

The impact of covid-19 on Indonesian companies share price

Herman Soegoto

Universitas Komputer, Indonesia.

Email: herman@unikom.ac.id. Tel: 08122097401.

Accepted 29th July, 2021.

Abstract. This research aims to identify the impact of Covid-19 on shares price from Indonesian companies that have the best financial performance in their specialized sector or sub-industry sector. This research acts as a source of helpful information for the investors and traders in Indonesia in order to increase the chance of success in the stock market. This research uses a quantitative method by analysing data from the company's yearly financial report within the past three years and each company's share prices in January and December 2020. The company's financial analysis is the balance sheet data, profit and loss, cash flow and financial ratio. The share price data used are from 2 January 2020 and 30 December 2020. Based on the research result, it can be identified that the share price from a company that has a raising financial performance in the past three years has better endurance in regards to the plummeting share prices due to the COVID-19 pandemic. Stocks investors are strongly advised to limit their investment in companies that have good financial performance.

Keywords: Covid 19, share price, financial performance.

INTRODUCTION

Share is a security that could be traded either through the exchange market or not and can state the ownership of an asset. The company issues shares with obtaining funds for operational financing and company development. Share is one of the investment instruments that give an excellent average return in the long term, but it also has a high risk of losses for short-term investment and if the investor chooses the wrong company. Additionally, the share is a high-risk investment that promises a high return since the share price fluctuates over time (Badruzaman *et al.*, 2018; Andrianto and Mirza, 2015).

Based on the data that was published by the Indonesian financial authority (OJK), until the end of 2019, the stock investor reaches 2,48 million investors both domestic and foreign. 60% of that amount or approximately 1,5 million are Indonesian investors. The total of shares that are listed in the stock market is 688 stocks with a market capital of 5.248 trillion Rupiah. The

fun from foreign investors reaches 49 trillion Rupiah.

Although the capital market grows rapidly, the total number of stock investors in Indonesia until June 2020 is still low because it only accounts for 0.6% of the total of Indonesian citizens of 264 million people (Kominfo, 2020). While in the developed country like the USA and Japan, it is estimated that more than 50% of the citizens invest in the stock market products, this also goes to our neighbouring country Malaysia with above 12.8%.

When investing, everyone hopes to gain an investment return according to their desirable target; hence, the investment fund will continue to grow. The question is what is the success rate of the stock investor in Indonesia? Based on the data, only 15% of the stock investor who successfully passed the first year in the stock market, in other words, 85% of the investors face losses and quit from the stock market. This data makes the potential new investor frightened and even some people thought that investing through the stock market is



Figure 1. Index share price movement graph in Indonesia within 20 years (<https://finance.yahoo.com>).



Figure 2. Combine share price movement graph in Indonesia within one year (<https://finance.yahoo.com>)

equal to gambling. There is no big difference in this illustration when I spoke with several friends who have experienced the bitterness of failure when they become traders in the stock market, options, forex or commodity exchanges, especially those who used the margin trading concept. Margin trading is a way to buy shares by borrowing some funds from securities companies where the customer made a transaction with the guarantee of the customer's fund. This concept is mainly used by those who want to obtain a high return in a short time; however, if they choose the wrong position, then in a short period they could lose all their money in the market. Margin trading is popular among the majority of the stocks market and impacts various aspects of the stock market (Dayong and Wu, 2018). Short selling and margin trading in the stocks market raise the investors' losses and cause them to quit from the stock market (Setzu and Marchesi, 2006). (Figure 1)

If looking at the growth of combined share price index value on average from 2000 to 2020, there has been an increase above 10% each year; thus, if the fund was invested in a long term, each investor is supposed to obtain profit from the stock market. The question is why 85% of beginner investors face losses and quit from the stock market in the first year? And also the fact that less than 0.6% of Indonesian citizens choose to invest in stock? What can be done to make 15% of beginner investors persist and profit from investing in stock?

In the stock investing concept, stocks are not suitable for short-term investment for example investing in one year because the value fluctuates easily, like the graph shown in Figure 2. Although traders tend to buy and sell stocks in a short period, it is quite unsuitable for long-term investors.

In 2020, according to the data on December 2020 that

is shown in Figures 1 and 2, there has been a market shock that causes the share price to plummet from February until March 2020 due to the COVID 19 pandemic. There is a possibility that quite many investors face losses at that time because they are panicking and selling their shares at a low price. Nevertheless, start from April until August 2020, the investors' and traders' dismay has begun to subside and they start to enter the market again to buy the stocks hence the share price index graph starts to rise. For investors who invested in a stock that has a good track record, they tend to be calmer when facing the market shock and some of them even buy more shares that have a good fundamental when the shares had done deep correction in March 2020 where most of the blue-chip shares has dropped more than 30% compared to the share price at the beginning of the year.

Shares investor currently makes a decision based on technical analysis, fundamental analysis, and the combination between these two but some people follow along with what other people say about which shares to buy. Technical analysis mostly applies to the stocks trader who wants a high return in a short period, while fundamental analysis is widely used by long-term investors. One of the fundamental investors categorized to be very successful is Warren Buffet, he could generate an average stocks growth rate of 23% each year. The profit obtained from investing in stocks are various from time to time, it depends on the company's performance and market situation.

This paper aims to show the stock investors why companies with good fundamentals are the most viable investments in the long term even when the crisis happens and also to give guidelines to investors on how to find good shares based on evaluation on companies' yearly financial reports.

RESEARCH METHOD

This research uses the quantitative method. The financial data that are used are the financial ratio of each public company that publishes a financial report annually. With the growth of information technology, financial data can easily be accessed by every investor.

In the analysis based on the evaluated fundamental aspect, there are ten-point from four fundamental indicators, namely: balance sheet, profit and loss, cash flow, financial ratio and the comparison with companies in the same sector or sub-sector.

The balance sheet is a document that illustrates the company's financial position at a certain time. A financial report that must be made by a public company is called the annual financial report. An investor could access the company quarter or annual balance sheet information through the company's official website or IDX website. The company financial report that includes the company report is the general information of the company, profit

and loss report, balance sheet, cash flow, owners equity and notes of the financial report. A balance sheet gives accurate information to the public related to property, financial and profitability position, assets and liabilities of the company and changes (Musinszki, 2016). The balance sheet and income statement need to be published by the company (Avallone *et al.*, 2016).

Information that is included in the balance sheets is asset, liability and equity. An asset is the company position at any given time, for example, 30 December 2020. Assets consist of current and non-current assets. Current assets include information about cash and equivalent to cash, trade receivables, other accounts receivable and inventory. Non-current assets include plant, property and equipment (PPE), investments in joint ventures, and long-term receivables. Equity or capital is a capital balance that is distributed to the entity owner in a certain period.

A financial ratio is a method used to analyse the performance of a company based on the information from the company's financial report. Financial ratio analysis is used to evaluate various operational aspects of the company and financial performance such as efficiency, liquidity, profitability and solvency (Mashkour, 2019). A financial ratio is derived from comparing two financial numbers and stated it in percentage or rates. The financial ratio that is being analyzed in this section is Net Profit Margin (NPM), Return on Equity (ROE), and Price to Earning ratio (PER). You could add other financial ratios for the analysis if needed.

Net Profit Margin (NPM) is a ratio used to calculate the total net profit obtained from the company's sales. When the company has a high net profit margin it means the company operates with a high-efficiency level. The formula for NPM is $NPM = \text{net profit} / \text{total of sales}$. The higher the NPM percentage, the more efficient a company is. The higher the net profit margin, the higher the stock return on the next period (Öztürk and Karabulut, 2018; Dita and Murtaqi, 2014).

Return on Equity (ROE) is defined as net profit divided by the shareholders' equity. ROE indicates how profitable a company is towards every rupiah that is invested by investors. $ROE = \text{net profit} / \text{shareholders' equity}$. The higher the ROE, the more profitable it is for the investor. The research in (Alam, 2017; Khairudin and Wandita, 2017) stated ROE positively impacts the share price.

Price to Earnings Ratio (PER) is used to observe how many times the share price is compared to the net profit for one year. PER is calculated from the share price divided by net profit. If the company has PER as big as 20x it means the share price is equal to 20x of the company's net profit. PER illustrates the psychological aspect of an investor, the higher the PER the more likely for an investor to become optimistic towards the share price. Companies selection with PER above the average of the similar industry is to provide confidence that the company is a company that has performed above

Table 1. Fundamental Performance of PT Bank Central Asia Tbk.

Indicator	Description	Yes	No	2019	2018	2017
Balance sheet	Assets (capital) growth in the past three years	√		918.989.312	824.787.944	750.319.671
	Current Assets (AL) > Current Liabilities (HL)	√		AL: 30.948.274 HL:2.322.870	AL:31.682.811 HL:2.093.475	AL:18.969.682 HL:3.040.602
	Capital > Debt	√		Debt: 740.067.127	Debt: 668.438.779	Debt: 614.940.262
Profit and loss	Sales and profit growth in the past three years	√		50.477.448	45.290.545	41.826.474
	Increase in acceptance from the company customers	√		76.539.139	67.188.173	62.896.141
	Increase in profit	√		31.138.261	26.762.035	24.075.741
Cash flow	Cash and cash equivalents at end of the period rise	√		25.421.406	21.691.443	16.754.289
Financial ratio	Net Profit Margin (%) increase	√			36.84	43.37
	Return on Equity (%) is above 20%		√		12.88	17.75
	PER is above the average of the same type of industry	√		27.87 (industry:24.3)	25.72 (industry:25.63)	23.16 (industry:19.1)

Data source: <https://www.idx.co.id>

average or the best in the industry. PER has a positive relation with share price (Zaman, 2014). PER is used to analyse whether the share price is still reasonable (Shen, 2001; Asri and Heviadi, 1999; Bhatt and Sumangala, 2012). When the covid-19 crisis happened all companies' shares prices fall and the PER of the good fundamental companies become low and far cheaper compared with under normal conditions. This is a good time to buy these companies' shares.

Each company is evaluated based on ten criteria by using the last three years' financial report data. If the performance data on each criterion show higher or better than the previous year it will be marked with 'Yes' but if one of the data is lower than the previous year it will be marked with 'No'. Then we rank these companies based on how many 'Yes'. Companies with a higher number of 'Yes' mark is better in each sector or subsector.

RESULTS AND DISCUSSION

The analysis was conducted towards the fundamental performance of twenty companies, where the companies were taken from two companies in the same sector or sub-sector. Next, the performance of these twenty companies is being evaluated in one same table to identify which company that has the best fundamental performance among the twenty companies. The first company that was analysed is a company that is considered to have the best performance in their sector or sub-sector while the second company is the second or third best company in that sector or sub-sector.

Table 1 shows an example of stocks performance evaluation from two banking, namely PT Bank Central Asia Tbk. (BBCA) and PT Bank Negara Indonesia Tbk. (BBNI).

Based on the data in Table 1, Bank Central Asia has an outstanding fundamental performance for the balance sheet, profit, cash flow and eight financial ratio indicators with a nine yes mark (√). The company's assets continue to experience growth, sales, revenues and the company profits also continue to increase continuously as well as the company's cash position. The company's PER is also above the industry average.

Next, we will analyse Bank Negara Indonesia Tbk by evaluating the same indicator that was used for Bank Central Asia.

According to the data in Table 2, it can be seen that the indicator for the balance sheet, profit and loss, and cash flow performance of Bank Negara Indonesia Tbk. is very good. However, from a financial ratio indicator, the performance of Bank Negara Indonesia is less convincing. If compare to the performance of Bank Central Asia Tbk. that have nine indicators with a yes (√), it can be said that BBCA stock has better performance compare with BBNI stock which only has seven indicators with a yes (√).

Additionally, an analysis based on the existing data was carried out towards the stocks of the 34 companies from 17 same sector/sub-sector. Each sector/sub-sector was chosen by applying the same method that was used to compare the stock performance of PT BCA and PT BNI Tbk. Then create one table for the evaluation result summary from 34 companies that have been evaluated to

Table 2. Fundamental performance of PT Bank Negara Indonesia Tbk.

Indicator	Description	Yes	No	2019	2018	2017
Balance Sheet	Assets (capital) growth in the past three years	√		845.605.208	808.572.011	709.330.084
	Current Assets (AL) > Current Liabilities HL	√		AL:15.361.703 HL:5.272.805	AL:14.043.846 HL:4.160.295	AL:11.577.664 HL:4.867.567
	Capital > Debt	√		Debt: 688.489.442	Debt: 671.237.546	Debt: 584.086.818
Profit and Loss	Sales and profit growth in the past three years	√		56.177.837	49.572.508	44.494.561
	Increase in acceptance from the company customers	√		33.556.495	32.886.828	29.731.057
	Increase in profit	√		15.508.583	15.091.763	13.770.592
Cash Flow	Cash and cash equivalents at end of the period rise	√		15.361.703	14.043.846	11.577.664
Financial Ratio	Net Profit Margin (%) increase		√		28.58	29.03
	Return on Equity (%) is above 20%		√		13.65	11.0
	PER is above the average of the same type of industry		√	11.16 (industry:24.3)	10.65 (industry:25.63)	13.56 (industry:19.1)

Data Source: <https://www.idx.co.id>.**Table 3.** Summary of fundamental performance.

No	Company Name	Sector / Sub-sector	Yes
1	Adaro Energy Tbk (ADRO)	Mining	5
2	PT Bukit Asam Tbk (PTBA)	Mining	7
3	PT Bank Central Asia Tbk (BBCA)	Finance	9
4	PT Bank Negara Indonesia Tbk (BBNI)	Finance	7
5	PT Unilever Indonesia Tbk (UNVR)	Consumer Goods	9
6	PT Indofood CBP Sukses Makmur Tbk (INDF)	Consumer Goods	7
7	PT Astra Internasional Indonesia Tbk (ASII)	Miscellaneous Industry	4
8	PT Indomobil Sukses Internasional Tbk (IMAS)	Miscellaneous Industry	3
9	PT Kalbe Farma Tbk (KLBF)	Pharmacy	7
10	PT Kimia Farma Tbk (KAEF)	Pharmacy	5
11	PT Sarana Menara Nusantara Tbk (TOWR)	Infrastructure, Utilities & Transportation	7
12	PT Tower Bersama Infrastructure Tbk (TBIG)	Infrastructure, Utilities & Transportation	5
13	PT ACE Hardware Tbk (ACES)	Trade, Services & Invest.	8
14	PT Erajaya Swasembada Tbk (ERAA)	Trade, Services & Invest.	5
15	PT Ciputra Development Tbk (CTRA)	Property, Real Estate	4
16	PT Lippo Cikarang Tbk (LPCK)	Property, Real Estate	3
17	PT Semen Gresik Tbk (SMGR)	Basic Industry & Chemical	7
18	PT Indocement Tunggul Prakarsa Tbk (INTP)	Basic Industry & Chemical	5
19	PT Mitra Karya Sejahtera Tbk (MIKA)	Healthcare	8
20	PT Medika Loka Hermina Tbk (HEAL)	Healthcare	5
21	PT Astra Agro Lestari Indonesia Tbk (AALI)	Agriculture	4
22	PT London Sumatera Indonesia Plantation (LSIP)	Agriculture	5
23	PT Charoen Phokphan Indonesia Tbk (CPIN)	Animal Feed	7
24	PT Japfa Comfeed Indonesia Tbk (JPFA)	Animal Feed	6
25	PT Adhi Karya Tbk (ADHI)	Property, Real Estate & Building Construction Sub Sektor DLTA	5

Table 3. Contd.

26	PT Total Bangun Persada Tbk (TOTL)	Property, Real Estate & Building Construction Sub Sektor DLTA	3
27	PT Gudang Garam Tbk (GGRM)	Consumer Goods, Sub Sektor : Tobacco	7
28	PT HM Sampoerna Tbk (HMSP)	Consumer Goods, Sub Sektor : Tobacco	8
29	PT United Tractor Tbk (UNTR).	Subsektor:Wholesale (Durable & Non-Durable Goods)	5
30	PT Hexindo Adhiperkasa Tbk (HEXA)	Subsektor:Wholesale (Durable & Non-Durable Goods)	5
31	PT Indah Kiat Pulp & Paper Tbk (INKP)	Sub sektor: Pulp & Paper	5
32	PT Pabrik Kertas Tjiwi Kimia Tbk (TKIM)	Sub sektor: Pulp & Paper	5
33	PT Mayora Indah Tbk (MYOR)	Consumer Goods Industry, subsektor:food & Beverage	8
34	Garuda Food Putra Putri Jaya Tbk (GOOD)	Consumer Goods Industry, subsektor:food & Beverage	7

Table 4. Stocks preference based on fundamental criteria.

No	Company Name	Sector / Sub-sector	Yes
1	PT Unilever Indonesia Tbk (UNVR)	Consumer Goods	9
2	PT Bank Central Asia Tbk (BBCA)	Finance	8
3	PT ACE Hardware Tbk (ACES)	Trade, Services & Invest.	8
4	PT Mitra Karya Sejahtera Tbk (MIKA)	Healthcare	8
5	PT HM Sampoerna Tbk (HMSP)	Consumer Goods, Sub Sektor : Tobacco	8
6	PT Mayora Indah Tbk (MYOR)	Consumer Goods Industry, subsektor:food & Beverage	8
7	PT Bank Negara Indonesia Tbk (BBNI)	Finance	7
8	PT Indofood CBP Sukses Makmur Tbk (INDF)	Consumer Goods	7
9	PT Bukit Asam Tbk (PTBA)	Mining	7
10	PT Kalbe Farma Tbk (KLBF)	Pharmacy	7
11	PT Sarana Menara Nusantara Tbk (TOWR)	Infrastructure, Utilities	7
12	PT Semen Gresik Tbk (SMGR)	Basic Industry & Chemical	7
13	PT Charoen Phokphan Indonesia Tbk (CPIN)	Animal Feed	7
14	PT Gudang Garam Tbk (GGRM)	Consumer Goods, Sub Sektor : Tobacco	7
15	Garuda Food Putra Putri Jaya Tbk (GOOD)	Consumer Goods Industry, subsektor:food & Beverage	7

find out the best stock (Table 3).

From the data result shown in Table 3, several companies have outstanding, quite good or underperform fundamental performance. Subsequently, investors could choose the best stocks in a certain industry sector/sub-sector by eliminating the underperforming stocks that have a performance score below seven. Next new table was created to rearrange the company according to the best performance like the one illustrated in Table 4.

Now we have obtained a list of fifteen companies with the best performance in a particular sector or subsector. For example, recommended company for the Consumer Goods sector is PT Unilever Indonesia Tbk, for Finance is PT Bank Central Asia Tbk, for Trade, Services and Investment is PT ACE Hardware Tbk (ACES), and for Healthcare are PT Mitra Karya Sejahtera Tbk (MIKA), PT HM Sampoerna Tbk (MHSP), and PT Mayora Indah Tbk (MYOR).

If the investor want to increase their portfolio diversification, then it is advisable to choose PT Bank Negara Indonesia Tbk (BBNI), PT Indofood CBP Sukses Makmur Tbk (INDF), PT Bukit Asam Tbk, PT Kalbe Farma Tbk, PT Sarana Menara Nusantara Tbk (TOWR), and PT Semen Gresik Tbk (SMGR), and PT Charoen Phokphan Indonesia Tbk (CPIN), PT Gudang Garam Tbk (GGRM), and PT Garuda Food Putra Putri Jaya Tbk (GOOD).

When you are going to buy one of the stocks above, you need to hold on to a principle of 'buy with a cheap price and sell at a high price', this principle aligns with Warren Buffet statement 'be afraid when other people are greedy, and be greedy when others are afraid'. The example situation that corresponds with Buffet's suggestion is to buy a lot of stocks with good fundamentals when fear struck most of the stock investors and traders, in February until April 2020 due to

Table 5. Covid-19 impacts on share prices with good fundamental performance.

No	Stock Code	Share Price 2 January 2020	Share Price 15 March 2020 (Shares Price fall because of Covid Impact)	Share price 30 December 2020	Percentage different in share price January - March	Percentage different in share price January - December
1	UNVR	8550	6225	7350	-27.2 %	-14.0 %
2	BBCA	33450	23675	33850	-29.2 %	1.2 %
3	ACES	1510	1115	1715	-26.2 %	17.1 %
4	MIKA	2740	2000	2730	-27.0 %	-0.3 %
5	HMSP	2090	1345	1505	-35.7 %	-28 %
6	MYOR	2030	1550	2710	-23.7 %	33.5 %
7	BBNI	7775	3640	6175	-53.2 %	-20.6 %
8	INDF	7975	5750	6850	-27.9 %	-14.1 %
9	PTBA	2630	1800	2810	-31.6 %	6.8 %
10	KLBF	1615	980	1480	-39.3 %	-8.4 %
11	TOWR	800	630	960	-21.3 %	20 %
12	SMGR	12200	7050	12425	-42.2 %	1.8 %
13	CPIN	6575	4210	6525	-36.0 %	-0.8 %
14	GGRM	53350	39475	41000	-26.0 %	-1.6 %
15	GOOD	1510	224	1270	-85.2 %	-15.9 %
	JKSE	6284	4194	5979	-33.3 %	-4.9 %

COVID-19 pandemic dismay. Around that time blue-chip share prices on average have decreased more than 30% in comparison with the price in January 2020.

Shares with good fundamentals are usually more resistant to market disturbance, while stocks with quite low fundamentals are more likely to be exposed to market disturbance. To prove it, the writer has summarised the market price movement regarding COVID-19 impact towards stock with good fundamentals and stocks with a quite low fundamental performance by comparing the share price movement between 2 January 2020 and 30 December 2020 like shown in Table 5. The Indonesian index share price (IHSG) change was used as comparison data. Based on data in Table 5 we can

see that the price of the best companies in each sector fall around 30% average in March 2020 when the Covid-19 pandemic first wave hit Indonesia, but at the end of December 2020, the stock prices try to recovery toward a normal price as same as the price in early January 2020.

According to the data in Table 5, from fifteen stocks there are twelve or 60% of the companies in this list that have better recovery speed than the average recovery of all shares listed in the Indonesian stock exchange (IHSG). Six shares that their recovery loses to IHSG are UNVR, HMSP, BBNI, INDF, KLBF, and GOOD. We all know the business that highly disturbs by the COVID-19 are consumer goods, finance, and pharmacy sectors thus the recovery of companies that operates in these sectors

is slower than other sectors.

CONCLUSION

Every company shares price in Indonesia fell deeply because of investors and traders covid-19 panic sales. Stocks in Indonesia that have better financial performance face a lower decrease in share price compared to the average reduction in the consolidated share price index that happened due to COVID-19 dismay. It is faster for stocks with good fundamentals to return to a higher price when the worry had subsided. Share investors are suggested to purchase shares of a good fundamentals performance based on companies yearly financial report to increase the possibility get higher stock investment profit.

REFERENCES

- Alam AB (2017).** Pengaruh EVA, MVA, ROE dan TATO terhadap Harga Saham Food and Beverage. *Jurnal Ilmu dan Riset Manajemen*.
- Andrianto Y, Mirza AR (2015).** A Testing of Efficient Markets Hypothesis in Indonesia Stock Market. 3rd Global Conference on Business and Social Science, 16-17 December 2015, Kuala Lumpur Malaysia.
- Asri M, Heviadi A (1999).** Price Earnings Ratio (PER) Model Consistency: Evidence from Jakarta Stock Exchange. *Gajah Mada Int. J. Bus.* 1(2):85-97.
- Avallone F, Ramassa P, Roncagliolo E (2016).** XBRL Extension to the Financial Statement Notes: Field-based Evidence on Unlisted Companies. *Int. J. Digital Account. Res.* 16(3):61-84.
- Badruzaman J, Andriani R, Firmansyah I (2018).** The Analysis of Stock Price at Indonesia Stock Exchange. *Int. J. Recent Sci. Res.* 9(7A):27769-27773.
- Bhatt P, Sumangala JK (2012).** Impact of Earnings per share on Market Value of an equity share: An Empirical study in Indian Capital Market. *J. Finan. Account. Manage.* 3(2):1-14.
- Dayong L, Wu W (2018).** Margin trading and price efficiency: information content or price-adjustment speed? *Accounting and Finance Association of Australia and New Zealand*
- Dita AH, Murtaqi I (2014).** The Effect of Net Profit Margin, Price to Book Value and Debt to Equity Ratio to Stocks Return in the Indonesian Consumer Goods Industry. *J. Bus. Manage.* 3(3):305-315.
- Khairudin K, Wandita (2017).** Analisis pengaruh rasio Profitabilitas, Debt to Equity Ratio (DER), Price to Book Value (PBV) terhadap harga saham Perusahaan Pertambangan di Indonesia. *Jurnal Akuntansi & Keuangan*.
- Mashkour AC (2019).** Analysis of Financial Statements. Department of Business Administration, Al Muthanna University.
- Musinszki Z (2016).** Pénzügyi Mutatókon Innen És Túl. [Financial ratios from here and beyond]. *Észak-magyarországi Stratégiai Füzetek*, 13(2): 71-80.
- Öztürk H, Karabulut TA (2018).** The Relationship between Earnings-to-Price, Current Ratio, Profit Margin and Return: An Empirical Analysis on Istanbul Stock Exchange. *Account. Finan. Res. J.* 7:1.
- Setzu A, Marchesi M (2006).** The Effects of Short-Selling and Margin Trading: a Simulation Analysis. DIEE, University of Cagliari.
- Shen P (2001).** The P/E Ratio and Stock Market Performance. Federal Reserve Bank of Cansas City.
- Zaman R (2014).** Impact of Dividend Yield and Price Earnings Ratio on Stock Returns: A Study Non-Financial listed Firms of Pakistan. *Res. J. Finan. Account.* 5:19.
<https://finance.yahoo.com>.
<https://www.idx.co.id>
- <http://www.sciencewebpublishing.net/jeibm>