



Information Technology Usage Index in Indonesian Companies

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Abstract. Information technology (IT) has been critical in implementing the firm's Social Responsibility Disclosure (CSD) objectives as it is an effective source for all types of corporate policies. IT is supported by advanced tools and applications to efficiently conduct business plans, increase profits, improve the workplace, create transformations for disabled employees, create educational opportunities to bridge the digital divide, improve business ethics, and help society. This study aims to describe the IT usage index in Indonesian Companies in the new normal. For this purpose, the Corporate Information and Communication Technology (CIT) usage index was developed and used to measure the level of IT usage. Two hundred one companies were used as the sample for this study. The result shows that the companies in Indonesia are spread between medium to high level with no companies in the very high level of IT Usage. Moreover, the highest level of IT Usage is in the Operations dimension while the lowest level of IT Usage is in the Corporate Social Responsibility Dimension. Thus, the result shows that the companies focus on increasing efficiency and cost reduction through the implementation of IT in the Operations Department.

Keywords: Information Technology Usage · Index · Indonesian Companies

1 Introduction

CSR (Corporate Social Responsibility) is described as efforts beyond legal requirements to improve the social agenda. CSR has become a mainstream company activity and a major public problem worldwide. Recently, society has begun to examine businesses' contributions to CSR, which can impact people's purchasing decisions. Most studies have focused on CSR in developed countries, with only a few studies undertaken in developing countries. Electronic commerce is a significant road to conduct contacts between firms and their clients, and it requires good stratagems to reap the full benefits of technology. According to the CSR theory, businesses have a social responsibility to give back to society [1, 2]. Using IT, organizations can improve their relationships with all stakeholders by incorporating IT into their management systems and participating in CSR activities.

CSR has grown in importance on the international scene in recent years, and it has undergone several conceptual shifts. Aside from updating and improving current tools, new ones have been built. The updated OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights were announced in 2011 after the ISO 26000 Guidance on Social Responsibility was published in 2010. The United Nations Sustainable Development Goals of the 2030 Agenda for Sustainable Development, which Charumathi & Padmaja published in 2015 [3], also emphasize the role of the private sector in achieving sustainable development. The OECD Guidelines assist businesses in exercising their responsibility and implementing it in their operations. Although the OECD guidelines are not legally enforceable, the signatory states' National Contact Points (NCPs) support their implementation. Any apparent violations of the OECD principles can be reported to the NCPs, which provide a communication platform or a mediation method [4].

There are 31 principles in the UN Guiding Principles on Business and Human Rights, founded on three pillars: First, countries must take the required means (State's obligation) to protect the population against human rights violations (e.g., legislation, incentives, and public awareness). Second, human rights must be respected, and reasonable diligence must be exercised according to the circumstances (Corporate Responsibility). Third, countries and businesses have a responsibility to assist persons who have been harmed with effective remediation through legal and extrajudicial remedies.

These principles apply to all countries and businesses, regardless of size, industry, location, ownership, or organizational structure. They do not, however, create international responsibilities. With the support of its ten fundamental principles on human rights, working standards, the environment, and battling corruption, the United Nations Global Compact (UNGC) has provided an introduction to CSR concerns as well as a networking and learning platform. It is now the world's largest network for responsible corporate behavior, with over 10,000 businesses and organizations participating. The UNGC is a multi-stakeholder platform whose primary objective is to encourage conversation among the various interest groups working together to put the principles into practice. Every year, participating businesses must produce a report on their progress in adopting the principles [5]. The ISO 26000 rules on social responsibility were developed as part of a multi-stakeholder international process that included industry, developing countries, businesses, workers, consumers, and non-governmental organizations [6]. It enables businesses and organizations to take a strategic approach to their business processes while adhering to the principles of responsible business behavior. The recently released G4 sustainability reporting guidelines, developed by one of the world's most prestigious institutions, the Global Reporting Initiative (GRI), are a comprehensive framework that enables businesses worldwide to report their performance in terms of people, planet, and profit. The reporting framework includes concepts and indicators for measuring economic, environmental, and social performance for businesses and other organizations [7, 8].

At the same time, a GRI-oriented report offers interested parties a transparent portrayal of an enterprise's relevant sustainability features. Corporate reporting is the standard practice for global large and mid-cap corporations, according to a KPMG poll [9]. Many of the world's most powerful corporations combine financial and non-financial

information in their annual reports. GRI is the most widely used international CSR reporting standard.

2 Methods

Data were collected from 201 out of 626 Indonesian Companies. As there was no single proxy/variable available for measuring IT usage, this study has constructed an original, comprehensive, unweighted (equal-weighted) Corporate Information and Communication Technology Usage (CITU) Index consisting of six dimensions and 27 items, namely (i) General and corporate communication (7 items); (ii) Marketing (7 items); (iii) Operations (2 items); (iv) Accounting and Finance (5 items); (v) Human Resource (3 items) and (vi) Corporate Social Responsibility (3 items).

The variables were taken through a careful examination of annual reports and the current condition of Indonesian corporates during the new normal to understand the usage of IT for different dimensions such as general corporate communication, marketing, operations, finance, human resources, and CSR. A total of 27 items were identified, and an equal score of 1 was given if the item was disclosed or 0 otherwise. The scores of the CITU Index were obtained by totaling the points secured by the various variables and converted into percentage terms to ensure equal weighting. The data was from 17 until 24 August 2021.

Descriptive analysis was done to understand the data. MS Excel was used for compiling and analyzing the data, respectively. Six variables for IT usage are analyzed for a) general and corporate communication, b) marketing functions, c) operations functions, d) finance functions, e) human resources functions, f) corporate social responsibility activities.

3 Result and Discussion

Two hundred and one companies comprise limited companies (32%), followed by sole proprietorship (14%), State-Owned Enterprises (8%), and others (46%), as shown in Table 1 (Fig. 1).

Table 1. Form of Company

Form of Companies	Number of Companies
Limited Company (Ltd)	88
State-Owned Enterprise (SOE)	40
Government (Gov)	43
Others	30
Total	201

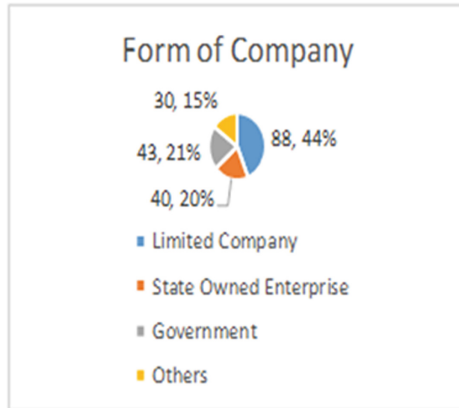


Fig. 1. Form of Company

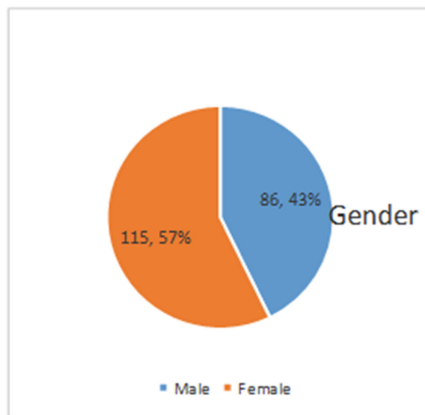


Fig. 2. Gender

Most of the respondents are limited companies (44%), followed by government (21%), state-owned enterprises (20%), and others (15%). The respondents consist of females (57%) and males (43%), shown in Fig. 2.

Table 2 shows most of the respondents with age between 36 until 45 years old (30%), followed by age between 46 until 55 years old (29%), age between 26–35 years old (25%), age more than 55 years old (9%) and under 26 years old (7%).

Table 3 shows that the average mean of IT usage index of 201 Indonesian companies is 0.75 on average for all sectors, which is medium level (from 0 until 1). Findings show that the most significant IT usage index come from State-Owned Enterprise, followed by Limited companies. In terms of business function, it was found that operations used the most IT, followed by General and Corporate Information and then by Accounting and Finance. The least usage of IT is in the Corporate Social responsibility function.

Table 2. Age

Age	Number of Respondents	Percentage
<26 years	13	7%
26–35 years	50	25%
36–45 years	61	30%
46–55 years	59	29%
>55 years	18	9%
Total	201	100%

Table 3. Mean of IT Usage Index

Category	Gov.	Ltd.	SOE	Others	Avg	Rank
General and Corporate Information	0.77	0.89	0.87	0.86	0.85	2
Marketing	0.56	0.77	0.82	0.79	0.74	5
Operation	0.84	0.87	0.89	0.83	0.86	1
Accounting and Finance	0.70	0.88	0.83	0.75	0.79	3
Human Resource	0.72	0.77	0.80	0.72	0.75	4
Corporate Social Responsibility	0.40	0.54	0.63	0.59	0.54	6
Average	0.67	0.79	0.81	0.76	0.75	4

From the result on Table 3 and reflected from the following list to measure the IT Usage level, there are four levels of IT Usage level that can be drawn in four quadrants. The first quadrant shows a low IT Usage level with a value between 0.00–0.50. The second quadrant shows a medium level of IT Usage level with a value between 0.51–0.75. Next, the third quadrant shows a high level of IT Usage level with a value between 0.75–0.90. Finally, the fourth quadrant with a very high level of IT Usage Level with a value between 0.91–1.00.

From Table 3 we can see that the lowest level of IT Usage Level is in the Corporate Social Responsibility dimension with Government scored at 0.40. However, compared to the interval of the IT Usage Level, there is no Indonesian companies with the average score between 0.00–0.50. The medium level of IT Usage can be seen in some dimensions, namely Corporate Social Responsibility (0.54), Human Resource (0.75), and Marketing (0.74). For high level usage of IT can be seen in three dimensions, General and Corporate Information (0.85), Operation (0.86), and Accounting and Finance (0.79). As for the very high level of IT Usage Level, the result shows no dimensions in Indonesian Companies that have a very high level of IT Usage.

The findings and results of this research show that Indonesian companies are spread between the medium to high level of IT Usage in the six dimensions observed in this paper

with the operation's dimension at the highest level and the Corporate Social Responsibility at the lowest level. This reflects the companies' main concern to focus on how IT can increase the efficiency of the company's operations before implementing IT in other dimensions. In other words, the company's operational activities require a high level usage of IT to provide not only efficiency but can also reduce cost and increase the company performance [10–12].

4 Conclusion

IT plays a vital role in digitalization and during the pandemic COVID. Companies are using IT for their various business functions to remain sustainable in the business. Findings show that the CITI of the 201 companies is 0.75, which is at the medium level. It was found that State-Owned Enterprises apply the most IT in their business, followed by limited companies. It was also found that IT is used most in operations, followed by general and corporate communication and then by Accounting and Finance. Application of IT in the remaining business functions needs to be encouraged so that companies in Indonesia can compete globally. This study has shown that the CITU index developed can measure the level of IT usage in the companies and in which business function it is mainly used. The companies would also focus on the business functions that IT is least used and improve usage further.

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