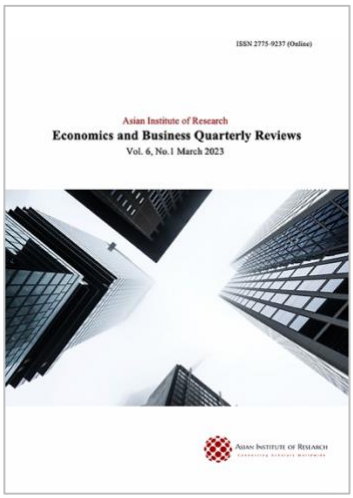

Economics and Business Quarterly Reviews

Sitorus, S. O. B., Njotoprajitno, R. S., & Hadianto, B. (2023). Information on Cash Flow Statements and Stock Return. *Economics and Business Quarterly Reviews*, 6(1), 140-147.

ISSN 2775-9237

DOI: 10.31014/aior.1992.06.01.492

The online version of this article can be found at:
https://www.asianinstituteofresearch.org/

Published by:
The Asian Institute of Research

The Asian Institute of Research *Journal of Economics and Business* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which includes, but is not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, Behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Economics and Business* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Asian Institute of Research
Economics and Business Quarterly Reviews
Vol.6, No.1, 2023: 140-147
ISSN 2775-9237

DOI: 10.31014/aior.1992.06.01.492

Information on Cash Flow Statements and Stock Return

Sri Oktavia Br Sitorus[1], Rosemarie Sutjiati Njotoprajitno[2], Bram Hadianto[3]

[1] Management Department of Business Faculty, Maranatha Christian University, Bandung, Indonesia. Email: sri.octavia.s18@gmail.com
[2] Management Department of Business Faculty, Maranatha Christian University, Bandung, Indonesia. Email: rosemarie.sutjiati@gmail.com
[3] Management Department of Business Faculty, Maranatha Christian University, Bandung, Indonesia. Email: bram.hadianto@eco.maranatha.edu

Correspondence: Bram Hadianto, Management Department of Business Faculty, Maranatha Christian University, Jl. Prof. Drg. Suria Soemantri MPH. No.65 Bandung. Email: bram.hadianto@eco.maranatha.edu

Abstract
This research aims to test and analyze information from the cash flow statement on the share return. The cash flow intended is from operating, financing, and investing activities. Meanwhile, the shares utilized belong to the infrastructure, utility, and telecommunication companies listed on the Indonesian capital market between 2018 and 2021. Because this study uses the change in three cash flows, the secondary data from 2017 to 2021 based on the firm annual reports and the stock price at the end of these years are employed. Additionally, the t-statistics and their probability provided by a multiple regression model to statistically examine the hypotheses proposed are applied. Finally, this study concludes that the higher the cash flow from investing activities, the higher the stock return. However, the positive change in the financing cash flow tends to reduce this return. Meanwhile, this return is not affected by the cash flow from operating activities.

Keywords: Cash Flow Statement, Financing Activities, Investing Activities, Stock Return

1. Introduction

Fundamentally, stock price movement in the capital market is determined by the information from financial reports (Hartono, 2017; Herawati & Putra, 2018). This situation exists when the capital market is inefficient in semi-strong shape in the annual financial report publication (Azis et al., 2020; Hartono, 2017; Julyana et al., 2022; Njoroge et al., 2021; Pratama & Asyik, 2017). In this context, the market reaction is statistically influenced by the financial ratios: liquidity, solvability (Azis et al., 2020), and asset turnover (Pratama & Asyik, 2017). These financial ratios come from the calculation based on the income statement and balance sheet accounts, including accounts related to the change in retained earnings (Gitman & Zutter, 2015).

Besides the income statement, balance sheet, and retained earnings, another financial report component is the cash flow statement. This statement calculates the cash at the end of the period. The calculation utilizes the profits after tax, depreciation during the period, and the change in balance sheet accounts at the end of the period. Also, this

statement is classified by the cash flow from three activities: operating, investing, and financing (Gitman & Zutter, 2015).

The research results testing the association between cash flow from the operating activities and stock return are inconstant. For instance, Bala (2017) and Muniroh and Yulianti (2021) display no relationship. In their study, Oroud et al. (2017), Dang et al. (2018), Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), and Kipngetich et al. (2021) exhibit a positive impact. Itan and Riana (2021) also confirm this sign after investigating the relationship between this cash flow and firm value based on Q-Tobin. Unfortunately, Ni et al. (2019) and Tunio et al. (2020) demonstrate a negative influence.

Similarly, this inconsistency happens in the relationship between cash flow from investment activities and stock return. For example, Bala (2017) affirms no effect. Moreover, Tunio et al. (2020) exhibit a positive impact. Unfortunately, Oroud et al. (2017), Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), Ni et al. (2019), Itan and Riana (2021), and Muniroh and Yulianti (2021) display a negative influence. This sign is confirmed by Itan and Riana (2021) after investigating the association between this cash flow and Q-Tobin as the proxy of firm value.

Also, different results exist when scholars try to prove the relationship between cash flow from financing activities and stock return. For instance, Bala (2017), Oroud et al. (2017), and Muniroh and Yulianti (2021) display no association. Meanwhile, Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), Ni et al. (2019), and Tunio et al. (2020) exhibit a positive impact. Unfortunately, Itan and Riana (2021) demonstrate a negative influence after investigating the relationship between this cash flow and firm value measured by Q-Tobin.

Based on these different results, this study examines the effect of cash flow from these three activities on stock return by employing the size and years as the control variable by taking the infrastructure, utility, and telecommunication companies listed on the Indonesian capital market. Indeed, according to Hanafi (2016), public investors expect this positive return in the capital market because of their wealth creation.

2. Literature Review and Hypothesis Development

2.1. The cash flow change from the operating activities and stock return

Cash flow from operating activities is cash inflow and outflow directly associated with the revenue from services and expenses related to the service delivered to the consumer. Specifically, the related accounts in financial statements are net profit after taxes, depreciation, current assets, and short-term liabilities (Gitman & Zutter, 2015). A positive change in this cash flow demonstrates that a firm can get additional net funds based on its operating activities. Therefore, public investors reward this situation by buying stock, elevating the stock price. This situation is confirmed by Oroud et al. (2017), Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), and Kipngetich et al. (2021), exhibiting a positive impact of this cash flow on share return. Based on this explanation, the first hypothesis is declared as follows.

H_1: The more significant the change in the cash flow from the operating activities, the bigger the stock return.

2.2. The cash flow change from the investing activities and stock return

Cash flow from investing activities is cash inflow and outflow directly associated with purchasing and selling fixed assets. Besides, investing stocks in other firms includes this activity. A decrease in this cash flow indicates the fund utilization of investing activities. (Gitman & Zutter, 2015). Public investors prefer these actions because they can generate profits leading to a positive difference in stock price (Kasmiati & Santosa, 2019). This circumstance is confirmed by Oroud et al. (2017), Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), Ni et al. (2019), Itan and Riana (2021), and Muniroh and Yulianti (2021), demonstrating a negative influence of this cash flow change on stock return. Based on this explanation, the second hypothesis is declared as follows.

H_2: The less significant the change in the cash flow from the investing activities, the bigger the stock return

2.3. The cash flow change from the financing activities and stock return

Cash flow from financing activities is cash inflow and outflow directly associated with long-term liabilities and equity transactions (Gitman & Zutter, 2015). The increase in this cash flow indicates that the company can accumulate external funds from the bank or public investor through the right issue. It demonstrates that the firm is still trusted by its creditors and shareholders; therefore, a positive price change happens. This situation is confirmed by Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), Ni et al. (2019), and Tunio et al. (2020), displaying a positive tendency of this cash flow change on stock return. Based on this explanation, the third hypothesis is declared as follows.

H_3: The more significant the change in the cash flow from the financing activities, the larger the stock return

3. Research Methods

3.1. Variable Definition

This research employs stock return as the dependent variable by dividing the stock price at the end of the year of the current period by the stock price at the previous period (RET). It refers to Kasmiati and Santosa (2019). Furthermore, this change in the cash flow from the operating, investing, and financing activities, symbolized by D_CFOA, D_CFIA, and D_CFFA, is utilized as three primary variables. Meanwhile, the firm size is measured by total revenue by denoting Hashmi (2020) as the control variable. Regarding the utilization of change in three cash flows, we adjust this revenue with a similar measurement. Also, the dummy of the years used is based on Ni et al. (2019) as the control variable.

3.2. Population and Sample

The population comes from the infrastructure, utility, and telecommunication companies continually listed on the Indonesia capital market between 2018 and 2021, with the market price at the end of December 2017. Based on this requirement, its population size (PS) is 52. Furthermore, the representing samples (RS) are calculated by the Slovin formula with an error margin of 10%. According to Suliyanto (2009), the technique is displayed in the subsequent first equation:

$$RS = \frac{PS}{1+(PS.em^2)} \quad \text{..... (Equation 1)}$$

Once utilizing this formula, the representative sample (RS) = $\frac{52}{1+(52\ x\ 10\%\ x\ 10\%)} = \frac{52}{1.52} = 34.21 \approx 34$ companies. After that, they are taken by the simple random sampling method, and their name can be seen in Table 1.

Table 1: The name of the companies performing as the samples

No.	Code	The name of the company
1.	PGAS	Pertamina Gas Negara
2.	POWR	Cikarang Listrindo
3.	RAJA	Rukun Raharja
4.	TGRA	Terregra Asia Energy
5.	CASS	Cardig Aero Services
6.	CMNP	Citra Marga Nusaphala Persada
7.	JSMR	Jasa Marga (Persero)
8.	KARW	ICTSI Jasa Prima
9.	META	Nusantara Infrastructure
10.	EXCL	XL Axiata
11.	FREN	Smartfren Telecom
12.	ISAT	Indosat
13.	TLKM	Telkom Indonesia (Persero)
14.	BIRD	Blue Bird

Table 1: The name of the companies performing as the samples

No.	Code	The name of the company
15.	BULL	Buana Lintas Lautan
16.	GIAA	Garuda Indonesia (Persero)
17.	HITS	Humpuss Intermoda Transportasi
18.	LEAD	Logindo Samudramakmur
19.	LRNA	Eka Sari Lorena Transport
20.	MBSS	Mitrabahtera Segara Sejati
21.	MIRA	Mitra International Resources
22.	NELY	Pelayaran Nelly Dwi Putri
23.	PTIS	Indo Straits
24.	SMDU	Sidomulyo Selaras
25.	SHIP	Sillo Maritime Perdana
26.	SOCI	Soechi Lines
27.	TAMU	Pelayaran Tamarin Samudra
28.	TAXI	Express Transindo Utama
29.	TPMA	Trans Power Marine
30.	BALI	Bali Towerindo Sentra
31.	BUKK	Bukaka Teknik Utama
32.	CENT	Centratama Telekomunikasi Indonesia
33.	TBIG	Tower Bersama Infrastructure
34.	TOWR	Sarana Menara Nusantara

3.3. Method to analyze the data

This study employs the regression model with pooling data based on variable position defined in section 3.1. With this model, the data used are cross-sectional and time-series (Gujarati et al., 2019). Therefore, the model with the variables can be seen in the following second equation.

$$RET_{it} = \beta_0 + \beta_1 D\_CFOA_{it} + \beta_2 D\_CFIA_{it} + \beta_3 D\_CFFA_{it} + \beta_4 DREV_{it} + \beta_5 D2019 + \beta_6 D2020 + \beta_7 D2021 + \varepsilon_{it} \ldots. (2)$$

As an outstanding empirical model, the regression must meet classical assumptions: normality of residual, free from heteroskedasticity, multicollinearity, and autocorrelation. Furthermore, the Jarque-Bera statistic is used to examine the normality. Meanwhile, the Glesjer and variance inflation factor detect heteroskedasticity and multicollinearity. Finally, the Durbin-Watson statistic is employed to verify the autocorrelation (Gujarati et al., 2019).

4. Result And Discussion

4.1. The testing result of classical assumptions

Figure 1 displays the normality test result based on the Jarque-Bera statistic. In this figure, the probability of this statistic is 0.090471. Because this value is above the 5% significance level, the residuals are normally distributed, meeting the required normality assumption.

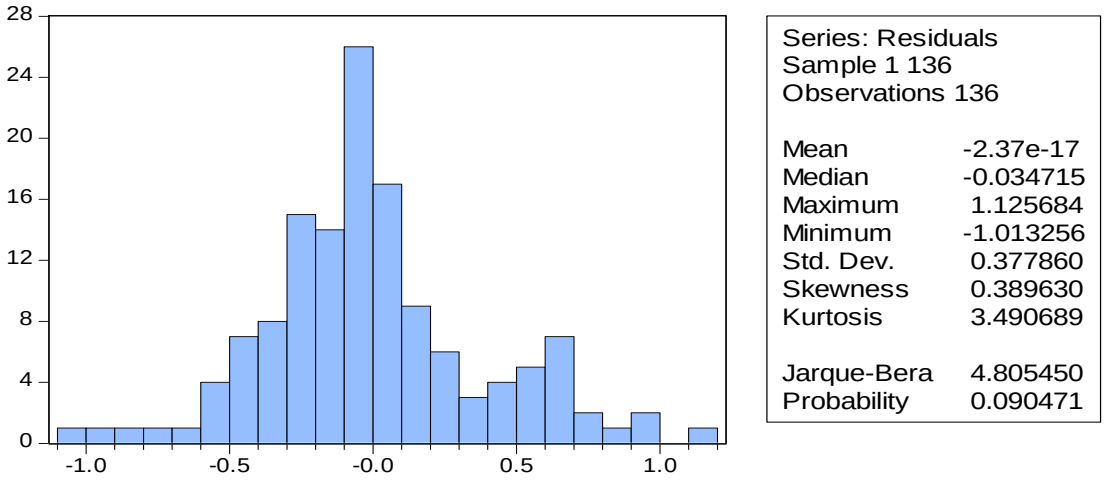

Figure 1: The normality test result based on the Jarque-Bera statistic

Source: The output of E-Views 6

Table 2 demonstrates the Glesjer heteroskedasticity testing result with the Chi-Square (7) probability based on Obs*R-square of 0.2208. This value is more significant than the 5% significance level. Therefore, by mentioning Gujarati et al. (2019), heteroskedasticity does not occur, achieving the required non-heteroskedasticity assumption.

Table 2: The Heteroskedasticity Testing Result based on Glejser

F-statistic	1.368262	Probability of F-statistic (7,128)	0.2242
Obs*R-squared	9.467987	Probability of Chi-Square(7)	0.2208
Scaled explained SS	10.75365	Probability of Chi-Square(7)	0.1497

Test Equation:
Dependent Variable: ARESID
Method: Least Squares
Date: 01/23/23 Time: 14:05
Sample: 1 136
Included observations: 136

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.053044	0.086163	0.615619	0.5392
D_CFOA	0.002068	0.002411	0.857936	0.3925
D_CFIA	-0.000926	0.001425	-0.650066	0.5168
D_CFFA	0.002069	0.001995	1.037286	0.3016
D_REV	0.173625	0.067212	2.583252	0.0109
D2019	0.048002	0.060644	0.791541	0.4301
D2020	0.085198	0.062071	1.372571	0.1723
D2021	0.062834	0.061342	1.024321	0.3076

Source: The output of E-Views 6

Table 3 presents the multicollinearity detection result. Variance inflation factor (VIF) for the primary variables: D_CFOA, D_CFIA, and D_CFFA, and control variables: D_REV, D2019, D2020 and D2021 are below 10: 1.030, 1.041, 1.061, 1.080, 1.526, 1.599, and 1.562. Because of this circumstance, according to Gujarati et al. (2019), this model does not contain multicollinearity.

Table 3: The result of multicollinearity detection

Independent Variable	Collinearity Statistics	
	Tolerance	VIF
D_CFOA	0.971	1.030
D_CFIA	0.961	1.041
D_CFFA	0.943	1.061
D_REV	0.926	1.080
D2019	0.655	1.526
D2020	0.625	1.599
D2021	0.640	1.562

Source: The output of IBM SPSS 19

The autocorrelation testing result demonstrates the Durbin-Watson statistic of 2.126493 (see the fourth table). Because this value is between 1.5 and 2.5 as the rule of thumb, as explained by Kenton (2021), autocorrelation is unavailable.

3.4. The estimation result of the regression model

Table 4 exhibits the estimation result of the regression model. In this table, the probability of t-statistic for D_CFOA is higher than the 5% significance level: 0.7633. Hence, the first hypothesis is rejected: the cash flow from operating activities does not affect the stock return. The second and third hypotheses are recognized because the t-statistical probability for D_CFIA and D_CFFA is below the 5% significance level: 0.0034 and 0.0160. However, the regression coefficient is different: positive and negative. Therefore, the cash flow from investing and financing activities positively and negatively affect stock returns.

Table 4: The Estimation Result of Regression Model: The Influence of Cash Flow from Operating, Investing, and Financing Activities on Stock Return

Method: Least Squares
Date: 01/23/23 Time: 14:03
Sample: 1 136
Included observations: 136

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.683273	0.134895	5.065217	0.0000
D_CFOA	-0.001139	0.003774	-0.301774	0.7633
D_CFIA	0.006662	0.002231	2.985971	0.0034
D_CFFA	-0.007626	0.003123	-2.441826	0.0160
D_REV	0.238360	0.105226	2.265225	0.0252
D2019	0.135419	0.094943	1.426317	0.1562
D2020	0.126231	0.097178	1.298971	0.1963
D2021	0.194504	0.096036	2.025324	0.0449
R-squared	0.167832	Mean dependent var		1.053866
Adjusted R-squared	0.122323	SD dependent var		0.414215
SE of regression	0.388055	Akaike info criterion		1.001682
Sum squared residual	19.27507	Schwarz criterion		1.173014
Log-likelihood	-60.11436	Hannan-Quinn criterion.		1.071307
F-statistic	3.687880	Durbin-Watson statistic		2.126493
Probability (F-statistic)	0.001155			

Source: The output of E-Views 6

3.5. Discussion

The first hypothesis testing outcome shows that cash flow from operating activities does not affect the stock return. Statistically, the inability of this cash flow change to affect this return is due to the slightest standard deviation:

8.9822914 (see Table 5): this change has the most minor value variation. Besides, it is supported by the bottommost mean towards 0: 0.456900 (see Table 5): the low differences cover the enormous differences; therefore, the overall change in these extra operating funds is insignificant. Based on this evidence, this study supports Bala (2017), utilizing financial investment banks listed on the Khartoum stock exchange, and Muniroh and Yulianti (2021), employing the food and beverage sub-sector companies listed on the Indonesian capital market.

Table 5: Mean and standard deviation for each primary variable measurement: D_CFOA, D_CFIA, and D_CFFA

Variable	N	Mean	Std. Deviation
D_CFOA	136	0.456900	8.9822914
D_CFIA	136	2.571942	15.2713094
D_CFFA	136	0.879503	11.0142962

Source: The output of IBM SPSS 19

The second hypothesis testing outcome demonstrates that the change in cash flow from investing activities positively influences stock return, which contradicts the proposed hypothesis. The growth in investing cash flow means reducing investment-related actions. This situation happens because the Covid-19 pandemic period is involved in this study: 2020-2021. During this pandemic, managers carefully spend money on investments. Indeed, public investors appreciate this effort by buying the stocks, leading to an upsurge in the stock price. Based on this fact, this study confirms Tunio et al. (2020).

The third hypothesis testing outcome demonstrates that cash flow from financing activities influences stock return negatively, which is in line with the proposed hypothesis. Although crossing the pandemic time, the company can still get trusted by creditors or public shareholders. Profits contributing to retained earnings, especially from telecommunication firms, add funding sources, growing the overall stock returns. Based on this fact, this study confirms Utomo and Pamungkas (2018), Kasmiati and Sentosa (2019), Ni et al. (2019), and Tunio et al. (2020).

4. Conclusion

As a part of the financial report, the information on the cash flow statement detects the final cash position based on the source and utilization. This flow comes from operational, investment, and financial activities. This study aims to prove the impact of three flows on stock return in the infrastructure, utilization, and telecommunication industry companies. Based on the statistical examination, this study effectively demonstrates that operating cash flow does not influence the stock return. Meanwhile, investment and financial cash flow affect this return positively and negatively, respectively.

This research has some boundaries. Firstly, it only involves three sources of cash flow affecting return factors. This situation can be improved by combining these factors with four primary financial ratios in one model. Secondly, it only covers the infrastructure, utility, and telecommunication companies and four years as the time observation. Indeed, the following scholars utilize non-financial companies as the population and samples within ten years.

References

Azis, I., Nianty, D. A., & Marlinah, A. (2020). Financial ratios, economic value added and market reaction: A quantitative study on the Indonesian stock exchange. *Jurnal Manajemen Bisnis*, *7*(2), 82–91. https://doi.org/10.33096/jmb.v7i2.573

Bala, S. A. (2017). The relationship between cash flows and stock returns: An empirical study of financial investment banks on the Khartoum stock exchange. *Applied Finance and Accounting*, *3*(2), 14–19. https://doi.org/10.11114/afa.v3i2.2236

Dang, N. H., Tran, M. D., & Nguyen, T. L. A. (2018). Investigation of the impact of financial information on stock prices: The case of Vietnam. *Academy of Accounting and Financial Studies Journal*, *22*(2), 1–12.

https://www.abacademies.org/articles/investigation-of-the-impact-of-financial-information-on-stock-prices-the-case-of-vietnam-7223.html

Gitman, L. J., & Zutter, C. J. (2015). *Principles of Managerial Finance* (14th ed.). Pearson Education, Inc.

Gujarati, D. N., Porter, D. C., & Pal, M. (2019). *Basic Econometrics* (6th ed.). McGraw-Hill Education.

Hanafi, M. M. (2016). *Financial Management* (2nd ed.). Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.

Hartono, J. (2017). *Portfolio Theory and Investment Analysis* (11th ed.). Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.

Hashmi, S. D., Gulzar, S., Ghafoor, Z., & Naz, I. (2020). Sensitivity of firm size measures to practices of corporate finance: Evidence from BRICS. *Future Business Journal*, *6*, 9. https://doi.org/10.1186/s43093-020-00015-y

Herawati, A., & Putra, A. S. (2018). The influence of fundamental analysis on stock prices: The case of food and beverage industries. *European Research Studies Journal*, *21*(3), 316–326. https://doi.org/10.35808/ersj/1063

Itan, I., & Riana, W. (2021). The impact of cash flow statement on firm value in Indonesia. *Forum Ekonomi*, *23*(3), 442–453. https://doi.org/10.30872/jfor.v23i3.9703

Julyana, J., Njotoprajitno, R. S., & Hadianto, B. (2022). Market responses around the publication dates of the annual financial report. *Journal of Economics and Business*, *5*(1), 46–51. https://doi.org/10.31014/aior.1992.05.01.403

Kasmiati, K., & Santosa, P. W. (2019). The effect of earning information, cash flow components, and financing decision on stock returns: Empirical evidence on Indonesia stock exchange. *Journal of Economics, Business, & Accountancy Ventura*, *22*(2), 157–166. https://doi.org/10.14414/jebav.v22i2.1638

Kenton, W. (2021). *Durbin-Watson test: What it is in statistics, with examples*. Investopedia. https://www.investopedia.com/terms/d/durbin-watson-statistic.asp

Kipngetich, S. B., Tenai, J., & Kimwolo, A. (2021). The effect of operating cash flow on stock return of firms listed in the Nairobi security exchange. *Eastern Journal of Economics and Finance*, *6*(1), 26–35. https://doi.org/10.20448/809.6.1.26.35

Muniroh, I., & Yuliati, A. (2021). Do cash flow and accounting profit information affect stock price? *Journal of Accounting and Strategic Finance*, *4*(1), 108–121. https://doi.org/10.33005/jasf.v4i1.199

Ni, Y., Huang, P., Chiang, P., & Liao, Y. (2019). Cash flow statements and firm value: Evidence from Taiwan. *Quarterly Review of Economics and Finance*, *71*, 280–290. https://doi.org/10.1016/j.qref.2018.09.004

Njoroge, P., Baumann, M., Baumann, M., & Shevchenko, D. (2021). Stock price reactions to publications of financial statements: Evidence from the Moscow stock exchange. *Journal of Corporate Finance Research*, *15*(1), 19–36. https://doi.org/10.17323/j.jcfr.2073-0438.15.1.2021.19-36

Oroud, Y. S., Islam, M. A., & Ahmad, T. S. T. (2017). The effect of cash flows on the share price on the Amman stock exchange. *American Based Research Journal*, *6*(7), 22–28. https://www.researchgate.net/publication/323285916

Pratama, L. N., & Asyik, N. F. (2017). The impact of financial performance and dividend policy on market reaction. *Jurnal Ilmu & Riset Akuntansi*, *6*(4). http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/1033

Suliyanto, S. (2009). *Research Business Method*. Penerbit Andi.

Tunio, F. H., Agha, K., Khan, M. A., Kishore, M., Nabi, A. A., & Zubair, H. U. R. P. (2020). The impact of cash flow on the share price of firms: A case study on gas and oil marketing industry of Pakistan. *Palarch's Journal of Archaeology of Egypt/Egyptology*, *17*(9), 7290–7300. https://archives.palarch.nl/index.php/jae/article/view/5467

Utomo, S. D., & Pamungkas, I. D. (2018). Cash flow activities and stock returns in manufacturing of Indonesia: A moderating role of earning management. *Academy of Accounting and Financial Studies Journal*, *22*(6), 1–10. https://www.abacademies.org/articles/Cash-Flow-Activities-and-Stock-Returns-in-Manufacturing-of-Indonesia-1528-2635-22-6-307.pdf