The Factors Influencing Web Disclosure: Evidence from Indonesia Manufacturing Companies Listed in Indonesia Stock Exchange

Dajasukma Tjahjadi, Budi Permana, Kurweni Ukar, and Ekabrata Yudhistyra

ABSTRACT

Capital markets have become increasingly important in driving a country’s economy. The capital markets could perform their role effectively if there is available information for investors. Along with the evolution of information technology, information dissemination by companies could be done more efficiently and promptly manner, for example using corporate websites. However, information dissemination through corporate websites (web disclosure) has not been fully utilized by companies, especially Indonesian companies. Therefore, this research analyzed the factors influencing web disclosure by manufacturing companies in Indonesia. The hypothesis testing was conducted with Partial Least Square Structural Equation Modeling on 54 Indonesian manufacturing companies listed on Indonesia Stock Exchange. The analysis found that company size and corporate governance mechanisms have a positive relationship, and leverage has a negative relationship with web disclosure. The results have also found no relationship between culture and profitability with web disclosure.

Keywords: Culture, Corporate Governance, Firm Characteristics, Web Disclosure.

I. INTRODUCTION

Information disclosure including through the corporate website is one of the means used by companies to provide information to their stakeholder. Any information disclosure either through the corporate website or other media (such as annual reports, the supplementary information in the financial statement, press conferences, and other media) is important for stakeholders or investors to make decisions.

Along with the advancement of information technology, since the mid and late nineties, more companies are using electronic media for disseminating their information, especially using the internet. There are two ways to utilize information technology for information disclosure (Prabowo & Angkoso, 2006). First, using the internet to disseminate financial statements which are called Internet Financial Reporting. The second is using the corporate website to provide financial and non-financial information, which is called web disclosure. Although internet usage is increasingly popular, not all manufacturing companies in Indonesia have their corporate website. In the year 2019, there were still 35 companies (27%) that did not have a website. Even though any additional information provided by companies can reduce uncertainty and risk and, in the end, will lower the cost of capital (Botosan, 1997). Complete information disclosure is also a prerequisite for an efficient capital market (Wolk, 2016). The Indonesia Stock Exchange is categorized as “The Emerging Capital Market” which has characteristics of a high growth rate but doesn’t yet have an established regulation in information disclosure and protection for investors (Suarez, 2014).

Information disclosure can be divided into two categories: mandatory disclosure and voluntary disclosure (Gunawan & Lina, 2015). Voluntary disclosure practices have attracted the attention of many researchers to study the motivation factor of these practices. For many years, evidence has shown that firm and financial characteristics such as firm size, leverage, and profitability were dominant factors influencing voluntary disclosures (Buzby, 1975; Gelb & Zarowin, 2000; Shalutha & Priyadarshanie, 2020).

Another factor that relates to disclosure is the corporate governance mechanism. The corporate governance mechanism is the interaction of various components that allow monitoring and control internally and externally to achieve company goals. Several studies have shown the effect of corporate governance mechanisms to enhance information disclosures (Boateng, 2022; Ho & Wong, 2001; Nindiasari, 2021).

Besides firm characteristics and corporate governance mechanisms, a country’s culture affects voluntary disclosure practices. Research on culture and voluntary disclosure stems from the paper (Gray, 1988), which proposed hypotheses on...
the relationship between cultural characteristics and the development of accounting systems and also attitudes towards disclosure. The cultural characteristic is based on (Hofstede, 2001) which mapped the cultural characteristics of countries in the world into five dimensions (index). The five cultural indexes are Uncertainty Avoidance, Masculinity, Power Distance, Individualism, and Longterm Orientation.

Based on this, much research has studied the effect of a country’s culture on voluntary disclosure (Farina, 2005; Dong, 2010; Gray, 2012; Perkins, 2022) with various results. These papers have found that voluntary disclosures made by companies in a country are influenced by the level of individualism index (or collectivism) of the people of that country.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

A. Disclosure Using Internet

Along with the advancement of information technology, especially the internet, resulting in more companies using websites to provide company information more efficiently and quickly. The practice of using the internet to disclose information is divided into 2 types (Prabowo & Angkoso, 2006; Basuony, 2014). The first type is Internet Financial Reporting (IFR), which refers to financial information disclosure through the internet such as email, or websites. The second type is web disclosure, which refers to financial and non-financial information through the company’s website. Both IFR and web disclosure are treated as voluntary disclosure because there are no regulations that require companies to disclose information through their website.

Several theories can be used to explain the practice of voluntary disclosure which are agency theory, information symmetry theory, signaling theory, and stakeholder theory. In agency theory, disclosure is used to overcome agency problems between shareholders and directors. Information asymmetry theory and signaling theory place disclosure as a signal to reduce information imbalance between the company and its shareholders or potential shareholders. Meanwhile, from the perspective of stakeholder theory, disclosure is a means to fulfill the interests of stakeholders.

B. Culture and Disclosure

The culture was defined as “the collective programming of the mind which distinguishes the members of one group from another” (Hofstede, 1980). In the updated paper (Hofstede, 2001) five dimensions of culture have been developed that can be used to distinguish the cultural characteristics of people in many countries. The five dimensions are Uncertainty Avoidance, Masculinity, Power Distance, Individualism, and Longterm Orientation. Using this dimension (Gray, 1988) has proposed the relationship between the cultural dimension and accounting values, which are professionalism versus statutory control, Uniformity versus flexibility, Conservatism versus optimism, and Secrecy versus transparency. The accounting value of Secrecy versus Transparency is related to information disclosure practices and was proposed that companies located in countries that have a highly individualistic culture tend to be freer and more extensive in disclosing their company information. This research has triggered many researchers to further investigate the relationship between the cultural dimension and voluntary disclosure (Farina, 2005; Dong, 2010; Gray, 2012; Hooghiemstra, 2015; Lu & Wang, 2021; Perkins, 2022) and found various results.

H1: There is an influence of the collective dimension of culture on web disclosure.

C. Firm-Specific Characteristics and Disclosure

There were many firm-specific characteristics that have been investigated as factors influencing voluntary disclosure. The most dominant characteristics found were firm size, financial leverage, and profitability which are described as follows:

1) Financial leverage

Several pieces of literature have found a relationship between financial leverage and voluntary disclosure. Firms with higher debt proportions would disclose more information (Mensah, 2012; Yusuf, 2018; Milad & Bicer, 2020; Umar, 2021). These phenomena are in line with signaling theory. Firms with a small proportion of debt tend to disclose more information to maintain a good perception from stakeholders. On the other hand, firms with a larger proportion of debt tend to not disclose any additional information to prevent more negative impressions.

H2: There is an influence of financial leverage on web disclosure

2) Firm size

An abundance of papers have found a positive relationship between firm size and voluntary disclosure. (Dong, 2010; Karim, 2013; Elfeky, 2017; Tinh, 2021). The larger firm has more complexity and political pressure from regulators and the government. The larger firm has also more resources (people and funds) to gather, process, and disseminate information compared to smaller firms.

H3: There is an influence of firm size on web disclosure

3) Profitability

Much research has shown that companies with high profitability tend to disclose more information (Mensah, 2012; Aikaeli, 2015; Rody, 2020; Bechir et al., 2022). When generating high profits, companies were motivated to provide more detailed information to provide an overview of the continuity of these favorable conditions to their stakeholders.

H4: There is an influence of profitability on web disclosure.

D. Corporate Governance Mechanism and Disclosure

If firm management owns or keeps information exclusively, it will lead to information asymmetry. This can result in a crisis of shareholders’ confidence, something the company does not want either. Therefore, firm management must disclose information about the company transparently, to maintain the trust of shareholders. Although there are several aspects of internal control in the corporate governance mechanism, based on the previous research (Satta, 2014), it was found that the factors of the corporate governance mechanism that have an important influence on information disclosure were the ownership structure, the proportion of independent commissioners, and the size of the board of commissioners. Several studies have shown ownership structure affects information disclosure. Companies whose shares are mostly owned by a small group (families) are less
motivated to disclose more information (Chau & Gray, 2002; Khalif & Ahmed, 2016). The independent commissioners also have a significant effect on voluntary disclosure. According to agency theory, boards of commissioners need mechanisms to monitor and control the actions of directors. There was evidence that firms with higher independent commissioners’ proportion have disclosed more information (Afifah & Surwanti, 2022). This is due to the independent commissioners doing their monitoring function properly.

H5: There is an influence of corporate governance mechanisms on web disclosure

The explanation above shows the influence of several independent variables on web disclosure. The literature review also found a relationship among the independent variables, which is explained in the next section.

E. Firm Size and Corporate Governance Mechanism

In addition to influencing disclosure, company size is also believed to affect corporate governance mechanisms. The implementation of a good corporate governance mechanism requires considerable resources so there is a tendency for large companies to be able to carry out better corporate governance mechanisms compared to small companies. Several pieces of evidence have shown this phenomenon (Madhani, 2016; Black, 2006).

H6: There is an influence of firm size on the corporate governance mechanism.

F. Corporate Governance mechanism and Profitability

The effect of corporate governance mechanism represented by ownership structure and proportion of independent commissioners on profitability has been found in several studies (Kajola, 2008; Mahrani & Soewarno, 2018). The existence of an independent commissioner will cause the decisions taken by the board of commissioners to be more objective and increase the firm’s profitability. The other studies (Hanim et al., 2018) have found a relationship between ownership structure and profitability.

H7: There is an influence of corporate governance mechanisms on profitability. Based on the literature review above, the conceptual model of this research is depicted in Fig. 1.

III. RESEARCH METHOD

To test the proposed conceptual model, data were collected on manufacturing companies listed on the Indonesia Stock Exchange. The sampling technique used is purposive sampling with criteria as follows:

i. The company is a manufacturing company listed on the Indonesia Stock Exchange for the year 2018 to 2020.
ii. The company is an Indonesian (local) companies.
iii. The company has submitted its annual report for 2018 to 2020 through the Indonesia Stock Exchange website.
iv. The company has an official website.
v. The company did not experience a loss based on data on average net profit for 3 years (2018 to 2020).

By applying the criteria above, and removing the outlier data, data about 54 Indonesian manufacturing companies was collected. Data about the web disclosures of each company were collected by accessing the official websites of the companies. Financial data of each company were collected from the company’s annual report. The proxies used for each variable in the model are listed in Table 1.

Data analysis and hypotheses testing was conducted using Partial Least Square Structural Equation Modeling (PLS-SEM) with Smart PLS tools.

The data analysis consists of two parts which are outer model testing and inner model testing. The outer model testing was used to detect if there are invalid proxies for each variable. With the criteria that the indicator is valid if it has a loading factor value > 0.7, it was found that there were two invalid proxies. The invalid proxies were Forward-Looking Data (FOR) proxies for the web disclosure variable and the proportion of shares owned by the public investor (PUB). After the two invalid proxies were deleted, the final PLS-SEM model is depicted in Fig. 2.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Proxies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proxy for Information disclosure on the website</td>
<td>was based on (Matherly &amp; Burton, 2005), which has 5 categories of information:</td>
</tr>
<tr>
<td>Web Disclosure</td>
<td>-Business Data (BUS)</td>
</tr>
<tr>
<td></td>
<td>-Forward-Looking Data (FOR)</td>
</tr>
<tr>
<td></td>
<td>-Company Background (COM)</td>
</tr>
<tr>
<td></td>
<td>-Intangibles (INT)</td>
</tr>
<tr>
<td></td>
<td>-Convenience (CONV)</td>
</tr>
<tr>
<td>The proportion of board of commissioner members who are local (Indonesian) citizens</td>
<td>(LKOM)</td>
</tr>
<tr>
<td>Culture</td>
<td>-Total Sales (SALES)</td>
</tr>
<tr>
<td>Firm Size</td>
<td>-Total Assets (ASSET)</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>-Net Income (NET)</td>
</tr>
<tr>
<td></td>
<td>-Debt-to-Equity Ratio (DEBT1)</td>
</tr>
<tr>
<td>Profitability</td>
<td>-Debt-to-Asset Ratio (DEBT2)</td>
</tr>
<tr>
<td></td>
<td>-Return on Assets (ROA)</td>
</tr>
<tr>
<td></td>
<td>-Return on Equity (ROE)</td>
</tr>
<tr>
<td></td>
<td>-Profit Margin (PMARGIN)</td>
</tr>
<tr>
<td>Corporate Governance Mechanism</td>
<td>-Proportion of shares owned by public investors (OWN)</td>
</tr>
<tr>
<td></td>
<td>-Board size (DIR)</td>
</tr>
<tr>
<td></td>
<td>-Proportion of independent commissioners (IND)</td>
</tr>
</tbody>
</table>

Fig. 1. Conceptual Model.
The reliability test is also carried out and the result is shown in Table II. Based on criteria that the variables are reliable when Composite Reliability and Cronbach Alpha > 0.7. All the variables have met the criteria, except for the Corporate Governance (CG) variables which have Cronbach Alpha value below 0.7. But because of the composite reliability > 0.7 and AVE > 0.5, then was considered reliable.

### IV. DESCRIPTIVE STATISTICS

Web disclosure data from 54 companies have been collected. There were 35 disclosure items checked. The number of disclosure items for each category is 7 items for the Business Data category (BUS), 4 items for the Forward-Looking Data category (FOR), 6 items for the Company Background category (COM), 8 items for the Intangible category (INT), and 10 items for the Convenience category (CONV). The extent of web disclosure by 54 companies for each category is presented in Table III.

The result in Table III shows that the most disclosed information on the companies’ websites is Company Background information, with an average web disclosure of 68.2%. Only three companies did not disclose their company information on their websites. The least disclosed information is about Forward-Looking Data, with an average web disclosure of 5.1%. In fact, there were 45 companies did not disclose any information about Forward-Looking Data on their websites.

### V. MAIN RESULTS AND DISCUSSION

The hypotheses testing was conducted through inner model testing. The criteria for accepting or rejecting the hypotheses was to use a statistical t value. Using a significance value of 5%, the hypothesis will be accepted if the t-statistic value is > 1.96. The calculation of Path Coefficients and t-statistics value is shown in Table IV.

#### A. Culture and Web Disclosure

Based on the results presented in Table IV, there was no influence of the collective dimension of culture on web disclosure (t-value < 1.96). The proxy of the cultural variable is the proportion of the board of commissioners who are Indonesian citizens. According to (Hofstede, 1980; Gray, 1988), Indonesia is a country with a low individualism index (or high in collectivism), and therefore the companies with a high proportion of Indonesian commissioners will disclose less information. This research has found no influence of collectivist culture on web disclosure. This phenomenon can give a sign that the times and globalization have influenced the mindset of the commissioners so that the collectivity culture of Indonesian commissioners has been combined with the culture of the other commissioners’ members from other countries. This finding is in line with other studies (Haniffa & Cooke, 2002).
However, because there have been so many empirical studies that show the existence of a country's cultural relationship to the diversity of information disclosure, there are several suggestions for further investigation. First, using indicators other than the proportion of commissioners who are local citizens may have a different result. Second, expanding company data, especially from more diverse countries with individual index values that differ from one another.

**B. Leverage and Web Disclosure**

Based on the t-statistic value shown in Table IV (t-value >1.96), there was an influence of financial leverage on web disclosure. The path coefficient has a negative value of -0.31, which means the leverage has a negative influence on web disclosure. Using two proxies for financial leverage which were Debt-to-Equity and Debt-to-Asset, it can be concluded that the lower financial leverage will encourage companies to disclose more information. On the other hand, companies that have high financial leverage will hide information. These findings indicate that agency theory, information asymmetry theory, and stakeholder theory cannot explain the relationship between financial leverage and web disclosure. Based on these three theories, the higher the leverage will encourage companies to disclose more information. In this study, it turns out that signal theory is more suitable to explain the influence between financial leverage and web disclosure. Companies with low financial risk are more motivated to disclose various information through their website as a positive signal to strengthen the perception of investors and other stakeholders on the favorable financial condition of the company. Companies with high financial leverage are not motivated or tend to retain information because they are worried that disclosing information can worsen the company's image. Several studies have the same result (Cormier et al., 2010; Umar, 2021).

**C. Firm Size and Web Disclosure**

Based on the results presented in Table IV, there was an influence of firm size on web disclosure (t-value >1.96). Because the path coefficient shows a positive number, it can be concluded that larger companies will tend to disclose more information than smaller companies. This phenomenon is in line with information asymmetry theory and stakeholder theory. It also shows that larger companies have a stronger motivation to disclose more information due to economies of scale, to reduce stakeholder monitoring, and maintain company image than to reduce agency costs, and to meet stakeholders' information needs. Many studies have shown the same results (Madhani, 2016; Karim, 2013; Black, 2006).

**D. Profitability and Web Disclosure**

Table IV shows the t-value 1.33 (<1.96), which means there was no influence of profitability on web disclosure. This can be caused by the presence of some Indonesian companies that have substantial profits but are not motivated to disclose the more complete information on their websites, because they think that large profit information is sufficient for investors. This shows that signaling theory has not been able to explain the relationship between profitability and web disclosure. Several studies have the same result (Aulia, 2022; Rahman, 2020; Aikaeli, 2015).

**E. Corporate Governance Mechanism on Web Disclosure**

Based on the results shown in Table IV, there was an influence of corporate governance mechanism on web disclosure (with the t-value of 2.45 > 1.96). The path coefficients show a positive value, which means the corporate governance mechanism has a positive influence on web disclosure.
disclosure. The proxies of the corporate governance mechanism used in this study are the size of the board of commissioners and the proportion of independent commissioners. So it can be concluded that the larger the size of the board of commissioners and the higher the proportion of independent commissioners in a company will encourage the company to disclose more information on its website. Considering that most Indonesian companies use 2-tier boards, shows that this system is quite effective in encouraging information disclosure on websites. This phenomenon is in line with agency theory, that to monitor and control the actions of the directors (agents), shareholders will place commissioners from outside the company (independent commissioners). When viewed from the perspective of stakeholder theory, the placement of independent commissioners can also be considered as a mechanism to protect the interests of stakeholders.

F. Firm Size and Corporate Governance Mechanism

Based on the result in Table IV, there was an influence of firm size on the corporate governance mechanism. Since the path coefficients show positive value, then it can be concluded that firm size has a positive influence on corporate governance mechanisms. This is in line with the results of previous studies (Madhani, 2016; Lee & Park, 2008; Black, 2006) which concluded that large companies have better resources to carry out better corporate governance mechanisms. This also shows that large companies generally have more dispersed shareholdings, so they tend to require a larger number of members of the board of commissioners to represent their shareholders and other stakeholders. This is in line with stakeholder theory.

G. Corporate Governance Mechanism and Profitability

Based on the results presented in Table IV, there was no influence of the corporate governance mechanism on profitability (t-value < 1.96). This can be due to the size of the board of commissioners being too large, which can lead to slow decision-making, resulting in the loss of opportunities for profit for the company. Several studies have shown the same result (Nuryana & Surjandari, 2019; Wimelda & Chandra, 2018).

VI. CONCLUSION

Based on the data analysis and explanation above, can be concluded that factors that influence web disclosure are firm size, corporate governance, and financial leverage. This study did not find the effect of collective culture and company profitability on web disclosure. However, because quite a lot of research has found a relationship between culture and voluntary disclosure, the cultural aspect is still interesting to study and can encourage more in-depth research. This study also examined the effect between independent variables, which are firm size on corporate governance mechanisms, and corporate governance mechanisms on profitability. The effect of firm size on corporate governance mechanisms have been found, but no effect of corporate governance mechanisms on profitability.

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