The Role of Social Media and Social Influence on Firm Performance: Case Study of Financial Industry in Indonesia

Puiangga Abdillah
Facultv of Economics and Business. University of Merdeka Malang Terusan Dieng No. 62-64, Malang, 65115, Indonesia, (0341) 561-448
pujangga.abdillah@unmer.ac.id

Abstract

The purpose of this research is to verify the impact of social media and social influence on firm performance in Indonesia’s financial industry. Samples were taken using the judgment sampling technique with a total sample of 126 observations. This research utilizes content analysis, fixed-effects, and random-effects models to verify the effect of engaging in social media and social influence on firm performance. The empirical study consists of panel data in the financial industry listed on the Indonesia Stock Exchange (IDX) for the period 2019 to 2021. All secondary data is analyzed by moderated regression analysis (MRA) with STATA program. The results explained that social media has an impact on firm performance as estimated by return on asset (ROA). That is, a higher social media made firm can improve firm performance. The study result also suggests that social influence estimates have the pressure to predict firm performance.

Keywords: Firm Performance, Social Influence, Social Media

INTRODUCTION

Based on the popularity of Social Media (SM), the internet acts as an agent of change that consolidates the temporal community and can increase public interest in virtual communities. According to Dutot and Lichy (2019), the convenience of SM as a tool
for communication, interaction, and transactions offers a one-to-many relationship system that increases efficiency and can reach large groups of people. It becomes an attraction for several parties to join in on SM, including public companies. Several SM has succeeded in becoming the most effective means of communicating a brand globally through virtual communication (Dutot & Lichy, 2019).

Many people can be reached through SM and the improvement of SM guides each firm to be more interested in SM for reasons starting from relationships to progressive networking or providing information in potential ways (Akmen et al., 2016). Indonesia’s total population of 274.9 million, 61.8% of the population which is 170.0 million in numbers, are active SM users in 2019 – 2021 (Kemp, 2022). This makes Indonesia the world’s top four most active SM users. As a result, firms have become more focused on SM interactions as well as websites. Today, SM is an important way for firms to communicate with consumers and send information in both directions (Miqdad & Oktaviani, 2021). Motivated by the inconsistency of previous research connected to the use of SM, this study wanted to confirm how the relationship between the use of SM and Financial Performance (FP). Based on Du and Jiang (2015), effective SM can develop opportunities for companies to create new opportunities. Several previous studies have documented positive results regarding the SM and FP (Daowd et al., 2021; Miqdad & Oktaviani, 2021; Uyar et al, 2018), but previous research explains that SM and FP have no relationship (Emrinaldi, 2021).

Firms impossible possess all the resources necessary to achieve their objectives and become important to build a partnership (Baraldi et al., 2012). Business networks are important for measuring how the exchange of one relationship depends on the exchange (or non-exchange) of both relationships (Mariutti & Giraldi, 2019). SI is a global concept that predicts interactions and connections among firms. Existing study on SI mainly focuses on cooperation networks between directions (Luo et al., 2016).

This research suggests a common approach to measuring SI in certain objective directions, specifically in company networks. To build a corporate impact network, dig up network links (firm relationships) from the news and get node attributes (firm impact) from the search index (Luo et al., 2016). The SI theory is a strong explanation framework for the social phenomenon (Luo et al., 2022).

This study refers to Daowd et al. (2021), the linkage between SM and FP in the financial industry. The outcome of a previous study shows that SM has an impact on the FP in the financial industry. The research gap between this study and previous research is in several aspects. The first distinction in this research is the assessment of FP from ROA (Return on Assets) which was previously used as a performance indicator. ROA accommodates a good assessment of firm finances, indicating the efficiency of direction in using treasures to achieve income (Kasimir, 2012).

The second distinction in terms of the theory used is the value assessment model. As a result, SM will become a platform for sharing information that can generate profits for companies and their users. Meanwhile, this study uses social capital theory (Adler, et al, 2002; Rodríguez & Peterson, 2012), to suggest the benefits of using SM for companies based on the activities the company does on SM. The convenience of SM causes users to be more informed and this is social capital that has the potential to bring benefits to the company. The third
distinction in this research is the addition of SI as an independent variable on FP. Luo et al. (2016), explain that SI becomes a positive impact on FP. There is no research about the SI on FP in Indonesia. This research will be the first research that explains SIs on FP in Indonesia.

The conceptual background and hypotheses are based on social capital theory. Besides that, social capital and SM are the main objectives of the good study by reason multiple empirical study streams have approved the importance of social capital and social networks for information and science. However, the connection between SM, SI, and FP are unclear. This study intends to complete its gap.

The study of SM, SI, and FP are too important because it involves a company's business strategy that has an impact on its business. There are four contributions made by this research. First, as a reference in making corporate implications regarding strategies for using SM. Second, provide a guideline for companies related to the use of SM activities. The results of this study can be a guide for companies regarding activities on SM. Third, the company will provide scientific evidence that SM can be useful if it is managed properly. Several previous research has proven the benefits of SM for FP (Akmese et al., 2016; Rodriguez & Peterson, 2012; Paniagua & Sapena, 2014), but there is skepticism from some companies that avoid using SM (Chung & Koo, 2015). Similar research needs to be done again to identify and strengthen previous research that the convenience of SM has a positive impact on FP. Fourth, companies can cooperate with other companies based on SI.

Based on several studies, there is still no research that discusses the connection between SM, SI, and FP, especially in Indonesia. Thus, it becomes an attraction and research opportunity to be able to find various determining factors in companies, considering that companies have a fairly good share in the economy of almost all countries in the world. According to the previous explanation, the problems and objectives can be formulated, namely to find out what is the connection between SM, SI, and FP in the financial industry.

LITERATURE REVIEW

Social Capital

Social capital is capital that encourages individuals to act together to achieve common goals and is an effective means of building cooperation (Laksmi, 2020). It comes in the shape of cognitive, basic, and social capital. Many researchers have opined that social capital presents organizational advantage; collective and shared trust to construct, upgrade, and makes strides in commerce firms as well as foist advancement on an organization.

Social capital is an asset that reflects the personality and attributes of people working for a corporation, brought about by a group's shared values and aspirations for achieving objectives (Obeitoth, 2018). Social organize, inalienable assets and other arrange structures, cultivate ties, back, trust, communication, data sharing, and collaborations. Social capital is a set of informal norms or values that are shared by members of a group that enables cooperation between them (Fukuyama, 1995). Social capital could be a
resource that reflects the character of social relations inside the firm shaped by an objective introduction and shared trust. It is categorized as basic and social capital. Conceptualization of organizational social capital is like an esteem-improving asset framework. Social Capital is helpful in terms of increasing the availability of resources, which directly and indirectly affect firm performance (Wang et al., 2012).

**Social Media**

Social Media alludes to “web-based and portable innovations that can turn the relationship into an intuitive communication” (Alberghini et al., 2014). As of now, previous research consolidates several forms, like facebook, twitter, youtube, linkedIn, google+, pinterest, instagram, web gatherings, weblogs, etc. The amount of SM stages tends to extend continually based on the advancement of the next method (Reilly & Hynan, 2014; Weller, 2015). In spite of the fact that the subject of SM may be a subject incorporating each discipline, it’s especially critical for partner connections inside both benefit and non-profit organizations. Management objectives arrange SM to shareholders or specialists for the industry advancement (Curtis et al., 2010), to build connections and make a management personality with their friends (Aksak & Duman, 2014).

**Social Influence**

The SI theory explanation (Latané & L’Herrou, 1996) and the proximity of the source of influence (Jakson & Latané, 1981) both influences how much a person is impacted by social impact. The deliberate or unintentional change caused by an individual in the behavior of another person and social force by an individual or community to change the attitude of other people in the desired direction are SIs (Sikarwar, 2019). In SI, build the firm influence network, it mines network links (firm relationships) from the news and obtains node attributes (firm effect) from the search index (Luo et al., 2016).

**The Effect of Social Media on Firm Performance**

Social Media is a virtual interactive portal that is becoming really popular and is often used by the genera, especially businesses. Today, SM can also be used as a portal for exchanging individual experiences with a company’s services and products (Phang et al., 2013). In general, shared information becomes one of the other potential consumer considerations to follow a company’s SM accounts (Miller & Skinner, 2015), so consumers can use the SM account in the company’s comment column. The intent of followers on Social Media accounts is through the information they share. Other SM followers can also use your company’s products and services. This can increase the number of sales of the company and indirectly improve the performance of the company. Thus, the hypothesis about the impact of SM on firm performance is:

*H1: Social Media has a positive effect on Firm Performance*
The Effect of Social Influence on Firm Performance

The use of social power by an individual or group to nudge the attitudes or behaviors of other individuals or groups in a particular direction is known as a social influence (Jamal et al. 2015). SI on FP discovered a strong correlation between them (Sikanwar, 2019). As a result, the following hypothesis on the effect of SI on firm performance is:

H2: Social Influence has a positive effect on Firm Performance

RESEARCH METHOD

In Indonesia, the total population of the financial sector. There are 53 companies in the Financial Industry (IDXFINANCE) on the main board. The study selects 42 companies for the data collection period from 2019 to 2021. Identify the research sample using a judgment sample. In judgment sampling, the samples are taken according to specific criteria. Judgment sampling implicates choosing subjects that are well suited to serve necessary information for researchers (Sekaran & Bougie, 2013).

SM followers are acquired on four major SM platforms: twitter, instagram, facebook, and tiktok. Summary statistics of firm and SM rankings are available at socialblade.com. This study confirms the existence of SM impacts and social impacts on business performance. In addition, control variables, such as leverage variables, size variables, and age variables, were also used. Data sources are obtained from the Indonesia Stock Exchange (IDX) website (accessible at www.idx.co.id), the website newsroom, and the websites of all companies included in IDX.

Dependent Variable Measurement

ROA is described as a better measure of a company's profitability because it shows that management is using assets effectively to generate revenue (Kasmir, 2012: 201). Return on assets (ROA) is used as an indicator of business success. ROA can be calculated using the following formula:

\[ ROA = \frac{\text{Net Income}}{\text{Total Assets}} \]

Most studies to date investigating the relationship between SM and performance have relied primarily on the accounting side of financial performance. It is an important indicator of a company's performance and shows the efficiency, ability, and ability of management to make a profit using the assets of the financial industry.

Independent Variable Measurements

The independent variables in this study are SM and SI. When collecting the data, the survey was based on IDX's annual report. Identify SM information provided by Twitter, Instagram, Facebook and Tiktok. We used OLS regression analysis to investigate the impact of SM acceptance and use on corporate value. A similar approach was used in previous studies to test the performance effects of SM (Du & Jiang, 2015; Kim et al., 2015).
The relationship between SM and FP can mean a two-way causal relationship. However, this research is particularly interested in finding a causal direction for SM.

This proposes a general approach for measuring the SI of certain objective entities, especially corporate networks. To build a corporate impact network, dig up network links (corporate relationships) from the news and get node attributes (corporate impact) from the search index (Luo et al., 2016). Information that identifies social impact is also obtained from news and websites. Following previous studies, unweighted scoring procedures were applied to collect data on SM and SI using the dichotomy. Disclosure is assigned a value of 1 if the article is disclosed, otherwise, it is assigned 0 for requests and collaboration messages.

**Control Variable Measurements**

The control variables in this research are intended to control the dependence on independent variables, there are:

1. **Leverage**
   
   Leverage indicates a firm’s ability to use its assets to meet its obligations. Leverage is the use of sources of funds that have a fixed burden, that provide additional benefits that are greater than fixed expenses.
   
   Debt to Equity Ratio (DER) = Total Debt / Total Capital x 100%

2. **Company Size**
   
   In the research, based the natural logarithm of total assets measures the size of the company. The total asset value is then formed into the natural logarithm and transformed from the natural logarithm plan as follows: Normally distributed total asset data to generate.
   
   Company Size = Logn of Total Assets

3. **Company age**
   
   Based on Abdullah et al. (2017), positive associations are according on the assumption that older, experienced and established companies are more likely to disclose more information. However, negative associations show that younger companies are more likely to disclose more information to build investor confidence, strengthening and mitigating skepticism.
   
   Company Age = Σ Company Establishment

   This study applied estimated generalized least-squares (GLS) random effects (RE) and fixed-effects (FE) models to panel data to investigate the impact of SM and SI on FP in the financial industry. GLS used the Hausmann test to determine between a random effects model and a fixed effects model. The results of the Houseman test in this study are shown below. The survey model is presented as follows:

   Model ROA = α + β1SM + βSI + β2SIZE + β3LEV + β4 AGE + ε
RESULT AND DISCUSSION

Based on the following table is the sample and population used in this research. The population in this study is a financial industry that has been listed on the Indonesia Stock Exchange (INDEX) from 2019 to 2021. The following of the data that has been obtained after doing purposive sampling. Data characteristics used in descriptive statistics include standard deviation, mean, max, and min. Base on the table, SM and SI measurement indexes are based on the dummy.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>126</td>
<td>-0.29</td>
<td>9.53</td>
<td>3.40</td>
<td>2.26</td>
</tr>
<tr>
<td>SM</td>
<td>126</td>
<td>0</td>
<td>1</td>
<td>0.61</td>
<td>0.56</td>
</tr>
<tr>
<td>SI</td>
<td>126</td>
<td>0</td>
<td>1</td>
<td>0.79</td>
<td>0.46</td>
</tr>
<tr>
<td>Leverage</td>
<td>126</td>
<td>0.02</td>
<td>2.58</td>
<td>1.52</td>
<td>0.32</td>
</tr>
<tr>
<td>Size</td>
<td>126</td>
<td>1.21</td>
<td>22.33</td>
<td>11.9</td>
<td>7.48</td>
</tr>
<tr>
<td>Age</td>
<td>126</td>
<td>32</td>
<td>127</td>
<td>21.3</td>
<td>13.11</td>
</tr>
</tbody>
</table>

Notes: FP: Return of Assets, SM: Social Media, SI: Social Influence. Leverage: Debt to Equity Ratio, Size: Logn of Total Assets, Age: Company Establishment

FP assessment by ROA has a minimum value of -0.29 in PT. Asuransi Maximus Graha Persada, Tbk and the maximum value of 9.53 is PT. Bank Rakyat Indonesia Tbk. The average value is 3.4 and the standard deviation is 2.26. The minimum value of SM variables is 0 and the maximum value is 1. The average (mean) SM of companies is 0.61 and the standard deviation is 0.56. Dummy variables are used to measure SI. For example, corporations that reveal their corporate activities in website news are assigned a value of 1 while those that do not are assigned a value of 0.

The leverage variable is an assessment of the ratio between total debt and total assets. The minimum value of the leverage variables is 0.02 in PT. Bank Mestika Dharma Tbk and the maximum value is 2.58 in PT. Bank Negara Indonesia Tbk. The average value is 1.52 and the standard deviation is 0.32. The size variable is measured based on logn of the total asset. The minimum value of the size variable is 1.21 in PT. Bank KB Bukopin, Tbk. And the maximum value is 22.23 in PT. Bank Central Asia Tbk. The average value is 11.90 and the standard deviation is 7.48. The age of measurement is calculated by the establishment of the company. The min value is 32 in Pt. Tri Megah Securitas Tbk and the max value is 127 in PT. Bank Rakyat Indonesia Tbk. The average value is 21.30 and the standard deviation is 13.11.
Table 2. Regression Equation

<table>
<thead>
<tr>
<th>Variables Score</th>
<th>Constanta</th>
<th>SM</th>
<th>SI</th>
<th>Leverage</th>
<th>Age</th>
<th>Size</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.02</td>
<td>0.63</td>
<td>0.54</td>
<td>0.19</td>
<td>0.42</td>
<td>0.32</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Notes: FP: Return of Assets, SM: Social Media, SI: Social Influence. Leverage: Debt to Equity Ratio, Size: Log of Total Assets, Age: Company Establishment

Table 2 above can be obtained the multiple linear regression equation as follows:

\[
\text{ROA} = 0.02 + 0.63\text{SM} + 0.54\text{SI} + 0.19\text{LEVERAGE} + 0.42\text{AGE} + 0.32\text{SIZE} + \epsilon
\]

In the study, the results of a standard hypothesis test using the Shap-Wilk test for the financial industry showed significantly higher scores than alpha (0.051). Thus, the residual model for each variable is normally distributed. Testing the multicollinearity hypothesis using the Variance Expansion Factor (VIF) test in the financial industry shows that the VIF value for each independent variable is less than 10 and the tolerance for each independent variable is greater than or equal to 0.10. Therefore, no multicollinearity issues are found. The results of testing the Brusch-Pagan model and testing the variable variance hypothesis in the financial industry received significant values (Prob) in excess of 0.05, so there is no problem with variance. Based on Hausman’s test, this study selected a panel regression model from the regression models between SM and social impacts on financial performance variables, resulting in a random effects model equivalent to 0.291.

Table 3. Results of Regression Analysis

<table>
<thead>
<tr>
<th>Performance</th>
<th>Coef.</th>
<th>Std. Error</th>
<th>T</th>
<th>Sig.</th>
<th>R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Media</td>
<td>0.63</td>
<td>0.22</td>
<td>2.31</td>
<td>0.001*</td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>0.54</td>
<td>0.31</td>
<td>3.03</td>
<td>0.022*</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.32</td>
<td>0.78</td>
<td>0.12</td>
<td>0.038*</td>
<td>0.39</td>
</tr>
<tr>
<td>Age</td>
<td>0.42</td>
<td>0.09</td>
<td>0.98</td>
<td>0.083</td>
<td></td>
</tr>
<tr>
<td>Leverage</td>
<td>0.19</td>
<td>0.32</td>
<td>1.95</td>
<td>0.030*</td>
<td></td>
</tr>
<tr>
<td>Cons</td>
<td>0.02</td>
<td>0.50</td>
<td>2.01</td>
<td>0.129</td>
<td></td>
</tr>
</tbody>
</table>

*Sig. at level 0.05 (p<0.05)

The Influence of Social Media on Firm Performance

SM is a well-liked kind of online contact that's also heavily utilized by the general public, particularly companies. Group preferences for particular SM platforms evolve over time. Businesses utilize SM for a variety of purposes to improve relationships with their clients. SM can alter the manner of communication and make it more interactive and participative. It strengthens, personalizes, and equalizes the relationship between the business and its clients (horizontal). Other customers can directly remark on what’s happening in the business via SM.

SM can create brand attitudes that affect consumer purchasing decisions. Consumers may choose to purchase a product or brand based on its attractive packaging. SM can now be used as a platform to share unique experiences with a wider audience. Today, SM can also be used as a portal to share individual experiences with a company’s products and services (Phang et al., 2013). In general, shared information becomes one of
the other potential consumer considerations to follow a company's SM account (Miller & Skinner, 2015), so consumers can use the SM account in the company's comment column. The intent of followers on SM accounts through the information. Other SM followers can also use your company's services and products. SM can increase the number of sales of the company and indirectly implement the FP.

**The Influence of Social Influence on Firm Performance**

Individually considered companies have all the resources they need to reach their goals and are important for establishing partnerships (Baraldi et al, 2012). Business networks are important for measuring how the exchange of one relationship depends on the exchange (or non-exchange) of the other relationship (Giraldi, 2019). SI is a global concept that assessment of communication and connections between firms. The research on SI has focused primarily on friendship connections (Luo et al, 2016). This research focuses on a general approach for measuring the SI of certain objective entities, especially corporate networks. To build a corporate impact network, dig up network links (corporate relationships) from the news and get node attributes (corporate impact) from the search index (Luo et al., 2016). The theory of SI is a powerful explanation framework for the above social phenomena (Luo et al, 2022). SI explained, "the use of social power by an individual or communities to change the attitude or behavior of another individual or group in a particular direction" (Jamal et al. 2015). SI on FP has found a positive link between them (Sikarwar, 2019).

The second hypothesis states that the alleged SI has an impact to return on assets (ROA). Statistical t-test explains that SI has an impact on ROA. Each firm discloses its SI, the more cooperation must prove its effectiveness. It can be concluded that social impact can now be used as one of the firm's marketing strategies, that the firm receives in the form of receiving the products manufactured by the firm will develop the FP. Better relationships with other companies can have a positive impact on FP.

**The Influence of Size, Age, and Leverage (Control Variable) on Firm Performance**

The results of statistical testing with the t-test indicate that the first control variable, namely firm size, has a positive and significant effect on firm performance. It can be concluded that the alternative hypothesis is accepted. This shows that if the size increases (the larger the size of the company), then the FP will also get better.

The second control variable is firm age which has a negative and insignificant effect on firm performance. It can be concluded that the alternative hypothesis cannot be accepted. This shows that the younger the company, the better the company's performance when compared to a more senior company, but young companies cannot be used as a reference in determining FP.

The third control variable is leverage which has a positive and significant effect on firm performance. It can be concluded that the alternative hypothesis is accepted even though the direction is different. This result is supported by social capital theory. This theory explains that a set of values or informal norms that are shared among investors to influence investor decisions so that companies can obtain loans in the form of debt.
through investors to fund the company's interests in showing that the company will perform well and be able to repay the interest on the debt provided by investors to the company. This means that the greater the leverage owned by a company, the better the FP.

CONCLUSION

This objective study is to improve the impact of SM on the FP of the financial industry listed on the IDX. The outcome of this study improves empirical evidence that SM impacts FP. There are several contributions to this study, both of practice, and theory. The theoretical contribution can maintain the positive impact of SM on FP. Research has shown that businesses can use SM to change public perceptions of their acts as being socially appropriate so that the public's trust can improve FP.

SI is a kind of objective amount that affects business performance in collaboration with other businesses, especially in business networks. The trust that a company receives in the form of storage of products manufactured by the firm, if this continues, will affect and improve FP. The results of this study, improve empirical evidence that SI impacts FP.

This research is still far from perfect, given the type of research that is still not widely carried out in Indonesia. There are limitations of this study include. Firstly, managers need to consider the decision to carry out social media practices in their companies because social media practices are believed to improve the firm performance in the future. Secondly, the government needs to encourage more active cooperation between companies, because it has been proven to improve firm performance.

Based on the conclusions contained in this research, some suggestions for further research can be given. Firstly, this research is typically conducted in the financial industry of IDX-listed companies. In further research, if the following observation is conducted in all industries of IDX-listed companies expected the findings vary and could be more accurate. Secondly, this research was conducted within a few years, between 2019 and 2021. Given that the world of digital improvement is futuristic, further research can differ if conducted at different times and years.

REFERENCES


