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# Determinants of Corporate Internet Financial Reporting in Asia-Pacific Countries: A Cross Country Analysis

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| ARTICLE INFORMATION | ABSTRACT |
|---|---|
| | The purpose of this study is to provide a comparative analysis of the quality of Corporate Internet Financial Reporting (CIFR) practices in the Asia Pacific. It examines the impact of firm size, listing age, internationalization, and auditor size on CIFR practices. The population in this study are all publicly listed companies in Australia, Singapore, and Indonesia. The sample comprises of non-financial companies in 2019, namely 95 Australian companies, 87 Singapore companies, and 85 Indonesian companies. Multivariate analysis is used to examine the hypothesis. The results show that Singapore and Indonesian firms have higher CIFR disclosure compared to Australia. This study found that some firm characteristics explain the level of CIFR disclosure. Firm size, internationalization, and auditor type have a significantly positive impact to CIFR disclosure in the Asia Pacific, while listing age does not explain the level of the CIFR. |

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## Determinan Pelaporan Keuangan melalui Internet di Negara Asia – Pasifik: Studi Lintas Negara

### ABSTRAK

*Penelitian ini bertujuan untuk memberikan analisis komparatif terhadap kualitas praktik Corporate Internet Financial Reporting (CIFR) di Asia Pasifik. Penelitian ini menguji dampak ukuran perusahaan, usia pencatatan, internasionalisasi, dan ukuran auditor pada praktik CIFR. Populasi dalam penelitian ini adalah seluruh perusahaan publik di Australia, Singapura, dan Indonesia. Sampel terdiri dari perusahaan non keuangan pada tahun 2019 sebanyak 95 perusahaan Australia, 87 perusahaan Singapura, dan 85 perusahaan Indonesia. Analisis multivariat digunakan untuk menguji hipotesis. Hasil penelitian menunjukkan bahwa perusahaan Singapura dan Indonesia memiliki pengungkapan CIFR yang lebih tinggi dibandingkan dengan Australia. Penelitian ini menemukan bahwa beberapa karakteristik perusahaan menjelaskan tingkat pengungkapan CIFR. Secara khusus, ukuran perusahaan, internasionalisasi, dan jenis auditor memiliki hubungan positif yang signifikan dengan pengungkapan CIFR di Asia Pasifik. Sedangkan usia pencatatan tidak menjelaskan tingkat pelaporan internet.*

## 1. Introduction

Rapid advancement of information technology, especially internet has been internationally observed. According to Internet World Statistics, more than half of the population in the world uses the internet (Miniwatts Marketing Group, 2019), as showed in Table 1. It implies how much the users, whether individual or corporate users, are depended

on the internet for daily activities or business practices. The highest internet usage in the world is placed by Asia, amounted to 50.7%, followed by Europe with 16%. This fact illustrates that Asians depend heavily on the internet. In addition, the internet grows 1,157% worldwide in the past two decades. The increasing number of internet usage is an opportunity for companies to do financial reporting through the internet.

Table 1 World internet statistics

| World Regions | World Internet Usage and Population Statistics 2019 Mid-Year Estimates | | | | |
|---|---|---|---|---|---|
| | Population (2019 Est.) | Population of the World | Internet Users 30 June 2019 | Internet World Percentage | Growth 2000-2019) |
| Africa | 1,320,038,716 | 17.1 % | 522,809,480 | 11.5 % | 11,481% |
| Asia | 4,241,972,790 | 55.0 % | 2,300,469,859 | 50.7 % | 1,913 % |
| Europe | 829,173,007 | 10.7 % | 727,559,682 | 16.0 % | 592 % |
| Latin America / Caribbean | 658,345,826 | 8.5% | 453,702,292 | 10.0 % | 2,411 % |
| Middle East | 258,356,867 | 3.3 % | 175,502,589 | 3.9 % | 5,243 % |
| North America | 366,496,802 | 4.7 % | 327,568,628 | 7.2 % | 203 % |
| Oceania / Australia | 41,839,201 | 0.5 % | 28,636,278 | 0.6 % | 276 % |
| TOTAL | 7,716,223,209 | 100.0 % | 4,536,248,808 | 100.0 % | 1,157 % |

Source: Miniwatts Marketing Group (2019)

Throughout time, businesses utilize the internet as a communication tool. The presence of the internet as a medium of information and communication gave a new idea in the accounting world on how to present company information via the internet or websites, commonly called the Corporate Internet Financial Reporting (CIFR) (Ashbaugh, Johnstone, & Warfield, 1999). Corporate Internet Financial Reporting (CIFR) is a business bridge for companies to communicate corporate financial information to stakeholders easily, quickly, effectively, and efficiently (Sia, Brahmana, & Memarista, 2018).

The emergence of CIFR practices is driven by a statement from the Securities and Exchange Commission (SEC) in August 2000. The SEC states that all legal information regarding company performance is recommended to be made and provided by public companies to all interested parties at the same time (Ragas & Culp, 2014). Disclosure of information on the website is a company's effort to reduce communication and information gaps that may occur between the company's internal and external parties (Silva & Ajward, 2019).

There is no specific reporting standard in the implementation of company's financial information published on the internet in every country. This statement also means that the quality of CIFR between countries will vary. Until now, the regulatory authorities in some countries obliges public companies to publish their financial information to be posted on companies' website (Hermawan et al., 2019). In countries like Indonesia, the deadline of annual report is regulated. According to Law No. 8 of 1995 concerning the timeliness of financial reports on the capital market, public companies must disclose no later than 4 months after the end of financial year, therefore punishment and fine is implemented. The Financial Services Authority of Indonesia argues that the regulation help investors to get faster and easier to access financial information on which to make decisions. However, not every country has the same regulation on the implementation of company's financial information, especially the

specific regulation concerning the type of contents available in the company's website.

The shift toward online reporting made paper-based reporting have more limitations. Some features lacking in paper-based reporting are time efficiency and geographical dissemination (Debreceny, Gray, & Rahman, 2002). Online reporting has some other features that are unavailable in paper-based reporting which supports more interaction with users. The feature gives users an option to access information precisely, as different stakeholders have different information needed (Debreceny et al., 2002). The traditional paper-based reporting cannot satisfy all. Therefore, it becoming less useful in making a decision (Deller, Stubenrath, & Weber, 1999; Sia et al., 2018). The use of the internet as a medium for disseminating financial information has changed the way investors look at the information needed. The study of Deller et al., (1999) shows that investors prefer financial information distributed electronically to paper-based financial information to make decisions cause of timelier manner of financial information distributed electronically.

Various researches investigate factors affecting internet reporting. The study by Elsayed (2010), Hossain, Momin, & Leo (2012), Ojah & Mokoaleli-Mokoteli (2012), Ahmed, Burton, & Dunne (2017) and Yassin (2017) show that firm size has a positive significant relation with internet reporting. It implies that the more established the firm, the more concerned they are to report their information on the internet. In contrast, studies by Aly, Simon, & Hussainey (2010), Puri (2013), and Hermawan, Biduri, Hariyanto, & Ningdiyah (2019) show that company size has no significant relationship with internet reporting. Besides, listing age also has been studied by prior researchers. The study by Alarussi, Selamat, & Hanefah (2011) shows that listing age has a positive significant effect on CIFR. While Hossain et al., (2012) showed that age has a positive but not significant relationship. On the other hand, Hermawan et al., (2019) stated that age have no significant effect on

internet reporting. It can be concluded that previous studies show various results whether a longer listing company tends to engage with online reporting or not.

The next variable discussed is internationalization which is very lacking in prior researches. The study by Bollen, Hassink, & Bozic (2006) suggests that the effect of internationalization is positively significant on internet reporting in the six countries chosen, Australia, Belgium, France, the Netherlands, South Africa, and the UK. Moreover, Abdelsalam & Street (2007), Aly et al., (2010) and Ahmed et al., (2017) shows that companies that are listed in foreign exchanges have a higher CIFR rate. Such companies concern more about reporting in order to reduce information asymmetry between local and foreign investors by disclosing more information. Conversely, Debreceny et al., (2002) found a negative significant relationship between foreign listing and presentation format in online reporting. In addition, according to Marston (2003), Oyelere, Laswad, & Fisher (2003), and Trabelsi & Labelle (2006) there is no evidence between foreign listing status and internet reporting.

The relation between auditor size and online reporting also being researched by prior researchers and showed various results. Xiao, Yang, & Chow (2004) and Kelton & Yang (2008) showed a positive significant relationship between auditor size and web reporting. Conversely, Silva & Ajward (2019) showed that auditor size has a negative relationship with total CIFR and presentation format. While Trabelsi & Labelle (2006), Aly et al., (2010), and Ahmed et al., (2017) found no evidence of this relationship. The results show that internet reporting still produces various findings so that further testing is needed to determine the consistency of the findings.

In particular, this study contributes to the literature, especially for methodologies, by focusing on internet reporting practices among non-financial companies across the country in the Asia Pacific. This study highlights internet reporting

practices among non-financial companies. Several previous studies do not differentiate financial and non-financial companies (Hossain et al., 2012; Ojah & Mokoaleli-Mokoteli, 2012; Yassin, 2017). The generalization has failed to the fact that accounting standards differ across countries. Besides, based on inconclusive results of factors influencing CIFR (Ahmed et al., 2017; Hossain et al., 2012; Ojah & Mokoaleli-Mokoteli, 2012; Yassin, 2017).

This study examines the effect of firm size, listing age, internationalization, and auditor size on CIFR. Besides, prior studies mention that there is no harmonization in measuring the level of CIFR between one country and the others. Therefore, many prior researches develop various CIFR indexes across countries. Cause of the different indexes used, CIFR between countries cannot be compared. Therefore, this research chooses one comprehensive and most suitable index for comparability purposes.

Based on the explanation above, the purpose of this study is to provide a comparative analysis of the impact of firm size, listing age, internationalization, and auditor size on CIFR practices. The rest of our paper is organized as follows. Section 2 demonstrates the literature review and hypothesis development. Section 3 presents a research method to examine the hypothesis. Section 4 presents the empirical results and section 5 presents the conclusion.

## 2. Theoretical framework and hypotheses development
### Decision usefulness theory

Decision usefulness theory was formerly known as the Theory of Accounting to investors (Staubus, 2000). Decision usefulness theory explains that financial reporting information should meet the needs of investors for decision making purpose.

Financial information is very important for decision making not only to investors, but also to the owners, creditors, government, customers, and the public in general. The decision usefulness theory explains that the concept of historical costs is not relevant to accounting valuations with market prices or the present value approach to fair prices. Financial information has the qualitative features of reliability and relevance, with an understandable and comparable presentation so that it is vital for the use of its users (Henderson & Kaplan, 2005). Therefore, to overcome these problems, a decision usefulness approach is used to make financial statements based on historical costs more useful including financial disclosure through the internet.

### Agency theory

Agency theory addresses the problems that arise in companies because of the separation of owners (principals) and managers (agents) (Jensen & Meckling, 1976). The problem leads the agency conflict between principal and agent that arise from information asymmetry. Voluntary disclosure is useful to reduce information asymmetry and to protect the rights of shareholders (Ghio & Verona, 2020). Therefore, the information presented in the financial statements must be transparent and representative to predict future financial conditions, cash flows, and profitability (Elfeky, 2017). Additionally, not all company information must be disclosed, but it is adjusted to the company policy and the needs of users of the financial (Ghio & Verona, 2020). The voluntary disclosure of financial information by utilizing internet as the medium is more cost-effective and serves faster than paper-based disclosure (Nurunnabi & Hossain, 2012).

Besides, the agency conflict arises agency costs (Jensen & Meckling, 1976). Agency costs are internal costs that occur because of the unconformity of interest between the principal and agent. The cost not only covers the losses caused by agents' decision and low managerial ability of agents but also represent bonding costs. The quality and quantity of information as well as how quickly

and precisely the information reaches the user is considered in terms of bonding costs. The agency cost will vary according to company and corporate governance characteristics, e.g. company size, leverage, profitability, listing age (Nurunnabi & Hossain, 2012). To reduce the agency cost, more and faster information disclosure is needed to provide a more user-friendly platform for investor and creditors, especially by utilizing internet reporting (Nurunnabi & Hossain, 2012).

## Corporate internet financial reporting (CIFR) in the Asia Pacific countries

The use of the internet for information disclosure has created a great deal among researchers and academicians all over the world (Hermawan et al., 2019; Ahmed et al., 2017). A number of previous studies discuss the CIFR practices among firms in the Asia Pacific and factors affecting the application of the CIFR. In general, the CIFR practices differ among countries depending on the factors that influence it (Juma, Sadress, Ngoma, & Muganga, 2019). The factors are usually divided into two groups, the company characteristics and corporate governance characteristics (Juma et al., 2019; Nurunnabi & Hossain, 2012). In addition, differences in financial accounting standards and the obligatory level by using regulatory enforcement (Nurunnabi & Hossain, 2012) of internet financial reporting also cause differences in the CIFR level. In this study, we examine whether both company and corporate governance characteristics affect the application of the CIFR in Asia Pacific countries.

Hermawan et al., (2019) internet reporting practices in Indonesian and Malaysian pharmaceutical companies. The descriptive statistics result showed that the internet reporting disclosure of Indonesian pharmaceutical companies is higher compared to Malaysia. The authors discuss the situation due to the different reporting standards or company regulations in the implementation of internet reporting. Therefore, it implies that the quality of internet reporting varies

between countries. Silva & Ajward (2019) investigate the CIFR in Sri Lanka.

The study also develops a disclosure index on internet reporting. From 100 companies examined, the overall level of internet reporting is only 16.2% even though the number of companies that own a website is quite high, as much as 83% of the sample. The content disclosure is on average 12.52% and the level of presentation format of the CIFR is 26.88%.

Ahmed et al., (2017) examine the CIFR of non-financial companies in Egyptian listed companies for the periods 2010 and 2011. With a sample of 172 non-financial companies, the disclosure index is developed based on previous studies. The descriptive analysis shows that 40.7 and 42.7 percent of the companies provided financial information via the internet in 2010 and 2011, respectively. It implies that the disclosure of CIFR, content, user support and presentation differ in a year gap, although it is not statically significant. Aly et al., (2010) study the CIFR of Egyptian companies. The results demonstrate that 56 percent of listed companies reveal their financial reporting on their websites. Nurunnabi & Hossain (2012) investigate the voluntary disclosure of internet financial reporting in Bangladesh in 2009. The results show that only 29.12%, around 83 companies of 285 listed companies, have their own websites.

## The effect of firm size on the CIFR

The size of the company is how large or small the company is shown or valued by total assets, total sales, total profits, tax expenses, and others (Brigham & Houston, 2010:4). It is the size, dimensions, or capacity of an organization. The size of the company is classified into three parts, namely large, medium, and small-scale companies. Large-scale companies are companies with a net worth of more than Rp10 billion (including land and buildings) and sales quotas worth less than Rp1 billion/year; while small-scale companies are companies with a total net worth of at most Rp200

million and total sales of at least Rp1 billion/year (Brigham & Houston, 2010:4).

Firm size is an important determinant in company information disclosure (Kurniasih & Sudarsi, 2012). It is also a factor that determines whether a company will choose to adopt the CIFR or not. Larger companies have more investment activities so that they require larger funds from different sources, from retained earnings, owners' equity, and lenders. Therefore, companies must transparently disclose more financial information to owners and lenders. Conveying the information accurately, quickly and widely through internet financial reporting is very necessary to increase the confidence of investors and lenders on companies performance (Nurunnabi & Hossain, 2012).

The relation between firm size and internet reporting has been investigated widely. The study of Elsayed (2010), Hossain et al., (2012), Ojah & Mokoaleli-Mokoteli (2012), Ahmed et al., (2017) Yassin (2017) and Silva & Ajward (2019) suggest that there is a positively significant relationship between firm size and the level of internet reporting. Bigger companies tend to present financial reporting by using the internet. But not all of the study shows similar result. Aly et al., (2010), Puri (2013), and Hermawan et al., (2019), show that company size has no significant relationship with internet reporting. It implies that the size of the company does not guarantee the level of internet reporting. Hossain et al., (2012) investigate the CIFR in an emerging country, Qatar. From the sample of 42 companies, the study examines the relationship between company characteristics and the voluntary dissemination of financial and non-financial information on the internet. The results show that firm size is variable that is significant in explaining the level of internet financial reporting disclosure.

$H_1$: Firm size positively influences the CIFR practice of firms in the Asia Pacific countries.

**The effect of listing age on the CIFR**

The notion of age is the length of time of life or how long the company has existed since birth (Poerwadarminta, 2003:138). Listing age is the length of time the company has been listed on the stock exchange. Companies that have been listed on the stock exchange are required to disclose their financial statements. When the company has gone public, the company are enforced to disclose their condition to all interested parties at the same time. The company is said to go public when the company sells its shares in public to investors (Harmono, 2009). The time when an organization starts to be a public company or listed on the stock exchange is called Initial Public Offering (IPO). In measuring the level of internet reporting, listing age is one factor to consider. Companies that have been listing on the stock exchange for a long time and are able to withstand high competition are better able to adapt to the needs of stakeholders, thus indicating a more established company. The longer the company is listed on the stock exchange, the more established the company will be. Studies by Ahmed et al., (2017) and Yassin (2017) show that more established firms tend to present financial reports via the internet. Besides, companies that are more established tend to provide more disclosure levels compared to smaller companies (Weli, 2016).

Alarussi et al., (2011) show that listing age has a positive significant effect on CIFR. In line with Alarussi et al., (2011), Weli (2016) finds that the listing period affects CIFR. It indicates that the higher the listing age, the higher the level of internet reporting. But overall, the studies on the relationship of listing age and internet reporting show various results. Hossain et al., (2012) show that age has a positive but not significant relationship. Study by Elsayed (2010) and Hermawan et al., (2019) state that listing age has no significant effect on internet reporting. Hossain et al., (2012) explain that the longer the life of the company in stock exchange, the wider disclosure of

financial information provided, compared to other companies whose life is shorter because the company has more experience in disclosing annual reports.

$H_2$: Listing age positively influences the CIFR practice of firms in the Asia Pacific countries.

**The effect of internationalization on the CIFR**

Internationalization is a process of the company's involvement in the global market in stages (Johanson & Vahlne, 1977). The definition indicates that the entry of companies into the international market occurs after they are in the domestic market, then through a gradual process, they enter the foreign market.

Internationalization refers to the company's effort to be internationally oriented by performing foreign activities. Expanding internationally may be in the form of listing in foreign stock exchanges, international trading activities, obtaining financial resources from abroad, and many more (Bollen et al., 2006). Prior researches regarding foreign listing and internet reporting shows mixed results. A prior study by Bollen et al., (2006) states that internationalization has a positive significant association with internet reporting. They use 270 companies in six countries, namely Australia, Belgium, France, the Netherlands, South Africa, and the UK as sample. The results indicate that the use of the internet for internationalization purposes may benefit from the quality of CIFR. Besides, prior studies by Abdelsalam & Street (2007), Aly et al., (2010), and Ahmed et al., (2017) show a similar result that foreign listed companies have a better quality of CIFR. It implies that companies listed in foreign exchanges have a higher level of internet reporting compared to companies that are not listed on foreign exchanges. Companies concern reporting activities to reduce information asymmetry between local and foreign investors by disclosing more information.

Conversely, Debreceny et al., (2002) show a negative significant relationship between foreign listing to presentation format in online reporting.

However, still in the same study by Debreceny et al., (2002), it is also stated that there is no significant relationship between foreign listing and content format in online reporting. Also, according to Marston (2003), Oyelere et al., (2003) and Trabelsi & Labelle (2006), there is no evidence between foreign listing status and internet reporting. Since the lack of studies done, further study regarding the relation of internationalization and the level of internet reporting is needed to test further the relationship between the two factors. Moreover, apart from the diverse picture in the existing literature, the theoretical influence of internationalization on CIFR is evident.

Another example of international activities is trading activities on a global scale. When the level of international sales rises, information regarding financial and non-financial conditions of the company is more demanded. By that, internet reporting offers an understanding to supply the information about the company including their products in a global level (Bollen et al., 2006). The international expansion may generate companies more revenue, moreover with the help of internet reporting to enlarge the market onto a global scale (Bollen et al., 2006). Based on this explanation, the hypothesis is formulated as follows:

$H_3$: Companies that perform international activities positively influences the CIFR.

**The effect of auditor size on the CIFR**

Arens (2010:46-47) differentiates auditor size into big-4 and non-big-4 and describes their size based on the number of professionals they have, their branch offices, and the fee income that the audit firm gets annually. Audit firms serve public accounting services which are auditing financial reports of companies. The firms obtain permission to serve their accounting services.

Accounting firms should be independent and be responsible to ensure accurate information on financial reports of companies in order to protect investors and other interested parties. By

employing Big-4 firms, companies may have a higher capacity to reduce the information asymmetry between the company's internal and investors worldwide. Big audit firms provide a higher confidence to financial statement users that audit quality is higher. Companies that are audited by big audit firms have higher confidence to convey their financial reports through internet financial reporting. Therefore, big audit firms are an important factor to consider using internet reporting facilities (Silva & Ajward, 2019). Prior researches showed mixed results of the relation between auditor size and the level of internet reporting. Studies by Xiao et al., (2004) and Kelton & Yang (2008) suggested that there is a significantly positive relationship between auditor size and internet reporting. It means that in order to avoid agency problems and maintain their reputation, big audit firms are employed by companies. By that, the company promotes a higher disclosure level.

Conversely, Silva & Ajward (2019) show that auditor size has a negative relationship with total CIFR and presentation format. The research was done in Sri Lanka from 100 high market capitalization companies. The negative result indicates that the level of reporting in Sri Lankan companies is quite low, therefore need to develop their technology capabilities. While Trabelsi & Labelle (2006), Aly et al., (2010) and Ahmed et al., (2017) found no evidence of this relationship. The results of this test still produce various findings so that further testing is needed to determine the consistency of the findings.

$H_4$: Companies audited by one of the Big-4 audit firms positively influence the CIFR.

Based on the theoretical review and previous research, the model presents in Figure 1.

Figure 1 Theoretical Framework Scheme
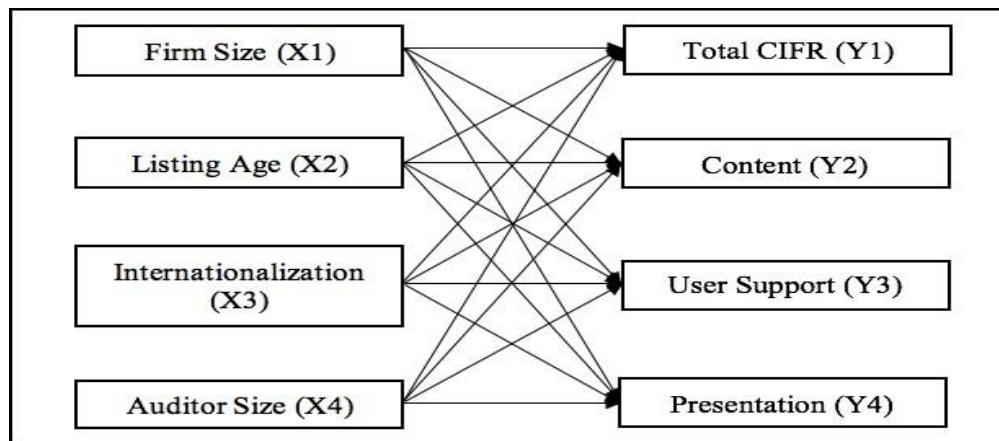


## 3. Research method
## Samples and data

PricewaterhouseCoopers (2019) conduct an Asia Pacific Business Leaders Survey to determine the conditions for cross-border business investment in Asia Pacific year 2019-2020. The survey helps this research to choose which country is worth investing in. Survey findings suggested that 2020 will belong to companies that find new pathways around barriers to cross-border business, whether it is a flow of data, talent, or capital. As stated in Table 2, there are some of the most favoured countries for the net increase in cross-border investment over the next 12 months within Asia-Pacific Economic Cooperation (APEC). This study chooses Australia, Singapore, and Indonesia as the sample countries because of the availability of language options.

Table 2 Top 10 APEC economies targeted for planned increases in investment 2019-2020

| No | Country | Net Increase in Investment |
|---|---|---|
| 1 | Vietnam | 44% |
| 2 | Australia | 39% |
| 3 | Singapore | 38% |
| 4 | Thailand | 36% |
| 5 | Indonesia | 36% |
| 6 | People's Republic of China | 36% |
| 7 | Japan | 34% |
| 8 | The United States | 33% |
| 9 | Hong Kong SAR, China | 31% |
| 10 | Canada | 29% |

Source: Pricewaterhouse Coopers (2019)

Both Australia and Singapore listed companies are required to follow International Financial Reporting Standards (IFRS) or the standard that are integrated into IFRS. However, Indonesia has not adopted IFRS for the reporting standard. Indonesia has been converging its national standards toward IFRS but without a plan for the full adoption. Referring to the IFRS website, the author compares the requirements of financial reporting, general electronic filling, and the structured data electronic filling formats between the countries. It is concluded that there is no substantial difference that may intrude into this research.

The population of this study is all publicly listed companies in the Australian Securities Exchange, Singapore Exchange, and Indonesia Stock Exchange year 2019. To select the sample, this study uses simple random sampling with the Slovin model with the result as follows:

Table 3 Number of samples

| | Australia | Singapore | Indonesia |
|---|---|---|---|
| Total Observation | | | |
| Non-financial companies listed on stock exchanges | 1746 | 677 | 587 |
| Total Sample | | | |
| Sample (using Slovin model) | 95 | 87 | 85 |

Source: Various Sources (2020)

The source of data in this study is secondary data from the website of publicly listed companies that is accessible in the stock exchanges in Australia, Singapore, and Indonesia. The data collection method is documentation from annual reports, relevant journal articles, thesis, books, and the internet.

**Definition and operationalization of variables**
**Corporate internet financial reporting (CIFR)**

The CIFR is a method to disclose company information via website/internet. In this study, the dependent variable is CIFR along with its segments, which are Content, User Support, and Presentation. A CIFR Index is a format to measure the score of CIFR. The study chooses the CIFR index developed by Ahmed et al., (2017) because it provides a comprehensive and latest measure of the CIFR practice in non-financial companies.

The CIFR index comprised of 110 items and divided into three sections, namely content items (69), user support items (29), and presentation items (12). Content items include information that is differentiated into accounting and financial information items (25), corporate governance items (11), corporate social responsibility (CSR) items (9), and investor relations items (24). User support means the facilities provided on the company's

website such as site map, contact detail, helpdesk, link to the homepage, email to the homepage, add to favourites. And finally, the presentation item is described as the way the company provides reports, like in PDF format or HTML format, the existence of audio files, and so on.

**Firm size**

Firm size is a value that explains how big or small the scope of operations of a company. Firm size is the logarithm of the company's total assets. Calculation of firm size is quoted by Ahmed et al. (2017); Aly et al. (2010); Silva & Ajward (2019); Xiao et al. (2004) by the use of natural logarithm of total assets, which formulated as follows:

*Firm size = Log (total asset)*

**Listing age**

The listing age shows the age of a company that has been listed on the stock exchange. As Hossain et al., (2012) and Hermawan et al. (2019) , the listing age of a company is measured by subtracting the year of observation from the year of Initial Public Offering (IPO). IPO is the stock market launched by the company for the first time. The formula for listing age is as follows:

*Listing Age = Observation year – IPO year*

**Internationalization**

Internationalization means when a company is given the opportunities to perform international activities such as international trading activities, listed in foreign stock exchanges, and many more. This research sees whether companies listed in

Australia, Singapore, and Indonesia perform international activity by utilizing dummy variables with the measurement as follows:

Score 0: If the company does not perform international activity

Score 1: if the company performs international activity

**Auditor size**

Companies that employ Big-4 audit firms including its affiliates for auditing purposes may improve the overall practice of reporting in a company. Big-4 refers to the four largest professional service networks worldwide, namely Deloitte Touche Tohmatsu, Ernst & Young Global, KPMG International, and PricewaterhouseCoopers (PwC) International. Following researches by Aly et al., (2010) and Ahmed et al., (2017) the variable is measured by dummy score as follows:

Score 0: If the company is not audited by one of Big-4 international audit firms

Score 1: if the company is audited by one of Big-4 international audit firms

**Model development**

This study uses multivariate analysis to test the hypothesis in this study to simultaneously analyse the effect of two or more independent variables on multiple correlated dependent variables (Hair, Black, Babin, & Anderson, 2010).The study uses SPSS Amos 26.0 to test hypothesis. The multivariate linear regression is:

$$Y_i = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Therefore, the multivariate linear regression model is:

$$CIFR, CONT, USER, PRES = \beta_0 + \beta_1 SIZE + \beta_2 AGE + \beta_3 INT + \beta_4 AUD + \varepsilon$$

Where:
$Y_1$ : Corporate Internet Financial Reporting (CIFR)

$Y_2$ : Content (CONT)
$Y_3$ : User Support (USER)
$Y_4$ : Presentation (PRES)

a          : Constant
$\beta_1$- $\beta_4$   : Regression coefficient
$X_1$        : Firm Size (SIZE)
$X_2$        : Listing Age (AGE)
$X_3$        : Internationalization (INT)
$X_4$        : Auditor Size (AUD)
$\varepsilon$          : Standard Error

## 4. Results and discussion
### Descriptive results

Table 4 presents descriptive statistics. The *N* means the amount of data from each variable derived from the number of samples in each country. The amount of data in Australia, Singapore, and Indonesia publicly listed companies are 95, 87, and 85 sequentially. The minimum score of the CIFR in Australia is 31%. While Singapore has a score of 47%. In Indonesia, the minimum score is 46%. It can be inferred that Australia has the lowest minimum score of CIFR disclosure. While the highest maximum score of CIFR between the countries is as much as 87% by Indonesia with the company, followed by Singapore as of 84%, and Australia as of 79%. It means that the company that provides the most CIFR disclosure is Indonesia and followed by Singapore and Australia. The highest mean of CIFR in this study is 64.84% by Singapore, followed by Indonesia and Australia as of 64.79% and 55.02% in sequence.

The data imply that Singapore, Indonesia, and Australia disclosed 65, 65, and 55 items on average from 110 items of CIFR. Therefore, Singapore and Indonesian publicly listed companies provide the highest disclosure of CIFR in general. While Australian publicly listed companies have the lowest CIFR disclosure among the countries in general. Based on result, it is concluded that Singapore and Indonesia have better CIFR disclosure in general compared to Australia. While in content segment, Singapore has better CIFR content disclosure, followed by a slight difference from Indonesia, and compared to Australia. In the user support and presentation segments, Australia, Singapore, and Indonesia have the same level of user support and presentation. Therefore, the qualities (level) of Corporate Internet Financial Reporting, content, user support, and presentation differ among firms in the Asia Pacific.

The decision usefulness theory explains that financial information should meet the needs of investors for decision making. The relevance of financial information is important because it features a good representation of a company (Henderson & Kaplan, 2005). From the descriptive result above, it explains that Australia and Indonesia have better approach to information disclosure in compared to Australia. Therefore, they show better features of reliable and relevant information and they have more understanding on the needs of their users since financial information is very important for making decisions.

## Table 4 Descriptive statistics result

### The Countries in General

|  | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| CIFR | 31.00 | 87.00 | 61.3296 | 9.79086 |
| Content | 24.00 | 61.99 | 43.3371 | 7.31043 |
| User Support | 6.00 | 21.00 | 14.4494 | 3.19308 |
| Presentation | .00 | 7.00 | 3.5431 | 1.15728 |
| SIZE | 4.74 | 16.74 | 9.3700 | 2.41270 |
| AGE | 2.00 | 58.00 | 16.0637 | 11.37963 |
|  | Dummy = 0 | Dummy = 1 | Mean | Std. Deviation |
| INT | 23%* | 77%* | .7678 | .42304 |
| AUD | 54%* | 46%* | .4607 | .49939 |

### Australia

|  | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| CIFR | 31.00 | 79.00 | 55.0211 | 8.31684 |
| Content | 24.00 | 54.00 | 37.3053 | 5.58507 |
| User Support | 7.00 | 20.00 | 14.4211 | 3.04428 |
| Presentation | .00 | 6.00 | 3.2947 | 1.09032 |
| SIZE | 4.74 | 10.60 | 7.4208 | 1.00107 |
| AGE | 2.00 | 58.00 | 15.6526 | 12.68251 |
|  | Dummy = 0 | Dummy = 1 | Mean | Std. Deviation |
| INT | 19%* | 81%* | .8105 | .39396 |
| AUD | 67%* | 33%* | .3263 | .47135 |

### Singapore

|  | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| CIFR | 47.00 | 84.00 | 64.8391 | 9.01791 |
| Content | 35.00 | 58.00 | 47.0690 | 5.68514 |
| User Support | 7.00 | 21.00 | 14.0920 | 3.37788 |
| Presentation | 1.00 | 7.00 | 3.6782 | 1.26210 |
| SIZE | 6.02 | 10.67 | 8.4398 | .88026 |
| AGE | 2.00 | 52.00 | 17.4598 | 10.49009 |
|  | Dummy = 0 | Dummy = 1 | Mean | Std. Deviation |
| INT | 10%* | 90%* | .8966 | .30631 |
| AUD | 32%* | 68%* | .6782 | .46989 |

### Indonesia

|  | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| CIFR | 46.00 | 87.00 | 64.7882 | 8.54553 |
| Content | 33.00 | 61.00 | 46.2588 | 6.08502 |
| User Support | 6.00 | 21.00 | 14.8471 | 3.15287 |
| Presentation | 1.00 | 7.00 | 3.6824 | 1.08245 |
| SIZE | 7.38 | 16.74 | 12.5007 | 1.18650 |
| AGE | 2.00 | 43.00 | 15.0941 | 10.68892 |
|  | Dummy = 0 | Dummy = 1 | Mean | Std. Deviation |
| INT | 41%* | 59%* | .5882 | .49507 |
| AUD | 61%* | 39%* | .3882 | .49024 |

Notes: *the percentage of companies

## Classical assumption tests
### Normality test

This study uses Kolmogorov-Smirnov test to see the normality of the model. The regression model is normally distributed if the significance level is greater than 0.05 or 5%. The test is done to all the countries chosen and all the dependent variables. The result shows that the data are significant at the 0.05 level. Therefore, the data in this study are distributed normally which shows a good regression model. Some results are less than 0.05, however referring to the rule of thumb, if there are more than 30 samples of data, the data are empirically distributed normally.

### Multicollinearity test

In a good regression model, correlation between independent variables should not occur. The correlation created biased result therefore should be excluded. Like other classical assumption tests, this test is done to all the countries chosen and all the variables. The test shows that the tolerance values of all research variables are greater than 0.10 and the VIF values are less than 10. Based on the result, the regression models are free from multicollinearity.

### Heteroscedasticity test

This study used the Glejser test to see whether the regression model has a residual variance or not. If the significance value is more than 0.05, then heteroscedasticity does not occur. Based on the result, the significance values of all independent variables are significant at the 0.05 and 0.01 level. It is concluded that there is no heteroscedasticity in the regression models.

### The multivariate regression results

The dependent variables in this study are Corporate Internet Financial Reporting (CIFR) which is consisted of content, user support, and presentation. Based on Table 5, in the countries in general, firm size (SIZE), internationalization (INT), and auditor size (AUD) positively influence CIFR. By that, the first ($H_1$), the third ($H_3$), and the fourth hypothesis ($H_4$) are accepted. While in Australia, firm size (SIZE) and internationalization (INT) positively influence CIFR. By that, the first ($H_1$) and the third hypothesis ($H_3$) are accepted. Additionally, in Singapore, firm size (SIZE) and auditor size (AUD) positively influences CIFR. By that, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted. Lastly, in Indonesia, firm size (SIZE) and auditor size (AUD) also positively influences CIFR. While listing age (AGE) negatively influences CIFR. Like Singapore, only the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted.

We also see the hypotheses results on the second dependent variable, content. In the countries in general, firm size (SIZE), internationalization (INT), and auditor size (AUD) positively influence content. By that, the first ($H_1$), the third ($H_3$), and the fourth hypothesis ($H_4$) are accepted. While in Australia, firm size (SIZE) and internationalization (INT) positively influence content. By that, the first ($H_1$) and the third hypothesis ($H_3$) are accepted. Additionally, in Singapore, firm size (SIZE) is the only variable that positively influences content. By that, the first hypothesis ($H_1$) is accepted. Lastly, in Indonesia, firm size (SIZE) and auditor size (AUD) positively influences content. Therefore, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted.

The hypotheses result on the third dependent variable, user support, are also presented. In the countries in general, firm size (SIZE) and auditor size (AUD) positively influence user support. However, listing age (AGE) negatively influence user support. By that, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted. While in Australia, firm size (SIZE) and internationalization (INT) positively influence user support. By that, the first ($H_1$) and the third hypothesis ($H_3$) are accepted. Additionally, in Singapore, firm size (SIZE) and auditor size (AUD) positively influences user support. By that, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted. Lastly, in Indonesia, firm size (SIZE) and auditor size (AUD) also

positively influences user support. While listing age (AGE) negatively influences user support. Like Singapore and the countries in general, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted.

Table 5. Hypothesis testing result

| | Y1 | Y2 | Y3 | Y4 |
|---|---|---|---|---|
| | The Countries in General | | | |
| SIZE | 1.748*** | 1.426*** | .244*** | .077*** |
| | (8.442) | (9.450) | (3.142) | (2.762) |
| AGE | -.044 | -.003 | -.028*** | -.013*** |
| | (-1.006) | (-0.083) | (-1.712) | (-2.231) |
| INT | 2.795*** | 2.049*** | .601 | .145 |
| | (2.367) | (2.380) | (1.354) | (0.910) |
| AUD | 5.624*** | 3.999*** | 1.117*** | .508*** |
| | (5.621) | (5.484) | (2.972) | (3.748) |
| | Australia | | | |
| SIZE | 3.130*** | 1.974*** | .993*** | .163 |
| | (4.439) | (4.178) | (3.443) | (1.622) |
| AGE | .031 | .046 | -.008 | -.007 |
| | (0.577) | (1.241) | (-0.347) | (-0.929) |
| INT | 5.523*** | 3.282*** | 1.887*** | .354 |
| | (3.083) | (2.733) | (2.576) | (1.387) |
| AUD | 1.904 | 1.632 | -.417 | .689*** |
| | (1.272) | (1.672) | (-0.681) | (3.231) |
| | Singapore | | | |
| SIZE | 4.418*** | 3.178*** | .942*** | .298*** |
| | (4.727) | (5.375) | (2.524) | (2.068) |
| AGE | -.090 | -.050 | -.026 | -.014 |
| | (-1.151) | (-1.016) | (-0.825) | (-1.164) |
| INT | 1.218 | .740 | .314 | .164 |
| | (0.454) | (0.436) | (0.293) | (0.396) |
| AUD | 3.367*** | .946 | 1.871*** | .550*** |
| | (2.135) | (0.854) | (2.676) | (2.033) |
| | Indonesia | | | |
| SIZE | 2.304*** | 1.693*** | .639*** | .008 |
| | (3.263) | (3.293) | (2.380) | (0.085) |
| AGE | -.197*** | -.084 | -.096*** | -.017 |
| | (-2.471) | (-1.478) | (-3.206) | (-1.555) |
| INT | .154 | .273 | -.234 | .115 |
| | (0.089) | (0.222) | (-0.364) | (0.489) |
| AUD | 3.706*** | 2.328*** | 1.496*** | -.118 |
| | (2.135) | (1.871) | (2.302) | (-0.500) |

Notes: Beta unstandardized coefficient, ***significant at the 0.1 level, () t-value, $Y_1$= CIFR; $Y_2$ = Content; $Y_3$ = User Support; $Y_4$ = Presentation. SPSS Amos Output (2020).

Lastly, the hypotheses result in the fourth dependent variable, presentation. In the countries in general, firm size (SIZE) and auditor size (AUD) positively influence the presentation. However, listing age (AGE) negatively influence the presentation. By that, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted. While in Australia, auditor size (AUD) is the only one that positively influences presentation. By that, the fourth hypothesis ($H_4$) is accepted. Additionally, in Singapore, firm size (SIZE) and auditor size (AUD) positively influences presentation. By that, the first ($H_1$) and the fourth hypothesis ($H_4$) are accepted. Lastly, in Indonesia, there is no significant relationship between the independent variable to the presentation. Therefore, the hypotheses are rejected.

Based on hypothesis testing, firm size (SIZE) has a significant positive effect on all the dependent variables in Australia, Singapore, Indonesia, and the countries in general, which supports the first hypothesis ($H_1$) that firm size has a positive influence on the application of CIFR, content, user support, and presentation.

The result of this study is consistent with previous studies conducted by Elsayed (2010), Hossain et al. (2012), Ojah & Mokoaleli-Mokoteli (2012), Ahmed et al. (2017) and (Yassin, 2017). The studies found that company's size has a positive significant relationship with internet reporting. It implies that the more established the firm, the more concerned they are to report their information on the internet. Furthermore, Ahmed et al., (2017) argues that bigger companies tend to have higher agency cost because of many demand of information disclosure. By that, CIFR is demanded by more established company since it provides less production and monitoring costs which explain its relation to agency theory. Therefore, firm size is an important determinant in company information disclosure and a factor to choose CIFR or not.

Furthermore, listing age (AGE) has various results. Listing age does not significantly affect CIFR disclosure in Australia, Singapore, and the countries in general. While in Indonesia, it shows negative significant relation to CIFR practice. Both results do not support the second hypothesis ($H_2$) that listing age has a positive influence on the application of CIFR.

According to Alarussi et al., (2011) and Weli (2016), listing age have positive on CIFR. However, Hermawan et al. (2019) explains that age has no significant effect on internet reporting. Previous studies show various results whether a longer listing company tends to engage with online reporting or not. Like study by Hermawan et al. (2019), this study finds that listing age have no significant impact on CIFR disclosure. The author realises that this research is done to relatively young public companies. As seen in descriptive

result in Table 4, the average of public companies tested is 16 years old, with 2 years old as the youngest company and 58 years old as the oldest company. By that result, it explains that younger companies are not encouraged to perform better CIFR disclosure. Even though the company has gone to public and enforced to disclose their condition to public, it doesn't mean that they will automatically upgrades their CIFR level. The companies tested also represents the companies that have less experience in disclosing annual report. Therefore, it explains the result of the study that listing age does not significantly affect CIFR. However, there are no proof from prior studies that listing age has a negative significant relation to CIFR practices.

Internationalization (INT) shows various results. The variable has no significant effect on CIFR disclosure in Singapore and Indonesia. On the other hand, internationalization has a positive significant relationship with CIFR disclosure in Australia and the countries in general. Therefore, Australia and the countries, in general, support the third hypothesis ($H_3$) that internationalization has a positive influence on the application of CIFR. The difference result reflects the absence of regulation for monitoring CIFR practices. Companies have their wisdom to determine the type and amount of information disclosed on their website. By that, regulatory bodies can develop a standard of information disclosure for corporate websites which may improve the comparability of corporate information distributed online between firms.

Literature on the impact of internationalization on CIFR is still scanty. Studies by Bollen et al., (2006), Abdelsalam & Street (2007), Aly et al. (2010) and Ahmed et al., (2017) studies showed that companies that were listed in foreign exchanges have a higher CIFR rate. Internationalization refers to the company's effort to be internationally oriented by performing foreign activities such as listing in foreign exchange. Such activity will lower the cost of capital therefore potentially mitigate agency problem (Debreceny et

al., 2002). Therefore, international companies may try to disclose information through the internet since it is a more cost-effective way to reduce information asymmetry between the company and global investors.

Moreover, auditor size (AUD) positively significant to CIFR disclosure in Singapore, Indonesia, and the countries in general. However, it has no significant relationship in Australia. Therefore, only Singapore, Indonesia, and the countries in general that support the fourth hypothesis ($H_4$) that auditor size has a positive influence on the application of CIFR.

Previous studies conducted by Xiao et al. (2004), Kelton & Yang (2008), and Ahmed et al., (2017) showed a positive significant relationship between auditor size and internet reporting. Companies will employ Big-4 audit firms when they have higher agency costs. As mentioned in agency theory, conflict of interest between principal and agent may occur. Big-4 audit firms may serve in mitigating agency problems and maintaining the reputation of the company, therefore, promotes a higher disclosure level. Therefore, the companies that employ the Big-4 audit firms including its affiliates for auditing purposes improve the overall practice of reporting in a company.

Table 6. Summary of results

| Independent Variables | Dependent Variables | Result | | | |
|---|---|---|---|---|---|
| | | Countries in General | Australia | Singapore | Indonesia |
| Firm Size | CIFR | + | + | + | + |
| | Content | + | + | + | + |
| | User Support | + | + | + | + |
| | Presentation | + | | + | |
| Listing Age | CIFR | | | | - |
| | Content | | | | |
| | User Support | - | | | - |
| | Presentation | - | | | |
| Internationalization | CIFR | + | + | | |
| | Content | + | + | | |
| | User Support | | + | | |
| | Presentation | | | | |
| Auditor Size | CIFR | + | | + | + |
| | Content | + | | | + |
| | User Support | + | | + | + |
| | Presentation | + | + | + | |

Notes:
+ : positively significant relationship
- : negatively significant relationship
Source: Data Processed (2020)

From the study, the author can conclude that the level of internet reporting varies between countries. The phenomena happen because there are no specific government regulations applied on company websites between the countries (Ahmed et al., 2017). Some countries have the regulation, like Indonesia, but some do not concern on the availability of company's financial information on website. The absence of regulation in some

countries explains the company's lack of motivation in their information disclosure. CIFR will increase company's costs and it is non-rewarded when it is not regulated. Therefore, many companies do not consider the importance of CIFR implementation.

Disclosing company's financial information through the internet should not only be mandatory, but also regulated by its content criterion. By that,

administrative sanctions and fines will be imposed. Since CIFR is a mass communication media for company reports and dominantly used by investors for decision making, policy makers should improve the CIFR system. Establishing a specific governing standard on company websites may help improving the quality of internet reporting. This regulation will benefit many stakeholders. Investors and creditors will get accessible and more contentful financial information in timely manner. On the other hand, company can attract more potential investors globally and reduce agency costs since CIFR is a cheaper solution for information distribution (Ashbaugh et al., 1999).

## 5. Conclusions

This research aims to compare the Corporate Internet Financial Reporting disclosure in Asia Pacific year 2019. This research also aims to test the relationship between firm size, listing age, internationalization, and auditor size on corporate internet financial reporting practices. Based on the results, it can be concluded that the quality of CIFR varies between countries. Specifically, Singapore and Indonesia have better CIFR disclosure compared to Australia. It occurs because each country does not have certain standard on the internet financial reporting. Besides that, firm size, international activities, and auditor size are proven to have positive impact to CIFR disclosure. Meanwhile listing have no significant effect on CIFR. From these results, it implied that a more established, internationally oriented company, and company that employs big audit firms are more aware to maintain the company's financial information delivered in the internet.

This study has several limitations that may influence the final result of the research and need to discuss further to obtain better future researches. This research observes limited number of countries in Asia Pacific in one research period. The unavailability of language options becomes a barrier to collecting data. Other than that, this research is done to a relatively young public company. Further study done to a longer listed companies may give different result due to the maturity from their experiences. Moreover, the variable tested does not explain fully the variance of the dependent variable. Thus, there are still other factors that affect CIFR disclosure that cannot be explained in this study, such as corporate governance factors. For further research, the author suggests to develop indexes that are more relevant for its use in global companies. A more detailed indexes are needed due to the dynamic nature of corporate website and the variety of financial regulation in many countries. In addition, it is suggested for future researchers to examine the comparison between internet reporting and paper-based reporting to increase the understanding of the quality of financial reporting and further display the excellence of both reporting system. Overall, this research implies that companies must continue to improve their internet financial reporting system, whether its content, user support, and presentation, to better deliver their company information and to attract more potential investors globally.

## References

Abdelsalam, O., & Street, D. (2007). Corporate governance and the timeliness of corporate internet reporting by U.K Listed Companies. *Journal of International Accounting, Auditing and Taxation*, *16*, 111–130.

Ahmed, A. H., Burton, B. M., & Dunne, T. M. (2017). The determinants of corporate internet reporting in Egypt: An exploratory analysis. *Journal of Accounting in Emerging Economies*, *7*(1), 35–60.

Alarussi, A. S., Selamat, M. H., & Hanefah, M. M. (2011). The determinants of internet financial disclosure: The perspective of malaysian listed companies. *International Journal of Management Studies*, *18*(1), 1–29.

Aly, D., Simon, J., & Hussainey, K. (2010). Determinants of corporate internet reporting: Evidence from Egypt. *Managerial Auditing Journal*, *25*(2), 182–202.

Arens, et al. (2010). *Auditing and assurance services: An integrated approach* (13th ed.). New Jersey: Pearson Prentice Hall.

Ashbaugh, H., Johnstone, K. M., & Warfield, T. D. (1999). Corporate reporting on the internet. *Accounting Horizone*, *13*(3), 241–257.

Bollen, L., Hassink, H., & Bozic, G. (2006). Measuring and explaining the quality of internet investor relations activities: A multinational empirical analysis. *International Journal of Accounting Information Systems*, *7*, 273–298.

Brigham, E. F., & Houston, J. F. (2010). *Dasar-dasar manajemen keuangan* (11th ed.). Jakarta: Salemba Empat.

Debreceny, R., Gray, G. L., & Rahman, A. (2002). The determinants of internet financial reporting. *Journal of Accounting and Public Policy*, *21*(4/5), 371–394.

Deller, D., Stubenrath, M., & Weber, C. (1999). A survey of the survey of the internet for investor relations in the USA, the UK, and Germany. *The European Accounting Review*, *8*(2), 351–364.

Elfeky, I. M. (2017). The extent of voluntary disclosure and its determinants in emerging markets: Evidence from Egypt. *The Journal of Finance and Data Science*, *3*(1–4), 45–59. Retrieved from https://doi.org/10.1016/j.jfds.2017.09.005.

Elsayed, A. N. (2010). *The key determinants of the voluntary adoption of corporate internet reporting and its consequence on firm value: Evidence from Egypt. Thesis*. University of Plymouth, Plymouth.

Ghio, A., & Verona, R. (2020). Voluntary corporate disclosure in: The evolution of corporate disclosure. *Contributions to Management Science*. Retrieved from https://doi.org/10.1007/978-3-030-42299-8_3

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective*. Upper Saddle River, NJ: Pearson Prentice Hall.

Harmono. (2009). *Manajemen keuangan berbasis balanced scorecard*. Jakarta: Bumi Aksara.

Henderson, B. C., & Kaplan, S. E. (2005). An examination of the role of ethics in tax compliance decisions. *The Journal of the American Taxation Association*, *8*(3), 39–72.

Hermawan, S., Biduri, S., Hariyanto, W., & Ningdiyah, E. W. (2019). Kualitas corporate internet reporting di indonesia dan malaysia.

*Jurnal Akuntansi Multiparadigma*, *10*(1), 176–187.

Hossain, M., Momin, M. A., & Leo, S. (2012). Internet financial reporting and disclosure by listed companies: Further evidence from an emerging country. *Corporate Ownership & Control*, *9*(4), 351–366.

Jensen, M., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency cost and ownership structure. *Journal of Financial Economics*, *3*, 305–360.

Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, *8*, 23–32.

Juma, B., Sadress, N., Ngoma, M., & Muganga, G. N. (2019). Internet financial reporting adoption: Exploring the influence of board role performance and isomorphic forces. *Journal of Economics Finance and Administrative Science*, *24*(1).

Kelton, A., & Yang, Y. (2008). The impact of corporate governance of the internet financial reporting. *Journal of Accounting and Public Policy*, *27*, 62–87.

Kurniasih, B. B. L., & Sudarsi, S. (2012). Pengaruh ukuran perusahaan, profitabilitas, leverage, dan kepemilikan institusional terhadap perataan laba. *Dinamika Akuntansi, Keuangan, Dan Perbankan*, *1*(2). Retrieved from ttps://www.unisbank.ac.id/ojs/index.php/fe9/article/view/1593

Marston, C. (2003). Financial reporting on the internet by leading japanese companies. *Corporate Communications An International Journal*, *8*, 23–34.

Miniwatts Marketing Group. (2019). *Internet world statistics*. Retrieved from https://www.internetworldstats.com/stats.html

Nurunnabi, M., & Hossain, A. M. (2012). The voluntary disclosure of internet financial reporting (IFR) in an emerging economy: a case of digital Bangladesh. *Journal of Asia Business Studies*, *6*(1), 17–42. Retrieved from https://doi.org/10.1108/15587891211190688.

Ojah, K., & Mokoaleli-Mokoteli, T. (2012).

Internet financial reporting, infrastructures and corporate governance: An international analysis. *Review of Development Finance*, *2*, 69–83.

Oyelere, P., Laswad, F., & Fisher, R. (2003). Determinants of internet financial reporting by new zealand companies. *Journal of International Financial Management and Accounting*, *14*, 26–63.

Poerwadarminta, W. J. S. (2003). *Kamus umum bahasa indonesia*. Jakarta: Balai Pustaka.

PricewaterhouseCoopers. (2019). *Conditions for cross-border business in asia pacific 2019-2020: PwC's asia pacific business leaders survey*. Retrieved from https://www.pwc.com/gx/en/ceo-agenda/apec/pdf/asia-pacific-business-leaders-survey-2019.pdf

Puri, R. (2013). Analisis faktor-faktor yang mempengaruhi indeks pelaporan keuangan melalui internet. *Jurnal Reviu Akuntansi & Keuangan*, *3*(1), 383–390.

Ragas, M. W., & Culp, R. (2014). *Business essentials for strategic communicators: Creating shared value for the organization and its stakeholders*. New York: Palgrave Macmillan.

Sia, C. J., Brahmana, R., & Memarista, G. (2018). Corporate internet reporting and firm performance: evidence from Malaysia. *Contemporary Economics*, *12*(2), 153–164.

Silva, C. T., & Ajward, R. (2019). The impact of firm characteristics on corporate internet reporting: Evidence from sri lanka listed companies. *SSRN Electronic Journal*, *2*(1), 6–24.

Staubus, G. J. (2000). *The decision-usefulness theory of accounting: A limited history*. New York and London: Garland Publishing, Inc.

Trabelsi, S., & Labelle, R. (2006). Evidence that corporate websites is a part of the firm's overall disclosure package. In *The 2006 ABR (Business) Conference*. Ontario, Canada.

Xiao, J. Z., Yang, H., & Chow, C. W. (2004). The determinants and characteristics of voluntary internet-based disclosures by listed chinese companies. *Journal of Accounting and Public Policy*, *23*, 191–225.

Yassin, M. M. (2017). The determinants of internet financial reporting in Jordan: Financial versus corporate governance. *International Journal of Business Information Systems*, *25*(4), 526–556.