Content Lists Available at Directory of Open Access Journals (DOAJ)
Al-Falah: Journal of Islamic Economics
Journal Homepage: http://www.journal.iaincurup.ac.id/index/alfalah
DOI: 10.29240/alfalah.v8i1.6687

The Impact of Social Media Visibility Toward Institutional Ownership and Individual Ownership on Indonesia Sharia Stocks Using Instagram Platform

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ARTICLE INFO

Article History:
Received: 2023-02-22
Revised: 2023-05-14
Accepted: 2023-05-23

Keywords:
Visibility, Ownership, Stocks, Instagram, Platform

Paper Type:
Research Paper

ABSTRACT

Purpose: This study aims to examine the effect of Instagram user's response to corporate Instagram post (likes and comments) toward individual ownership and institutional ownership of sharia stocks in Indonesia.

Design/Method/Approach: The data collection method used is purposive sampling technique. The number of samples in this study were 158 companies registered in ISSI (Indonesia Sharia Stock Index) and having an active Instagram account. Data processing using SPSS.26 with Ordinary Least Square (OLS).

Findings: The results showed that Instagram user respond increasing the institutional investor and individual investor in sharia stock. The interpretation for this findings that such Instagram activities increase the visibility of the company across a more diverse group of investors. This increase visibility makes information more accessible to individual and institutional investors, so that they are attracted to invest more in sharia stock.

Originality/Value: This research is the first study that used social media to measure Sharia Stock Ownership.

INTRODUCTION

In Indonesia and in other countries there has been a trend of investing in stocks or securities that are in accordance with the principal of the Islamic religion or are Sharia Compliant. The growth in Sharia-based finance is due to the increasing capital value of the Muslim population in the world and the increasing demand for Muslim investors to invest their funds in financial products that are not against Islam[1]. In general, there are two criteria that an issuer must meet in order to become a sharia company. These criteria are the criteria for business objects and quantitative criteria (accounting)[2]. Indonesia, all Islamic stocks are included in the Indonesia Sharia Stock Index (ISSI), and the screening process is carried out by the Financial Services Authority (OJK).

Companies that have sharia shares also try to disseminate information if their company shares are included in the category of sharia shares. Social media plays an important role in increasing the value for the company so that the company seeks to manage its visibility among investors, creditors, and other stakeholders[3]. Companies are increasingly using social networks, such as Twitter, Facebook and Instagram which are used as channels to distribute company news and support their marketing strategies[4]. The visibility of a company through social media has an important impact on the stock market. Therefore,[5] in recent years in Indonesia, many companies have used Instagram as a channel to disseminate company information. This is evidenced by Figure 1 which shows the large number of Instagram users in Indonesia.

The increasing number of investors in sharia shares has resulted in companies that have sharia shares also have to use social media such as Instagram to explain the performance of their shares, company achievements, and good news from the company. While companies are using social media as a means of communicating with their investors, individual investors are increasingly using social media to share their knowledge and intuition about

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[1] Ulrich Derigs and Shehab Marzban, "New Strategies and a New Paradigm for Shariah-Compliant Portfolio Optimization," *Journal of Banking and Finance* 33, no. 6 (2009): 1166–1176, http://dx.doi.org/10.1016/j.jbankfin.2008.12.011.

[2] Baron & Holmstrom, "The Investment Banking Contract for New Issues Under Asymetric Information" (1979).

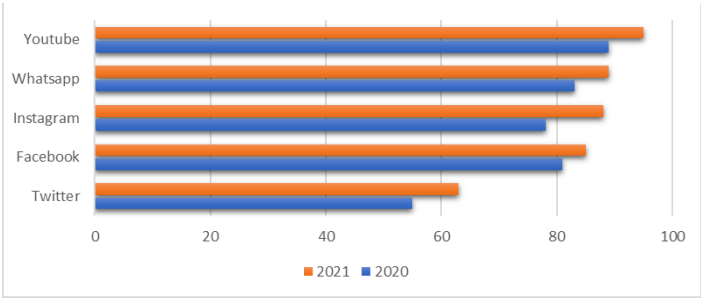
[3] Rajib Hasan and Weiwei Wang, "Social Media Visibility, Investor Diversity and Trading Consensus," *International Journal of Managerial Finance* 17, no. 1 (2020): 25–48.

[4] Rajib Hasan and Weiwei Wang, "Social Network Activities , Future Earnings , and Equity Values" 17, no. 1 (2017): 58–72.

[5] Hendrianto, Hendrianto. "Strategi Marketing Meningkatkan Nasabah Asuransi Syariah (Studi Kasus Di Asuransi Syariah Ajb Bumiputera1912 Curup)." *JURNAL AL-Qasd Islamic Economic Alternative* 1.2 (2019): 127-143.

their expectations of corporations and stocks. Thus, social media appears to be an important channel for companies, allowing them to communicate with investors in a timely, cost-effective and intensive manner; and at the same time, it seems to be an important channel for investors, providing access to information not only from companies but also from each other.

Figure 1.
Most Popular Social Media in Indonesia 2020-2021



Source: Web Global Index, 2021

Examining how sharia investors judge communications on social media is important for several reasons. First, social media differ from traditional media—such as press releases and company websites—in that social media promote public two-way interactions, allowing companies to assess and respond to market sentiments more quickly. Second, recent archival research has demonstrated the relevance of social media activity for security prices[6], for returns[7], for information asymmetry[8], institutional ownership[9], and individual ownership[10].

Firms' visibility and brand recognition by investors have important impact for the sharia stock market.[11] Shows that increased visibility of a company can act as a catalyst that turns investors' interests in the company into

[6] Asher Curtis and Vernon J Richardson, "Investor Attention and the Pricing of Earnings News †," no. 206 (2014); and Susan S Hu Lian Fen Lee,∗ Amy P. Hutton, "The Role of Social Media in the Capital Market : Evidence from Consumer Product Recalls," *Journal of Accounting Research* 53, no. 2 (2015): 367–404.

[7] Hailiang Chen et al., "Wisdom of Crowds: The Value of Stock Opinions Transmitted through Social Media," *Review of Financial Studies* 27, no. 5 (2014): 1367–1403.

[8] Elizabeth Blankespoor, Gregory S. Miller, and Hal D. White, "Dissemination, Direct-Access Information Technology and Information Asymmetry," *SSRN Electronic Journal*, no. March (2012).

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[11] Jung et al., (2018)

stock ownership. The high stock price is an indicator of the high attention of investors to a stock.[12] Shows that a large number of investors and good stock liquidity are influenced by the large advertising costs of investment companies. Investor expectations, investor followers, and stock market values are influenced by media publicity[13]. In addition, the tendency of investors to invest in certain stocks is also influenced by their perception of stock valuation[14]. Some evidence says investors tend to hold stocks that they are familiar with[15].

Sharia share ownership in the investment world is owned by individuals (public) and institutions. Share ownership in Indonesia is dominated by institutional ownership. However, with the development of better information technology, it is hoped that this will increase the number of individual shareholdings. The differential effect of social media on the information pool of small and large investors can result in different investment growth rates. This research contributes to exploring the impact of social media influence on investors. Specifically, this study examines the reaction of Instagram users to corporate Instagram posts in increasing the proportion of small investors' ownership, and investigates whether information disseminated through social media reduces the information gap among investors. This change can ultimately change the composition of investors in the same company.

Information obtained on social media will affect investment decisions for large investors and small investors differently. Generally, large institutional investors have the ability to actively and massively seek information. Large institutional investors may have had the same advance information as information spread on social media. When compared to large institutional investors, small investors have fewer resources to obtain and process information about the companies they wish to invest in. Thus, small investors tend to get more additional benefits from information on social media.

Research on the impact of posting responses on share ownership has been carried out by several previous researchers using various research subjects, duration, and methods. Based on the results of previous studies, different results

[12] Grullon et al. (2004)

[13] Brian J Bushee and Gregory S Miller, "Investor Relations, Firm Visibility, and Investor Following" 87, no. 3 (2012): 867–897.

[14] Laura Frieder and Avanidhar Subrahmanyam, "Brand Perceptions and the Market for Common Stock Abstract Brand Perceptions and the Market for Common Stock" (2003).

[15] Matti Keloharju, Samuli Knüpfer, and Juhani T. Linnainmaa, "Do Investors Buy What They Know? Product Market Choices and Investment Decisions," *SSRN Electronic Journal*, no. 10 (2012).

have been found for each study. One of the studies by [16] related to Post Responses which showed positive and significant results on share ownership. The results of [17] were reinforced by research conducted by [18], which also found a positive and significant effect for the Posting Response variable on Share Ownership. However, [19] found the opposite result because the Post Response in his research showed a positive and not significant relationship to stock ownership.

When compared to large institutional investors, small investors have fewer resources to obtain and process information about the companies they wish to invest in. Thus, small investors tend to get more additional benefits from information on social media. In this study, we examine the predictive ability of investor opinions expressed on Instagram by investigating the following two questions: (1) Does the aggregate opinion in company posting can predict the percentage of individual ownership in sharia stock market? (2) Does the aggregate opinion in company posting can predict the percentage of institutional ownership in sharia stock market?

RESEARCH METHOD

Data

This study uses secondary data. Secondary data is data that has been processed by the agency/company/third party (Neuman, 2006). Meanwhile, the research data collection method used probability sampling with purposive sampling technique. Purposive sampling is a sampling technique by determining certain criteria (Cooper & Schindler, 2006). The data collected in this study were 158 sharia stock issuers. The criteria for determining the sample are included in the ISSI (Indonesia Sharia Stock Index) and have an active company Instagram account. The collection of data like and Comment from Instagram is obtained using web crawler application. Meanwhile, data about individual ownership, institutional ownership and control variables (ROA, Age, turnover, revprice, size) were obtained from IDX and KSEI.

Model Development

Table 1 shows the description of the variables with the measurement

[16] Gustavo Grullon, "Advertising , Breadth of Ownership , and Liquidity by And," no. February 2004 (2014).

[17] Ibid.

[18] Hasan and Wang, "Social Network Activities , Future Earnings , and Equity Values."

[19] John R Nofsinger and John R Nofsinger, "Social Mood and Financial Economics Social Mood and Financial Economics," *Journal of Behavioral Finance* 6, no. May 2013 (2010): 37–41.

unit and formula of extracting the dependent variables.

Table 1.
Operational Variables

No.	Variable	Operational definition	Measurements
1	Social Media Visibility "*Like*" (Independent)	The number of likes given by the viewer for the information provided by the company on instagram	Like= $\frac{\text{Total LIKE/100}}{\text{Total Post}}$
2	Social Media Visibility "*Comment*" (Independent)	The number of comments given by the viewer for the information provided by the company on instagram	Comment= $\frac{\text{Total COMMENT/100}}{\text{Total Post}}$
3	Institutional Ownership (Dependent)	Ownership of company shares owned by institutions or institutions such as insurance companies, banks, investment companies and other institutional ownership.	Institutional Ownership= $\frac{\textit{Institutional Ownership}}{\textit{Total Investor}}$ x 100%
4	Individual ownership (Dependent)	Ownership of company shares owned by individuals	Individual Ownership= $\frac{\textit{Individual Ownership}}{\textit{Total Investor}}$ X 100%

We first analyze whether users instagram activities have any significant impact on sharia institutions ownership (H1). We adopt a methodology similar to [20] and test whether instagram response activities. Specifically, we implement a firm and time fixed effects framework to estimate the following equation:

- $IO = \beta_0 + \beta_1 LIKE + \beta_2 COMMENT + \beta_3 AGE + \beta_4 ROA + \beta_5 TURNOVER + \beta_6 REVPRICE + \beta_7 SIZE$

Where :

ID = institutional ownership

β = coefficient of variable

X = variable

In order to identify the underlying cause of possible changes in individual ownership structure from increased Instagram activities, we focus on the impact of individual ownership. We estimate the following equation, to

[20] Grullon et al. (2004)

analyse the effects of Instagram activities on individual ownership:

- $IDO = \beta_0 + \beta_1 LIKE + \beta_2 COMMENT + \beta_3 AGE + \beta_4 ROA + \beta_5 TURNOVER + \beta_6 REVPRICE + \beta_7 SIZE$

  Where :

  IDO = individual ownership

  β = coefficient of variable

  X = variable

Method

The research method used in this research is quantitative research. Quantitative research is research that is intended to test hypotheses (Neuman, 2006). A hypothesis is a provisional assumption in a study that needs to be proven. Hypothesis testing in this study was carried out by using the Ordinary Least Square (OLS) analysis with SPSS.26. OLS linear regression is a linear regression model with the method of calculating the least squares or what in English is called the ordinary least square (Gujarati, 2003). This method is used to minimize the number of squares of errors by estimating a regression line. The OLS method is an econometric method with 2 variables, namely the independent variable and the dependent variable. The final result of the OLS method is a population regression function that will be used for data estimation. To produce an estimate using the OLS method, four basic assumptions are needed that are BLUE. BLUE itself stands for best, linear, unbiased, and estimator (Ghozali, 2014).

Best is the result of the best regression model with minimal error, Linear is the model in regression according to OLS rules, Unbiased is the expected value according to the correct value, and Estimator is the regression model that is formed to have the variance with the smallest value. The OLS Ordinary Least Square method also has operating criteria, namely the line of best fit with the minimum number of squared deviations between the observation points and the regression line. The estimation results in the OLS method have a BLUE nature. The estimation results also tend to be more efficient, consistent (Hair, 2009). In addition, the estimation results on the OLS method also tend to have a regression coefficient with a normal distribution.

The population in this research is companies that are included in the Indonesia Sharia Stock Index in 2021 with a total of 469. But sample that we used in the research is 158 companies. The criteria of the sample are companies that listed on the Indonesia Sharia Stock Index in 2021 and have active Instagram accounts, as well as institutional and individual shareholdings.

RESULT AND DISCUSSION

Results

Table 2 shows the Pearson correlation between variables. AGE has a positive correlation with Institutional Ownership (r=0.172; p<0.05). REVPRICE has a positive correlation with Individual Ownership (r=0.521; p<0.01) and a negative correlation with ROA (r= -0.443; p<0.01). SIZE was positively correlated with LIKE, COMMENT (r=0.262; r=0.248 with p<0.01), Institutional ownership, and ROA (r=0.190; r=0.196 with p<0.05) and negatively correlated with REVPRICE (r = -0.197; p<0.05). TURNOVER has a positive correlation with individual ownership (r=0.218; p < 0.01).

Table 2.
Descriptive Statistic

Variables	N	Min	Max	Mean	St. Dev
Like	158	6	180000	8193.83	20028,178
Comment	158	5	126000	1584,73	10237,185
Institutuonal Ownership	158	55800	61981588	3,9417	2,0956
Individual Ownership	158	3792225	36890036	19,842	1,8723
Age	158	0.5	44	16.503	11.4335
ROA	158	0,0007	0,4651	0,0572	0,0617
Revprice	158	0,0000433	0,020	0,0022	0,0033
Size	158	178,5	48032000	79990980	40158824,05
Turnover	158	0,0000063	0,01957	0,00165	0,00331

Table 3.
Pearson Correlation

Variable	SD	1	2	3	4	5	6	7	8
Independent									
Like (1)	1.928								
Comment (2)	1.888	.632**							
Dependent									
Institutional Ownership (3)	2.095	.245**	.128						
Individual Ownership (4)	1.872	-.025	.010	.101					
Control									
ROA (5)	1.087	-.007	-.058	-.007	-.081				
AGE (6)	1.100	.000	.011	.172*	-.043	-.006			
REVPRICE (7)	1.332	-.121	-.095	.039	.521**	-.443**	-.079		
SIZE (8)	3.020	.262**	.248**	.190*	.126	.166*	.079	-.197*	
TURNOVER (9)	2.417	.145	.149	.094	.218**	-.091	-.073	.124	124

Table 4.
Hypothesis test results with institutional ownership as the dependent variable

Variable	Model 1	Model 2	Model 3
Control			
ROA	.007	.027	-.038
AGE	.170*	.174*	.117
REVPRICE	.082	.111	-.010
SIZE	.183*	.131	.129
TURNOVER	.074	.048	-.010
Independent			
LIKE		.217*	.217*
Comment			-.038
R^2	0.074	0.117	0.089
ΔR^2	0.044	0.082	0.062
F	2.436*	3.330*	3.342*

Noted: N=158; The displayed value is the standardized coefficient.*p < 0,05

Hypothesis testing in this study was conducted using Ordinary Least Square. In the classical assumption test, there are also several assumptions based on the OLS method, including normality, heteroscedasticity, multicollinearity, and autocorrelation. Each model tested has passed the classical assumption test. As for this study using two dependent variables so that the test is carried out separately.

F test was used to validate the regression model. The value of the F test results is also shown in the table. Based on the F test value, the significance of the model 1, 2, 3 shows the p value is less than 0.05. If the statistical value of the F test is significant at 5% alpha, then the independent variables in models 1,2, and 3 are simultaneously considered capable of predicting changes in institutional ownership variables.

The table also shows the value of R^2 which is the coefficient of determination, which shows how much the independent variables in the model are able to explain the independent variables. Among the 3 models, the largest coefficient of determination is model 2 (R^2=0.117), and the smallest coefficient of determination is model 1 (R^2=0.074). This means that the independent variables contained in model 2 can explain the institutional ownership variance of 11.7%, while the rest is explained by other variables outside the model.

The value of R^2 shows the change in R^2 in the next regression model after getting additional independent variables that are included in the next model. The largest value of R^2 is in model 2 (ΔR^2=0.082). This means that the inclusion of the LIKE variable contributes to an additional 8.2% explanation for

the variance that occurs in the institutional ownership variable.

The results of the multiple regression test in the table are used to explain hypothesis 1 (a and b). The control variable, namely AGE, is significant to institutional ownership in models 1 and 2 with the beta coefficient of AGE being =0.170 and =0.174 with p<0.05. The control variable SIZE has a significant effect on institutional ownership only in model 1 with a beta coefficient value of =0.183 with p<0.05.

In hypothesis 1a, the LIKE variable has a significant effect on institutional ownership in model 1 and model 2 with the beta coefficient values being =0.217 and =-0.217 with p<0.05. Meanwhile, hypothesis 1b in multiple regression testing shows that the COMMENT variable has no effect on institutional ownership (β=0.038; t=-0.378; p>0.05). Then hypothesis 1b is not supported. While hypothesis 1a in multiple regression testing shows that the LIKE variable has a positive and significant effect on Institutional Ownership (β=0.217; t=-2.144; p>0.05). This is in line with the statement of hypothesis 1a, namely LIKE has a positive effect on Institutional Ownership. Based on the test results, hypothesis 1a is stated to be supported.

Table 5.
Hypothesis Test Results With Individual Ownership As The Dependent Variable

Variable	Model 1	Model 2	Model 3
Control			
ROA	.003	.008	.025
AGE	-.004	.005	-.004
REVPRICE	.320*	.326*	.335*
SIZE	.134	.123	.106
TURNOVER	-.089	-.093	-.104
Independent			
LIKE		.105	-.099
Comment			.225*
R^2	0.101	0.111	0.126
ΔR^2	0.071	0.076	0.085
F	3.401*	3.154*	3.091*

Noted: N=158; The displayed value is the standardized coefficient.*p < 0,05

Based on the F test value, the significance of the model 1,2,3 shows the p value is less than 0.05. If the statistical value of the F test is significant at 5% alpha, then the independent variables in models 1,2, and 3 are simultaneously considered capable of predicting changes in individual ownership variables. The

results of the coefficient of determination in models 1, 2 and 3 stated that the model with the largest coefficient of determination was model 3 (R2=0.126), and the smallest coefficient of determination was model 1 (R2=0.101). This means that the independent variables contained in model 3 can explain the individual ownership variance of 12.65%, and then the rest is explained by other variables outside the model. Meanwhile, the largest value of R2 is in model 3 (ΔR2=0.085). This means that the inclusion of the COMMENT variable contributes to an additional 8.5% explanation for the variance that occurs in the individual ownership variable.

The results of the multiple regression test in the table are used to explain hypothesis 2 (a and b). The control variables ROA, AGE, SIZE, and TURNOVER all have no significant effect on individual ownership. The ROA control variable has no significant effect on individual ownership in models 1, 2 and 3, the ROA beta coefficient values are =-0.003, =0.008, and =0.025 with p>0.05. The control variable AGE has no significant effect on individual ownership in models 1, 2, and 3 with the beta coefficient values being =-0.004, =0.005, and =-0.004 with p>0.05. The control variable REVPRICE has a significant effect on individual ownership in models 1, 2 and 3 with the beta coefficient values being =0.320, =0.326, and =0.335 with p>0.05. The control variable SIZE has no significant effect on individual ownership in models 1, 2, and 3 with the beta coefficient values being =0.134, =0.123, and =0.106 with p<0.05. The control variable TURNOVER has no significant effect on individual ownership in models 1, 2, and 3 with the beta coefficient values being =-0.089, =-0.093, and =-0.104 with p<0.05.

Hypothesis 2a in multiple regression testing shows that the LIKE variable has no effect on individual ownership (β=-0.099; t=-0.997; p>0.05). Then hypothesis 2a is not supported. While hypothesis 2b in multiple regression testing shows that COMMENT has a positive effect on individual ownership (β=0.225; t=2.256; p>0.05). Then hypothesis 2b is stated to be supported.

Analysis

Value of social media activities provide important information to corporations, regulators, investors, and other stakeholders who are making decisions to influence the markets and improve social welfare.[21] States that the visibility of social media has a very important role in determining the company's share ownership. The results of testing hypothesis 1 (a and b) state that "LIKE" has a positive and significant effect on institutional share ownership. This indicates that the more “LIKE” on Instagram of companies with sharia shares,

[21] Grullon et al. (2004)

the more institutional desire to own these sharia shares will be made. This condition is due to the awareness of the institution that the majority of Instagram users prefer to "LIKE" rather than provide comments with valid information. Like is described as approval and appreciation of the post given by the company. So "LIKE" is used as a research benchmark from institutions in choosing sharia shares because the share account of the sharia company is considered to have good publicity and good response from netizens. This is in line with the research conducted by [22] that "LIKE" has an influence on institutional share ownership. Meanwhile, "COMMENT" has no effect on institutional share ownership. This contradicts the research of [23] which states that "COMMENT" has an influence on institutional ownership. This result is possible because the owners of sharia shares from institutions do not seek information based on the "COMMENT" of netizens but based on other information that is considered more accurate. As is well known to institutional shareholders, there are far more sources for information.

The results of testing hypothesis 2 (a and b) state that "LIKE" has no effect on individual Islamic stock ownership. Individual investors tend to try to be careful before investing in Islamic stocks. This is due to the lack of information obtained before he decided to invest. So he will not easily believe the large number of "LIKE" on the company's social media accounts. Meanwhile, "COMMENT" has a positive and significant impact on individual Islamic stock ownership. This is because individuals can dig deeper into information and exchange ideas with other investors through the "COMMENT" column on the company account. So not only based on the analysis they did but the opinion in the "COMMENT" column will also influence their decision to invest in Islamic stocks. According to [24] that the dissemination of information on social media will affect individuals in owning shares. The benefits derived from information on social media will tend to be more than information elsewhere. Information shared through the Instagram platform is considered more efficient for exposing relevant information to potential investors, and the information obtained does not need to do its own research. Information becomes cheaper and easier to obtain through social media. The dynamic network reach of social media is able to reach potential investor groups that cannot be reached by traditional media[25].

[22] Hasan & Wang (2020)
[23] Hasan & Wang (2020)
[24] Bartov & Stern (2017)
[25] Hasan & Wang (2017)

CONCLUSION

Social media has a different effect between individual investors and institutional investors on sharia shareholders. In our study, we use the users' responses as evidence of firms' visibility and publicity among sharia investors. Hence, we expect to observe an increase in ownership from individual investors and institutional investors for companies that are attracting more responses from Instagram users. This research shows that it is possible for individual investors and institutional investors to be able to own Islamic stocks by being reached by the Instagram social media platform. Our study highlights the composition of corporate investors that can be shaped by the role of social media. Our findings show that the response of social media users to companies' social media activities increases visibility among investors and promotes shareholder diversity in particular by attracting individual investors. Our results also show that knowledge gaps can be effectively reduced by social media activity thereby increasing trading consensus among investors. Therefore, the role of traditional media as an arena to get information fairly for investors can be replaced with social media which is a new and more effective tool.

This research contributes both theoretically and practically. The practical contribution that can be given from this research is the companies using social media to strategically disseminate valid and informative news so that sharia shares are increasingly in demand by both institutional sharia shareholders and individual sharia shareholders. This is because we are currently in the era of information disclosure and massive use of social media. So to increase the engagement of sharia stock investors, it is necessary to continue to use social media as a medium for distributing information. This study also have several limitation, identification of the reaction effect of corporate Instagram posts that are carried out separately between each post such as corporate news, financial information, and advertisements. Identification of differential effects in future research can separate positive and negative reactions from each investor and from each type of post on Instagram social media.■

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