

CHANCE OF SUCCESS AT HUNGARIAN SMALL AND MEDIUM SIZED ENTERPRISES

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Abstract

At the beginning of the 21st century it can be seen that social-economic and environmental problems have become so complex that to solve or handle them a more efficient and global knowledge is needed.

Due to of this situation - and pressure of social – economic development – in developed societies the unfolding knowledge industry (knowledge business) has become separated and a dynamic growing production – supply sector.

*Traditional management concentrates on tangible tools, but knowledge management prefers intangible areas, such as learning and knowledge. This shows that to measure and analyze intellectual resources efficiently is not a trivial task. Globalization, decreasing life cycles, the role of knowledge in R&D (research and development) **result in continuously changing demands of products, suppliers and processes which all demand to renew application procedures (for example demand of innovation).***

On the basis of these ideas further questions can be put. How can Hungarian small and medium sized enterprises (SMEs) meet the demands of the new economy? How is knowledge creation, sharing, altogether knowledge management, used in everyday life? How can a company help individual and organizational learning? This two - year research has tried to find answers to these questions. In the research qualitative and quantitative techniques were used. In the course of investigations of the possibilities of SMEs breaking free, organizational knowledge was examined from 3 different viewpoints: intellectual capital, knowledge investigation, knowledge strategy. The results were verified from the view of secondary innovation. There are very important roles of SMEs, especially the ones based on knowledge and on human capital. This paper shows a small but stressed segment of the results.

Key words: *innovation, knowledge, knowledge management, SME, strategy.*

Introduction

A basic condition of market economy's successful operation is that economic organizations (companies where common knowledge of individuals, teams and collectives made up of individuals) function effectively and this is a determinative factor.

At the beginning of the 21st century a new society seems to have been born which is called by scientists in a different way. Toffler calls it a third wave, Masude an information society, Drucker a post capitalistic era, Savage a knowledge period, Naisbitt a knowledge society. (Sveiby, 2001) These names were born before the turn of 2000, but they felt even then that this world would change.

The place of still an industry centred world will be taken over by a knowledge centred world. It is verified by the increasing number of knowledge workers and decreasing employees'

number of industries. This new economy does not behave in each case according to classical economics and business rules. Knowledge has become a very important competitive factor and a critical resource. Knowledge capital counts a lot more than material capital elements.

Companies have to cope with the increased challenges at the beginning of the 21st century, they have to compete with all the actors in the international market. In this international playground there are more groups: the North-American gold triangle (USA, Canada, Mexico), East-Asian area's developed and developing economies (Japan, Korea, Taiwan, Hong Kong, Singapore) and the continuously expanding EU. The biggest challenge for management is to create global competitiveness and to maintain it. To fit to this new situation a new attitude and new solutions are demanded. The automated preparation of decisions, the use of decision support systems and expert systems, e-mail, internet and intranet have all brought new possibilities. One of them is that informational and communication patterns are changing and though they play an important role, they are not enough.

To conserve competitiveness top management has to realize that their companies can be successful if they can acquire a view about lifelong learning for themselves and for their employees, too. They have to develop their abilities in 3 areas which are very important in their work: professional, conceptional and human toolbars. To develop professional knowledge, to acquire conceptional abilities and toolbar are the more easily solvable problems, the biggest problem is to influence or change in human behaviour and attitude (Gyökér, 2008).

Managers have to leave the traditional view which underrates the organizational role of the human factor. A man as an organizational factor did not belong to important factors. Its role was only to realize managerial images unconditionally. This conception believed employees were lazy and incapable of decision, the source of motivation was only a financial allowance. They were convinced that satisfied employees performed maximally. The last decades have confirmed that it was a very simple way of thinking and did not give successful tools to management to solve their increasingly complex tasks. Employees' behaviour in a workplace is more complicated and diverse than they had ever thought (Gyökér, 2008).

At the beginning of the 21st century it can be seen that social-economic and environmental problems have become so complex that to solve or handle them a more efficient and global knowledge is needed.

On behalf of the above mentioned situation - and pressure of social – economic development – in developed societies the unfolding knowledge industry (knowledge business) has become separated and a dynamic growing production – supply sector.

This tendency can be seen because leadership and organizational knowledge have become stressed in opposition to technical knowledge. The future is determined by the innovation ability of companies, the amount and utilization of methods of organizational knowledge and knowledge management.

This form of knowledge changes very quickly and it is less explicit. In this way nature, establishment, dissemination and knowledge sharing raise a lot of questions. Traditional management concentrates on tangible tools, but knowledge management prefers intangible areas, such as learning and knowledge. This shows that to measure and analyse intellectual resources efficiently is not a trivial task. Globalization, decreasing life cycles, the role of knowledge in R&D, result in continuously changing demands of products, suppliers and processes all demand to renew application procedures (for example demand for innovation).

In the quickly changing world now fighting with economic crisis there are no organizations which can allow themselves not to deal with knowledge acquisition, sharing and applying knowledge efficiently, namely with knowledge management. If knowledge is neglected it can lead to failure or the winding-up of companies. The way of thinking that only small or big companies can be successful in certain economic areas has to be rejected. Each company can find its own path, as the new way of thinking can help to handle the events or reality.

On the basis of the above written ideas further questions can be put. How can organizations meet these demands of the new economy? How is knowledge creation, sharing, altogether knowledge management, used in everyday life? How can a company help individual and organizational learning?

This research tried to find answers to these questions. It is hoped that readers can find some help, a starting point or thinking schemas to solve their own problems after reviewing the presented results. A stressed part of the main research hypotheses and their verification – especially focused on problems and success chances of SMEs – is to show the thinking and behaviour of Hungarian SMEs in the area of knowledge management are true to the facts. The most remarkable results might be that ingrained thinking about the disadvantages of SMEs can be changed by a success oriented behaviour which can find gaps to reach breaking points and with the help of them they can find future success.

Problem of Research

Knowledge

The new economy is only a challenge for companies which are not fit to survive. This is a threat to those who cannot adapt well to this demand; they can fall into the background. On the other hand every change is a possibility for companies to get a competitive advantage.

These changes can be possibilities, if the key resource – knowledge - is at a suitable level in companies. Otherwise companies have to handle changes as a threat.

In this new knowledge-based economy the economic actors have a chance to adapt or increase their competitiveness by accumulating suitable resources - knowledge - in a proactive way (Farkas, 2003).

The function of small and medium - sized enterprises depends on their capabilities to capture knowledge, how they transform it into creating value as the added knowledge-value becomes more significant in economic processes.

A 1996 OECD report identified that around half of the GDP of developed countries comes from the knowledge industry and 8 workplaces out of 10 are associated with a knowledge intensive sector (Kocsis-Szabó, 2000).

Knowledge as a property. People talk about knowledge a lot but it has not defined exactly yet. This task is not so simple because knowledge is both an inconceivable and complex notion and as a result we can only circumscribe it. A definition by Davenport and Prusak can be used to give a practical perspective: Knowledge is a heterogeneous and continuously changing mix combining limited experience values and additional information. It is an expertise that can give a frame to the judgement and the attainment of new information and experience; it originates from and is processed within the knowledge possessing a person's mind. Companies take care of this knowledge not only in documents and stock-lists; they store it within processes, practical activities and standards as a part of organizational routine (Davenport, Prusak, 2001).

Knowledge has a value therefore it can be captured as an element of property. Knowledge is capable of value creation, consequently we can attribute it as an element of capital. Intellectual capital is an amount of special knowledge that can give competitive advantages and it is in possession of companies (Stewart, quoted by Salamonné Huszty Anna, 2000).

The process of change involves a transformation during which information will become knowledge, people perform tasks at every stage. Knowledge is evaluated especially because it is closer in nature to actions than information or data. The success or failure of companies depends on knowledge; if it is known or not what is needed, what is possessed already, and what can be done with it. Knowledge which is acquired from books during studying, from mentors and by informal studying, can be developed by experience. During these processes similar

drivers are recognized and connections are established with new and old experience, between former and current actions. Knowledge has ‘practical truth’. It means we know what can operate and what cannot operate in the real world. It shows a character of knowledge, namely it is capable of assimilating the complexity of things. Knowledge is not a rigid structure, it can handle things in a complex way, it is able to classify a new situation on the basis of its cognition, it can refine itself to make it more exact.

Knowledge can operate by automatic behaviour: (performed unconsciously) on the basis of flexible principles concerning activities. These were developed from tests, mistakes, experience and observations over a long time (Davenport, Prusak, 2001). H. Maturana, a Nobel Prize winner scientist said (1987): ‘knowledge is a coordinated action on the basis of consensus.’ Knowledge cannot be possessed data, or an object, it is a process which motivates to be a participant in its acquiring. Knowledge entails a total system of rules of practice and intellectual activities. It is able to supervise and rectify its own rules in the light of others’ actions.

Knowledge capital consists of three parts (see Figure 1):

- capital of market connections;
- organizational capital (structural);
- human capital.

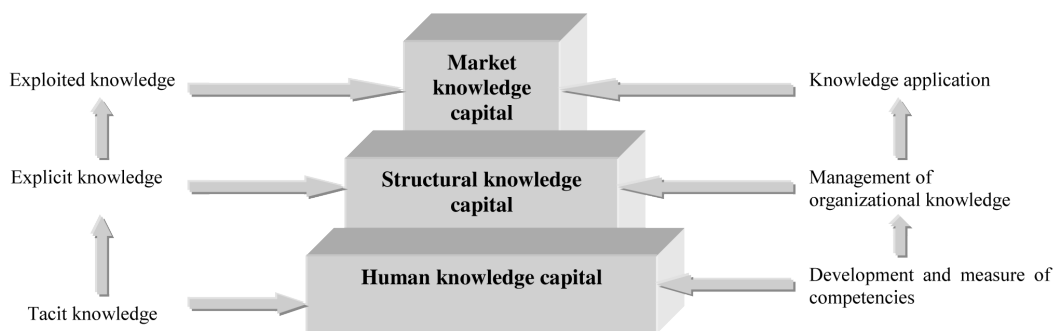


Figure 1: Categories of knowledge capital.

Source: based on Szelecky (1999) author's construction

Members of an organization call capital of market connections into being which become independent from personnel after a certain time period. Therefore it can be seen as an own property of an organization. The main elements are:

- The reputation of a company or institution (owing to leaders, founders, employees, products, services, etc.);
- Customer relationship of companies, customer base on which their future plans are built;
- Loyalty of customers;
- Connections with institutions, federates, suppliers, professional organizations;
- Access to distributional, selling channels (Gyökér, 2005).
- The organizational capital is an aggregation of elements which does not have a fixed connection with personnel. It will remain at companies after employees leave and it comes into being as a result of earlier organizational operations. It consists of two important elements:

- Intangible goods of an organization which can be the result of research, development, value of own developed tools, valuable, established brands.
- Infrastructural tools, for example philosophy of leading, organizational culture, informations, communications systems, networks of investors or financial institutions (Gyökér, 2005).

Human capital according to Leonardo Herrero (2008) consists of employees' cognition, knowledge and skills. In the case of employees leaving, the human knowledge capital will be lost for the company. If highly qualified employees leave, a human capital deficit for the organization is created which does not appear in accounting (Lakatos, 2005).

The main elements of human capital:

- Employees' knowledge and experience in connection with their jobs;
- Employees' skill level which influences present performances and future ability of knowledge;
- Colleagues' knowledge and experience with organizations;
- Personal competencies which are based on organizational competencies;
- Managers and employees' innovation capabilities and willingness;
- Colleagues morale and attitude in connection with work (Gyökér, 2005).

Boutellier and partners (2008) write the knowledge wealth of companies as a pyramid which contains the following elements:

- Socialized knowledge is organizational culture, the value of the organization and collection of standards. For example, team mood, customer – performance orientation. The socialized knowledge is tacit knowledge.
- Experimental knowledge is the same as socialized knowledge, it is tacit which consists of organizational processes, experts' capabilities, organizational routines and informal coordination.
- Documented knowledge is explicit knowledge. Each knowledge element belongs to this which can be reached easily inside the company, for example, project reports, handbooks, lists of investigations, costumer expectations, etc.
- Knowledge which is in products which is the aim of a company. It contains technologies, products, services which can be capitalized upon completion (Lengyel, 2005).

According to knowledge management thinking, companies have to endeavour to extract explicit knowledge elements efficiently from lower levels to be capitalized. Of course explicit knowledge elements are built on tacit knowledge elements totally. To build long-term competitiveness, knowledge levels have to be formed continuously. The tacit elements can be formed slowly and with difficulty, but explicit elements can be recreated more easily. Competitiveness of a knowledge intensive organization depends firstly on tacit knowledge elements (Lengyel, 2005).

Individual versus organizational knowledge

Most information is in the hand of companies but it has to be identified and has to be converted to knowledge. Hidden organizational potential can be found in different programs, systems, processes and in the culture.

Companies can acquire these cognitions from outside help. This collaboration appears in case of big or multinational companies as strategic unions but in the case of SMEs collaboration can be a franchise, or virtual and network systems.

Knowledge can originate from anywhere but its potential will only be realized if the

organization and its culture have 'Champions' or leaders who emphasize the importance of trust, an open atmosphere and who motivate employees to study continuously.

Communal recognition of knowledge is important from other viewpoints. When the pace of change is great, individuals cannot possess every detail. Up-to-date complex problem solution demands a multidisciplinary perspective. According to Noszkay (2010) we cannot produce added value in any other way than by knowledge combination. A new thing cannot be created without knowledge integration. At the same time companies emphasize individual performance: efficiency of individuals, divisions, departments, classes is measured and recompensed. The basis of this thinking is laid down at universities - Alford and Naughton (1995) believe - where knowledge is pigeonholed in departments and faculties. These individual organizational sections are rather data banks than a network of correlated cognitions. Development of personal knowledge is not a simple process and it is known that tacit knowledge has a very big significance in the competitiveness of companies and it cannot be standardized or communicated easily. That is why communal knowledge originates from individual knowledge with difficulties. According to James Brian Quinn (quoted by Nonaka-Takeuchi, 1995) intellectual goods (technical know-how, product planning, marketing, understanding consumer expectations, personal creativity, innovation) which increase the value of products and services are knowledge based.

Knowledge is not static, it keeps moving but it has a compulsory basic level. The essence of contradiction is that these basics become less and less required to use directly to perform tasks but it is more and more important to lifelong learning.

Knowledge sharing in organizations

Management has a huge role to play in facilitating the rise of individual knowledge to an organizational level. There are two types of knowledge sharing in organizations:

1. a free decision or;
2. forcing colleagues to share knowledge.

A free decision happens without force, employees share their knowledge with other colleagues and members of organizations at their own free will. The condition of this behaviour is a helpful culture of the organization. In case of forced knowledge sharing the management motivates the employees with resources or with an administrative order. This method will not be successful in the long term.

Problems of knowledge sharing. We know from our experience that the biggest problem of operating knowledge management systems is the bounds of knowledge sharing. These processes are very difficult because knowledge belongs to individuals and it is apparent in experience only (Nonaka 1995).

The causes of the problems of knowledge sharing are very different regarding their characters and genesis. If knowledge sharing transport and knowledge flow are inefficient, flexibility of companies will decrease and they cannot answer the changes of the market. Therefore it is very important that the management of the companies should support knowledge sharing. It is a primary interest of the organizations.

Research Focus: Examination of knowledge management practice at small and medium - sized enterprises

General characteristics of small and medium - sized enterprises

The EU's 32 million small and medium - sized enterprises (SMEs) give 70% of the total employment in the Union and they employ 75 million people. According to the EU calculation

SMEs are 99% of all enterprises. In some industrial sectors – for example in the textile industry – 80% of the personnel are employed. These enterprises have a small capital, low employee numbers and non-separated owner – management structure. They operate in the frame of a nation, but international collaborations hide big possibilities in the area of innovation, finance and market access.

It is very interesting to observe the changes of attitude which have happened in Europe. At the beginning of the history of supporting SMEs, SME politics meant different forms of support and expansion of welfare policies, today competitiveness, innovation, effectiveness and useful activities for the global society (not only for the entrepreneur) are the key words.

The complete SME sector constitutes 48% of all the enterprise capital, whereas they are 99.8% of enterprises. These enterprises employ two thirds of Hungarian employees and they produce half of the GDP. Therefore very big potential is hidden in their development and they might cause a radical alteration in the economy. Moreover, there is a significant problem in that these enterprises only contribute one-fourth of exports. (Table 1)

Table 1. SMEs' economic importance in Hungary (according to the size of enterprises).

	Micro-	Small-	Medium sized-	SMEs altogether	Big-
enterprises					
Contribution to GDP (%)	18.3	16.0	18.3	52.6	47.4
Rate of employees (%)	37.8	17.7	15.9	71.4	28.6
Contribution to exports (%)	1.1	7.7	13.9	22.7	77.3

Source: Román 2006.

Hungarian SMEs. SMEs have grown dynamically for a long time, but nowadays their rate is significantly less than it desirable and in developed countries. The moderate rate of Hungarian dynamic SMEs (lower rate than in developed countries) can be explained by two facts:

- Restrained willingness of all the population to become an entrepreneur (there is a limited circle of dynamic, new company foundation planner, well-prepared experts and in the managerial circle of 'gazellas' an ambition to grow is not a general characteristic).
- Most native SMEs have low effectiveness.

This is frequently explained by entrepreneurs' (and their possible employees) very defective preparedness and by incalculable economic and political factors.

In international comparison there are further problems: the rate of young people with a higher degree, the population, the level of language knowledge, ethical culture of companies to name but a few. SMEs which are successful in spite of the above mentioned problems are afflicted by excessive drawing away, administrative burdens and unfair competition.

Members of Hungarian society should become entrepreneurs in a much wider circle than nowadays. From this supply, after selection, the most suitable SMEs should remain. On behalf of quick development, SMEs' marketing chains should be created which demands a very strict discipline in the area of contract bounding. Sadly this discipline is at a very low level in Hungary.

Problems of language knowledge have to be handled (in the circle of the young, too) and it is an urgent step to create small business development politics. A general politician is needed which aims at the development of entrepreneurial skills, but at the same time it must be emphasized that the effects of these developments will bring results only 2-3 generations later.

Methodology of Research

General Background of Research

In the investigations of the possibilities of SMEs breaking free, organizational knowledge was examined from 3 different viewpoints: first intellectual capital level was measured, after that how SMEs can call knowledge into being was investigated and in the third step we explored what kind of strategic directions can be taken with the help of knowledge capital.

This research had an aim to demonstrate that SMEs can compete with big companies in the frames of a knowledge based economy, moreover, their knowledge and intellectual capital are the main sources of competitiveness.

Knowledge and competitiveness of SMEs have to be seen from 2 viewpoints. On the one hand they have to fit environmental demands of a knowledge based economy, on the other hand it is a possibility for them which can be used to get competitive advantages. The essential part of the research, through which the primary survey was specifically structured, follows the 3 viewpoints of investigation between knowledge and competitiveness which are characteristic of SMEs.

These 3 points are:

- knowledge capital as resource analysis;
- to create knowledge capital as a learning viewpoint;
- analysis which has a strategic perspective as an exploitation of advantages of knowledge capital.

The 3 levels of analysis follow a hierarchical logic. The starting point of the analysis is knowledge capital as an economic resource, but this resource can be characterized by different features from traditional factors of production. To manage and to enlarge these resources, totally different relations are needed. This viewpoint can be reached at the second level, it is an enlarged knowledge capital, namely a view point of learning. The top of analysis is a strategic level in which knowledge capital provided competitive advantages will appear.

Sample of Research

For the first time 21 managers of SMEs were interviewed by a structured deep interview. These people were chosen at random, but the sample is not representative. In spite of the small sample the analysis was made with a wide overview because investigated companies have diversified activities. They are:

- mechanical engineering;
- trade;
- transport;
- furniture production;
- organization of education;
- catering;
- property protection;
- shoemaking;
- food processing.

In the second step of the research 286 samples were collected by questionnaires on the basis of random sampling. The sample was taken from each region where companies operate at a nationwide level.

Instruments and Procedures

During the course of the research qualitative and quantitative methods were used. In the first step a relationship between strategy and knowledge was investigated.

In the second step abilities of learning and intellectual wealth was measured. The appearance of knowledge was measured by questionnaires within companies. The new investigation from the surveys was to measure facts which are difficult to measure. These were learning, the level of intellectual capital and their connection with competitiveness. This phase of research was built on the structured deep interviews and in most cases the former symptoms were verified.

A simple structure was used in the questionnaire. In the case of subjective elements the Likert-type scale was used uniformly in order to better arrangement. During the processing of the questionnaires different statistical methods were used. In the first step simple analyses were used by Microsoft Excel and in the second step the factor analysis and the cluster analysis were realized by SPSS 16.0 program.

Data Analysis

The structured deep interviews focused on 3 areas:

- a short path of life of companies and their development problems;
- character of strategy and vision;
- importance of intellectual capital.

The main focus of the interviews was to reveal a connection between vision and the path taken by companies.

On the basis of the earlier experience in the questionnaires simple and easy to understand questions were endeavoured to be worked out. Managers have very different qualifications in company-life, therefore complex or complicated economic expressions were avoided. In this way a compromise was made between exact professional and easy to understand expressions.

In addition key words were built into the questionnaire to which strong associations can be fixed. As in most management research, subjective elements were included at higher rates. Using subjective elements was important in the questionnaire because knowledge can be measured by objective elements with difficulty. From numerical data financial data was emphasized which measures the basic characters of companies. On the basis of these conclusions a dimension and development of companies can be formed.

Research hypotheses

H1. Hungarian SMEs have a marginal role in R&D activities, but they have an innovative potential. The basis of this potential is a high rate intellectual capital.

H2. Knowledge based companies are different from the view of organizational culture and leadership characters, from competitors who use a traditional strategy.

Results of Research

Hypothesis 1.

H1 Hungarian SMEs have a marginal role in R&D activities, but they have an innovative potential. The basis of this potential is a high rate intellectual capital.

This hypothesis was investigated from 2 viewpoints. The first groups were separated from the view of organizational culture and leadership. In the course of analysis first a factor analysis was used. Due to this method 20 variables of organizational culture were extracted into 4 factors. These factors include 47.4% of the information. In case of this procedure the Principal Component Analysis method was used.

On the basis of this method non-correlated factor variable characters were generated. The first factor is called *connection – trust*. This factor concentrates on such elements as close connections among employees and elements of trust based organizational culture. Namely the company which has given a high value to the first factor, can be characterized by trust based close connections. As a consequence a favourable atmosphere can be formed to external knowledge sharing and knowledge creation.

The second factor is *hierarchy – distance*. A high value of this factor means that there is a strong distance of power between managers and employees. It is very interesting that with this value the strength of fluctuation and the number of conflicts ‘move together’. Namely, in organizations where there is a powerful hierarchy and distance of power, employees’ quick exchanges and existence of conflicts are more characteristic.

The third factor is *autonomy*. It concentrates variables which are in connection with employees’ independence. Those companies get a high score where the decentralized structure is characteristic.

The last factor emphasizes the *executive* character of companies. Where there is a high value, the company can be characterized by an executive view (Bencsik, et al. 2008).

In the second step a 4-factor score type variables generated by factor analysis was used. During the control only outlier data were found. An extreme case was not found in the one-variable investigation. After that the ‘nearest neighbour’ hierarchic cluster analysis was used. On the basis of dendrogram 4 overhanging cases were identified when the reasonable cases were excluded. To cluster analysis the Ward method was used. In the course of grouping the 4-cluster solution seemed the best from every viewpoint. During standardization this model was used. (Table 2).

Table 2. Characterization of organizational culture – leadership clusters.

		Connection – trust factor score	Hierarchy - distance factor score	Autonomy factor score	Executive organization factor score
1. Group	Average	-0.0302317	0.6043404	0.3213002	-0.9006338
	N	103	103	103	103
	Deviation	0.96339346	0.89573987	0.75166771	0.82813478
2. Group	Average	0.2144146	0.2699682	-0.9712161	0.6196595
	N	89	89	89	89
	Deviation	0.99047588	0.97607821	0.95130639	0.83290105
3. Group	Average	-0.8063786	-0.2078426	0.3319397	0.6150131
	N	67	67	67	67
	Deviation	0.68961051	0.57605426	0.69611392	0.55236250
4. Group	Average	0.5838422	-0.8245524	0.4768336	-0.0059528
	N	77	77	77	77
	Deviation	0.65785866	0.56959046	0.60545154	0.60839877

The first group which can be characterized by external relationships in a company is at an average level, strong hierarchy, relative autonomy, powerful manager's self-possession also belongs to this group. Accordingly this group is called a 'hierarchical company'.

The second group suggests a more human centred atmosphere. Human relationships are powerful and a prospering hierarchy is not characteristic, weak employees' autonomy, stronger managers' definiteness which hinders employees' initiative are characteristic. This group is a 'friendly executive' organization.

The third cluster is the complement of the previous one. In this organization weak human relationship, weak hierarchy, strong autonomy and definite management can be found. It is called an 'unfriendly executive' organization.

The fourth group means the human centred atmosphere. Strong external connections, weak hierarchy, strong autonomy, average managers' definiteness are characteristic. These companies support knowledge creation, creativity, knowledge sharing, beside they motivate healthy assumption of risk which raise an innovative atmosphere. They are a knowledge 'supporting organization'.

As with the other pillar of analysis, organizations were categorized on the basis of possessing capital element rates. In this course managers were asked to evaluate the rates represented by certain capital elements (financial-, physical-, human-, organizational-, customer capital) from company value. To create groups, a hierarchical cluster analysis was the best again, 4 clusters were created by the Ward procedure inside it. The groups' characteristics can be seen in the Table 3.

Table 3. Characteristics of organizational culture – leadership clusters.

Clusters on the basis of capital elements		Financial capital	Physical capital	Human capital	Organizational capital	Customer capital
1. Group	Average	0.8935200	-0.2768896	-0.1423631	-0.3192297	-0.2862400
	N	104	104	104	104	104
	Deviation	0.91526119	0.52976631	0.68857736	0.71404642	0.62698265
2. Group	Average	-0.0909124	1.4498567	-0.5600721	-0.4733369	-0.6994981
	N	67	67	67	67	67
	Deviation	0.89606575	0.74685964	0.52703791	0.58113777	0.50427332
3. Group	Average	-0.9505566	-0.8442315	2.5858536	0.0687238	-0.7280966
	N	22	22	22	22	22
	Deviation	0.49291236	0.67612438	1.09989734	0.86090055	0.58389812
4. Group	Average	-0.5682991	-0.4290585	-0.0392947	0.5465650	0.7987367
	N	116	116	116	116	116
	Deviation	0.44422472	0.63813827	0.62565530	1.16940674	1.0069090

As Table 3 shows, homogeneous groups could be formed on the basis of the above shown categories. The first group writes down those companies where the financial capital fact is dominant which can be explained by strategy, tactics or the industrial sector. Regarding strategic explanations, these companies react upon the possibilities of the market more quickly due to their high liquidity. From the view of strategy, these companies represent an entrepreneur view point and their main tool is flexibility.

The second group can be characterized by a strong dependence on physical capital. Behaviour in this group can be explained by a dichotomy. It is declared by strategy and the industrial sector. While in the first case we can talk about the free decisions of companies, in the second case companies prefer growing on the basis of their physical capital for investment

in human capital. Obviously here technical – technological characters of industry sector make the high physical capital rate imperative (for example machine production). Typically at these companies the rate of aggregated intellectual capital types is the lowest.

From the view of verifying our hypotheses, the 3rd and 4th groups are important. In the 3rd group the human capital is very dominant. It means at the top of the Hungarian economy, those companies are where human capital is the main source of economic value. These companies give the elements of knowledge industries, but it is a sad fact that this group with very low numbers come to only 7.12%. These companies can become the secondary innovation source as was said above. It is a verified fact that in the course of economic value creation human capital is the starting point of the value chain among intellectual capital elements, concluding from the above shown result. In the above shown results the H1 hypothesis is verified.

It's worth investigating whether or not there is a connection between groups formed on the basis of organizational culture and groups of intellectual capital. To examine this question the previous results were used. Points of view of these 2 groups in a cross table are summarized.

Hypothesis 2.

H2. Knowledge based companies are different from competitors which use a traditional strategy from the view of organizational culture and leadership characters.

Table 4. Comparison of organizational culture and capital types appearing in organizational strategies (N/%).

Capital types	Cluster of organizational culture				Total
	Hierarchical	Friendly executive	Unfriendly executive	Knowledge supporting	
Financial capital based	31/32.6	30/31.6	18/18.9	16/16.8	95/100
Physical capital based	16/25.8	22/35.5	13/21.0	11/17.7	62/100
Human capital based	9/45.0	3/15.0	0/0	8/40.0	20/100
Customer capital oriented	24/21.2	27/23.9	32/28.3	30/26.5	113/100
Total	80/27.6	82/28.3	63/21.7	65/22.4	290/100

This Table 4 shows the essential conclusions. It follows that the dominance of organizational capital elements manifests itself in a typical outward form of the organizational culture as well at a company.

To understand the contents of the table more easily, it is worth investigating the traditional strategies (based on financial and physical capital) and knowledge based strategies (human and customer oriented) namely what rate is used by companies which can be characterized by knowledge supporting organizational culture. It is not surprising that in the case of the human capital based strategy this rate is the highest (40%) and it is followed by customer capital based strategy (26.5%). On the basis of these results H2 hypothesis is verified.

Discussion

The ascending value of SMEs' roles can be observed at the national and international level alike. It is as a consequence of outsourcing types of activities which were started at big and multinational companies where participants were smaller and flexible companies. The SME sector is strengthened by individual, short run or extreme demands of consumers. Mostly SMEs fulfil the needs of local markets.

'In front of entrepreneurs a red carpet should be laid, not a red cordon line of bureaucracy spanned' - said José Manuel Barroso in the year 2006.

It clearly seems that there is a consensus among the institutions of the EU to support the SME sector to increase the competitiveness of Europe.

The economy of SMEs can be characterized by high numbers of employees and low capital intensity. They receive a much bigger share of employment than income output or revenues. Fundamentally they operate in a non-capital – intensive area, such as the economic service, trade and real estate business. The competitiveness of the Hungarian SMEs sector is at a very weak level compared with international or the EU ones. Problems of this sector are: enterprises are broken up into a lot of small pieces (too many, too small), lack of middle-sized enterprises, low capital, innovation is at a low level (Szerb, 2008). Beside competitiveness problems, another comment is formulated that they do not use their possibilities to grow in a suitable way.

Most native small companies have grown quickly only for some years, some of them have become middle-sized and only 1 or 2 have become really big companies. In the case of Hungarian SMEs, the managers' personal characteristics are especially important to its success.

A disposition to be an entrepreneur can be stimulated by improvement of employees' preparedness, by organization of education, improvement of language knowledge and professional training (especially business knowledge). Enterprises which are founded can be supported by the increase of innovation and R&D investment, improvement of collaborations among scientific institutions and active companies, (industry and university connections), by the stimulation of putting new knowledge into practice and moderation of drawing away.

A grave problem is Hungarian young people's enterprising skills. This is especially alarming because young people are at an ideal age to become entrepreneurs; they have fresh knowledge which is a key condition for successful operation. Among Hungarian managers of SMEs there are a lot of entrepreneurs who do not have a suitable enterprising knowledge. Most of them work in the second economy therefore they live in an ambush lifestyle. They think of rich people distrustfully and they are ashamed of their own success (Román, 2006).

With regard to entrepreneurs' ages, there is no difference between the slowly increasing or stagnant companies. The cause of this symptom is that there are very few young entrepreneurs. To operate a company successfully, experience and connections in the markets are important, but so too are new taxation knowledge, marketing and management knowledge. The success of a company depends on human factors, enterprising attitudes, but most people lack these skills (Bencsik et al, 2009).

The main cause of failure of companies is the lack of collaboration. Competition is not enough because 'many and small' without collaboration is a sentenced to death. In this case Autarch management is too small, it operates at micro level only. It is on the one hand an obstacle of performance surplus, on the other hand it shows the low level of management. The question is if this situation can be changed, and if the answer is yes, who will be a motivator of the changes? These facts highlight that these SMEs have significant backwardness in thinking and in conditions in the area of knowledge management (Naughton, 2006).

The results of the above shown survey declare that knowledge capital intensive

companies can be characterized by a different organizational culture in most cases. At these companies' strong connections – trust network operates inside the companies, hierarchical manager – employee distances are less characteristic and the most important factor is the powerful autonomy.

It is well-known that these characteristics influence innovation inside companies significantly, in particular in a positive direction. It can be stated that secondary innovations (not based on R&D) appear in these companies with a bigger probability than is the case of traditional companies (Bencsik, 2011).

Summarized the results show that the advantages of SMEs can be found in relationships of the strategy, the size of a company and their knowledge capital.

Conclusions

In this survey the innovation background of SMEs was investigated from a special (different from traditional) viewpoint. This topic was approached not from the direction of R&D costs, but from the aspect of internal abilities and in a wider sense innovation was investigated.

It could be seen that intellectual capital represents a surprisingly high value because it has a two-thirds rate of disposable aggregated capital on average.

In the case of strategic paths it can be stated that there are knowledge based strategies, for example networks or making capital out of knowledge based market gaps are typical forms. A new recognition is that the main sources of SMEs' success are the high intellectual capital, finding a typical strategic path and organizational learning.

Our results were verified from the view of secondary innovation, there are very important roles of SMEs, especially the ones based on knowledge and on human capital. These companies are different from traditional competitors from the aspect of organizational culture. The most important difference comes from the fact that that most knowledge based companies support autonomy, assumption of risk and the organizational internal connection - network is very strong. They all obviously motivate secondary innovation which can be seen on the output side as well.

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Received: August 31, 2012

Accepted: October 23, 2012

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