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Analysis of Financial Standing in Joint-Stock Companies of Telecommunications Sector

Main focus of this work is to present the results of empirical investigations of financial standing in joint-stock companies from telecommunications sector. The analysis was carried out on the basis of the following ratios: liquidity, return and debt ratio. The second part of the investigations encompassed empirical analysis based on relationships between price and book value.

Представлены результаты эмпирических исследований финансового положения в совместных акционерных компаниях сектора телекоммуникаций. Проанализированы коэффициент ликвидности, коэффициент окупаемости капиталовложений и коэффициент задолженности. Проведен также эмпирический анализ на основе отношений между ценой и балансовой стоимостью активов.

K e y   w o r d s: financial analysis, option of increase in value.

The essence and tools for financial analysis in companies. Conventional evaluation of company's operation consists in measurement of the investment, operational and financial decisions. Depending on the selection of research tools, analysts evaluate not only current situation in a particular entity but they can also conclude its future results. H. Buk argues that both planning and managerial control are not possible without acquisition of proper information and development of properly formed information system [1].

The most accessible sources of information necessary to perform analysis include financial reports encompassing e.g. information about book value of the property, book pricing of sources of financing, achieved revenues and incurred costs, cash flow during operational, investment and financial activities. Thus financial reports comprise fundamental source of information on economic achievements in companies.

D. Wędzki argues that financial reports are necessary to evaluate financial situation in the company, however, it is insufficient for presentation of its full view [2]. The author cites in his work the following reasons that prove this situation:

different needs of information recipients contained in financial report;

complex and dynamic reality of economy;

conventional and generalized nature of the report;

business transactions given in the form of balanced values.

E. Mączycska states that «…the view of company's result created by the accounting is often real from the standpoint of current accounting principles, however, it remains in close relationship with economic reality and, in this sense, it is far from actual economic truth» [3]. The reasons for this situation can be found in e.g. complexity and intricacy of the balance law.

One can also find, in the subject-related references, the reasons for which financial reports are numbered among the most important and optimal sources of information about financial standing of the entity [2, 4]. A financial report contains aggregated economic values being a result of the business activities performed in the entity. Expressing these values in cash values leads to opportunities to compare them to various entities. The financial report facilitates communication between companies, thus it is often referred to as a «business language».

In consideration of the abovementioned arguments it is necessary, in order to evaluate financial standing of a company, to use proper tools being a particular relation of financial values. Fundamental tools include a financial ratio. Ratios typical of financial reports can be divided using a variety of criteria [5]. However, there is a consistent opinion in the subject literature on the methods and nomenclature of main groups of ratios. Consequently, the following types can be highlighted [2, 6]: financial liquidity; debt; management efficiency; return ratios.

Synthetic approach allows for showing that evaluation of financial liquidity in companies determines its ability to cover current liabilities. This analysis can be conducted with static approach (analysis based on the data contained within the balance sheet) or with dynamic approach (analysis based on the data contained in cash flow statement). Evaluation of financial liquidity is completed with analysis of debt in the company which allows for determination of long-term solvency and determining the structure of finance in the entity. A financial strategy of the enterprise is mainly based on the choice of financing the appropriate option of activity of a given unit taking into consideration such elements as: chances and threats appearing on the market, the appropriate assessment of weak and strong sides of activity as well as the assessment of effects of stakeholders decision of the given unit [7].

Ratios of efficiency allow for measurements of efficiency of the use of company's resources. On the other hand, the return ratios point to profitability of the performed tasks and define advantages of the business activity.

E. A. Helfert emphasizes that the abovementioned groups of ratios used for financial analyses, based on the data from the same source, are connected with

different dependencies and thus they form a coherent system [8]. The example of system analysis of company's operation is the Dupont pyramid. This analysis consists in decomposition of the determined economic index. Therefore it becomes a test where a particular relationship is divided into parts in order to find cause and effect dependencies between partial indexes of these structure [9]. This creates conditions conducive not only for evaluation, but also for stimulation of particular economic events. This method allows for determination and identification of the areas of company's operation where operations which pose threat to good financial condition of the company occur.

Advanced ratio analysis is not only time-consuming but it can also obscure the analysis of financial standing. Therefore it seems purposeful to use simplified methods to evaluate financial standing in companies [10]. One of the most simplified methods for evaluation of financial standing is 'Quicktest' method, being a fast method whose result, in most of the cases, is consistent with the results of detailed analysis based on many financial ratios [11].

Models for early warning in economic activity is an essential tool used in financial analysis. E. Mączycska argues that the need to use early warning tools is justified by the regularity, according to which companies show symptoms of critical situation much earlier than the threat of bankruptcy. Early identification of the signs of impending crisis is therefore one of the most fundamental challenges in business management [3]. Preventing of bankruptcies of companies requires the earlier diagnosis of the crisis situation in the company [12].

An analysis of financial standing is inseparably connected with evaluation of opportunities to generate ownership value. In consideration of wide spectra of economic tools for measurement of company's operation results, growing popularity of the measures for evaluation of financial efficiency from value-based management domain should be emphasized; they reflect the effects of generating the value added [1]. Considerations of value-based management in the subject references focus on different methods of the value measurement. There are many measures which are employed for measurement of the values which function next to each other, often emphasizing different aspects. These measures include e. g.:

ratios based on market-related or accounting data: return on investment, earnings per share, return on equity (ROE), total shareholders return;

deterministic and stochastic models of determinants of increase in value;

measures that reflect expectations of the investors relating to the cost of capital: economic value added, shareholder value added, cash value added, market value added, cash flow return on investment and value creation index.

The subject literature also emphasizes definition of the option of increase in value as a relation of market value to book value of an enterprise [13]. This deter-

mines the degree of capital growth in a particular entity in relation to the value of capital presented according to the accepted accounting principles. Option of increase in capital shows the shareholders' opportunities to achieve measurable financial benefits connected with increase in value of the invested capital. The financial analysis in the company should lead to evaluation of its financial standing and then to drawing conclusions as well as implementation of possible preventive measures in the areas which require such actions to be taken.

Empirical evaluation of financial standing in stock companies from telecommunications sector. Empirical analysis was carried out for the companies quoted on Warsaw Stock Exchange which belong to telecommunication sector, i.e.: Polish Telecommunications, Netia, Mediatel, Multimedia Poland, MNI, Hawe, Hyperion. In order to perform the analysis, the yearly and half-yearly financial reports prepared for 2007-2009 were employed.

The empirical investigations aim to verify hypothesis according to which financial standing in the investigated entities has deteriorated during last two periods, i.e. the time of companies' operation under conditions of world financial crisis. The analysis concerned financial liquidity, debt and return ratios in the entities. The second part of the investigations encompassed determination of the market value in the investigated entities and their book value. The table below presents values of liquidity ratios in joint-stock companies from the sector of telecommunications (Table 1).

An analysis of financial liquidity ratios allows for conclusion that five entities within the whole investigated period showed current ratio which exceeded unity (except for Mediatel in VI 2009). This causes that the value of current assets in these companies was higher than the value of short-term liabilities. These companies had opportunities to repay short-term borrowed capital from the components of current assets without changing fixed assets. An analysis of tendencies in changes of the value of this ratio does not allow for determination of a uniform trend which characterizes all the investigated entities. The lowest value of current ratio at the end of 2007 or in the first half of 2008 was observed for four companies. Netia S.A. showed the lowest current liquidity in XII 2008, however, in VI 2009, this was observed for Mediatel and Multimedia Polska.

Further analysis of financial liquidity in the investigated companies reveals that lack of financial liquidity throughout the analyzed period was typical of Polish Telecommunications. Value of current liabilities in this entity exceeded the value of current assets. This means that the company showed negative level of current assets. Repayment of current liabilities could occur only in the case of use of fixed assets. The highest financial liquidity was observed for MNI. This company was characterized by financial overliquidity, i.e. excessive value of current assets as compared to short-term borrowed capital. This situation might prove inefficient management of the property.

Value of quick ratio is, in most cases, concurrent with the value of current ratio. This proves lack of inventory in the property of the investigated entities. Moreover, the difference between quick ratio and cash ratio is essential in most of the companies (except for Hawe). Therefore it can be concluded that the most significant component of working capital in telecom sector is short-term liabilities.

Further evaluation concerned debt in telecommunication sector companies (Table 2). In most of the investigated entities (Netia, Multimedia Polska, MNI, Hawe, Hyperion) the property was financed mainly from the equity. The debt ratio did not exceed 0.5 in these companies. Outside sources of finance prevail in financing of the assets in Telecommunications and Mediatel. However, value of

Table 1. **Liquidity ratios in telecommunications companies (relative values)**

Joint-stock company	Liquidity ratio	Investigation period			
		XII 2007	VI 2008	XII 2008	VI 2009
Telekomunikacja Polska	Current	0.29	0.27	0.29	0.64
	Quick	0.28	0.26	0.29	0.64
	Cash	0.09	0.09	0.15	0.47
Netia	Current	2.07	1.62	1.30	1.47
	Quick	2.06	1.61	1.29	1.46
	Cash	0.28	0.47	0.45	0.57
Mediatel	Current	1.53	2.18	1.66	0.92
	Quick	1.53	2.18	1.66	0.92
	Cash	0.07	0.01	0.11	0.04
Multimedia Polska	Current	1.21	0.76	0.38	0.22
	Quick	1.19	0.75	0.36	0.22
	Cash	0.82	0.48	0.11	0.01
MNI	Current	2.25	1.89	3.99	2.55
	Quick	2.25	1.89	3.98	2.54
	Cash	0.15	0.04	0.64	0.02
Hawe	Current	1.03	152.43	36.19	5.72
	Quick	1.03	152.43	36.19	5.72
	Cash	1.01	151.76	35.44	4.74
Hyperion	Current	1.07	1.13	1.09	1.24
	Quick	1.07	1.13	1.09	1.24
	Cash	0.41	0.12	0.32	0.13

Source: own study on the basis of [14].

debt ratio rose insignificantly in TP S.A. to the level of 55% and for the other companies this value dropped from 74% in XII 2007 to 64% in VI 2009.

Both debt-equity ratio, being a reference of outside sources of finance to own ones and equity multiplier which reflects relationship of assets to the equity confirm low level of debt in the investigated companies. Interpretation of the last measure leads to the conclusion that, in most of the cases, one unit of equity falls by one or two units of assets. The value of equity multiplier much higher than 2 occurred only in Telecommunications and Mediatel.

Evaluation of return on the operation was carried out on the basis of the following ratios: return on sales (ROS), return on equity, return on assets (ROA).

Table 2. **Debt ratios in telecommunication sector companies (relative values)**

Joint-stock companies	Debt ratio	Investigated period			
		XII 2007	VI 2008	XII 2008	VI 2009
Telekomunikacja Polska	In total	0.47	0.50	0.52	0.55
	Equity	0.89	1.00	1.08	1.26
	Equity multiplier	1.89	2.00	2.08	2.26
Netia	In total	0.14	0.01	0.23	0.24
	Equity	0.16	0.01	0.31	0.32
	Equity multiplier	1.16	1.12	1.31	1.32
Mediatel	In total	0.74	0.76	0.60	0.64
	Equity	2.91	3.17	1.54	1.80
	Equity multiplier	3.91	4.17	2.54	2.80
Multimedia Polska	In total	0.52	0.50	0.49	0.47
	Equity	1.11	1.02	0.98	0.90
	Equity multiplier	2.11	2.02	1.98	1.90
MNI	In total	0.32	0.28	0.03	0.34
	Equity	0.48	0.40	0.05	0.52
	Equity multiplier	1.48	1.40	1.53	1.52
Hawe	In total	0.10	0.01	0.01	0.01
	Equity	0.10	0.01	0.01	0.01
	Equity multiplier	1.10	1.01	1.01	1.01
Hyperion	In total	0.22	0.23	0.26	0.31
	Equity	0.29	0.30	0.36	0.46
	Equity multiplier	1.29	1.30	1.36	1.46

Source: own study on the basis of [14].

Net financial result presented in profit and loss account was assumed for each ratio as an effect of the operation (Table 3).

The investigated entities were both characterized by return ratio (net financial result was positive) as well as by deficiency of operation (net financial result was negative). Net profit in the investigated period was observed for: Telekomunikacja Polska, Multimedia Polska, Hyperion. Mediatel and MNI generated financial loss in XII 2007 and VI 2009 with VI 2008 and VI 2008, respectively, while for Netia the whole period was characterized by deficit.

Highest return was observed for Telekomunikacja Polska, which concerned VI 2009 in particular. Net profit accounted for this company to 67.89% of each

Table 3. **Return ratios in telecommunication sector (%)**

Joint-stock companies	Debt ratio	Investigated period			
		XII 2007	VI 2008	XII 2008	VI 2009
Telekomunikacja Polska	ROS	8.15	11.70	5.24	67.89
	ROA	3.01	2.19	1.99	10.41
	ROE	5.71	4.39	4.16	23.60
Netia	ROS	−10.89	−14.63	−18.21	−3.93
	ROA	−3.75	−3.09	−7.44	−1.23
	ROE	−4.38	−3.46	−9.78	−1,63
Mediatel	ROS	−8.71	0.01	5.62	−8.01
	ROA	−20.58	0.00	7.12	−3.07
	ROE	−80.53	0.02	18.12	−8.60
Multimedia Polska	ROS	9.54	23.08	15.75	9.19
	ROA	3.24	4.79	6.77	2.14
	ROE	6.84	9.69	13.41	4.07
MNI	ROS	17.58	−0.10	29.73	−598.25
	ROA	3.99	−0.01	1.88	−1.74
	ROE	5.94	−0.01	2.89	−2.66
Hawe	ROS				
	ROA	−0.69	−0.09	0.28	0.12
	ROE	−0.76	−0.09	0.28	0.13
Hyperion	ROS	18.28	27.07	16.92	7.64
	ROA	3.47	2.33	2.78	0.58
	ROE	4.50	3.04	3.80	0.85

Source: own study on the basis of [14].

	Telekomunik acja Polska	Netia	Mediatel	Multimedia Polska	MNI	Hawe	Hyperion
■ XII 2007	1.84	0.81	3.19	2.9	2.08	0.13	1.27
■ VII 2008	1.53	0.7	13.59	1.93	1.23	2.47	1.36
■ XII 2008	1.5	0.48	2.02	1.89	0.97	0.65	0.54
■ VI 2009	1.17	0.72	1.95	1.95	1.26	0.89	1.06
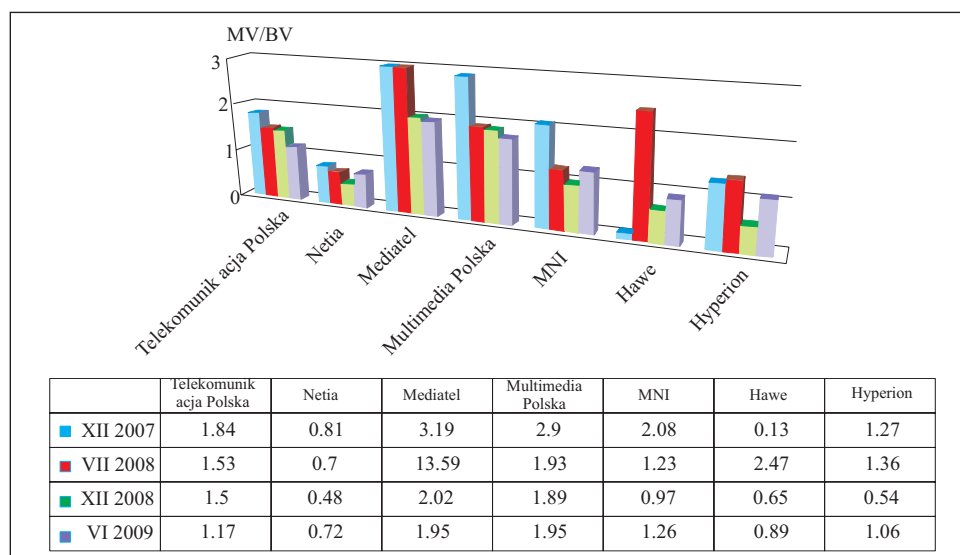
Fig. 1. Increase of option ratio in companies from telecommunication sector
Source: own study on the basis of [15]

monetary unit reached as a result of return on sales in the first half of 2009. Each PLN involved in TP S. A. assets brought 10 groszy of net profit while each PLN of the equity corresponded to 60 groszy of net profit. Other entities which belong to the sector of telecommunications were not in such advantageous situation in terms of return. Even in the entities characterized by positive financial result in the investigated period, return on operation did not exceed 10% in VI 2009 in terms of return on turnover and 5% in terms of return on capital.

It can be also observed that profitability in the sector during the investigated period was not characterized by a uniform tendency. Moreover, financial profitability in the investigated entities at the end of 2008, thus during operation of companies under conditions of world financial crisis was not essentially worse than profitability generated during previous periods.

Next part of the investigations concerned determination of the option of increase in value through comparison of market value (MV) of the investigated entities and their book value (BV) (see Fig. 1).

An analysis of the abovementioned data allows for conclusion that the measure of increase option is higher than unity, thus indicating the exceeded MV and BV in the companies quoted at Warsaw Stock Exchange. Throughout the analyzed period, this situation occurred for three entities (Telekomunikacja Polska, Mediatel and Multimedia Polska). However, the lowest market capitalization, as compared to balance-related value of enterprises was observed at the end of

2008. Except for three of the abovementioned entities, the value increase option ratio was lower than unity. However, the data from the end of the first half of 2009 should be also assessed positively; the value of two companies was lower that the book value.

Conclusions. Recognition of the existing financial standing in the companies brings a necessity to calculate particular economic relationships and then to determine the factors typical of these changes. Knowledge of economic relationships is undoubtedly useful both for the purposes of management and for its stakeholders. Financial data are used by capital owners, investors, suppliers, consumers, competitors, governmental organizations and employees [5]. The reasons for changes are the basis for the proper conclusions and decision-making relating to future periods.

An analysis of financial standing in joint-stock companies in telecommunication sector allows for conclusion that the research hypothesis was not confirmed. The calculated liquidity, debt and return ratios do not point to considerable deterioration in value in the second part of the investigated period and thus during operation under conditions of the world financial crisis. Most of the investigated companies maintained financial liquidity, i.e. it showed ability to repay current liabilities. Moreover, it is remarkable that the investigated entities financed their property from their own sources. Only the return on operation in the second part of the investigated period was insignificantly worse as compared to the end of 2007 and the first half of 2008.

Only market capitalization of the most of companies of telecommunications sector was distinctly lower than at the end of 2008 as compared to BV of the analyzed entities. Therefore it can be concluded that MV in these companies, measured by the evaluation in stock-exchange market, depended on other factors than current financial standing. Taking this thesis into consideration is particularly essential due to the fact that value-based management is one of the most important issues of contemporary management sciences, widely discussed both in the subject literature and in business practice. Efficient management of MV should lead to maximization of measurable effects, whose recipients are stakeholders. Therefore, MV-based management obliges to employ solutions which allow for optimization of decisions, coordination of actions both in operational, investment and financial domains.

Наведено результати емпіричних досліджень фінансового стану в сумісних акціонерних компаніях сектора телекомунікацій. Проаналізовано коефіцієнти ліквідності та капіталовкладень, а також коефіцієнт заборгованості. Виконано емпіричний аналіз на основі співвідношення ціни та балансової вартості активів.

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Submitted on 12.10.09