

INTELLECTUAL CAPITAL AND VALUE CREATION – EVIDENCE FROM COMPANIES LISTED AT BSE

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Abstract:

In this paper we apply measurements of intellectual capital focusing on the human capital efficiency (HCE), the structural capital efficiency (SCE), the intellectual capital efficiency (ICE) and the value added intellectual coefficient (VAIC™) developed by Pulic (2000; 2004) for non-financial companies listed at Bulgarian Stock Exchange (BSE) using accounting data published with their financial statements for the period 2003-2009. The research is focused on companies in the manufacturing industry in order to derive any particularities in the measurements. The financial industry is excluded from the study as being specific. At this moment and to our knowledge, there's no significant research on the value added of intellectual capital of Bulgarian non – financial industry. We extended the formula of intellectual capital valuation and arrived at the conclusion that intellectual capital is playing an important role in the value creation process in some companies listed at BSE.

INTRODUCTION

In the 21st century access to information and knowledge, both with the motivation and skills necessary for their usage have become one of the key factors of sustainable competitiveness, adaptability and improvement for companies. Nowadays, the traditional understanding of competitive advantage as acquisition of tangible assets (financial capital, land, raw material, or technology) does not seem sufficient to gain stability. In a knowledge based society the sustainability has become the capability of economic agents to convert their skills into competitive advantage. On this basis, the new criteria of growth are steadily related to innovation and education. All of the aforementioned facts have definitely redirected the strategic priorities of companies to intellectual capital rather than to the more conservative financial capital.

- Many scholars explain the increasing gap between the book and market values of many companies with the growing importance of the intellectual capital. Many empiric researches have confirmed the existence of such a gap. For example, Edvinsson & Malone (1997)⁴, underlined in their study that the median of the P/B ratio for the period 1973-1993 moved from 0.82 to 1.692.
- (Lev, Feng 2001), found that approximately 40% of the market value of listed companies is not shown in their balance sheets, and for the high technology companies this rate could reach 50%.

The non-disclosed part of market value of a company may have been gained from the intellectual capital.

- In a study of 3,500 American listed companies, Stewart (2001) found that in 1978 the difference between the market value and the book value was 5%, but 20 years later, i.e. in 1998, that difference was 72%.

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⁴ Edvinsson L. Malone M.S. Intellectual Capital. Realizing Your Company's True Value by Finding Its Hidden Brainpower. New York, Harper Business, 1997, p.5

Lev (2003) found, that in March 2001, the market value of 500 medium-size Standard & Poor companies was 6 times greater than the net assets disclosed in their financial statements, meaning that traditional accounting methods allow to value only about 15% of the real value of the companies.

- In 2001, the P/B ratio for young companies listed at Frankfurt Stock Exchange averaged 14.4. The ratio in the emerging markets reached high level for leading companies. For example, on 8 May 2001 the ratio for the leading biotechnology company Quiagen reached 46.6, for Articon – 66.6, and for GFT Technologies-32,9 (Burman, 2003)
- According to data from Bloomberg, for 2009 the P/B ratio reached 1.54 on average for Eastern Europe Countries and 1.25 for Western Europe Countries .

In fact, the standard financial indicators used to measure business performance, such as EBT – Earnings Before Taxes, ROI - Return On Investments, EPS - Earnings Per Share have been proven to give inadequate and unclear information about users on the strategic development potential of the business. According to Milner (2003) the economic processes confirm that the capital of the business in its traditional form, i.e. financial and tangible, has gradually stopped to be the only basis for valuation of businesses.

Our research aims at presenting the results of an empiric test on the role of intellectual capital in value creation in some companies listed at Bulgarian Stock Exchange for the period 2003-2009.

1. Intellectual capital – definitions and structure.

Intellectual capital in recent years has been a subject of great interest of many researches in many scientific areas such as finance, law, mathematics or statistics. The topic has been of great importance in subjects like Theory of the Company, Theory of Company's Growth. Hence different concepts, methodologies and approaches have been generated. Related to the concepts of intellectual capital are concepts like: information management, knowledge management, organizational behavior and long life learning (Kasarova, Dimitrova, 2010).

The literature has devoted many definitions to the concept of intellectual capital. According to Edvinsson (1997), intellectual capital is any knowledge convertible into value. For other scholars like Stuhlman, intellectual capital is better understood as intangible i.e. the sum of knowledge and skills including employees' knowledge of the information processes in business, internal and external experts' knowledge, the company's products, its consumers and competitors, licenses and trade marks, history and capability to plan the future.

At the moment, there is no generally accepted definition or method of valuation of the concept of intellectual capital. This might primarily be due to the fact that there is no single definition of the concept such that its interpretation in law, finance and management be satisfied.

Many different economic agents like business owners, potential investors or individuals are also concerned by the concept of Intellectual capital, each using it, for their particular objective. So, in marketing it will be used by marketers to create a good image of the company in order to increase its attraction; professional valuers – in the valuation process based on knowledge; managers – in workforce and asset management; owners and investors- in determining the value created. Although it is widely known in practice, the

concept of intellectual capital remains undisclosed in the financial statements published by companies regardless of its great value for modern economy.

As underlined by Georgieva (2008), a deeper analysis of the current definitions of intellectual capital in the literature allows arriving at the conclusion that, in spite of the differences between scholars, there is a common agreement on the fact that intellectual capital is based on knowledge, it is intangible and brings value to the business.

In conclusion, the definitions of intellectual capital may be classified into two groups:

The first group emphasizes the ability of intellectual capital to generate and increase the market value of the company (Edvinsson, Malone, 1997), thus transforming the way of creating value by the business. Instead of using a huge amount of tangible assets in the production process, it is therefore important and vital for the business to introduce a much “smarter” capital capable of creating value, or knowledge that can be converted into value (Black, Lynch, 1996). In other words, intangible assets interact with tangible and financial assets to generate economic growth and market value, which is able in return to create sustainable competitive advantage for the business (Stewart, 1991).

The second group of definitions emphasizes the structure and content of intellectual capital as a corporate asset. In spite of the differences in the interpretation, the classifications are very similar, Bontis, (2001). For Bradley and Albert (1996), Intellectual Capital represents knowledge and intangible asset transformed into useful resources. Skoblyakova (2006) defined intellectual capital as a collection of knowledge, habits and skills by an individual, his mobility (in terms of capability of assimilating any new information, of learning or of adaptation in new conditions). Inozemtsev (1998) assimilates intellectual capital to a “collective brain”, which includes scientific and daily knowledge of employees, intellectual capability and accumulated experience, organizational structure, information network and the image of the company.

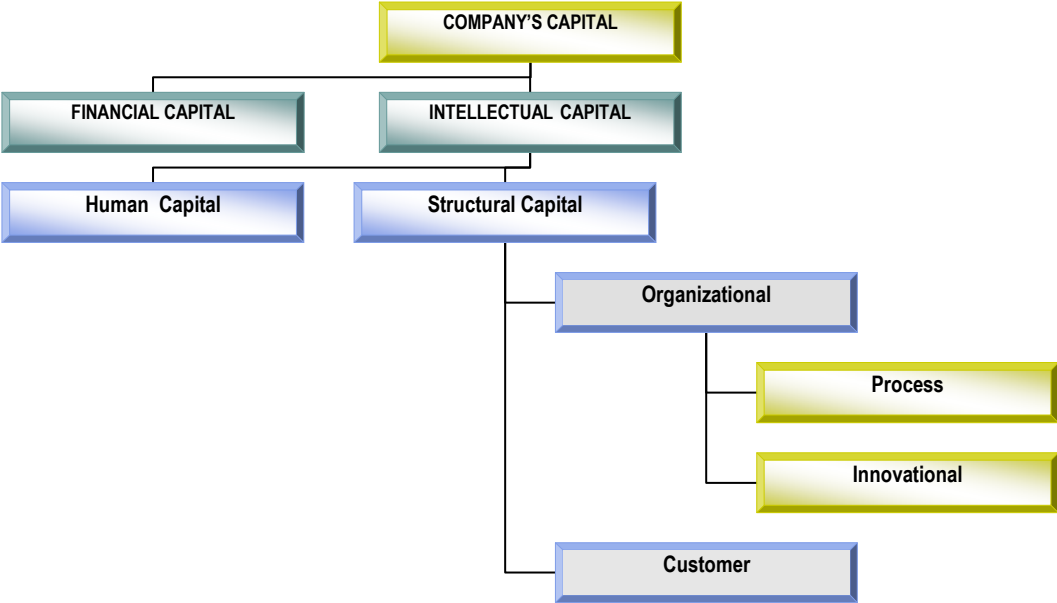


Fig.1. Structure of intellectual capital (based on Scandia’s model)⁵

⁵ Power of Innovation. Intellectual Capital, Supplement to Skandia’s 1996 Interim Report.

The IFAC (International Federation of Accountants)⁶ defines three elements in intellectual capital: human, customer and organizational capital. This classification is derived from the structure of intellectual capital prepared and implemented by the Swedish insurance company “Skandia” (fig. 1).

For the purpose of this study, we consider **intellectual capital as a collection of intangible assets⁷ based on knowledge, which can be used to create value and to assure competitive advantage for companies. We assume, in line with “Skandia”, that intellectual capital can be structured as: human, customer, and organizational.**

The axiom that “if the manager cannot value something, he cannot manage it efficiently” is entirely applicable to intellectual capital. Both in theory and in practice, many methods are used to value intellectual capital. One of the interesting methods is VAICTM (Value Added Intellectual Coefficient) developed by Ante Pulic (1998). VAICTM determines the efficiency of the use of tangible and intangible assets through the created value (Pulic, 2000). The financial capital, the human and the structural capital are the basic elements in the model. **We used the model to value the efficiency of companies listed at Bulgarian Stock Exchange** (further in the text – BSE).

2. Empiric test for the value added created by intellectual capital in some companies listed at BSE

Value added is a measurement of the success of each company since it shows the capability of the company to create and increase its value. Most of the types of value added generated in the business can be explained by the trading of skills and intangible assets (Edvinsson, 2005). In this way, value added may be accepted as the basic indicator of the transformation of intangible assets of the business to market assets.

In this study we present the implementation of the model of Value Added Intellectual Coefficient – VAICTM as a measurement of the overall efficiency of the company based on its intellectual capability. We tested the role of intellectual capital in determining the market value and efficiency of some listed companies at BSE.

We recognized that while applying VAICTM, managers are able to ascertain the weaknesses and strengths in the value creation process, but could not always be able to determine the volume of changes necessary to be done in the business in order to improve its market position. In fact, it is important to underline that VAICTM is calculated using the conservative approach of accounting, in which accounting data are recorded based mainly on the principle of historic cost. The understanding of the overall managerial and financial picture of a company requires the use of measurements such as: Tobin’s Q, EVA, MVA, etc., which are not in the framework of the current study.

<http://www.skandia.com/en/includes/documentlinks/annualreport1996/e9606Power.pdf>; Edvinsson, L., G. Brünig, Aktiv Posten Wissens Kapital, Gabler

⁶ Measurement and management of intellectual capital, IFAC, 1998

⁷ Intangible assets are non-financial assets. Some of them are included in the financial statements of a company. According to Bulgarian legislation (Accounting standard 38 “Intangible assets”) they are: rights over industrial property (trademark, copyright including computer software, brand name, rubrics and publishing rights, licenses and franchise, patents); concession rights, rights over technology such as recipes, formulas, models, designs, prototypes, instruments, matrices, patterns, etc. goodwill. This list, however, does not include a number of intangible assets (hidden valuables) which have no place in the financial statements nevertheless their contribution to the competitiveness and success of an organization. For example, this category includes loyalty to the customer, creativity and loyalty of the personnel, organizational culture, efficiency of the communication, management know-how, etc.

We assume that the application of VAICTM could facilitate the comparison between companies from different economies and different economic branches. We suppose that applying VAICTM is also helpful because it uses the two conceptions of intellectual capital – as a key factor for a sustainable value creation in the company and – as a corporate asset, including the human and structural capital.

Using VAICTM is unknown in the managerial practice of Bulgarian public companies, and to our knowledge, at this moment, there is no research on its implementation in the Bulgarian environment.

- **Hypothesis on the basis of the model**

Our research aims at confirming the correlation and its strength between the value added (VA) created by Bulgarian public companies in the manufacturing industry, the capital employed (CE), the human capital (HC) and the structural capital (SC)

- **Data sources for the empiric test**

The research was conducted for the period 2003-2009. The data cover a panel of 7-year period of development of the companies, which permits to analyze the impact of intellectual capital on the value added creation for the whole period, and not only for just one year. This approach avoids drawing conclusions on a static basis. It has empirical as well as theoretical advantages, since the influence of other factors like the financial crisis, the specificities of BSE, functioning in an emerging market could be studied. In fact, the interpretation of a panel analysis should take into account the risk of ‘survivor bias’ because in the panel were included only companies that have succeeded to survive for the seven year period of study.

The panel includes 20 companies (140 observations) traded at BSE (see table. 1). The following criteria guided the choice of the companies:

Table 1. List of the companies studied.

<i>Nº</i>	<i>Company</i>	<i>Code BSE</i>	<i>Nº</i>	<i>Company</i>	<i>Code BSE</i>
1.	Akumplast Ltd	6AK	11.	Intransmash-engineering Ltd	4IE
2.	Alkomed Ltd	6AM	12.	Medika Ltd	5MA
3.	Aroma Ltd	6AR	13.	Moststroy Ltd	5MY
4.	Bulgarska zahar Ltd	4BZ	14.	Neochim Ltd	3NB
5.	Velbuzhd Ltd	4V6	15.	Olovno cinkov complex Ltd	5OTZ
6.	Vinzavod Ltd	4VA	16.	Polymeri Ltd	51P
7.	Vipom Ltd	4VI	17.	Svinekomplex Nikolov Ltd	6SN
8.	Druzhiba Ltd	4DU	18.	Sofia BT Ltd	3JU
9.	EMKA Ltd	57E	19.	Trakiisko Pivo Ltd	3TW
10.	Zavodski stroeji Ltd	3Z8	20.	Transtroy AM Ltd	42T

- ✓ The company is in the manufacturing branch. The branch was chosen to test its intellectual intensity, i.e. to understand if manufacturing companies rely on tangible or intellectual resources in their value creation process.

- ✓ Each company has a market capitalization for the seven-year period, i.e. it is listed at BSE not later than in 2003.
- ✓ The financial statements of the company are available and accessible for each year of the period of study.
- ✓ The part of capital belonging to the minority shareholders (owning less than 5% of the share capital) is more than 10% for at least 4 years of the 7-year period of study.

- **The empiric test**

Since the main objective of the test is to establish the role of the intellectual capital in the value added creation in the company, we use the VAICTM, which we defined in the following formula.

$$\mathbf{VAIC}^{\mathbf{TM}} = \mathbf{ICE} + \mathbf{CEE}, \quad (1)$$

Where:

ICE - Intellectual Capital Efficiency Coefficient; CEE - Capital Employed Efficiency Coefficient

The first element in the model - **ICE**, is considered as the sum of Human Capital Efficiency Coefficient (HCE) and Structural Capital Efficiency Coefficient (SCE):

$$\mathbf{ICE} = \mathbf{HCE} + \mathbf{SCE} \quad (2)$$

Human capital in the model is the key resource which generates value added in the company and is considered as an investment rather than operating expense in an accounting perspective. The data from the income statement are used to determine the amount of human capital calculated as the sum of all personal expenses. In the research we use mainly payroll and related expenses (including wages and salaries, social security expenses, pensions, and any other personal expenses).

The calculation of the efficiency of human capital is as follows:

$$\mathbf{HCE} = \mathbf{VA} / \mathbf{HC}, \quad (3)$$

where:

VA – value added; HC – human capital.

Value added is calculated as the sum of earnings before interest and taxes; depreciation and amortization and human capital, as in the following formula.

$$\mathbf{VA} = \mathbf{EBITDA} + \mathbf{HC}, \quad (4)$$

where:

EBITDA – Earnings Before Interest, Taxes, Depreciation And Amortization.

The second element of intellectual capital - the Structural Capital Efficiency Coefficient (SCE), is calculated with the formula:

$$\mathbf{SCE} = \mathbf{SC} / \mathbf{VA} \quad (5)$$

where:

SC – structural capital; VA – value added

The structural capital is calculated as the difference between value added and human capital:

$$\mathbf{SC} = \mathbf{VA} - \mathbf{HC} \quad (6)$$

Since intellectual capital operates interactively with the physical and financial capital in the value creation process, to obtain a complete result for the efficient use of the company's resources, it is important to take into account the Capital Employed Efficiency Coefficient (CEE), which we determined with the following formula:

$$CEE = VA / CE \quad (7)$$

Where:

VA – value added; *CE* – capital employed

In the preceding formula, capital employed is calculated as the sum of shareholders' equity and the long-term interest bearing borrowings.

Finally, we calculated VAICTM as the sum of the preceding three coefficients: a) Human Capital Efficiency Coefficient (HCE); b) Structural Capital Efficiency Coefficient (SCE); c) Capital Employed Efficiency Coefficient (CEE), and arrived at a formula in which the VAICTM is decomposed and takes the following form:

$$VAIC^{TM} = HCE + SCE + CEE \quad (8)$$

The interpretation of the obtained VAICTM is as follows:

A company, with a VAICTM less than 1 unit implies that it is not creating value, but is destructing value, because for one euro invested, the company is generating added value less than the investment. It is then accepted that a company with a VAICTM greater than 1 is performing efficiently.

This is an important indicator for shareholders and other stakeholders. The previous interpretation of VAICTM is applicable to all three elements in formula (8).

An HCE > 1 implies that each euro invested in human resources generates additional value for the business. The optimal value of HCE is supposed to be greater than 2.5 and is normally observed in high technological companies.

For the purpose of this study we used the data from the non-consolidated annual financial statements published by the companies, rather than the consolidated ones. The objective was to consider the companies individually rather than as a group of companies.

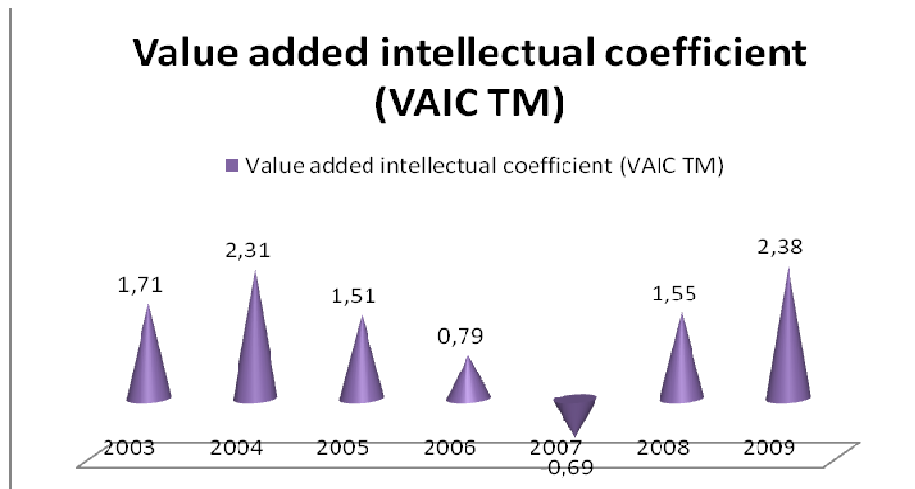
- **The results**

The average VAICTM and its elements are presented in table 2, and in fig. 2 and 3. They are calculated on the basis of the individual financial statements of the 20 selected manufacturing companies listed at BSE and presented in table 3.

Table 2 Summary of the parameters of the companies included in the panel

Parameters, ratios	2003	2004	2005	2006	2007	2008	2009
Human Capital Efficiency Coefficient (HCE)	1.29	1.73	0.29	1.26	-1.42	0.74	1.45
Structural Capital Efficiency Coefficient (SCE)	0.10	0.26	0.88	-0.78	0.37	0.53	0.71
Intellectual Capital Efficiency Coefficient (ICE)	1.39	1.99	1.17	0.48	-1.05	1.26	2.15
Capital Employed Efficiency Coefficient (CEE)	0.32	0.33	0.34	0.31	0.36	0.29	0.23

Value Added Intellectual Coefficient (VAIC TM)	1.71	2.31	1.51	0.79	-0.69	1.55	2.38
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Фиг. 2. The variation of VAICTM from 2003-2009.

The observed VAICTM for the studied companies has a U-shape curve. The significant decrease is observed in 2007, with a negative value of -0.69. The highest value is observed in 2009 (2.38). The average VAICTM for the 7-year period of study is 1.37, which is significantly lower than the average in European markets.

The reasons explaining such movement of VAICTM in Bulgarian market are external (the financial crisis) as well as internal, related primarily to the management of the capital of Bulgarian companies and to the stagnation in the real economy, which implies the low level of added value created by the companies.

In the same line with Lev (2003), we consider that intangible assets are the key drivers of the growth and value of the company, we analyze the correlation between:

- The Value Added (VA) and the Capital Employed (CE),
- The Value Added (VA) and the Human Capital (HC),
- The Value Added (VA) and the Structural Capital (SC),

The test on the companies in the panel showed the following results:

Correlation HC/VA = 0,73 → strong
 Correlation SC/VA = 0,96 → strong
 Correlation CE/VA = 0,51 → average.

The positive correlation between the value added and the three indicators showed that the investment is helpful in the value creation process. The assumption is strongly true for the structural capital where the correlation between VA and SC is 0.96. The correlation between VA and HC is also high (0.73), while it is averaging between CE and VA (0.51)

In other words, the study confirmed the hypothesis according to which the value of public companies in Bulgarian manufacturing branch at a certain level are highly influenced by the human and structural capital, which in fact consists of the corporate intellectual capital. The hypothesis is also confirmed by the data in fig. 3. In fact, the decrease in VAICTM

observed in 2007 is due to the fall in the efficiency of the structural capital in 2006 and the following fall in the human capital for the same period. In the same time, while the invested capital increased nearly twice in the studied period, its efficiency remained constant. This could be interpreted as a sign of the existence of assets in the business which cannot generate the minimal revenue, or that there are some non-operating assets in the business.

On average, the intellectual capital efficiency coefficient for the studied period is 1.06, mainly due to the human capital efficiency (0.76), while the capital employed efficiency (CEE) has an average value of 0.31.

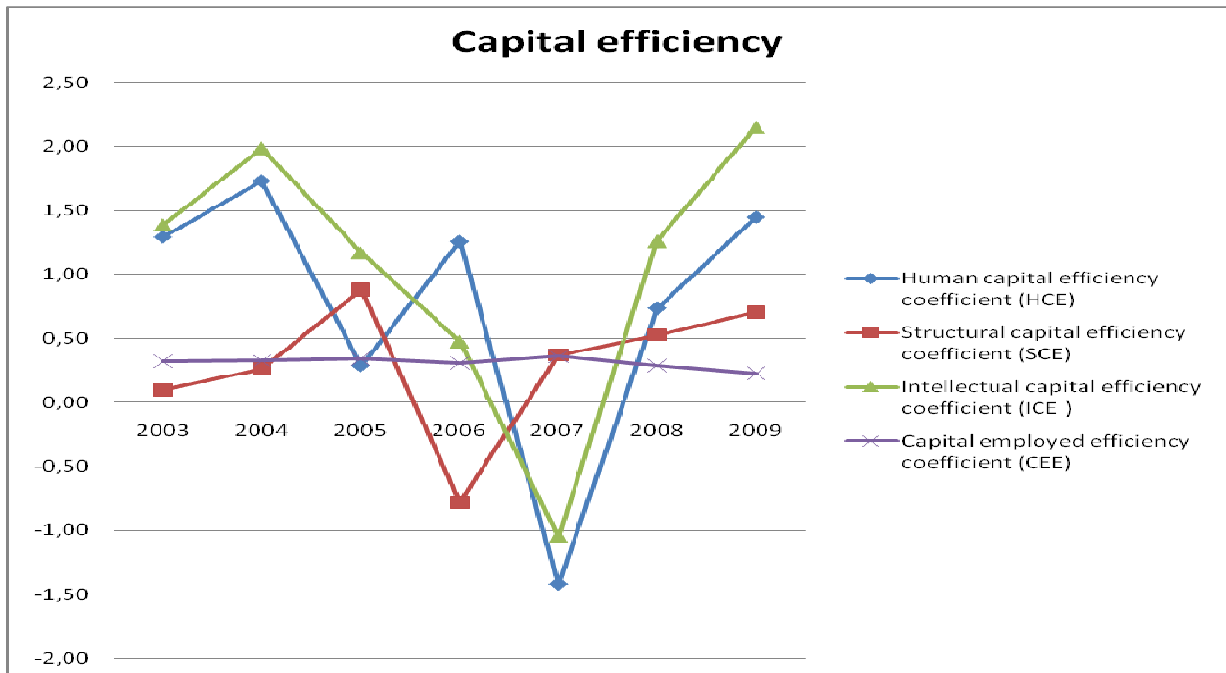


Fig. 3. The variation of efficiency of the different capital of the analyzed manufacturing companies listed at BSE.

CONCLUSION

This paper highlighted some aspects of the value creation process in Bulgarian companies, namely the use of intellectual capital. This is our first attempt to focus the research on the understanding of the role of intangible assets in value creation process in Bulgarian economy. The final objective is the development of a model for the valuation of intellectual capital in the context of an emerging market like Bulgaria.

Table3. Individual characteristics of the companies included in the study.

No	Company, ratios	2003	2004	2005	2006	2007	2008	2009
1.	Akumplast Ltd VAIC™	2.56	2.66	2.77	3.04	3.07	2.67	2.79
1.1.	ICE	1.98	2.03	2.10	2.30	2.33	1.92	2.14
1.2.	CEE	0.58	0.63	0.67	0.74	0.73	0.74	0.65
2.	Alkomed Ltd VAIC™	2.51	2.72	3.25	3.46	3.81	3.21	2.97
2.1.	ICE	2.22	2.45	2.87	3.14	3.40	2.78	2.69
2.2.	CEE	0.30	0.27	0.38	0.32	0.41	0.43	0.28
3.	Aroma Ltd VAIC™	1.56	1.81	2.41	2.61	3.46	2.18	2.29
3.1.	ICE	1.26	1.49	2.08	2.35	3.20	1.94	2.04
3.2.	CEE	0.30	0.32	0.33	0.25	0.26	0.23	0.25
4.	Bulgarska zahar Ltd VAIC™	4.88	7.90	-27.43	-8.43	-65.99	-2.61	10.76
4.1.	ICE	4.88	7.86	-27.29	-8.39	-65.69	-2.60	10.69
4.2.	CEE	-0.01	0.04	-0.14	-0.04	-0.30	-0.02	0.07
5.	Velbuzhd Ltd VAIC™	1.96	1.97	1.28	0.40	-1.58	-3.16	1.27
5.1.	ICE	1.72	1.76	1.14	0.30	-1.62	-2.67	1.35
5.2.	CEE	0.24	0.21	0.14	0.10	0.04	-0.49	-0.08
6.	Vinzavod Ltd VAIC™	3.74	3.03	3.45	2.94	2.53	2.26	1.72
6.1.	ICE	3.57	2.87	3.29	2.80	2.39	2.13	1.63
6.2.	CEE	0.17	0.16	0.17	0.14	0.13	0.13	0.09
7.	Vipom Ltd VAIC™	1.67	1.71	2.16	2.26	2.14	2.27	2.39
7.1.	ICE	1.40	1.41	1.83	1.95	1.83	1.94	2.12
7.2.	CEE	0.27	0.29	0.33	0.31	0.31	0.33	0.28
8.	Druzhba Ltd VAIC™	2.42	2.67	2.32	2.58	2.48	1.63	1.34
8.1.	ICE	1.87	2.03	1.71	1.89	1.71	1.01	0.93
8.2.	CEE	0.56	0.64	0.61	0.69	0.77	0.62	0.41
9.	EMKA Ltd VAIC™	2.45	1.52	3.05	3.56	3.21	2.33	2.42
9.1.	ICE	1.63	1.25	2.63	3.08	2.80	2.03	2.16
9.2.	CEE	0.81	0.27	0.43	0.48	0.41	0.30	0.26
10.	Zavodski stroeji Ltd VAIC™	0.56	2.63	1.41	0.38	1.51	-1.02	0.21
10.1.	ICE	0.43	2.30	1.14	0.31	1.44	-0.88	0.28
10.2.	CEE	0.13	0.34	0.27	0.07	0.07	-0.14	-0.07
11.	Intransmash- engineering Ltd VAIC™	1.95	1.50	2.15	4.81	4.42	2.45	2.44
11.1.	ICE	1.78	1.42	2.07	4.63	4.23	2.35	2.37
11.2.	CEE	0.17	0.08	0.09	0.19	0.19	0.10	0.06
12.	Medika Ltd VAIC™	3.06	1.87	2.69	2.24	2.70	2.50	2.46

12.1.	<i>ICE</i>	2.67	1.64	2.43	1.99	2.39	2.25	2.23
12.2.	<i>CEE</i>	0.39	0.23	0.26	0.24	0.31	0.25	0.23
13.	Moststroy Ltd VAIC™	0.91	2.17	2.39	2.65	3.88	2.23	1.99
13.1	<i>ICE</i>	0.51	1.66	1.78	1.59	2.51	1.56	1.86
13.2	<i>CEE</i>	0.40	0.52	0.61	1.07	1.37	0.67	0.14
14.	Neochim Ltd VAIC™	2.66	2.27	3.29	2.48	2.30	4.37	-0.99
14.1.	<i>ICE</i>	2.27	1.91	2.82	2.14	1.90	3.69	-1.06
14.2.	<i>CEE</i>	0.39	0.36	0.47	0.33	0.40	0.69	0.07
15.	Olovno cinkov complex Ltd VAIC™	0.45	1.95	5.10	5.26	6.23	5.29	3.94
15.1.	<i>ICE</i>	0.32	1.61	4.43	4.70	5.60	5.34	3.54
15.2.	<i>CEE</i>	0.13	0.34	0.67	0.56	0.63	-0.04	0.40
16.	Polymeri Ltd VAIC™	1.17	2.07	1.34	3.08	2.44	2.16	3.55
16.1.	<i>ICE</i>	1.08	1.98	1.29	2.96	2.39	2.11	3.55
16.2.	<i>CEE</i>	0.09	0.09	0.06	0.12	0.06	0.05	-0.01
17.	Svinekomplex Nikolov Ltd VAIC™	-6.57	0.83	4.91	-0.20	2.70	3.84	3.89
17.1.	<i>ICE</i>	-6.60	0.65	3.88	-0.42	1.74	2.32	2.74
17.2.	<i>CEE</i>	0.03	0.19	1.03	0.22	0.96	1.52	1.15
18.	Sofia BT Ltd VAIC™	3.26	3.40	3.43	1.93	1.93	1.80	1.97
18.1.	<i>ICE</i>	2.80	2.93	3.03	1.65	1.65	1.50	1.63
18.2.	<i>CEE</i>	0.46	0.47	0.45	0.29	0.29	0.30	0.34
19.	Trakiisko Pivo Ltd VAIC™	1.17	0.56	0.78	2.87	3.26	-3.60	-2.33
19.1.	<i>ICE</i>	1.13	0.53	0.75	2.81	3.18	-3.61	-2.17
19.2.	<i>CEE</i>	0.03	0.03	0.03	0.07	0.08	0.01	-0.16
20.	Transtroy AM Ltd VAIC™	1.87	1.05	9.43	-22.23	1.80	0.20	2.50
20.1.	<i>ICE</i>	0.87	-0.01	9.44	-22.23	1.73	0.12	2.29
20.2.	<i>CEE</i>	1.00	1.06	-0.01	0	0.08	0.08	0.21

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