

Analysis of the Effect of Operating Cash Flow, Leverage, and Firm Size on Earnings Persistence

Rezika Farah Sabila¹, Einde Evana¹, Ratna Septiyanti¹

¹Accounting Science, Faculty of Economics and Business, University of Lampung, Indonesia

*Corresponding Author: Rezika Farah Sabila

Received: April 21, 2021

Revised: June 2, 2021

Accepted: June 16, 2021

Abstract

This research aims to provide empirical evidence in the effect of operating cash flow, leverage, and firm size on earnings persistence. The data used on this research is historical secondary data. The data used in this research were taken from website www.idx.co.id. A population in this research were companies listed on the Indonesia Stock Exchange (IDX) sector food & beverage for the period 2015-2019. Sampling method used is purposive sampling method with a sample of 33 companies. The outcome of this research indicate that operating cash flow & firm size have a positive effect on earning persistence. Meanwhile, leverage does not affect earning persistence.

Keywords: Operating Cash Flow, Leverage, Firm Size, Earnings Persistence

Introduction

The global economy, is under pressure due to the economic crisis which has an impact on the Indonesian economy. One of the impacts of this economic crisis is a household consumption growth is a slowdown and has decreased for the last few years. Household consumption is one of the references in measuring the economy as a whole. The trend of consumption growth is always in line with the rate of economic growth. When consumption growth is slow, it will affect aggregate economic growth.

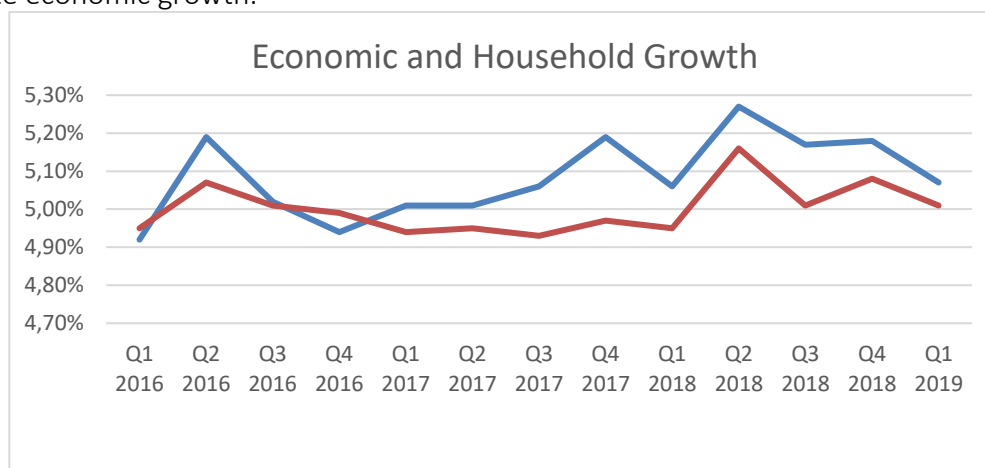


Figure 1. Economic Growth Trends and Household Growth During Four Years

From the picture above, Indonesia's economic growth has fluctuated. In general, the appearance of companies that listed in food & beverage sector is still growing. However, in the first quarter of 2019, the performance of companies in this research is decreased. In the first quarter of 2019, the food and beverage sector grew by 6.77% (YoY). Although it grew higher compared to the fourth quarter of 2018, which was only 2.74% growth in the first quarter of this year, which was the lowest compared to previous years which reached 8 to 12% (Katadata.co.id). The decline in the performance of listed companies in food & beverage sector follows data from Central Statistics Agency (BPS) regarding economic growth in the manufacturing sector, particularly in the food and beverage sector.

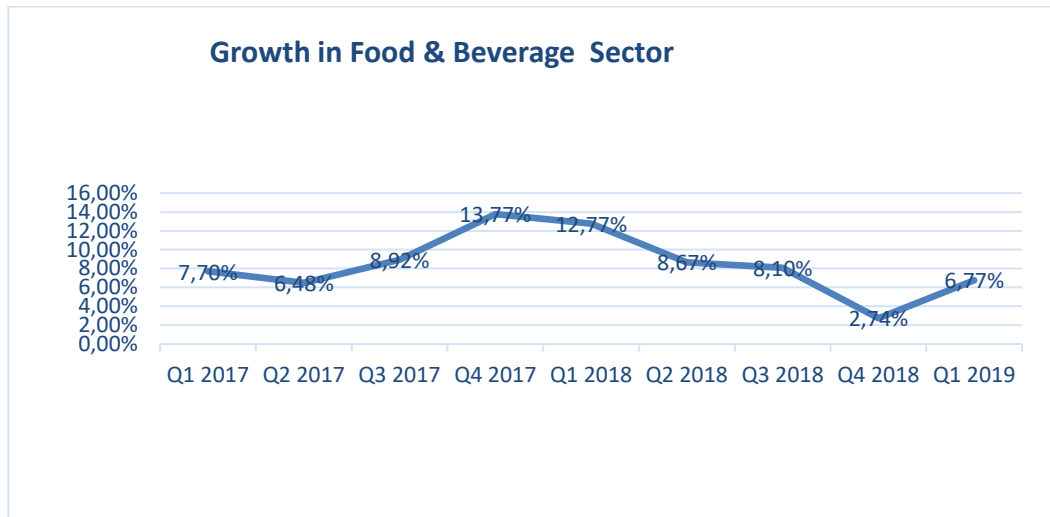


Figure 2. YoY Growth in Food & Beverage Sector

Earnings persistence according to (Penman & Zhang, 2002) is a revision of future earnings which is determined by current earnings. The amount of revision indicates the level of earnings persistence. Earnings persistence is an indicator of earnings quality which is often used as a measuring tool in examining company performance for investment decisions. Persistent profit is profit that has the capability as an indicator of future earnings generated by the company repeatedly (repetitively) in the long term (sustainable) (Hui et al., 2016). So that profits that do not fluctuate too much is a feature of persistent earnings. Earnings persistence can only be calculated per year and cannot be calculated on a quarterly or quarterly basis.

Many factors can affect the persistence of earnings, one of them is the independent variable that used in this study. Operating cash flow can be seen from a cash flow report. Operating cash flow is cash flow obtained from the company's business activities. Cash flow is a better financial indicator than accounting because cash flow is relatively more difficult to manipulate. Usually, accounting manipulation is carried out using different accounting methods for the same transaction which has the aim of displaying the desired income (Fanani, 2010). In reducing information asymmetry and the risks posed by decision-making, managers use operating cash flow as a positive signal to stakeholders. Therefore, operating cash flow is positively correlated with earnings persistence. Companies with greater cash flow from operating activities will have higher earnings, and vice versa (Widiatmoko, 2019).

In addition, leverage can affect the persistence of a company's earnings. Leverage is one way to get additional capital or funding from external parties with the consequence that the company will enter into a contractual bond with creditors. The consequence of leverage is a company must pay principal and interest if the company is unable to pay, it will pose a risk of failure. On the other hand, if the company's leverage is high, the company will increase their earnings persistence to maintain their performance in front of shareholder.

And then, along with the development of a company's operational activities, it will also affect the size of the company. Firm size is a scale that classifies large or small companies. Investors usually have more confidence in investing in big companies, because big companies is considered to has positive corporate cash flows and considered to has good prospects on a relatively long period. On the other hand, big companies reflect that the company is relative more stable and more capable of generating high and persistent profits.

Hypothesis Development

Value that contained in cash flows during a period reflects the value of profit on a cash basis (cash basis). Cash flow is a better financial indicator than accounting because cash flow is relatively more difficult to manipulate. Accounting manipulation is usually carried out through the use of different accounting methods for the same transaction to display the desired income (Fanani, 2010). When the company's operational activities are good, the revenue generated by the company will also be good. Therefore, the higher the operating cash flow component contained in current earnings, the higher the earnings persistence.

H1: Operating cash flow has a positive effect on earnings persistence.

Leverage is a financial obligation that a company has to shareholder that had not been completed where this leverage is a source of funds or capital for a company (Barus & Rica, 2014). On the other hand, besides increasing the capital on the company, the level of debt also obliges the company to pay the interest and principal at due date. Therefore, leverage is the information in financial statements that can affect investor perceptions. If the company has to pay high leverage, the company has a risk of default to creditors. While if the company has a higher leverage, it's make companies maintain their profits so they have good performance for investors and creditors (Malahayati, 2015).

H2: Leverage has a positive effect on earnings persistence

Firm size is proportion in determining how big or small a company is. Usually investors have confidence in companies that have large assets, because total assets will reflect the resources a company has to carry out its main activities. Big companies are considered to have reached the mature stage which is reflected in the company's ability to generate stable and persistent profits compared to small companies (Nuraeni et al., 2018). For big companies, the level of certainty for obtaining profits is usually very high so that the estimation error will be smaller. Conversely, for small companies, it is likely that the profits obtained are not stable because the level of certainty of earnings is lower (Dechow, P. M.; Dichev, 2002).

H3: Firm size has a positive effect on earnings persistence

Methods

Population in this research is companies that listed on the Indonesian Stock Exchange (IDX) in food & beverage sector. The sampling method in this research used a purposive sampling with the following criteria, namely: Companies in food & beverage sector that have IPO's on the Indonesia Stock Exchange (IDX) at least since 2015. The company published financial reports from 2015 to 2019 which there are data used in this research. Based on the results of observations made on the selection of samples, the following research data were obtained.

Table 1. Result of Purposive Sampling

No	Criteria	Total
1	Companies in food & beverage sector that listed on the Indonesia Stock Exchange (IDX) from 2015-2019.	54
2	Food & beverage sector companies that have been IPO on the Indonesia Stock Exchange (IDX) since at least 2015.	(13)
3	The company published financial reports from 2015 to 2019 which there was data used in this research.	(8)
Total companies		33

Data collection technique that used in this research is documentation technique. This technique is collection of secondary data by viewing, studying, and quoting records obtained from the Indonesia Stock Exchange (IDX). These documents are financial statements of each company for 2015-2019 which listed on the Indonesia Stock Exchange (IDX) in food & beverage sector. Based on the hypothesis that has been built on the explanation of the variables in the previous chapter, the research model equation can be formulated as follows:

$$Y = \alpha + \beta_1 (AKO) + \beta_2 (DER) + \beta_3 (SIZE) + \epsilon$$

Description:

- Y : Earning Persistence
- AKO : Operating Cash Flow
- DER : Leverage
- SIZE : Firm Size
- α : Regression Constant
- β_1-3 : Regression Coefficients
- e : error

Dependent variable that used in this research is earnings persistence. In assessing the persistence of earnings, the main factor that is seen is the profit of the company itself. Profit is the difference between income minus expenses in a period. In addition, profit is also associated with an increase in a capital (net assets) from irregular transactions of a business entity during a certain period, except for those arising from the owner's income or investment (Choirina & Ahmar, 2012). So that when a company experiences income that is not persistent, it will have an impact on the fluctuation of assets owned by a company. To measure the persistence of earnings in this study the formula used is following the measurements made by (Dewi & Putri, 2015) and (Septavita et al., 2016).

$$\text{Earning Persistence} = \frac{\text{Earning Before Tax}_{t+1}}{\text{Average Total Assets}}$$

There are 3 (three) independent variables in this study, namely: an operating cash flow, leverage, and firm size. Operating cash flow is cash obtained from the main revenue-producing activities of the company. Operating cash flow is financial performance information that is used in assessing the potential of a company and can be used as an indicator to measure the success of company performance (Aini & Zuraida, 2020). In this study, the formula used to measure operating cash flow refers to research (Putri et al., 2017).

$$\text{Operating Cash Flow} = \frac{\text{Total Operating Cash Flow}}{\text{Total Assets}}$$

Leverage is a financial obligation that a company has to shareholder that has not been completed where this leverage is a source of funds or capital for a company (Barus & Rica, 2014). Leverage in this research is calculated using debt to equity ratio. This ratio illustrates the extent to which the owner's capital can cover debts to outsiders (Harahap, 2009).

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

The size of the company reflects the ability to provide the amount and variety of production capacity of a company's goods or services. Big companies more stable and able to generate persistent profits compared to small companies (Nuraeni et al., 2018). A formula that used to calculate firm size is:

$$\text{Size} = \ln \text{Total Assets}$$

Result and Discussion

Descriptive statistical analysis is used to see an overview of the variables that consisting of Operating Cash Flow (AKO), Leverage (DER), and Firm Size (SIZE), and Earnings Persistence (PL). This research uses 165 samples from companies in Indonesia that listed on the Indonesia Stock Exchange (IDX) sector food and beverage in 2015-2019. From these samples, descriptive statistical analysis was carried out as follows.

Table 2. Descriptive Analysis

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Operating Cash Flow	165	-0,2339	0,5305	0,1124	0,1296
Leverage	165	-2,1273	2,9094	0,7610	0,7092
Firm Size	165	11,1265	13,9846	12,4961	0,7318
Earning Persistence	165	-0,2406	0,6341	0,1178	0,1563

Source: SPSS 23, 2021.

Based on table 2 the results of descriptive statistical analysis describe that operating cash flow has a minimum value of -0.2339 owned by the company PT Merck Tbk in 2019 and a maximum value of 0.5305 owned by the company PT Multi Bintang Indonesia Tbk in 2017. The average obtained from the statistical calculation of the operating cash flow variable is 0.1124. This means

that the company tends to get cash from the results of its operations. The standard deviation value in the operating cash flow variable is 0.1296.

The minimum value of the leverage variable is -2.1273 which is owned by Tiga Pilar Sejahtera Food Tbk in 2019, while the maximum value of leverage is 2.9094 which is owned by PT Unilever Indonesia Tbk. in 2019. Meanwhile, the average value of leverage variable in all companies in the study sample was 0.7610 and the standard deviation value was 0.7092.

In the firm size variable, the minimum value is 11,1265 which is the smallest company size in research owned by PT Kedaung Indah Can, Tbk with total assets of Rp. 133,831,888,816 and the biggest company size with a maximum value of 13,9846 owned by PT Indofood Sukses Makmur, Tbk with total assets of Rp. 96,537,796,000,000. The average value of the company size of all companies that became the research sample was 12.4961 and the standard deviation value was 0.7318.

Based on table 2, it can be seen that the earnings persistence variable (PL) has a minimum value of -0.2406 which is the lowest profit persistence value owned by PT Martino Berto, Tbk in 2019. Meanwhile, the maximum value of the earnings persistence variable is 0.6341. by PT Unilever Indonesia, Tbk in 2017. The average value of the earnings persistence variable is 0.1178. While the standard deviation of the earnings persistence variable is 0.1563.

Hypothesis Testing

Table 3. Results t-Test Multiple Regression Analysis

Variable	Hypothesis	Regression Coefficient (β)	Sig.	Conclusion
Constant		-0,564	0,000	-
Independent Variable:				
AKO	+	0,774	0,000	Significant, H ₁ Supported
DER	-	-0,019	0,136	Not significant, H ₂ Not Supported
SIZE	+	0,049	0,000	Significant, H ₃ Supported

Source: SPSS 23, 2021.

Based on the results of t-test for the operating cash flow, it has a regression coefficient of 0.774 and a significance value of 0.000 (smaller than 0.05). This proves that a operating cash flow has a positive and significant effect on earnings persistence, so H₁ is **“supported”**. It can be said that if the operating cash flow is greater, the probability of the persistence level of earnings is also large and vice versa. This is because during the research year the sample of cash inflows was more than the cash issued, in other words, the company had cash to carry out its operational activities without borrowing or seeking capital from other parties. So that if the operational activities at the company go well, it will generate good profits too. The results of this research are following previous research conducted by (Salsabiila et al., 2017), (Indriani & Napitupulu, 2015), and (Uswatul Khasanah & Jasman, 2019). This result is in line with signaling theory which

states that if a company has high operating cash flow and profit, it will be good news and will be a positive signal for stakeholders and market. So that when the operating cash flow and resulting profits tend to be positive, this indicates the company's success in maintaining stable earnings. But on the other hand, the results of this research is not in line with previous research conducted by (Saptiani & Fakhroni, 2020) which stated that operating cash flow had no effect on earnings persistence.

Leverage has a regression coefficient of -0.019 and a significance value of 0.136 (greater than 0.05), this means that H₂ is “**not supported**”. The results of this research prove that leverage has no effect on earnings persistence and has a negative regression coefficient value. This prove that the lower or higher leverage used by the company does not affect the increase or decrease in earnings persistence. This shows that when the company's leverage increases, the company has the consequence of paying interest and principal at maturity, if the company is unable to pay it will pose a risk of failure so that management adds more profits to paying debt and interest than to finance the company's operational activities, so that will have an impact on the decline in company profits in the future (Barus & Rica, 2014).

Leverage does not affect persistence in this study because in recent years, the economic situation has been unstable and the inflation rate is high enough that it has resulted in the weakening of people's purchasing power. Although food and beverage sector companies are engaged in basic human needs, high inflation affects the decline in people's purchasing power which has an impact on the decline in profits of several companies. Therefore, the high and low leverage of the company used for the company's production activities does not affect the company's profit because of the weak purchasing power of the people. In addition, leverage does not affect the company's profits, it can also occur because the leverage is used by the company to finance the company's expansion (expansion), so the funds needed by the company for the expansion needs are quite large and require a relatively long time until the capital issued for expansion can generate profits for the company. The results of this research are following previous research that has been carried out by (Setiyawan, 2013), (Kusuma, 2014), and (Nurochman et al., 2015) which states that leverage does not affect earnings persistence. But on the other hand, the results of this research are not in line with research conducted by (Fanani, 2010) & (Fitriana & Fadhli, 2016), which state that leverage has effect earnings persistence.

Based on the results of the t-test for the firm size variable, it has a regression coefficient of 0.049 and a significance value of 0.000 (significance value <0.05). This means that H₃ is “**supported**”. In this research, the firm size variable has a significant positive effect on earnings persistence because the firm size variable is calculated based on the logarithm of the company's total assets so that the increase or decrease in assets can cause changes in the value of company size. On the other hand, the sample used in this study is a food and beverage sector company which is a large company. Companies that are classified as large are companies that have assets that have a net worth of more than Rp. 10 billion including land and buildings and have sales of more than Rp. 50 billion/year (Machfoedz, 1994).

Large companies have reached the maturity stage which reflects that these companies are relatively more stable and more able to generate profits than small companies (Nuraeni et al.,

2018). The results of this study support the agency theory which states that agents in large companies will always try to improve their performance so that they can be assessed both by principals, stakeholders, and potential investors. Investors are more interested in large-sized companies because investors assume that with the size of the company, agents try their best to maintain stability and maintain the persistence of profits.

Conclusion

Based on the research above, it can be concluded that operating cash flow & firm size has a significant positive effect on earnings persistence. Meanwhile, leverage has no significant effect on earnings persistence. Limitations in this research only uses three independent variables, the observation period is only 5 periods, and the companies used in this research only limited to companies in the food & beverage sector. For further research, researchers hope to add variables related to earnings persistence, increase the research period longer, and using all companies listed on the Indonesia Stock Exchange (IDX).

References

- Aini, A. Q., & Zuraida, Z. (2020). Pengaruh Arus Kas Operasi, Tingkat Utang, Dan Opini Audit Terhadap Persistensi Laba Pada Perusahaan Pertambangan Yang Terdaftar Di Bei Periode 2013-2016. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, 5(2), 182–192. <https://doi.org/10.24815/jimeka.v5i2.15552>
- Barus, A. C., & Rica, V. (2014). ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI PERSISTENSI LABA PADA PERUSAHAAN MANUFAKTUR DI BURSA EFEK INDONESIA. In *Jurnal Wira Ekonomi Mikroskil* (Vol. 4).
- Choirina, A., & Ahmar, N. (2012). the Effect of Earning Persistence Toward Financial Performance of Listed Banks in Indonesia Stock Exchange. *The Indonesian Accounting Review*, 3(01), 1. <https://doi.org/10.14414/tiar.v3i01.207>
- Dechow, P. M.; Dichev, I. D. (2002). The quality of accruals and estimation errors. *The Accounting Review*. <https://doi.org/10.2308/accr.2002.77.s-1.35>
- Dewi, N. P. L., & Putri, I. G. A. . A. D. (2015). Pengaruh Book-Tax Difference , Arus Kas Operasi , Arus Kas AkruaI , Dan Ukuran Perusahaan. *Jurnal Akuntansi Universitas Udayana*.
- Fanani, Z. (2010). ANALISIS FAKTOR-FAKTOR PENENTU PERSISTENSI LABA. *Jurnal Akuntansi Dan Keuangan Indonesia*, 7(1), 109–123. <https://doi.org/10.21002/jaki.2010.06>
- Fitriana, N., & Fadhlia, D. W. (2016). Halaman 258-272 ol.x, No.x. In *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)* (Vol. 1, Issue 1).
- Harahap, S. S. (2009). Analisa Kritis Laporan Keuangan. In *Teori Akuntansi*. <https://doi.org/www.rajagrafindo.com>
- Hui, K. W., Nelson, K. K., & Yeung, P. E. (2016). On the persistence and pricing of industry-wide and firm-specific earnings, cash flows, and accruals. *Journal of Accounting and Economics*, 61(1), 185–202. <https://doi.org/10.1016/j.jacceco.2015.06.003>
- Indriani, M., & Napitupulu, H. W. (2015). Analisis Pengaruh Volatilitas Arus Kas, Tingkat Utang,

- Siklus Operasi dan Ukuran Perusahaan Terhadap Persistensi Laba. *Jurnal Universitas Bakrie*, 6(1), 1–320.
- Kusuma, B. (2014). (*Analisa Pengaruh Volatilitas Arus Kas, Volatilitas Penjualan, Tingkat Hutang, Book Tax Gap, dan Tata Kelola Perusahaan Terhadap Persistensi Laba*).
- Machfoedz, M. (1994). Financial Ratio Analysis and the Prediction of Earning Changes in Indonesia. *Kelola* 1994.
- Malahayati, dkk. (2015). Pengaruh Ukuran Perusahaan Dan Financial Leverage Terhadap Presistensi Laba, Dan Dampaknya Terhadap Kualitas Laba (Studi pada Perusahaan yang Terdaftar di Jakarta Islamic Index). *Magister Akuntansi Pascasarjana Universitas Kuala*, 4(4), 79–91.
- Nuraeni, R., Mulyati, S., & Putri, T. E. (2018). FAKTOR-FAKTOR YANG MEMPENGARUHI PERSISTENSI LABA (Studi Kasus pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia Tahun 2013-2015). In *Accounting Reserach Journal of Sutaatmadja* (Vol. 1, Issue 1).
- Nurochman, A., Solikhah Jurusan Akuntansi, B., Ekonomi, F., & Negeri Semarang, U. (2015). Accounting Analysis Journal. In *AAJ* (Vol. 4, Issue 4). <http://journal.unnes.ac.id/sju/index.php/aaj>.
- Penman, S. H., & Zhang, X. J. (2002). Accounting conservatism, the quality of earnings, and stock returns. *Accounting Review*. <https://doi.org/10.2308/accr.2002.77.2.237>
- Putri, S. A., A, K., & M, K. (2017). ALIRAN KAS OPERASI, BOOK TAX DIFFERENCES, DAN TINGKAT HUTANG TERHADAP PERSISTENSI LABA. *JRAK*, 9(1), 29–38. <https://doi.org/10.23969/jrak.v9i1.365>
- Salsabiila, A., Pratomo, D., & Nurbaiti, A. (2017). Pengaruh Book Tax Differences Dan Aliran Kas Operasi Terhadap Persistensi Laba. *Jurnal Akuntansi*, 20(2), 314. <https://doi.org/10.24912/ja.v20i2.61>
- Saptiani, A. D., & Fakhroni, Z. (2020). Pengaruh Volatilitas Penjualan, Volatilitas Arus Kas Operasi, Dan Hutang Terhadap Persistensi Laba. *Jurnal ASET (Akuntansi Riset)*, 12(1), 201–211. <https://doi.org/10.17509/jaset.v12i1.23570>
- Septavita, N., & Nasir dan Elfi Ilham, A. (2016). (Pengaruh Book Tax Differences, Arus Kas Operasi, Tingkat Hutang, dan Ukuran Perusahaan Terhadap Persistensi Laba). In *JOM Fekon* (Vol. 3, Issue 1).
- Setiyawan. (2013). Pengaruh Book Tax Differences, Arus Kas Operasi, Tingkat Hutang dan Ukuran Perusahaan Terhadap Persistensi Laba. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Uswatul Khasanah, A., & Jasman. (2019). Faktor-faktor yang Mempengaruhi Persistensi Laba. *JRB-Jurnal Riset Bisnis*, 3(1), 66–74. <https://doi.org/10.35592/jrb.v3i1.981>