

THE EFFECTS OF PROFESSIONAL TRAINING MANAGEMENT ON ORGANIZATIONAL PERFORMANCE OF A NATURAL GAS DISTRIBUTION COMPANY AND THE CONCEPT OF INTELLECTUAL CAPITAL

S.Murad Ş. ŞERALİOĞLU

**Head of Technical Training Department
Istanbul Gas Distribution Company**

Faruk SÜRER

**Training Specialist Technical Training Department
Istanbul Gas Distribution Company**

Numan AKSOY

**Consultant to General Manager
Istanbul Gas Distribution Company**

Seyit CERİ

**International Projects Chief
Istanbul Gas Distribution Company**

Rapid changes in technology and science bring innovations to natural gas distribution sector as in all areas. This brings flow of new information and necessity of continuous learning for the people in the natural gas sector. Development of people and renewing the information can be possible with training activities. For every organization from top to bottom all professionals must be supported with training. Today business world accepts the importance of human resource management on increasing the performance and profitability of companies. But also it is known that human resource management is the hardest one of all production factors. In today's knowledge based economy effective management of resources becomes more and more important each passing day. The differences between the carrying values and market values of companies, intellectual capital, knowledge management, intellectual property, copyright, trademark, concepts such as customer and supplier networks are becoming more and more noticeable. In the traditional perspective training has not seen as an activity that adding creativity and competitive value to the organizations. In this article you can find a transformation process from those days to today.

1. Introduction

Social, economical, political and cultural relations show a continuous change as the historical improvement of humanity continues. Societies have also faced significant changes in the period of nearly hundred years when industrial revolution and two world wars arose. But the alteration and transformation caused by the technological improvement in recent history that indicates itself especially in the field of electronics have realized in a much more rapid manner. Each change generates different effects and causes the composition of new concepts in order to express ourselves. Today concepts such as “information society”, “globalization”, “human resources strategies”, intellectual capital have become concepts which are frequently being used in all kinds of information sharing in economical and social areas.

The intense competitive pressure in international market had obligated the enterprises to renew / transform themselves by using the mechanisms of information society. The route to reach success and to make it continuous is possible by keeping up with changes and by having a dynamic organization structure. At the current point today, it is possible to state that the key word to ensure administrative effectiveness and organization efficiency is “human”.

Increasing requirement for information due to the rapid technological improvements features more significantly each passing day the importance of education as a human resources function. Each organization expects a specific performance from its employees as per its own structure, operation and market conditions. And organizations train and improve their employees continuously by various methods in order to provide this. By the professional training operations results such as decreasing and removing production faults, decreasing the maintenance and repair expenses, minimizing the work accidents, decreasing the employee circulation and decreasing overtime expenses are being aimed. Besides it's a reality that positive results are being expected on the communication and cooperation of employees in between themselves and with the organization. In these circumstances, it is being observed that professional trainings provide advantages on many issues from increasing the production in respect of amount and quality to resolution of organizational problems and decreasing the costs.

2. Globalization and Competition

In the world economical system that expands and gradually spreads within the globalization process, the form of competition has changed and its speed has accelerated. Our competitors have not limited themselves with only local or regional markets, but spread to the whole world. Depending on that the chance of being able to compete with raw material, machinery and cheap labour has decreased. Managers and investors, who make assessments only by considering their physical and financial capitals, evaluate their companies only by their apparent aspects and make a significant strategic fault.

Competition is a race and has a function that reveals who is better. And competitiveness is a basic competency that shall be possessed in order to continue this race and then to come to the forefront. All competencies that are available indicate themselves first in performance indicators and then show themselves in competitiveness as the sum of competencies. Thus a linear relation in between competencies, performance and competitiveness is in subject. From this point increasing the competitiveness of organizations depends basically on increasing their competencies. Organization will be able to develop innovations based on these competencies and will be able to present their differences¹.

Usage of information technologies have started to spread to all sides within the product and production process. Non-physical assets such as copyrights, know-how transfer, brand registration etc have become very significant for companies manufacture and service industry. In order to keep up with this new competition environment, using information with the most pragmatic ways, in the most efficient manner has become an obligation.

Entrepreneurs have realized that it is an obligation to know how to manage information in order to benefit from the value of information and to receive highest feedback from this information. “Information management” concept has emerged in order to maintain information, not to waste it, to direct it correctly and to make it productive. Where information has such an importance and frequently being used, shall be called “the information society”.

Even if the information technologies provide the most suitable tools for information management, it shall not be forgotten that information management is not only technology. The factor that will carry a company to future will be the new values consisting of the values created by its employees, company strategies, company structure, system and processes and relations of the company with its clients and with the society.

Today the success of each organization being active as commercial organization or NGO depends on obtaining information and its ability to re-process, produce and transmit the information. In the new global conditions, the comprehension of domination of new values - generated by using the mechanism of information society- to traditional ones gained acceptance within the enterprises. As the result of this approach “intellectual capital” concept emerged which is also being defined as “the sum of ideas generating a value for the organization, being interrelated, formalized by a setting and being used as basis”².

3. Concept of Intellectual Capital

The term Intellectual Capital is used to mention all intangible sources of organizations at first. According to that intellectual capital is the sum of intangible sources and activities³. The approach expressing the value of the company as the sum of intangible sources and monetary assets is given in Figure 1.

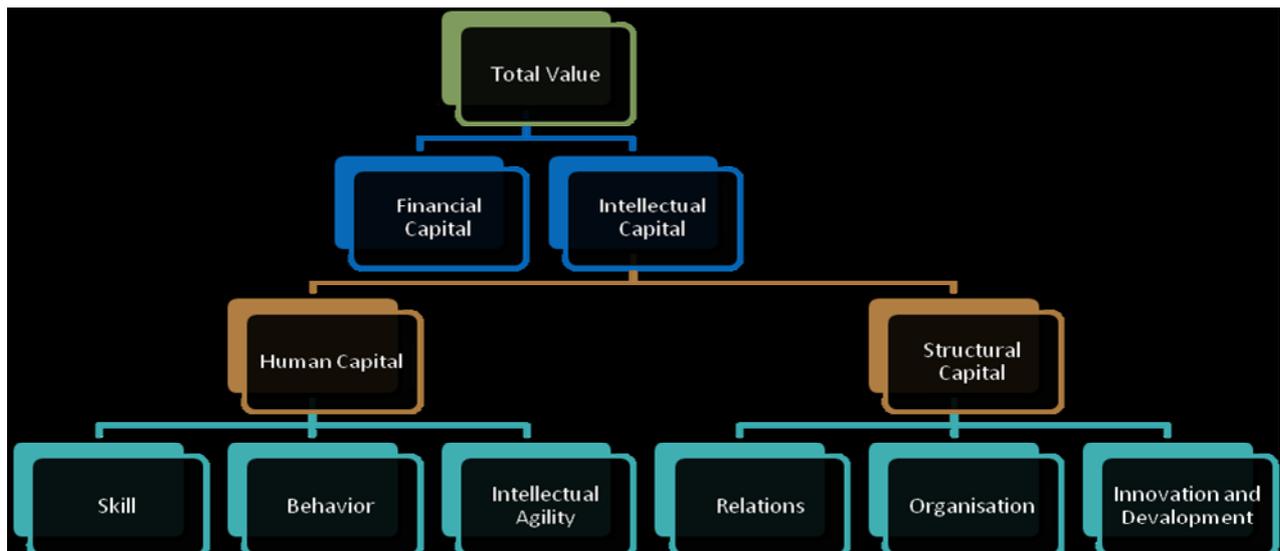


Figure 1. Value Division Tree⁴

It is possible to define intellectual capital depending on the interaction of human capital, structural capital and client capital expressions⁵. In Figure 2, as per this definition made by Sullivan, the relation in between the organizational performance and intellectual capital concepts is given depending on the traditional and information society mechanisms. Classification of factors composing the intellectual capital in this manner provides the use of factors reflecting the informational assets of organizations by the managers. Intellectual capital emerges not by the sum of human capital, structural capital and client capital, but by their interaction and by the synergy that they compose together. If these three capital types do not complement each other and can not operate efficiently, it is not possible to refer intellectual capital.

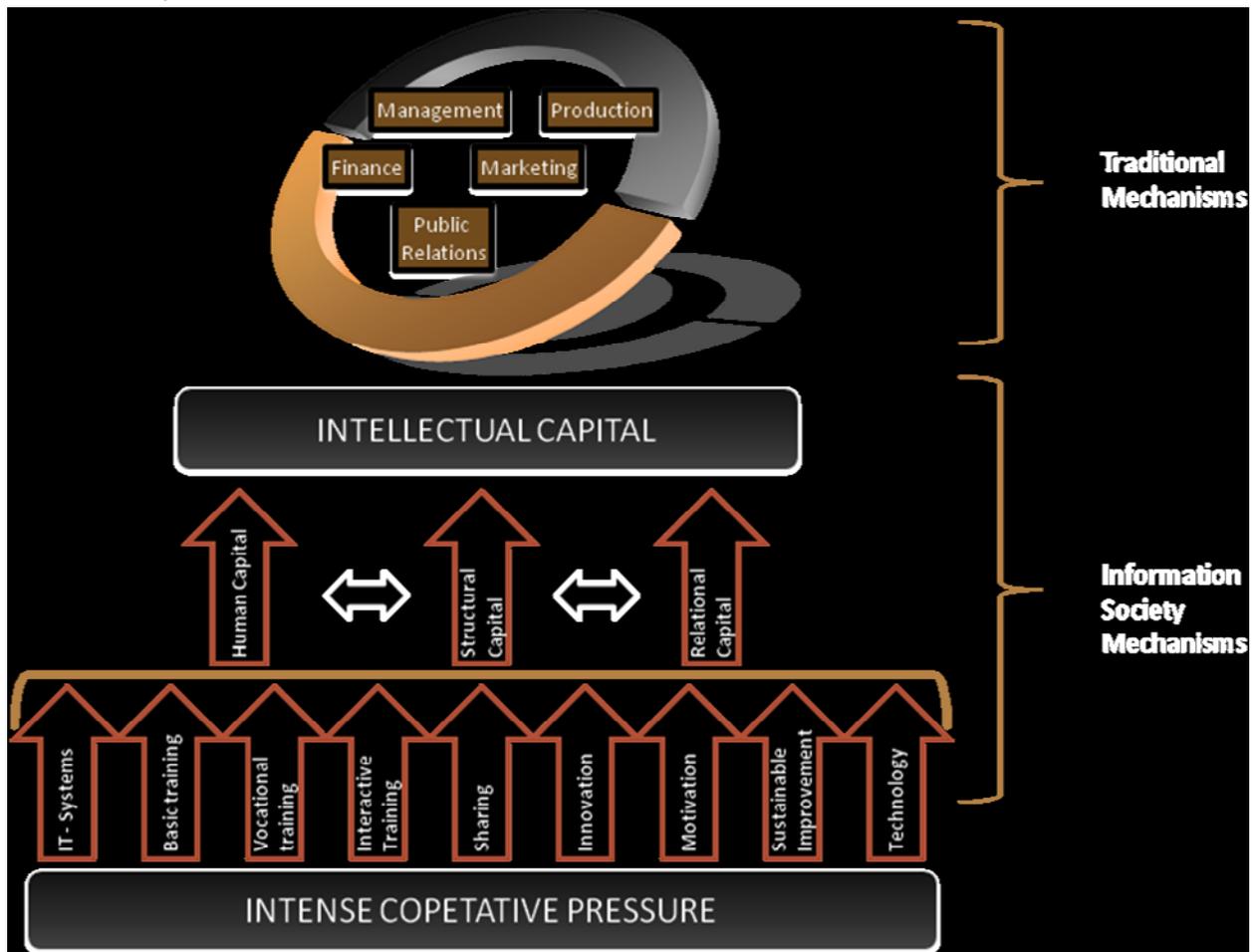


Figure 2. Relation of Organizational Efficiency and Intellectual Capital ⁶

It is possible to deem the basis of intellectual capital as a pool where the competencies of employees collect⁷. Human capital composes of the sum of abilities of employees, their skill, knowledge and value of internal relations. As human capital is the source of innovations, it is extremely important and mentions the limitless renewal potential of enterprises.

Human capital is deemed as the basic factor of intellectual capital approach. It is an expression of personal knowledge, ability, experience and attitudes possessed and improved by the members of organization. In other words it is the sum of all humane factors⁸.

Humans may be hired, but they can not be owned⁹. For that reason organizations can not continuously maintain human capital under their possession, but they can hire it for a specific period. And in order to reveal the potential of human capital and to obtain maximum benefit in this hiring period, it is necessary to be aware of its knowledge, competencies, skills and experiences¹⁰.

Some strategies are being developed to benefit more from human capital. One of these is that a part of this knowledge can be transferred to structural capital of enterprise from the human capital by supporting the conversion of concealed knowledge of human capital to open information. Thus even if the human capital leaves the enterprise, a part of the valuable information may be able to remain at the enterprise¹¹.

And structural capital is the information that have not left the enterprise and that remains at the enterprise. One of the duties of the managers is to take in the information and to ensure it to become the possession of enterprise. In this manner continuity of information and its continuous improvement can be ensured. If the information can be made as the possession of enterprise, structural capital can also be generated¹². Stewart defines structural capital as information not leaving for home at night¹³.

Main issue of client capital is the information obtained by the enterprise through marketing channels and customer relationships. Client capital, which is also being called as relation capital, is the sum of all the assets of enterprise that arranges and manages its relations with the environment. Client capital covers the relations of the enterprise regarding shareholders, suppliers, competitors, government, official institutions and society as well as its clients¹⁴.

Structural capital and human capital are more relevant with the internal factors of the enterprise. And the client capital, being another factor of intellectual capital, is closely relevant to the individuals and institutions being at the external environment of the enterprise¹⁵. Thus compared to structural and human capital, client capital shall get through parameters which can not be directly controlled and directed and being active and powerful. Composition and inspection of client capital seems to be harder than human capital and structural capital.

The concept of international competition directly affected by globalization has obligated the companies to compose new values. Commercial enterprises and NGOs have directed to methods that will reveal their intellectual capital potential. Increasing the efficiency of human capital, appropriating the generated information at the enterprise has made the intellectual capital concept significant in respect of organizational performance. For the organizations the success of human resources strategies has become dependant on the success of training activities.

4. Training Management In Respect of Human Resources Strategy: Learning Organizations

Today many organizations have realized that the route of providing competitiveness in the globalizing world passes through training and continuous learning. Improvement of the abilities and learning capacities of employees is being deemed necessary for the sustainability of the organization. Finding and employing human resources of required qualifications and competencies becomes harder each passing day. Thus organizations are realizing training activities by determining the training requirements of current employees. By the training activities it is being aimed to create a change on the attitudes of employees regarding business through learning. In an organization as the responsibilities and working areas of employees change, the content and form of training will also change depending on that. All this process is being assessed within the scope of training management.

Training provides significant benefits for the organization, but it shall not ignore that training is not an objective but means to reach the objectives. Training is only one of the means that an organization uses in order to meet its requirements on any issue (quality, client satisfaction, production faults, work accidents etc). While making the training requirement analysis, the current competencies of employees and competencies required by work shall be analyzed and the weak points shall be clarified.

Training process is the sum of determination of training requirement, determination of the type of training required for that requirement, planning of training, selection of specialists who

will realize training and follow-up and assessment operations to be performed after training. Whatever the type of training is, it is a process that shall be applied in a planned manner. The main objective within the training process is to cover the determined organizational requirements in the direction of strategy and plans. In other words the trainings being performed shall carry the human resources to the aimed sufficiency level. Relation in between training requirement, objectives and competencies is given in Figure 3.

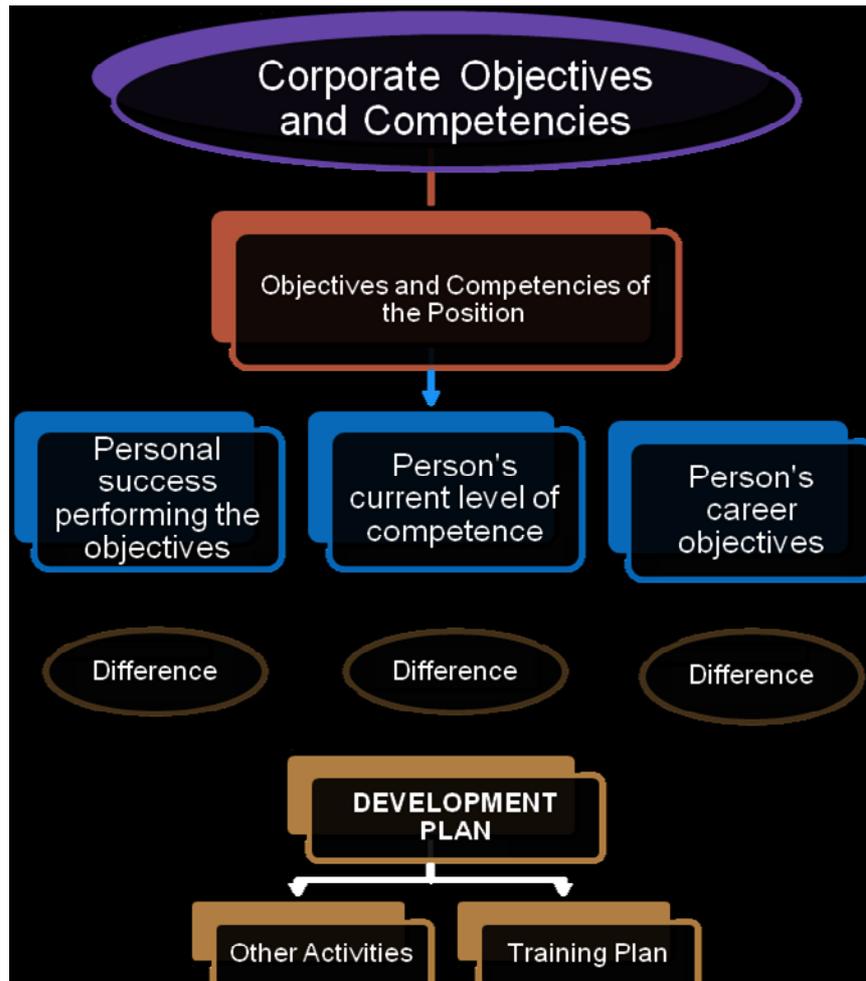


Figure 3. Relation of Objectives, Competencies and Training¹⁶

Organizations that want to obtain competitive qualities by the training activities and to benefit from the advantages of new information shall develop the comprehension of “learning organization”. In order to compose a learning organization, it is significant to ensure the suitability of environment and structure. Thus an open and supportive environment shall be ensured which will provide the employees time and introduction of facilities required to improve themselves. Training shall be provided as on the job or out side of job, their problem solving abilities shall be improved and it shall be provided for them to work in an environment based on participant team structure. Organizational structure shall be composed as to ensure free flow and sharing of new ideas. Organizations that have established the required information technology infrastructure that will ensure the effectiveness of communication that works with project teams which have system comprehension and that are structured as networks based on personal relations are the most powerful candidates for conversion to learning organization¹⁷.

Organizational learning lies on the basis of comprehension of being a learning organization. Organizational learning can be defined as “alteration and expansion of information and value systems within the organization, improvement of problem solving and action capacities and

alteration of the common reference frame of employees". Organizational learning is the development of attitudes, values and norms within the organization rather than gaining information through training or experience. Organizational learning is a process based on common experiences, decisions and norms that requires a collective, active participation of all the employees. Collective values and norms composed in this manner is shared by all the employees¹⁸. The process of passage from personal learning to organizational learning is shown in detail on the flow scheme in Figure 4.



Figure 4. Passage from personal learning to organizational learning¹⁹

Organizational learning is the process of improving the required competencies and obtaining the information in order to ensure the people, working together in an organization to realize a common objective, to better understand the works they perform and consequently to be more effective. Organizational learning can be performed through in-house training programs, advisor support, mentorship, guidance, encouragement for reading and observation. These activities that will ensure organizational learning shall meet the objectives of the organization and shall be relevant with work. It shall be intended to solve the problems, shall focus on objectives determined for renewal and improvement and shall be able to be applied on future opportunities. Thus organizational learning is realized by the individuals within the organization when they start to inquire a problematic issue. When the works performed do not provide the expected results, individuals develop new forms of performance in order to reach the result by changing their opinions regarding the organization or the facts occurring in the organization.

5. Relation of Intellectual Capital and Organizational Performance

As competition covers a continuous dynamism due to its nature, the concept of competitiveness is also a dynamic concept. Competitiveness is directly dependant on environmental conditions and it can not be addressed by a standard approach and analysis method. Thus the opinions presented in organization performance studies regarding competitiveness or competition are always open for discussion. However Michael Porter, being deemed as authority in the world on the issue of competition analysis, provides the three basic sources that will provide competition advantage or competitiveness as cost leadership, differentiation and focusing²⁰.

Cost leadership refers to the skill of creating price advantage by keeping the costs of organizations under control and to the composition of competitiveness in this manner. Differentiation is the skill to compose superior products and services than the current products and services in the market, to develop superior technology, service and processes and to clearly reflect these on organizational results. Focusing mentions the composition of all the strategies in connection with the objectives as concentrating on the objectives.

Performance defines at what extent an individual can use his potential or real knowledge, skill and abilities to reach his objectives or expectations²¹. Briefly it is the rate of usability of the possessed capacity. Thus it is possible to define the organizational performance concept

by the rate of usage of knowledge, skill and abilities of the organization in the direction of its objectives. Forming and directing the human capital, structural capital and relational capital being the basic dynamics of an organization and revealing its potential will directly reflect on organizational performance (Figure 5).

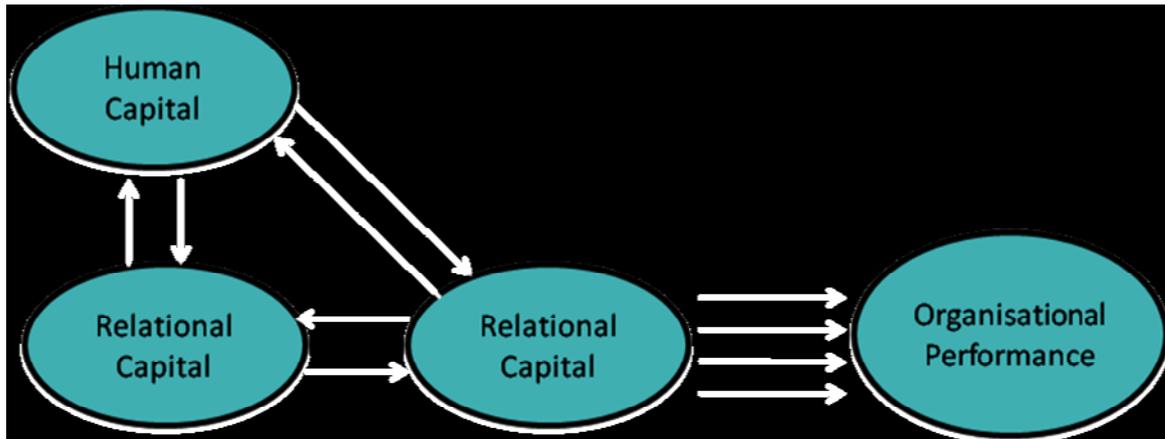


Figure 5. Relation of Intellectual Capital and Organizational Performance ²²

The in-house conditions shall be improved at highest possible level in order to assess the opportunities from environmental conditions outside the enterprise or to eliminate the threats. At this point the intellectual capital concept represents the background of generally accepted approaches of Porter regarding the competitiveness sources of organizations. The basis of cost leadership, differentiation and focusing strategies is the structure composed of human capital, structural capital and relational capital.

In a condition where human capital is not used effectively, or where it is not supported by structural capital despite being used, or where the generated results can not be presented as "added value" by relational capital despite being supported or where information flow that will form the organization processes can not be provided to organization in an efficient manner, there will not be the possibility to apply the approaches of Porter. When strategies intended for organizational performance is formed as anticipated by intellectual capital approach, a basic competency area will be generated for all the organizations and for many areas such as competitiveness, efficiency, effectiveness, innovation that is intended to objectives.

In today's globalized competition environment, there is no luxury such as using human capital ineffectively. Organizations shall include all the individuals in their body within all the processes and shall benefit from their ideas, abilities, experiences and skills at highest level. In this frame a general organizational atmosphere shall be composed that will encourage the members of organization. The dimensions of human capital that has different features shall be revealed by operations intended to professional competency, information generation, ability/ skill composition. The dimensions in subject are being presented as technical information, training, entrepreneurship and participation enthusiasm, exploration, accepting and rejecting abilities, alteration enthusiasm and innovation ²³.

However addressing only human capital and elevating its effectiveness to high levels will insufficient to generate effective results in respect of organizational performance and competitiveness. Main instrument being used by human capital is structural capital. Structural capital is a mechanism that will reveal the potential possessed by human capital on one hand and that will convert the information obtained by relational capital to values on the other hand.

6. Intellectual Capital Experience of IGDAS

Providing natural gas service to Istanbul being the largest metropolis of Turkey has been a compelling factor for IGDAS in respect of finding and improving methods that will increase its organizational performance. In a period where limited sources are possessed economically and in respect of labour force, large investments are made and a rapid growth is realized. One of the determinant indicators of this growth period have revealed itself in training activities intended for thousand of employees having no experience in the sector.

Large amount of training service has been received in order to make the employees, who did not have anything but the raw information from educational institutions, to reach competency level required by natural gas operations. Training operations which were obligatory to be in applied style had been realized mostly abroad in the first period. And in this period a natural gas training centre had been established in order to provide training to the personnel of other natural gas distribution companies as well as its own employees. This training facility had been an effective institution on the issues of composition of national profession standards, development of training programs of institutions providing vocational education and bringing them to the European Union Standards level. Cooperation with institutions such as European Union Agency, Republic of Turkey Ministry of Education, Ministry of Energy and Vocational Qualifications Authority, Turkish Standards Institute had been started to be made on the issues in subject.

IGDAS is among the largest natural gas companies as per many assessment criteria such as subscriber number, number of employees and annual gas sales amount. As the result of operations intended for human, strategic objectives have been composed, organizational structure of the company has been renewed and modern source management policies have been adopted. Quality certificates of ISO 9001 Quality Management System, ISO 14001 Environmental Management System, OHSAS 18001 Work Health and Safety System, ISO 27001 Information Safety Management System have been obtained in a short while for company of this size. Depending on the continuous improvement of organizational performance, sufficient increases on Client Satisfaction and Employee Satisfaction rates have been provided. Moreover in the recent two years 2010 Consumer Quality Award, 2010 EFQM Perfection Model Success Award, 2011 Best Call Centre Award and 2011 EFQM Perfection Model Quality Big Award have been obtained.

Human resources that is improved by professional trainings have also obtained significant gains on information sharing. By the end of 2011, the number of books published by IGDAS employees intended for the natural gas market have reached 26 and number of statements presented at domestic and international organizations have passed 100. IGDAS, being a member of International Gas Union (IGU) and Europe Gas Researches Group (GERG), have announced its name in the whole world by four International Natural Gas Symposiums (INGAS) that it had organized.

7. Conclusions

Organizations shall recognize that the route to success in international competition environment passes through quality and efficiency. And the route to provide quality and efficiency passes through making investment to human. Organizations which do not endeavour to obtain information and which do not use it by transferring it to its employees will always remain behind in competition. Training activities shall be performed in planned and synchronous manner along with other functions affecting the intellectual capital. Synergy that will arise by this approach will directly contribute to the rise of personal and organizational performance.

Our adventure that had started with the obligation to perform what has not been done continues in the form of competition of making the best. Growing in numerical indicators such as financial capital, investment amount, sales amount have not been sufficient for us. Our endeavours to compose intellectual capital by the effective usage of human source, which is required by the operation comprehension of 21st century, have started to provide its results. At the point reached in the area of reaching information, assessment and re-production, IGDAS has become an organization that both “Learns” and “Teaches”.

Referances

- 1 Biçer G., Düztepe, Ş., “Competencies and Importance of Competencies in Respect of Enterprises”, Aviation and Space Technologies Magazine, v:1, no:2, p.18, July 2003.
- 2 Richard W. S., Paul S. M., “ Intellectual Capital Management: An Approach For Packaging Knowledge For Action”, ICEX, Inc.
- 3 Bontis, N., “There's a price on your head: managing intellectual capital strategically”, Business Quarterly Summer, 1996, p. 41.
- 4 Roos, G. Roos, J., “Measuring your company's intellectual performance”, *Long Range Planning* 30(3), 1997.
- 5 Sullivan, P, “Value-Driven Intellectual Capital”, John Wiley&Sons Pub., p.240, 2000.
- 6 Kanibir,H., “Intellectual Capital as a New Competitive Power Source and Its Reflection on Organizational Performance”, Aviation and Space Technologies Magazine, Volume 1, No 3, 2004
- 7 Human Capital in Transformation; Intellectual Capital Prototype Rreport, Scandia, 1998, p.6.
- 8 Bontis, N., CHOO, C.W., “*The Strategic Management of Intellectual Capital and Organizational Knowledge*”, Oxford University Press, New York, 2001, p. 34.
- 9 Stewart, T.A., “*Intellectual Capital: New Wealth of Enterprises*”, MESS Publication No: 258, (Trans: Nurettin ELHUSEYNÝ), Istanbul, 1997, p.72.
- 10 Görmü ş, A.Ş., “Increasing Importance of Intellectual Capital and Human Resources Management”, Afyon Kocatepe University FAES Magazine, volume 9, no 1, 2009.
- 11 Emrem,E., “Conceptual Analysis of Intellectual Capital and Its Components”, *Work, Force, Industry Relations and Human Resources Magazine*, Volume: 6, No:1, 2003.
- 12 Edvinsson, L., "Developing Intellectual Capital at Skandia", Lona Ranae Planning. Volume: 30, No: 3, June 1997, p. 366
- 13 Stewart, T.A., a.g.e., p. 119
- 14 Stewart, T.A., a. g. e., p. 111.
- 15 Arıkboğa, Ş., *Intellectual Capital*, Derin Publications, Istanbul, 2003, p. 99.
- 16 www.insankaynaklari.com,2005:279
- 17 Barutçugil, İ., Strategic Human Resources Management, Kariyer Publication, Istanbul., p149–150, 2004.
- 18 Probst, Gilbert J. B. Büchel, Betine S.T., Organizational Learning: The Competitive Advantage Of The Future, Prentice Hall, London., 1997: 19
- 19 Barutçugil, İ., Strategic Human Resources Management, Kariyer Publication, Istanbul., p152, 2004.
- 20 Porter, M. E., “Competitive Advantage”, The Free Press, p.35, 1985.
- 21 Aydın, S., “Performance Concept”, www.bayar.edu.tr/~selim/, date of receipt: October 2003.
- 22 Bontis, N., “ Intellectual Capital and Business Performans in Malaysian Industries”, Journal Of Intellectual Capital, v:1, n:1, p. 97, 2000.
- 23 Çıkrıkçı, M., Daştan, A., “Introduction of Intellectual Capital Through Basic Financial Statements”, Bankers Magazine, n:43, p.20, 2002.