intellectual capital with manual strategic attitude. Organization plans are codified based on the constitution of strategic management of intellectual capital. Utilizing strategic management of intellectual capital consists of two stages: 1. planning strategic and operational programs, 2. establishment and implementation. In executive regulations of strategic management of intellectual capital the implementation of long-term and strategic goals of the organization with executive tactics and procedures in necessarily included (Saebi, 2002).

Establishment and effective utilization of strategic management of intellectual capital require systematic infrastructures and related technologies as well as organizational commitments for its application in current activities of all levels of organization. The solutions suggested by the strategic management of intellectual capital facilitate customer service process. Such systems make it possible for the staff, business partners, and customers of the organization to access the base and to sore knowledge. Strategic management of intellectual capital minimizes the required time to discover the problem and solve it. This feature of strategic management of intellectual capital accelerates marketing activities of organizations and enables them to supply the customers' demands more quickly and thus makes the organizations closer to the customers (Saebi, 2002).

#### ***Strategic Capabilities of Intellectual Capital***

Strategic Orientation of intellectual capital management is to improve the intellectual capabilities in organization in such a way that they can play a role in creating competitive advantages and through the accumulation of features such as valuability, rarity, and partial emulation capability in intellectual capital, they can be transformed into strategic capabilities of the organization, as well.

#### ***Strategic Management of Human Capital***

The most valuable element of each organization is human or more accurately, its manpower. There is no doubt that the human resource management with its major role can supply, improve, and maintain human element in such a way that it can keep pace with the present and future needs and challenges in all organizational units. Now, those who are in charge of managerial issues have found through the existing knowledge and experience that the major part of organizational and managerial problems is directly or indirectly associated with manpower. It should be noted that low quality of products and services, customer dissatisfaction, failure to achieve the organization goals completely, lack of participation in international competitions, low per capita income and gross domestic product and other similar issues are not always due to the deficit of budget and material facilities and resources, but with a little meditation it can be found that incorrect use of human resources as the supplier of organization mission and the most fundamental pillar of the economy particularly in developing countries is the main reason of such issues. In fact, even though developing countries and underdeveloped countries might have abundant physical and natural resources, they are grappling with myriad problems due to insufficient attention to their

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human capital and lack of development of their human resources. Proper use of human resources and manpower planning require efficient organizational structure and the consistency between the job and the staff so that the organization won't face slow working, dysfunction, underemployment, and lack of interest and disqualification of the staff (Sayed *et al.*, 2008).

Although nowadays the HRM departments of pursuant organizations fulfill many tasks and activities, the main tasks include occupation design and analysis, manpower planning, recruitment and selection, staff training and education, performance evaluation, payroll management, development of working life quality, formulation of career development path, provision of health and safety, establishment of discipline and labor relations each of which acts individually and also collectively as a process within the subsystem of human resource management. Internal linkage and interaction of these processes ultimately make it possible expected outputs from the human resource management system which includes productivity and quality of working life (Sayed *et al.*, 2008).

Human resources are considered as the most important strategic resource of organizations and while other resources of advanced technology organization are considered incapable without the presence of educated human resources, the organization is facing many challenges in the recruitment and maintenance of the staff with different skills and capabilities such as the ways of making inner harmony and synergies between various measures of the HRM system such as the provision of required human resources and assigning tasks to the forces inside the company, outsourcing it, type of recruitment, education, development, performance evaluation, compensation of services and payment, labor relations, motivation, and control. The classification of employees depends on their importance in achieving strategic goals and different management of various groups of employees, the way of communication, adaptation, and integration of human resource strategy with higher level strategies of the organization (SayedJavadein and Hossein, 2007). Knowledge, skill, experience, motivation, accountability, and contribution of individuals in organization can create sustainable competitive advantage for the organization, provided that there is an appropriate environment and mechanisms of success within the organization (Moshabaki and Ghelich, 2006).

It seems like that by holding HRM styles, which are appropriate to different groups of employees, organizations will be able to consider human resource as a strategic resource to gain competitive advantage, to have logical and coherent approach towards the policies and methods of human resource (as internal coherence), to adapt policies and methods of human resource with the organization strategy as the external coherence, to appear actively in practicing their management against the other units instead of being passive, and to draw more attention of high-level decision makers in organizations towards the importance of human resource in their policies and initiatives. The need to establish a documented strategy of human resource system, the extent of activities / plurality and diversity of their workforce and consequently more care for human resource management issues are particularly important (Sayed *et al.*, 2006).

Strategic management of human capital is important since it provides a means to improve the competitive position of organization and its efficiency and effectiveness through the recruitment and training of unique human resources. In this regard, what is always challenging in the strategic management of human capital is how to formulate and select human resource strategies. Is it possible to develop and formulate human resource strategies by knowing and understanding the competitive strategies of organization? Is it possible to look for other factors in the relationship between competitive strategies and human resource strategies? The first opinions expressed in the field of strategic management of human capital were based on the contingency approach. According to this approach, in strategic management of human resource, in order to achieve higher performance, the organization must make the best coordination between its own general strategy on one hand, and the procedures and measures of its human resource management, on the other hand. Even though the contingency approach in the strategic management of human resource is highly extended and has many fans, there are very few studies and empirical observations that can definitely confirm the hypotheses of contingency theory. Due to limited number of empirical studies that can represent contingency theory to accommodate human resource strategies and competitive strategy of

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the organization, the theory has been followed by several criticisms. Even though critics consider this pattern logical, they think it is unrealistic and also they believe that the requirements which determine the strategies of human resource management are not exclusive to upstream strategies and or business competitive strategies, but other factors such as the competitors' measures towards the staff management, employees characteristics and expectations, and also the concept of human capital influence the formulation and effectiveness of human resource strategies. The weakness of contingency approach made some researchers introduce the universal approach, contrary to it, in order to explain how the most effective selections have been made among the list of human resource measures. According to this approach, in order to achieve higher performance organizations should identify the best practices for the management of their human resources and apply such practices in their organizations. For instance, Pfeiffer believes that 16 administrative actions such as participation and empowerment, incentive payment, job security, internal promotion, education, and skill development are the characteristics of successful organizations and thinks that these measures are effective in improving the efficiency and increasing the profitability of organization. Terpestra and Roswell argue that some innovative activities such as team making, job rotation, quality circles, and total quality management have led to the increase of productivity in all American organizations. The use of universal approach in the research requires two basic perceptions:

1. What are the best strategic measures of human resource management?
2. How does each specific measure affect the organization performance?

The best strategic measures of human resources are the set of practices which are theoretically or empirically associated with the overall performance of organization. At present, there is a growing consensus among the researchers about which measures of human resource management are the best strategic measures. According to theoretical work of people such as Pfeiffer, Miles, and Snow, and empirical research of Schuler, Jackson, Delray, and Dhoti, among the most important measures the 6 main measures of human resource management can be referred to including career and employment opportunities, staff training, performance evaluation, compensation method and quality, tasks description and definition, and job security (Sayed *et al.*, 2006).

These studies show that this approach is robust enough to autograph the method of selecting effective strategy and measures of human resource management among various strategic choices. Nevertheless, it is necessary to test this theory in a local field to accept its strength and its applicability within the country (Sayed *et al.*, 2006).

Several theorists have argued that human resources of organization are potentially the only source of competitive advantage of organizations that can be preserved and maintained.

These studies which are derived from the organization resource-based view argue that only a handful of more traditional sources can create value through sustainable competitive advantage in such a way that it could be impossible to imitate or replace it while imitation of value creating process in human resources would be very difficult, if not impossible, due to its complexities and its uniqueness. Resource-based approach argues that organizations can create sustainable competitive advantage only when their activities create value exclusively, so that the competitors could not copy it easily.

## **MATERIALS AND METHODS**

### **Research Method**

The sample included two groups of board of director of universities of medical sciences and the experts of management. The first population included 360 members of the boards of directors of universities of medical sciences throughout the country. By using Cochran formula, 119 participants were selected from 15 universities. The second population included a countless number of the management experts. 30 subjects were chosen quite selectively according to their information, knowledge, and availability. Three questionnaires were prepared by the researcher entitled strategic human resource management, human capital, and general policies of Iranian administrative system. The questionnaires were designed utilizing Bontis standard questionnaire and their reliability and validity were assessed. All three questionnaires

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were valid and reliable. Bartlett test (Chi-square), and sufficient sample size of Kyzez Meyer Avklyn test were used to measure the validity and Cronbach's alpha test (more than 0.9) and a re-test were used to measure the reliability. The results showed that the questionnaires had acceptable validity and reliability. At first, the theoretical foundations of the research were prepared using library resources and then according to the literature review three questionnaires were designed about the components of the research and were distributed among the employees. Finally, the data were analyzed by SPSS, Excel and LISREL software. In order to design the questionnaires of strategic management of human resource and human capital, Dr. Bontis questionnaire and also the questionnaire that was designed in Mont Royal College were utilized. The third questionnaire with the title of general policies of Iranian administrative system was fully designed by the researcher. In order to test the reliability and the validity of the questionnaires the necessary measures were taken such as using the opinions of professors and experts, doing pilot project, and correcting its problems and finally, Cronbach's alpha coefficient (more than 0.9) through the SPSS software indicated that the designed questionnaires were valid enough. In order to answer the main questions of the questionnaires the Likert scale and five options were used as completely agree, agree, no idea, disagree, and completely disagree. The questionnaire of strategic human capital management consisted of 12 questions with dimensions of formulating human capital strategy, executing human capital strategy, and assessing human capital strategy. The second questionnaire under the title of human capital management consisted of 34 questions about the variables of empowerment, training and development and leadership of human resources. The third questionnaire under the title of general policies of Iranian administrative system consisted of 26 questions about each section of administrative system policies.

### **RESULTS AND DISCUSSION**

The current business environment has provided certain conditions for universities so that data and information are produced in abundance and environmental and technological changes are very fast, thus the universities do not have sufficient time to adapt to them. Cause and effect relationship has become very complicated, learners expectations and needs have changed and become very diverse. All these issues have crated circumstances full of uncertainty and indeterminacy for the directors of universities and they have understood its importance and have recognized what they know; furthermore, they must be able to take the maximum advantage of knowledge. This is possible through proper evaluation (Sayed *et al.*, 2006).

Today, the terms such as workforce or human resources are not applicable anymore for the organization staff but they are considered as the human capital. This belief originates from the extraordinary synergy value of intellectual capital in organizations. Today, the universities need to adopt measures to take advantage of these capitals in the best way and use them for future planning and management of organizations (Dorri *et al.*, 2011). In this regard, what can help the managers particularly in knowledge-oriented organizations to achieve short term and especially long term objectives of the organization more efficiently and more successfully is true management of human capital in terms of strategic management. The finding of the research can be used in all knowledge-based organizations particularly universities and higher education institutions.

After exploratory factor analysis, in the first questionnaire three factors were identified including formulation, implementation, and evaluation of human capital strategy. In the second questionnaire nine factors were identified including leadership, empowerment in sense of performance, empowerment in sense of labor importance, empowerment in sense of congruence of job and employees, empowerment in sense of work experience, training and development in sense of organizational learning, training and development in sense of appropriate training courses, training and development in sense of congruence of employee's training needs and training classes, and empowerment in sense of creativity.

In the third questionnaire four factors were identified including congruence of work and life, reverence for retired employees, consistency between polices of universities of medical sciences and other health enforcement organizations, and electronic administrative system. The identified factors were confirmed

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through confirmatory factor analysis and the validity and reliability of the questionnaires were also confirmed.

In description, the formulation, implementation, and evaluation of human capital strategy were medium compared with the specified criteria (2.6 – 3.4). The results showed that in universities of medical sciences in country, the formulation of strategy for training and development and empowerment of human resources was respectively better than the formulation of strategy for human resources leadership. Moreover, the formulation of strategy for training and development, empowerment of human resources, and leadership in the universities of medical sciences throughout the country was mediocre.

In general, human capital strategy including training, development, and empowerment is formulated in universities of medical sciences throughout the country and aligned with the general policies of Iranian administrative system.

The findings also showed that in universities of medical sciences in country, human capital strategy was implemented in an average level in its three dimensions, i.e. human resource empowerment, training and development, and leadership and training and development were practiced better than the other two components. In addition, the results showed that human capital strategy was implemented as consistent with the general policies of Iranian administrative system and at an intermediate level.

The findings showed that in universities of medical sciences in country, human capital strategy was evaluated in an average level in its three dimensions, i.e. human resource empowerment, training and development, and leadership and training and development were practiced better than the other two components. In addition, the results showed that human capital strategy was evaluated as consistent with the general policies of Iranian administrative system and at an intermediate level.

The situation of human capital and also the situation of general policies of administrative systems in universities of medical sciences were at the intermediate level compared with the criteria. The exceptions included the staff payment system (2.58), reverence for retired employees (2.34) and the balance between employees' life and work (2.38) which was in inappropriate situation, but electronic system development in organizations (3.83), improvement of service quality (3.42), and organization responsiveness towards people (3.52) were in good situation.

The results of hypotheses testing show that:

- There is a relationship between formulation of human capital strategy and general policies of Iranian administrative system ( $P = 0.012$ ), between implementation of human capital strategy and general policies of Iranian administrative system ( $P = 0.000$ ) and between evaluation of human capital strategy and general policies of Iranian administrative system ( $p = 0.006$ ).
- There is no relationship between strategy formulation and human capital ( $P = 0.07$ ), but there is a significant relationship between strategy formulation and human resource empowerment ( $P = 0.024$ ).
- There is a significant relationship between strategy implementation and human capital ( $P = 0.21$ ) and also between human resource empowerment and strategy implementation ( $P = 0.005$ ).
- There is a relationship between strategy evaluation and human capital ( $P = 0.006$ ) and also between human resource empowerment and human resource training and development ( $P = 0.021$ ).

In spite of extensive searches no similar study was found, but there is a great deal of research on the importance of strategic management in organizations. Ayanda *et al.*, (2011) conducted a research entitled "The evaluation of application of strategic human resource management in Nigerian universities". They demonstrated that application of strategic human resource management was greatly influenced by executive policies of university especially universities public or private investment. There is a significant difference between the levels of human resource management, training and development, career planning system, and employees' participation in government and non-government universities.

There was a great deal of research on the importance of intellectual capital management in organizations but no research was found to show the relationship between intellectual capital management and general policies of Iranian administrative system. Babaei *et al.*, (2012) did a research in Islamic Azad University in Tabriz and Uremia entitled, "Comparative analysis of intellectual capital management in Universities". They showed that intellectual capital management and its dimensions were significantly different in two

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universities. Human capital management was low in both universities; structural capital management was long way away to reach better management. There was a significant difference between structural capital management in both universities. Moreover, bridging capital management was away from the desired level.

Another research was conducted by Bahrami *et al.*, (2011) entitled “Comparison of intellectual capital components in public universities of Isfahan Province”. They showed that there was a significant difference between the means of human capital, structural capital, and bridging capital in the universities of Isfahan Province. Structural capital in Isfahan University was more than the other public universities of the province. There was a significant difference between the means of intellectual capital components in terms of gender, age, and academic rank. This means that in Isfahan University, non-human resources of knowledge including database, manuals of processes, strategies, procedures, publications, and copyrights were more than those of other universities. However, the human capital and their relationship increased as the work experience of the members increased.

In a research conducted by Haji *et al.*, under the title of “The culture of Jihad as an appropriate ground for implementing general policies of administrative system Iran horizon landscape in 1404”, they showed that the rate of attention to 26 issued policies in organizational culture of Jihad was above the average and equal to 3.24 out of 5.

This approves the fact that the culture enjoys invaluable principles such justice, knowledge and skill orientation, sacrifice, meritocracy, religious beliefs (Table 1). Nevertheless, some policies of new administrative system such as “promotion of administrative system health and growth of moral values in it through the modification of legal and administrative processes”, “institutionalizing consciousness, social discipline, self-control culture, integrity, savings, simple living and maintaining treasury” and “superior, innovative and qualitative service in order to promote public satisfaction and confidence” have been more emphasized in this culture and the following points have been focused less :

- Respect for the dignity and livelihood security of retirees and annuitants and making use of their useful ideas and experiences
- Considering justice in payment system and compensation for services with an emphasis on performance, capability, station, and characteristics of job and employees and subsistence supply with regard to economic and social conditions
- Efficiency and coordination of monitoring and controlling structures and methods in administrative system and data integration

### **Recommendations based on Research Questions and Hypotheses**

According to the research questions and their responses to determine the components of strategic management of intellectual capital including the formulation, implementation and evaluation of human, structural, and bridging capital strategy and application of average strategic and intellectual capital management in organizations the followings are recommended:

Basic and advanced classes and courses in management with the presence of academics and senior managers of organizations who own managerial experiences and skills should be held theoretically and practically as the workshop for middle and operational managers to get familiar with the importance of long-term planning, human capital, human resource management, structural capital, capital maintenance and protection, bridging capital, the importance of intersectoral collaboration and outsourcing, and knowledge management and to be able to manage the mentioned capitals.

According to the results of the hypotheses which were referred to in the fourth chapter and this chapter, the following recommendations are remarkable:

- With regard to the relationship between strategic management and general policies of Iranian administrative system and the hypotheses 1 to 3, it is recommended that for each of the policies issued by the supreme leader office in 2010 to all executive agencies, strategic planning be made in relation to intellectual capital, and executive patterns be formulated for implementation and evaluation of developed strategies in the form of regulations and protocols and in fact as the system of implementation and evaluation of strategies with the approach of SWOT analysis.

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- It is recommended first to identify, record, and measure in each university of medical sciences by the managers and experts under the supervision of senior manager of organization and with cooperation of all supported deputies and organizations and then to plan for the productivity management of these capitals with regard to the policies and in fact the approach of general policies of administrative system.
- Strategic or long-term planning should be made in relation to human capital; that is, at first the SWOT matrix table should be analyzed with regard to the results of the research, and then by emphasizing the strengths and opportunities (relationships approved in hypotheses), human capital strategy should be formulated via emphasizing training and development and organizational learning approach, congruency of employees training needs and training courses and appropriate training programs, leadership and empowerment of human resources with performance approach, work importance, congruency of career and employee, creativity and job experience.
- After strategy formulation, the implementation protocol of strategy formulation and operation of an appropriate system for implementation should be made under the title of implementation of human capital strategy. According to the results of the research in implementation, the strategy was associated with human resource empowerment. This relationship can be used as positive point in matrix table in implementing human resource strategy.
- Finally, in order to evaluate the strategy, it is recommended to plan Performance management and evaluation system including technical and behavioral performance of the staff in the universities of medical sciences at different time periods, so that the managers' performance in implementing the mentioned strategy could be evaluated.

The evaluation will be used by the organization and managers as the review of current situation in future planning. The results of the research showed that strategy evaluation, human resource empowerment, and human resource training and development were linked together. With regard to client reverence notification and the importance of customer orientation particularly in the universities of medical sciences which are in charge of public health, strategic and infrastructural planning is suggested for paying attention to internal and external customers.

### **Research Suggestions for Future Researchers**

The scholars and researchers who are willing to do research on similar areas particularly intellectual capital management and especially in manufacturing organizations and industry are recommended to – with regard to the importance of social capital dimension in organizations which is sometimes equal to human capital –investigate this dimension of intellectual capital and examine and investigate complicated social networks within the organization that need good management to achieve optimal organizational goals.

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