Value and Price of Russian Business: The Entity, the Relationship and Impact of Financial Indicators

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Abstract: *Topicality*: In the article the authors analyze the relationship between the book and market value and the price (level of capitalization) of the business, and also analyze the nature of the relationship of these indicators with the traditional financial ratios. The purpose of the article is to determine the state of these relations in the modern economy of Russia.

Practical Usefulness: Determination of materiality influence of financial coefficients which used in traditional financial analysis on value and price of business that gives the chance of forecasting of development and decision-making within management of business` value, and also more effective investment of means in securities.

Novelty: In modern Russian economic conditions, only part of the traditional financial ratios has an impact on the prices and business value. The analysis presented in the article indicates the feasibility of forming such a system of indicators, which is more informative in terms of their use for the implementation of value-based analysis and approach for decision-making in the organization.

Keywords: Value business, price business, financial indicators, statistical analysis.

INTRODUCTION

The problem of valuation was one of the central problems of economic science and excited scientists-economists at all times, since merkantilists and classics.

"The purposes and motives of activity of economic entities are determined, options and allocation of resources and revenues are selected, the process of market exchange operates on the basis of the theory of value" [Rumyantseva, 2006].

Classics of political economy: A. Smith, W. Petty, D. Ricardo expressed their understanding of the value, Marx was engaged with this problem, like many other representatives of different schools.

It is known, the development of attitudes regarding the value originated in the writings of William Petty, Adam Smith and then David Ricardo developed understanding of the value under the labor theory. A. Smith conducts the division of value to the customer and exchange. Karl Marx considers in detail the problem of the labor theory of value in "Capital".

The Austrian school (K. Menger, E. Berm-Baverk and others) with the marginal utility theory was the alternative position of the labor theory of value. Here the value of goods is determined by the "marginal utility" on the basis of subjective evaluations of human needs. The rarity of the goods is the factor value.

In the modern Economics labor theory of value and marginal utility theory complement each other. Alfred Marshall, founder of the Cambridge neoclassical school brought together the theory of marginal utility (marginalism) and a theory of production value (classical political economy).

It is known, the law of value is the production and exchange of commodities take place on the basis of their value, the amount of which is determined by the socially necessary labor inputs.

He expresses the relation of commodity producers: the connection between the public labor, value and price of the goods.

The law of value is to make the private labor in the public work by mapping through a single measure - socially necessary labor costs and the equivalence of the exchange between producers by expression and measuring costs through ~~cost and~~ recovery of proceeds from sales.

In economic literature, the mechanism of its manifestations consists in the following functions:

- accounting and estimating (market makes their cost estimating and accounting, through the price mechanism. In value terms are taken into account macroeconomic (gross national product, national income) and microeconomic (income), assessment of efficiency, rate of return, capital

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productivity, consumption of materials, labor productivity, and evaluation of resources, etc.,));

- regulatory (price fluctuation around the value leads to an influx or outflow of capital and labor, therefore, to increase or decrease the volume of production - growth or reduction of supply - decrease or increase prices. Price fluctuations around the values govern the scale of production of various goods);

- stimulating (only those entities may recover costs and earn profits when the individual costs equal to or less socially necessary labor costs, this is possible on the basis of achievements of scientific and technical progress and growth of personnel qualification);

- differentiating (as a result of differentiation of subjects of economic stratification of the population and social stratification).

The labor cost in the sphere of production forms the basis of the market prices, but from the production the product of labor goes into the sphere of the economic relations, where competition acts, the law of supply and demand, causing the deviation of price from value. It is generally accepted that for a long period of time demand and supply are balanced and fluctuating around cost levels, and market prices are close to market value.

The difference between price and value creates problems of the analysis of factors affecting the value of the different property. This problem is very important in business valuation. In fact, equity prices on the stock market are so different from their fundamental value, that the results of the market approach in business valuation are considered in last turn as the most unreliable. The root of the problem here is based on the assumption of market ineffectiveness [Damodaran, 2002]. The problem of the measurement of the business cost and its analysis appears.

In developed countries value-based management is included in the system of Value Based Management - management aimed at the value creation, management and valuation.

At present top corporations it is not a question of the importance of management business value. VBM, is one of the most productive modern concepts of management, examines the increased value of the business as the main goal of the company [Copeland, Koller, Murrin, 2005].

As practice shows, the rising in the value for the owners is not contrary to the long-term interests of other interested sides. Successfully operating organizations create relatively more value for all related agents - consumers, employees, the state and capital provider and by many other reasons [Kozyr, 2004].

First, the business value is one of the best known measures of enterprise effectiveness. Secondly, the owners of the business are the only participants of the organization, who taking care about maximizing their welfare, contribute to greater prosperity for all others stakeholders. This thesis currently, is the most applicable, and is confirmed by the practice of Western companies, in contrast to the Russian practice, where different groups of owners often pursue different goals, which do not create, but reduce the cost. And, finally, companies operating inefficiently will face with the diversion of capital to the competitors.

The problem of correlation of price and value is often raised in a modern special literature [Damodaran, 2002]. Authors often identify the value and the price in the modern research, which is incorrect from the point of view of economic theory [Varfolomeev, 2011; Staryuk,2008]. To formulate the meaning of the value briefly, this is a category which reflects the measure of the usefulness of things, labor cost and relative rarity of things and the price is the actual monetary amount paid or expected to be paid in the course of the transaction. In the analysis of the business value, the value of market capitalization of the company, i.e. shares prices, formed on the stock market is often used.

THE MAIN PART

In this paper the author would like to analyze the relationship between value and price of the business, as well as the degree of influence on them of some financial indicators and, first, to build an econometric model of dependence in modern conditions; secondly, to define the relationship of price and value by correlating financial ratios traditionaly used in financial analysis of companies.

Research of the value and price have already been conducted on the Russian market according to the data for 2002-2003 The results of this study [Bukhvalov, 2012], as well as other—similar studies show the presence of a fairly strong correlation between the market price and the business value.

The author of this article set a task to analyze the closeness of ties between the price and the business value, formed using different indicators and calculation methods. Value calculation was carried out using Gordon's model [Copeland, Koller, Murrin, 2005], where the value of the cash flow was formed by different ways.

Such approach to the formation of indicators is due to a desire to understand assessment procedures conducted by the appraiser when calculating the market value of the business in an income capitalization approach are accurate. Appraiser, evaluating the business value uses the estimated cash flow. We used two types of cash flow for business valuation. These figures of the value were used to examine their correlation with the level of capitalization of the company. In addition, the results of book value of equity were used as well as for the analysis of the levels of capitalization.

The authors of the work carried out an analysis of indicators described according to the summary data of work 240 of Russian companies in 2011. Initial data for the analysis were taken from the system of comprehensive information disclosure NAUFOR about issuers (www.skrin.ru).

As it has already noted, the relationship between the level of capitalization of these companies and their value were examined in the analysis. Meanwhile, the indicator value was determined according to balance sheet and the income approach using cash flow, calculated in several ways:

1.   Operating cash flow, from cash flow statement;

2.   Total cash flow (CFFE) from cash flow statement.

3.   Book value from financial statement report in Russian accounting standards (RAS) and IFRS

We analyzed the quantitative and qualitative realtion of market price and business value. We have used the tools of statistical analysis in Excel (2011) and SPSS software package (2012-2016). In particular, it is financed from the calculation of the linear coefficient of pair correlation (Correlation) and ranking of rows to calculate the rank correlation coefficient ("Rank and percentile"). The regression analyze Regression was deployed for finding the coefficients of linear regression equation and check its adequacy in case of detection of a significant correlation between indexes.

The results of the verification of the existence of relationships between the indicators are presented in Table **1**. The table uses the following notations:

n - sample size (number of enterprises surveyed),

r - Pearson correlation coefficient,

ρ - Spearman correlation coefficient.

For the revealed cases of essential correlation communication between parameters the equations of linear regress have been constructed. In Table **2** the received factors of the equations and parameter r^2 the value of the coefficient of determination.

As follows from the results shown in Table **2**, concerning majority of the constructed equations with probability of 95 % it is possible to approve, that it is adequate and is capable with the specified reliability to predict experimental results.

Results of the analysis of communication between price and value received in the different ways, specifies that quantitative and qualitative relation between analyzed parameters is presented in most cases. In most cases there is an opportunity of construction regression dependences between analyzed parameters. Absence of quantitative dependence is observed between price and value received from the operating cash flow in 2011 and 2016, and between the price and the value received from the total cash flow in 2012-2016, the best results are found out between price and book value of equity according to IFRS in 2011 and the price and value received from the operating cash flow in 2013 and 2014. There is no quantitative dependence in all parameters in 2012.

The equations of regress specify the presence of direct linear dependence between analyzed parameters. The highest level of factor of determination at the equation describing influence of size of book value of own capital according to IFRS on a level of capitalization in 2011, impact of the value of operating cash flow on the level of capitalization in 2013-2015. Models can be used for forecasting size of a level of capitalization of the companies. It is interesting, that descriptive properties of similar one-factorial model in 2002-2003 (r^2=0,603 [8, p.176]), have practically coincided with properties of the model received by us in 2011 (r^2=0, 57).

Table 1:   Results of the Analysis of Statistical Communication of the Price and Value of Business with Financial Parameters

Financial value indicator	The quantitative analysis, r						The qualitative analysis, ρ						Conclusion
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	
Total cash flow	0,756 n=65	0,134 n=91	0,563 n=91	0,510 n=96	0,012 n=92	0,625 n=94	0,576 n=65	0,134 n=92	0,060 n=101	0,218 n=96	-0,190 n=93	0,568 n=94	Investigated the quantitative relationship with the probability of 0.99 is strong in 2011, 2013, 2014, and the weak in 2012, 2015, investigated the quality of the connection with a probability of 99.9% is significant in all periods except 2015
Operating cash flow	0,534 n=116	0,668 n=92	0,931 n=97	0,908 n=96	0,854 n=92	0,625 n=94	0,356 n=116	0,627 n=92	0,601 n=101	0,650 n=96	0,629 n=93	0,568 n=94	The quantitative relationship with the probability of 0.99 is strong in all analyzed periods, the qualitative relationship with the probability of 99.9% is significant
Book value according to RAS	0,749 n=121	0,645 n=92	0,786 n=100	0,778 n=99	0,727 n=95	0,681 n=94	0,877 n=121	0,645 n=91	0,847 n=101	0,905 n=96	0,872 n=95	0,882 n=94	The quantitative relationship with the probability of 0.99 is quite strong in all analyzed periods, the qualitative relationship with the probability of 99.9% is significant
Book value according IFRS	0,875 n=39	0,590 n=35	0,824 n=37	0,764 n=34	0,790 n=37	0,789 n=37	0,787 n=39	0,589 n=34	0,490 n=37	0,591 n=34	0,488 n=37	0,500 n=37	The quantitative relationship with the probability of 0.99 is strong in all analyzed periods, the qualitative relationship with the probability of 99.9% is significant

Table 2:   The Equations of Linear Regress for Size of Capitalization of the Organizations (y) in 2011-2016

Variable (x)	Kind of the equation[†]	r^2
2011		
Value on the total cash flow	7381801252,8 + 0,3x	0,57
Value on an operating cash flow	19463371198,5 + 0,49x	0,29
Book value according RAS	1743994286,3 + 1,22x	0,56
Book value according IFRS	-28889066782,1 + 1,01x	0,77
2012		
Value on the total cash flow	235730908922,7 + 0,56x	0,02
Value on an operating I cash flow	129462555158,1 + 0,51x	0,45
Book value according RAS	150915249082,91 + 0,51x	0,42
Book value according IFRS	390680429966,2 + 0,39x	0,35
2013		
Value on the total cash flow	134910925316,7 + 1,4x	0,32
Value on an operating cash flow	53714551247,2 + 0,4x	0,87
Book value according RAS	82344385073,7 + 0,45x	0,62
Book value according IFRS	179347195713,8 + 0,36x	0,68
2014		
Value on the total cash flow	51101586291,3 + 0,36x	0,36
Value on an operating cash flow	51101586291,3 + 0,36x	0,82
Book value according RAS	81446252688,09 + 0,38x	0,61
Book value according IFRS	218507696700,89 + 0,31x	0,58
2015		
Value on the total cash flow	194713364155,07 + 0,02x	0,000142
Value on an operational cash flow	82008946546,91 + 0,37x	0,73
Book value according RAS	111340366262,95 + 0,4x	0,53
Book value according IFRS	231606345848,91 + 0,33x	0,63
2016		
Value on the total cash flow	-33394000801,45+ 0,25x	0,36
Value on an operational cash flow	139912015291,28 +0,4x	0,39
Book value according RAS	139271760726,04 +0,42x	0,46
Book value according IFRS	254911549837,77 + 0,4x	0,62

[†]All calculations were made in Russian rubles.

The results show that r^2 of capitalization is higher to book value, than r^2 of value determined by cash flows in 2011 and 2016. This circumstance confirms typical difference of results of income capitalization and comparative approaches in an estimation of business` value.

However, level of capitalization and business value calculated by operational and equity cash flows in researched periods relates as 40%-50%, that shows underestimation of Russian companies from 2011 to 2016.

After carrying out of the analysis of interrelation of the price and value the authors lead the analysis of influence of some financial parameters on value and the price of business (see the results presented in Tables **3-6**). The number of such financial parameters includes: Current liquidity ratio working capital in current liabilities, Equity in total assets ratio, D/E, Assets turnover, Equity turnover, Return of Assets, Return of equity, Return of sales. These coefficients are included in the vast majority of financial analysis methods.

Ref. RTSI index 2011-2016.

CONCLUSION

As a result of the analysis of the effect of financial ratios on the value obtained by different methods and companies capitalization, we indicate the lack of quantitative dependence. Rare ratios and of separate indicators have quality relation to business value and capitalization.

Among such relationships can be attributed for most of the periods analyzed:

- connection between value of business, received on the total cash flow and the quick ratio, the return on sales in certain periods (Table **3**);

- connection between value of business, received on the operational actual cash flow and the factor of autonomy, return of assets, the profitability of sales in certain periods (Table **4**);

- the obvious relation which has found acknowledgement between book value of own capital according to RAS and factor of autonomy (in numerator of autonomy coefficient we use equity book value, according to RAS, that is the second analyzed parameter), the profitability of actives, the profitability of sales in certain periods (Table **5**);

- connection between level of capitalization and the profitability of sales, factor of autonomy (Table **6**).

Influences of parameters on book value of equity according to IFRS has not been revealed.

Table 3:   The Analysis of Influence of Financial Factors on the Value of Business Received on the General Monetary Stream, According to the End of 2011-2016†

Financial factor	The quantitative analysis, r						The qualitative analysis, ρ						Conclusion
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	
Current liquidity ratio	-0,030	0,147	0,065	-0,012	0,000	0,067	0,154	-0,48	0,127	-0,052	0,148	0,117	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2016, the hypothesis of the presence of a qualitative relationship at the level of significance of 90%
Working capital in current liabilities	-0,018	0,066	0,075	0,026	0,025	0,052	0,330	-0,075	0,105	-0,213	0,136	0,091	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2011, the hypothesis of the presence of a qualitative relationship at the level of 90% is not confirmed in all other periods
Equity in total assets ratio	0,028	0,108	0,131	0,092	-0,129	0,142	0,422	-0,009	0,209	-0,095	-0,121	0,013	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2011, and with the probability of 99% in 2013, the hypothesis of the presence of a qualitative relationship at the level of 90% is not confirmed in all other periods
D/E	-0,023	-0,070	-0,068	-0,082	0,067	-0,091	0,123	0,019	-0,243	0,149	0,102	-0,189	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2013, the probability of 95% is significant in 2016, the hypothesis of the presence of qualitative communication at the level of 90% is not confirmed in all other periods
Assets turnover	-0,091	0,009	-0,049	-0,073	-0,003	-0,115	0,228	-0,157	-0,154	0,072	0,016	-0,066	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2016, the hypothesis of the presence of a qualitative relationship at the level of significance of 90%
Equity turnover	-0,037	-0,011	-0,042	-0,077	0,030	-0,087	0,208	-0,041	-0,251	0,132	-0,024	-0,045	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2013, with a probability of 95% is significant in 2016, the hypothesis of the presence of qualitative communication at the level of 90%

(Table 3). Continued.

Factor	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	Conclusion
Return of Assets	-0,005	0,018	0,035	-0,023	0,014	0,024	0,372	-0,080	0,132	0,045	-0,054	-0,047	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2011, the hypothesis of the presence of a qualitative relationship at the level of 90% is not confirmed in all other periods
Return of equity	-0,005	0,000	-0,033	-0,064	0,024	0,001	0,274	-0,10	0,025	0,088	-0,043	-0,046	The quantitative relationship is weak or absent, the qualitative relationship with the probability of 99% is significant in 2016, the hypothesis of the presence of a qualitative relationship at the level of significance of 90%
Return of sales	0,020	0,042	0,078	0,246	0,042	0,274	0,410	0,004	0,238	0,146	-0,003	0,033	The quantitative relationship with the probability of 99% is not significant, the qualitative relationship with the probability of 95% is significant in 2011, and with the probability of 99% in 2013, 2016, the hypothesis of the presence of a qualitative connection at the level of significance of 90% is not confirmed in all other periods

†Number of observations by year: n = 238 (2011), n = 95(2012), n = 114 (2013), n = 109 (2014), n = 112 (2015), n = 116 (2016).

Table 4: The Analysis of Influence of Financial Factors on the Value of Business Received on the Operating Actual Cash Flow, According to the End of 2011-2016†

Financial factor	The quantitative analysis, r						The qualitative analysis, ρ						Conclusion
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	
Current liquidity ratio	-0,016	0,112	0,004	-0,021	-0,007	0,067	0,297	0,067	0,135	0,218	0,158	0,200	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2014, 2016, the hypothesis of the presence of a qualitative relationship at the level of 90% is not confirmed in all other periods
Working capital in current liabilities	0,019	-0,005	-0,023	-0,069	-0,038	0,052	0,051	-0,273	-0,303	-0,364	-0,411	-0,169	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2012, 2013, 2014, 2015 the hypothesis of the presence of qualitative connection at the level of significance of 90% is not confirmed in all other periods

(Table 4). Continued.

Equity in total assets ratio	0,205	0,145	0,059	0,025	-0,025	0,142	0,283	0,407	0,260	0,184	0,126	0,256	Investigated the quantitative relationship is weak, investigated the qualitative relationship with the probability of 99% is significant in 2012, 2013, 2016 , the hypothesis that there is a quality of communication at the significance level of 90% is not confirmed in all other periods
D/E	-0,034	-0,117	-0,049	0,002	0,033	-0,091	-0,191	-0,363	-0,190	-0,038	0,010	-0,189	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2012, with a probability of 95% is significant in 2016, the hypothesis of the presence of qualitative communication at the level of 90% is not confirmed in all other periods
Assets turnover	-0,079	-0,115	-0,101	-0,120	-0,117	-0,115	0,070	-0,230	-0,216	-0,198	-0,084	-0,209	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2012, 2013, with a probability of 95% is significant in 2014, 2016
Equity turnover	-0,054	-0,080	-0,075	-0,042	-0,021	-0,087	-0,026	-0,179	-0,161	0,000	0,162	0,229	The quantitative relationship is weak, the qualitative relationship with the probability of 95% is significant in 2016, the hypothesis of the presence of qualitative communication at the level of 90% is not confirmed in all other periods
Return of Assets	0,185	0,055	0,044	-0,027	-0,023	0,024	0,460	0,336	0,440	0,203	0,321	0,424	The quantitative relationship is weak, the qualitative relationship with the probability of 99% is significant in 2011, 2012, 2013, 2015, 2016, with the probability of 95% is significant in 2014
Return of equity	0,050	0,055	0,052	0,037	0,034	0,001	0,287	0,118	0,285	0,100	0,248	0,234	The quantitative relationship is weak, investigated the qualitative relationship with the probability of 99% is significant in 2013, 2015, 2016, the hypothesis that there is a quality of communication at the significance level of 90% is not confirmed in all other periods
Return of sales	0,018	0,156	0,110	0,165	0,124	0,274	0,472	0,477	0,432	0,494	0,442	0,546	The investigated quantitative relationship is weak, the investigated qualitative relationship with probability of 99% is significant in 2011, 2012, 2013, 2014, 2015, 2016.

†Number of observations by year: n = 238 (2011), n = 95(2012), n = 114 (2013), n = 109 (2014), n = 112 (2015), n = 116 (2016)

Table 5: The Analysis of Influence of Financial Factors on Book Value of Business According to RAS to the End of 2011-2016[†]

Financial factor	The quantitative analysis, r						The qualitative analysis, p						Conclusion
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	
Current liquidity ratio	-0,017	0,070	0,040	-0,004	0,007	0,052	0,172	0,201	0,304	0,292	0,363	0,211	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2013, 2014, with a 95% probability is significant in 2016, the hypothesis of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Working capital in current liabilities	0,019	0,047	0,036	0,005	0,026	0,018	0,042	-0,158	-0,208	-0,280	-0,192	-0,210	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2013, 2014, with a 95% probability is significant in 2016, the hypothesis of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Equity in total assets ratio	0,225	0,173	0,120	0,103	0,110	0,117	0,553	0,501	0,376	0,345	0,367	0,380	The quantitative relationship is weak, the investigated qualitative relationship with a 95% probability is significant in 2012 and with a probability of 99% in 2012, 2013, 2014, 2016, the hypothesis of a qualitative connection at a significance level of 90% is not confirmed in all other periods
D/E	-0,032	-0,105	-0,038	-0,027	-0,049	-0,074	-0,396	-0,456	-0,231	-0,169	-0,200	-0,292	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2016, and with a probability of 95% in 2013, the hypothesis of a qualitative link at a significance level of 90% is not confirmed in all other periods
Assets turnover	-0,123	-0,105	-0,094	-0,097	-0,098	-0,098	-0,167	-0,517	-0,410	-0,426	-0,422	-0,393	The quantitative relationship is weak, the investigated qualitative relationship with a probability of 99% is significant in 2012, 2013, 2014, 2015, 2016, the hypothesis of the existence of a qualitative connection at the significance level of 90% is not confirmed in all other periods

(Table 5). Continued.

Equity turnover	-0,057	-0,059	-0,068	-0,072	-0,051	-0,074	-0,254	-0,411	-0,279	-0,154	-0,051	-0,346	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2013, 2015, 2016., the hypothesis of the presence of a qualitative connection at the significance level of 90% is not confirmed in all other periods
Return of Assets	0,024	0,031	0,036	-0,046	-0,044	-0,012	0,163	0,331	0,377	0,313	0,185	0,409	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2013, 2014, 2015, 2016, the hypothesis of the existence of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Return of equity	-0,013	-0,018	-0,007	-0,062	0,003	-0,050	-0,116	0,129	0,206	0,088	0,150	0,268	The quantitative relationship is weak, the investigated qualitative relationship is significant with a probability of 95% in 2013, 2015 with a probability of 99% is significant in 2016, the hypothesis of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Return of sales	0,022	0,118	0,114	0,092	0,066	0,033	0,333	0,559	0,429	0,545	0,494	0,430	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2013, 2014, 2015, 2016, the hypothesis of the existence of a qualitative connection at a significance level of 90% is not confirmed in all other periods

Number of observations by year: n = 239 (2011), n = 98(2012), n = 114 (2013), n = 114 (2014), n = 114 (2015), n = 125 (2016).

Table 6:   The Analysis of Influence of Financial Factors on a Level of Capitalization of Business According to the End of 2011-2016[†]

Financial factor	The quantitative analysis, r						The qualitative analysis, ρ						Conclusion
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016	
Current liquidity ratio	-0,014	-0,036	0,008	-0,004	0,149	0,020	0,285	0,296	0,358	0,279	0,330	0,205	The quantitative relationship is weak, the investigated qualitative relationship with a probability of 99% is significant in 2012, 2013, 2015, 2014, the hypothesis of the existence of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Working capital in current liabilities	0,033	0,051	-0,072	-0,127	-0,055	-0,086	0,163	-0,013	-0,100	-0,250	-0,152	-0,191	The quantitative relationship is weak, the investigated qualitative relationship with a probability of 95% is significant in 2014, the hypothesis of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Equity in total assets ratio	0,091	0,134	0,049	0,022	0,006	0,000	0,405	0,416	0,315	0,298	0,238	0,283	The quantitative relationship is weak, the qualitative bond under study with a probability of 99% is significant in 2011, 2012, 2013, 2014, 2016, with a probability of 99% is significant in 2015.
D/E	-0,046	-0,147	-0,038	-0,034	-0,001	-0,029	0,119	-0,389	-0,163	-0,098	-0,152	-0,235	The quantitative relationship is weak, the investigated qualitative relationship with the probability of 99% is significant in 2012, the probability of 95% is significant in 2016, the hypothesis of the existence of a qualitative connection at a significance level of 90% is not confirmed in all other periods
Assets turnover	-0,102	-0,196	-0,149	-0,174	-0,188	-0,182	0,183	-0,589	-0,447	-0,480	-0,496	-0,431	The quantitative relationship is weak, the investigated qualitative relationship with a probability of 99% is significant in 2012, 2013, 2014, 2016., the hypothesis of the presence of a qualitative connection at the significance level of 90% is not confirmed in all other periods

(Table 6), Continued.

Equity turnover	-0,076	-0,10	-0,053	-0,047	-0,133	0,154	-0,484	-0,301	-0,075	-0,029	-0,337	The quantitative relationship is weak, the qualitative connection being investigated with a probability of 99% is significant in 2012, 2013, 2016., the hypothesis of the presence of a qualitative connection at the significance level of 90% is not confirmed in all other periods
Return of Assets	0,008	0,194	0,023	0,004	0,050	0,201	0,419	0,423	0,405	0,286	0,476	The quantitative relationship is weak, the investigated qualitative relationship with a probability of 99% is significant in 2012, 2013, 2014, 2015, 2016., the hypothesis of the presence of a qualitative connection at the significance level of 90% is not confirmed in all other periods
Return of equity	-0,033	0,202	0,067	0,121	0,059	0,152	0,275	0,357	0,260	0,281	0,340	The investigated quantitative relationship with a probability of 95% is not significant, the investigated qualitative relationship with a probability of 99% is significant in 2012, 2013, 2014, 2015, 2016., the hypothesis of the presence of a qualitative connection at the significance level of 90% is not confirmed in all other periods
Return of sales	0,015	0,225	0,319	0,237	0,177	0,308	0,592	0,429	0,588	0,531	0,406	The investigated quantitative link with a probability of 95% (99% in 2014) is not significant, the investigated qualitative relationship with a probability of 99% is significant in 2011, 2012, 2013, 2014, 2015, 2016.

†Number of observations per year: n = 189 (2011), n = 91 (2012), n = 101 (2013), n = 98 (2014), n = 95 (2015), n = 95 (2016 year).

It is necessary to pay attention to one interesting feature: an inverse connection between indicators (price, market and book value), turnover`s indicators and indicators that characterize the financial stability of the company (except for factor of autonomy).

The conclusion is that net profit is the least significant indicator of profit within the framework of the value-oriented approach to decision-making.

INFERENCE

These results indicate that the traditional financial ratios in terms of the analysis of turnover and financial stability are not significant indicators of the value and price of business. At the same time, significant qualitative relationships are observed with indicators of profitability and capital structure (the factor of autonomy). This circumstance testifies to the need to develop a system of indicators that would take into account this feature and was more representative from the point of view of the value-oriented approach to making managerial decisions in the company.

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