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Multiple linear regression of stock quotes of the Lithuanian enterprises

Abstract. The authors attempt to assess the extent to which stocks of Lithuanian companies quoted on the NASDAQ Vilnius Stock Exchange are impacted by financial results of the corresponding companies. It has been determined that the stock prices of the companies listed on NASDAQ Vilnius Stock Exchange is closely related to the companies' financial results. The research pertains to the period between 2006 and 2018. This paper researches both the Lithuanian securities market and four related companies which meet the research criteria quoted on NASDAQ Vilnius Stock Exchange. The subject of the research is a set of the companies' fundamental indicators and their correlation with share prices.

Summarizing all information and data acquired from financial reports of the selected companies, the authors conclude that all the companies' financial indicators declined due to the 2008 financial crisis. Starting from the year 2011, all companies and their financial results have demonstrated improvement.

The fundamental analysis pays more attention to the companies' financial performance and financial standing. We use several financial indicators that will be applied to determine the dependence of share prices with the help of the multiple linear regression method (except the company's profile).

Based on the impact of different factors on the chosen companies quoted on NASDAQ Vilnius Stock Exchange, the authors conclude that there is no universal indicator that equally affects the share prices of all the four companies. The factors impacting each of the four companies vary. When considering different factors that impact the companies' shares on NASDAQ Vilnius Stock Exchange, we observe certain regularity. The dividend policy has an impact on the share prices of two out of the four companies, namely Vilkyskiu Pienine and Klaipedos Nafta. As regards the shares of Pieno Zvaigzdes, there are two indicators affecting the share prices, which are the debt-to-equity ratio and the debt-to-EBITDA ratio. The share prices of Kauno Energija were not affected by any of the 10 chosen indicators.

Many companies in the NASDAQ Vilnius Stock Exchange have mainly short-term interests, for example the desire to attract the required capital instead of sustaining long-term investment policies to maintain stable growth of the company. It is advised that companies opt for long-term investment policies with the goal to become high dividend-paying companies, therefore raising investors' confidence and increasing demand for their shares.

Keywords: Companies' Financial Results; Lithuanian Stock Market; NASDAQ Vilnius Stock Exchange; Multiple Linear Regression Analysis

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Множинна лінійна регресія котирувань акцій литовських підприємств

Анотація. Автори статті дають оцінку тому, наскільки впливають фінансові результати литовських підприємств на котирування їх акцій на Вільнюській фондовій біржі. Динаміка акцій компаній, які котируються в списку на Вільнюській фондовій біржі, залежать від їх фінансових результатів. Дослідження охоплює період 2006–2018 років. Об'єктом дослідження є компанії литовського ринку цінних паперів, які котирують свої акції на Вільнюській фондовій біржі. Предмет дослідження – набір фінансових показників компаній і їх вплив на ціни акцій із застосуванням аналізу множинної лінійної регресії.

У результаті дослідження впливу різних чинників на котирування акцій автори статті не знайшли універсального фінансового показника, який однаково впливає на ціни акцій усіх чотирьох досліджуваних компаній, що котирують свої акції на Вільнюській фондовій біржі. Вплив кожного чинника на ціни акцій кожної компанії відрізняється. Разом із тим дослідження показало, що з огляду на вплив кожного чинника на ціни компаній, які котирують свої акції на Вільнюській фондовій біржі, можна відмітити деяку закономірність. Так, дивідендна політика вплинула на ціни акцій двох із чотирьох досліджуваних компаній, а саме «Vilkyskiu Pienine» та «Klaipedos Nafta». На ціни акцій «Pieno Zvaigzdes» вплинуло два інших показника, а саме: співвідношення між власними коштами та зобов'язаннями компанії, а також співвідношення боргу до EBITDA. На ціни акцій «Kauno Energija» істотно не вплинув жоден з десяти використовуваних фінансових показників. Більшість компаній, що котирують свої акції на Вільнюській фондовій біржі, мають переважно короткострокові інтереси стосовно залучення додаткового капіталу, а не проведення стабільної інвестиційної політики для забезпечення стійкого зростання компанії. Тому важливо, щоб компанії віддавали перевагу вибору тривалої інвестиційної політики, яка б ґрунтувалася на продуманій дивідендній політиці, здатній привернути інвесторів і підвищити попит на акції цих компаній.

Ключові слова: фінансові результати компаній; литовський ринок цінних паперів; Вільнюська фондова біржа; аналіз множинної лінійної регресії.

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Множественная линейная регрессия котировок акций литовских предприятий

Аннотация. Авторы попытались оценить насколько влияют финансовые результаты литовских предприятий на котировки их акций на Вильнюсской фондовой бирже. Динамика акций компаний, которые котируются в списке на Вильнюсской фондовой бирже зависят от их финансовых результатов. Период исследования охватывает период 2006–2018 годов. Объектом исследования являются компании литовского рынка ценных бумаг, которые котируют свои акции на Вильнюсской фондовой бирже. Предметом исследования является набор финансовых показателей компаний и их влияние на цены акций с применением анализа множественной линейной регрессии.

В результате исследования влияния различных факторов на котировку акций, авторами статьи не был установлен универсальный финансовый показатель, который одинаково повлиял бы на цены акций всех четырех исследуемых компаний, котирующих свои акции на Вильнюсской фондовой бирже. Влияние каждого фактора на цены акций каждой компании было отличным. Вместе с тем исследование показало, что при воздействии каждого фактора на цены компаний, котирующих свои акции на Вильнюсской фондовой бирже, наблюдается некоторая закономерность. Так, дивидендная политика оказала влияние на цены акций двух из четырех исследуемых компаний, а именно: «Vilkyskiu Pienine» и «Klaipėdos Nafta». На цены акций «Pieno Zvaigzdes» повлияли два других показателя, а именно: соотношение между заемными и собственными средствами компании, а также отношение долга к EBITDA. На цены акций «Kauno Energija» существенно не повлиял ни один из десяти используемых финансовых показателей.

Большинство компаний, котирующих свои акции на Вильнюсской фондовой бирже, имеют в основном краткосрочные интересы, направленные на привлечение дополнительного капитала, а не на внедрение стабильной инвестиционной политики с целью обеспечения устойчивого роста компании. Поэтому важно, чтобы компании отдавали предпочтение выбору длительной инвестиционной политики, которая бы основывалась на продуманной дивидендной политике, способной привлечь инвесторов и повысить спрос на их акции.

Ключевые слова: финансовые результаты компаний, литовский рынок ценных бумаг; Вильнюсская фондовая биржа; анализ множественной линейной регрессии.

1. Introduction

In the modern world, the main goal of business is profit making and leadership in any field of activity. Investments in financial assets are one of the main ways of rapid development for companies. It is worth pointing out that the greatest increase in profit can be achieved by investing directly in securities, as well as by other financial instruments. In the modern economy, securities markets play a distinctive and very important role because the situation in many countries has deteriorated due to the impact of world financial and economic crises deteriorated. In this regard, capital markets help both companies and countries to obtain additional financing, as well as to recover the lost ground in the market.

The securities market in Lithuania is in its ascending phase, according to the NASDAQ index data, which is a good sign for local and foreign investors to start investing their own capital in both existing and newly-established enterprises. In order for investors to become interested in investing more money into the Baltic securities market, the market should be attractive. Companies have to be honest before their investors, pay dividends to them and use funds received by investors efficiently, therefore strengthening investors' confidence.

To better understand what will happen and what impact it will have, it is important to conduct an in-depth examination of securities markets with regard to their functioning in the past as well. By looking into the past of the relevant securities markets and analysing what happened there, companies and investors will be more prepared for what may be in the foreseeable future.

Many investors consider investment in shares to be the wisest and best way to increase their capital. On the one hand, by investing in shares directly they do not have to pay the investment fund management fees and other fund-related expenses.

Of course, prior to investing in shares, investors have to deepen their knowledge of companies in which they plan to invest. They can do this with the help of two main types of analysis: the fundamental analysis and the technical analysis [6, 23-28].

The fundamental analysis looks into factors and indicators which reflect the company's operating efficiency and profitability. Factors considered by fundamental analysis include the company's business model and its financial health - balance sheets, profit and loss statements, cash flow statement analyses; stock valuation analyses, etc. [9, 173-176].

The analysis is based on the company's current and historical data which is available in the company's financial statements, as well as on its corporate webpage. Investors tend to use the fundamental analysis to make long-term predictions of share prices because they are sure that in share price is heavily influenced by fundamental factors in the long term [4, 35-47].

2. Mathematical methods for defining dependency of stock prices on the company's financial results

In order to define the dependence (correlation) between several variables, we use two major methods, which are the correlation analysis and the regression analysis. Calculations of a correlation define the strength of connection between two variables. Meanwhile, the regression analysis is aimed at determining the type of related connections and allows to forecast the result of one (dependent) variable (in our case it is the open price of share) with regard to the results of the other (independent) variable (in our case it is the results of financial indicators of the relevant company). A multiple linear regression analysis is frequently used in practice by analysts to define how many factors impact the asset's price movement, while correlation defines a statistical measure to find out to what extent two assets move in relation to each other.

The only disadvantage with multiple regression analysis is that it includes several independent variables. That fact affects the possibility to illustrate it graphically. Also, independent variables can also correlate with each other and this fact should be taken into account when defining the coefficients in a regression formula in order to avoid false correlations.

To better understand multiple linear regression, the authors provide a formula of simple linear regression. It is calculated according to the formula of the simple linear regression model, given n observations (2.1.) [1, 2]:

$$y_i = \beta_0(a) + \beta_1 ix + \varepsilon_i, i = 1, 2, \dots, n, \quad (2.1.)$$

where:

y - the dependent (response) variable,

$\beta_0(a)$ - the intercept point of the regression line and the y axis

β_1 - the regression parameter (partial regression coefficient) (slope of regression line),

x - the independent (predictor or regressor) variable,

ε - a random component that determines the properties of y (regression residual).

Multiple linear regression is calculated in the same way as the simple linear model, given n observations. The only difference lies in several independent variables (x). The formula can be illustrated as follows [1, 4]:

$$y_i = \beta_0(a) + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_k x_{ik} + \varepsilon_i, i = 1, 2, \dots, n, \quad (2.2)$$

where:

y - the dependent (response) variable,

$\beta_0(a)$ - the intercept point of the regression line and the y axis

β_1, β_2 - the regression parameter (partial regression coefficients) (slope of regression line),

x - the independent (predictor or regressor) variable,

β_k - the number of regression parameters,

x_k - the number of regressor variables,

ε_k - the random component that determines the properties of y (regression residual).

3. Influence of financial variables on stock prices of companies listed on NASDAQ Vilnius Stock Exchange

The securities market in Lithuania is represented by NASDAQ Vilnius Stock Exchange. Most liquid shares of companies located in Vilnius stock exchanges are quoted on the Baltic Main List of NASDAQ Vilnius. For companies to be able to quote their shares on a stock exchange, they must meet the following requirements:

- companies should have at least 3 years of operating history;
- accounting statements should be prepared in accordance with IFRS (International Financial Reporting Standards);
- companies should prove their financial health;
- companies should have market capitalisation of at least EUR 4 million;
- 25% of shares should be in free circulation or the overall shares value in free circulation has to be no less than EUR 10 million.

Stocks of medium-sized companies are quoted on the Baltic Secondary List. There are no quantitative requirements in respect to their market capitalisation or the number of shares in free circulation. Requirements for inclusion in the List are less strict compared with the requirements related to the Baltic Main List, which means that there are companies that do not meet the admission requirements for the Baltic Main List [10].

The authors have chosen four publicly quoted companies. Two of them are from the Official list and the other two are from the Secondary list. All indicators are taken or calculated from annual financial reports made in accordance with the EU approved IFRS standards. In order to provide a comparison of shares and indicators of companies from these countries in an easier way, the authors have chosen to make calculations solely in Euros (EUR) for all selected financial indicators.

Summarizing all information and data acquired from financial reports of the selected companies, the authors conclude that all the companies' financial indicators declined due to the 2008 financial crisis. Starting from the year 2011, all companies and their financial results have demonstrated improvement.

The fundamental analysis pays more attention to the companies' financial performance and financial standing. We use several financial indicators that will be applied to determine the dependence of share prices with the help of the multiple linear regression method (except the company's profile). These indicators are as listed below.

Company's profile

This refers to the company's basic data: products and services, the company's offers, markets and customers, the company's organisational structure, which comprises the management of the company, and the strategy that the company intends to implement in order to grow and expand in the future.

Company's net profit

Profit is one of the most important company's indicators, however its absolute value itself does not provide any relevant information. It is a positive tendency if the company's profits increase steadily from year, provided the increase is no less than that of other companies in the same industry.

Sales/turnover history

Turnover shows the company's product and service sales volume.

Dividend policy

Dividends are the only real income from shares if shareholders decide to keep them instead of selling them on the market. Dividend is a company's net profit share received by the shareholder. Frequently, the stock price on the market increases after a notification made by the company that it is decided to pay dividends to shareholders [7, 95].

Return on assets (ROA)

This indicator is equally important with regard to the financial indicator of the profit return on the company's own assets. The ROA ratio measures the effectiveness of usage of all assets owned by the company, that is the ratio of profit return on total assets.

ROA is calculated according to Formula (3.1.) [8, 241]:

$$ROA = \frac{NI}{TA}, \quad (3.1.)$$

where:

ROA - return on assets;

NI - net income of the company (after tax and interest);

TA - total assets.

Return on equity (ROE)

This is a widely used financial indicator of the profit return on the company's own capital. The ROE ratio represents the effectiveness of using funds invested in the company by its shareholders. This indicator can be compared either with indicators of other companies in the same industry or with company's financial results for the previous year. If the company's return on profit has declined then share price may fall [7, 95].

ROE is calculated according to Formula (3.2.) [3, 127]:

$$ROE = \frac{NI}{EQ}, \quad (3.2.)$$

where:

ROE - return on shareholders' equity;

NI - net income of the company (after tax and interest);

EQ - average shareholders' equity for certain period of time.

Net profit margin (NPM)

It is a comparison between sales and profits, or what percentage is the net profit compared to sales. It is compared either on a quarterly basis or in view of the entire year.

The net profit margin is calculated with the help of Formula (3.3.) [3, 162]:

$$NPM = \frac{NI}{S}, \quad (3.3.)$$

where:

NPM - the net profit margin;

NI - net income of the company (after tax and interest);

S - the sales/turnover of company's services.

Earnings per share current (EPS)

It is profit that is available for payment to the company's shareholders. If the company's EPS ratio decreases with time, it means that there are certain problems in the company that need to be solved.

The EPS indicator is calculated according to Formula (3.4.) [8, 219]:

$$EPS = \frac{NI}{OS}, \quad (3.4.)$$

where:

EPS - earnings per share;

NI - net income of the company (after tax and interest);

OS - the current number of outstanding shares.

Retained earnings (RE)

It is part of net profit that is left after paying dividends to shareholders and can be reinvested in the development of the company's business or to pay the company's debt.

Retained earnings are calculated according to Formula (3.5.) [8, 288]:

$$RE = BRE + NI - D, \quad (3.5.)$$

where:

RE - retained earnings;
BRE - beginning retained earnings;
NI - net income (after taxation and interest);
D - dividends.

Debt-to-equity ratio (DER)

This ratio represents the company's financial leverage, in other words it represents the amount to which the company's assets are financed according to its equity and liabilities. A high ratio is worse than a low ratio because it means that the company finances its assets mainly with its debt.

The debt-to equity ratio is calculated according to Formula (3.6.) [3, 125]:

$$DER = \frac{TL}{SE}, \quad (3.6.)$$

where:

DER - the debt to equity ratio;
TL - total liabilities;
SE - total shareholders' equity.

Debt-to-EBITDA ratio

This ratio is mainly used by investors and credit agencies to measure the company's ability to pay its debt. It is calculated by simply dividing the company's total debt by EBITDA of the company [4, 47].

In order to determine the impact of the ten chosen indicators on changes in stock prices, the authors used linear regression with models enter (for separately) or stepwise (for all of factors together). The open price of yearly stock of the selected companies was chosen to be the dependent variable, while a combination of all the factors and later the separate factors were used to create the independent variable. The share price by years were calculated as a difference between the open price of the first and the last day of the respective year. The linear regression was calculated by using IBM SPSS Statistics Version 20.0.

First, we analysed the impact of all the ten factors on the share price for each company; then we analysed each factor separately and, to illustrate their significance, a graphical representation with R^2 was made. In the tables below, we summarise unstandardised regression coefficients *B*, standardized regression coefficients beta (β) and *R* Square (R^2) for each factor and for each company.

Criteria for the significance factor is considered if the *P-value* for regression coefficients *B* is less than 0.05.

The data analysis was made for the period between 2005 and 2017. In terms of the Lithuanian market we chose to analyse four companies:

- JSC Pieno Zvaigzdes (PZV1L);
- JSC Vilkyskiu Pienine (VLP1L);
- JSC Kauno energija (KNR1L);
- JSC Klaipedos Nafta (KNF1L).

The authors chose Pieno Zvaigzdes and Vilkyskiu Pienine from the Official list as those two companies that belong to the traditionally strong segment of the Lithuanian market, which is the dairy products industry.

The situation with the companies' share price on the Lithuanian market is viewed to be volatile. It is noticeable that the upward and downward trends of Pieno Zvaigzdes and Vilkyskiu Pienine are almost the same, which is explained by the fact that they belong to the same market segment. The share price of Klaipedos Nafta was stable at a level between EUR 0.3 and EUR 0.6 with a sharp downfall in the summer of 2011, which is explained by a political crisis in Arab countries, which in turn highly affected the oil prices.

Now, Pieno Zvaigzdes' shares look good with the same levels as it was before the 2008 financial crisis. According to the statistical data obtained from the NASDAQ OMX Baltic website in the period between 2006 and 2012, the share price of Pieno Zvaigzdes soared by more than 30%, while the shares of its competitor - Vilkyskiu Pienine - declined in price by more than 23%.

The share price of Kauno Energija decreased by more than 58%, and the share quotes of another company from the energy industry - Klaipedos Nafta - increased by almost 26%. The graphical illustration of the share price fluctuations is shown in Figure 3.1.

We will analyse each company's stock price from the perspective of all the 10 factors. Further, we will analyse it in order to find out which of the indicators affects the stock price of each of the related companies most.

JSC Pieno Zvaigzdes

The results of the linear regression of all the ten factors shows that there has been statistically significant ($P < 0.05$) influence on changes in share prices during recent years (Table 3.1). All the 10 factors account for 91.7% ($R^2 = 0.917$) of changes in the share price of Pieno Zvaigzdes. Now, we will analyse the impact of each of the indicators separately.

By analyzing each factor separately, the authors conclude that there are two factors that affect the share price of Pieno Zvaigzdes statistically more than any other of the included indicators (Table 3.1). These two factors are the debt to equity ratio and the debt to EBITDA ratio. Both factors have a negative impact on the share price, which is also illustrated in Table 3.1. The debt to equity ratio accounts for 71.7% ($R^2 = 0.717$) of the changes in the share price of Pieno Zvaigzdes, provided it is the only factor. Along with that, the debt to EBITDA ratio accounts for 84.1% ($R^2 = 0.841$) of the changes in the share price of Pieno Zvaigzdes. The changes in both the debt-to-equity ratio and the debt-to-EBITDA ratio are illustrated in Figure 3.2.

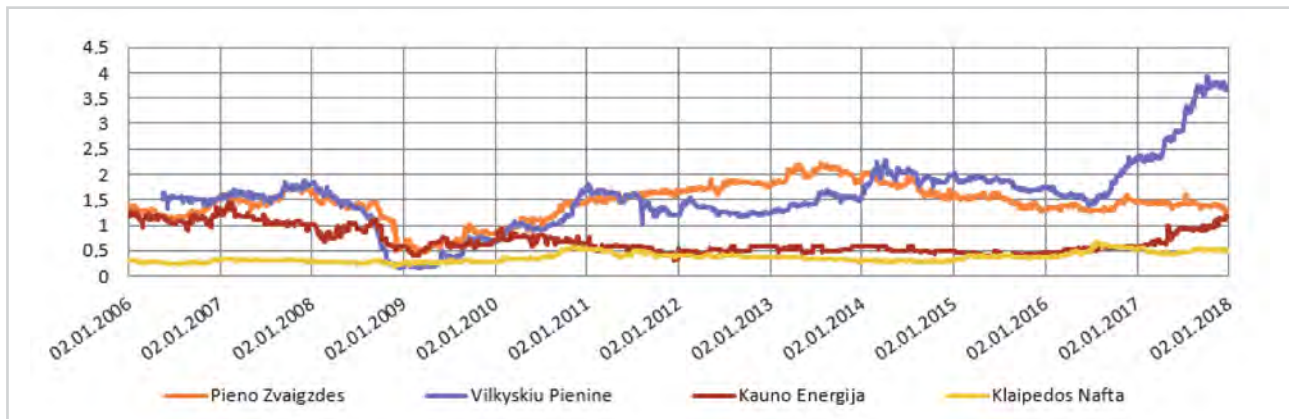


Fig. 1: Dynamics of the companies' share prices on NASDAQ Vilnius Stock Exchange in the period between 2006 and 2018 (EUR)

Source: Compiled by the authors based on [10]

Tab. 3.1: Impact of all the ten factors together and separately on the share price of JSC Pieno Zvaigzdes

Variable	B	β	R ²	t and P, if P<0.05
All together	1.741*	-	.917*	4.570 and .010
Net profit	.119	.736	.542	
Turnover	-.013	-.335	.113	
ROE	.055	.767	.588	
ROA	.134	.785	.617	
EPS current	6.104	.711	.506	
Dividend policy	-	-	-	
Net profit margin	.243	.774	.599	
Retained earnings	.077	.299	.089	
Debt to equity ratio	-.021*	-.847*	.717*	-3.181 and .034
Debt to EBITDA ratio	-.523*	-.917*	.841*	-4.592 and .010

Note: * P < 0.05

Source: Compiled by the authors

JSC Vilkyskiu Pienine

The results of the linear regression of all the ten factors together show (Table 3.2) that there has been no significant influence on the company's share price during recent years. Further, we will analyse each factor separately in order to find out which of them affects the price dynamics most.

By analyzing each factor separately, we can state that there is only one factor which impacts the share price of Vilkyskiu Pienine share (Table 3.2). This factor is the dividend policy, which has a positive impact on the share price (Figure 3.3). The dividend policy accounts for 68.3% (R² = 0.683) of the changes in the share price of Vilkyskiu Pienine if it is the only factor. The dividend policy of Pieno Zvaigzdes is illustrated in Table 3.2.

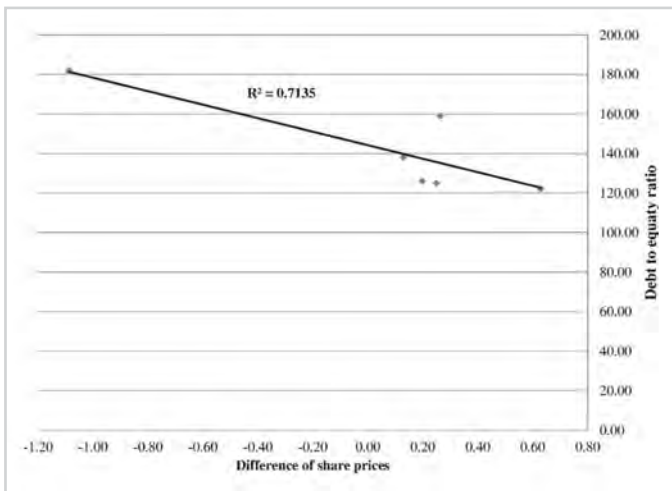


Fig. 3.2: Impact of the debt to equity ratio on the share price of Pieno Zvaigzdes

Source: Compiled by the authors

Tab. 3.2: Impact of all the ten factors together and separately on the stock price of JSC Vilkyskiu Pienine

Variable	B	β	R ²	t and P, if P<0.05
Altogether	.180	-	1.000	
Net profit	.208	.766	.587	
Turnover	.003	.099	.010	
ROE	.022	.070	.601	
ROA	.067	.713	.508	
EPS current	1.810	.681	.463	
Dividend policy	1.41*	.826*	.683*	2.936 and .043
Net profit margin	.104	.789	.623	
Retained earnings	.124	.409	.167	
Debt to equity ratio	-.006	-.618	.381	
Debt to EBITDA ratio	.152	.319	.102	

Note: * P < 0.05

Source: Compiled by the authors

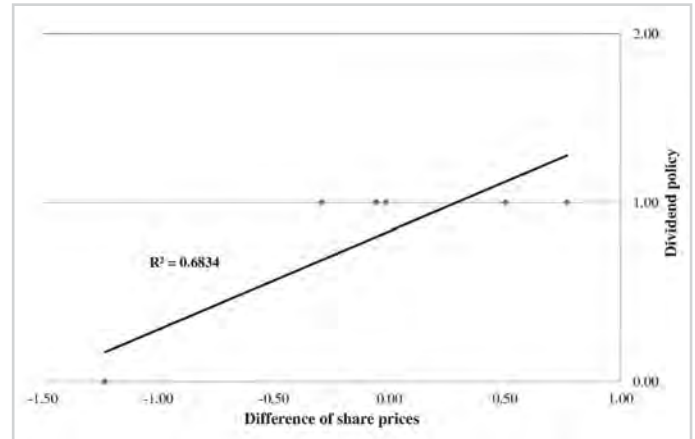


Fig. 3.3: Illustration of the impact of the dividend policy (0 - dividends are not paid; 1 - dividends are paid) on the share price of Vilkyskiu Pienine

Source: Compiled by the authors

JSC Kauno Energija

The results of the linear regression of all the ten factors shows that for JSC Kauno Energija (as in the case of JSC Vilkyskiu Pienine) no significant impact of the selected financial variables on the share price dynamics has been found (Table 3.3).

By analyzing each factor separately, the authors find no single factor affecting changes in the share price of Kauno Energija in six-year period.

JSC Klaipedos Nafta

The results of the linear regression of all the ten factors shows that there is a statistically significant (P < 0.05) impact on the changes in the stock price of the respective company (Table 3.4). All the ten factors are account for 97.8% (R² = 0.978) of the changes in the stock price of Klaipedos Nafta.

By analysing each factor separately, it has been found that there is one factor which statistically impacts the share price of Klaipedos Nafta more than other variables (Table 3.4). This factor is the dividend policy (like in the case of Pieno Zvaigzdes). The dividend policy of Klaipedos Nafta has a positive impact on its share price (Figure 3.4). The dividend policy accounts for 80.2% (R² = 0.802) of the changes in the share price of Klaipedos Nafta, if it is the only factor. The impact on the dividend policy of Klaipedos Nafta is shown in Table 3.4.

When considering different factors that impact companies' shares on NASDAQ Vilnius Stock Exchange, we can observe certain regularity. The dividend policy impacts the share price of two out of four companies, namely Vilkyskiu Pienine and Klaipedos Nafta. The share price of Kauno Energija is not affected by any of the 10 indicators that were mentioned in the first part. As regards the shares of Pieno Zvaigzdes, there are two indicators

Tab. 3.3: Impact of all the ten factors together and separately on the stock price of JSC Kauno Energija

Variable	B	β	R ²	t and P, if P<0.05
Altogether	-.160	-	1.000	
Net profit	.051	.582	.339	
Turnover	.003	.290	.084	
ROE	.027	.660	.436	
ROA	.046	.685	.470	
EPS current	1.526	.707	.500	
Dividend policy	.143	.346	.120	
Net profit margin	.035	.642	.412	
Retained earnings	.045	.505	.255	
Debt to equity ratio	-.007	-.747	.559	
Debt to EBITDA ratio	-.079	-.775	.601	

Note: * P < 0.05

Source: Compiled by the authors

Tab. 3.4: Impact of all the ten factors together and separately on the stock price of JSC Klaipėdos Nafta

Variable	B	β	R^2	t and P , if $P < 0.05$
Altogether	.465*	-	.978*	9.504 and 0.002
Net profit	-.008	-.251	.063	
Turnover	-.001	-.066	.004	
ROE	-.010	-.207	.043	
ROA	-.012	-.243	.059	
EPS current	-5.125	-.390	.152	
Dividend policy	-.298*	-.895	.802*	-4.024 and .016
Net profit margin	-.004	-.263	.069	
Retained earnings	-.009	-.434	.188	
Debt to equity ratio	-.005	-.176	.031	
Debt to EBITDA ratio	.067	.297	.088	

Note: * $P < 0.05$

Source: Compiled by the authors

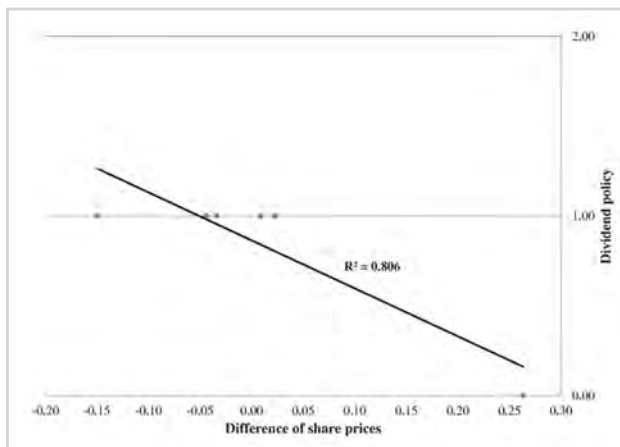


Fig. 3.4: Impact of the dividend policy (0 - dividends are not paid; 1 - dividends are paid) on Klaipėdos Nafta share price
Source: Compiled by the authors

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