The Effect of Technology Innovation, Production Strategy, and Ownership Structure on Disclosure of Sustainability Reports on Companies in Indonesia

Ambarwati Ambarwati(✉), Indrian Supheni, Budiono Budiono, and Eva Arwina Mardhatilla

Accounting Study Program, STIE Nganjuk, Nganjuk, Indonesia
ambarwati@stienganjuk.ac.id

Abstract. This study aims to determine the effect of technological innovation, production strategy, and ownership structure on the disclosure of sustainability reports in companies consistently included in the LQ45 index for the 2017–2019 period. This study uses secondary data and the determination of the sample using purposive sampling technique from companies listed on the IDX (Indonesian Stock Exchange) and consistently included in the LQ45 index in 2017–2019. This study uses the classical assumption test, multiple linear regression, and partial and simultaneous hypothesis testing as data analysis techniques. The research conducted found that technological innovation, production strategy, and ownership structure have a positive influence on the disclosure of sustainability reports in companies. And technological innovation, production strategy, and ownership structure simultaneously affect the exposure of sustainability reports. It is hoped that this research will serve as a reference and comparison for further research on the same topic. For companies, it becomes important information to improve economic, social and environmental performance so that the company's value increases. For the government, it is an input to improve supervision that the company has carried out its operations in accordance with government regulations.

Keywords: Technological innovation · Product strategy · Ownership structure · Disclosure of sustainability reports

1 Introduction

Intense business competition forces companies to change the way they do business, which must be accompanied by limitations with the enactment of rules or laws. The government then issued a Limited Liability Company (PT) Law, which regulates the establishment of PT as regulated in Article 74 concerning social and environmental responsibility, which is the basis for implementing corporate responsibility. In this way, everyone knows that the company's commitment is not only for the rights it exercises but also for its obligation to balance human life on this planet—an example of a duty

Y. Priatna Sari et al. (Eds.): TICASSH 2022, ASSEHR 679, pp. 27–35, 2023.
https://doi.org/10.2991/978-2-494069-09-1_5

recognized by many companies in implementing social and ecological responsibilities. Wulandari and Septiani [1] shows that the focus of a company needs to pay attention not only to profits (single line) but also social and environmental aspects around the company (triple bottom line).

Companies must demonstrate their contribution and commitment to sustainable development without reducing investor confidence which will affect the company's business continuity. Information about the company's social, environmental and economic responsibilities is disclosed in the sustainability report. Global Reporting Initiative (GRI), an organization that publishes sustainability reporting standards related to environmental disclosure, is still valid today. GRI Standards are guidelines or standards for writing sustainability reports. The GRI standard indicators are divided into three categories: economic, environmental, and social, with 77 hands. Sustainability reporting is the practice of measurement, disclosure and accountability for sustainable development [2]. Sustainability Report is the practice of measuring, disclosing, and responsibility an organization to achieve its sustainable development goals to internal and external stakeholders [3]. Sustainability reports reflect the organization's performance in economic, social and environmental aspects, as a means used by the company to communicate its activities to all stakeholders, which the organization then uses to set goals, measure performance and manage change to make the organization's operations sustainable [4].

The Sustainability Report provides a balanced and rational description of the reporting company's performance (including positive and negative contributions over a certain period) [5]. Elkington [6] states that the sustainability report contains information about financial performance and non-financial information consisting of information about social and environmental performance that enables the company to grow sustainably. A sustainability report is a form of corporate responsibility that focuses on economic, social and ecological aspects. Sustainability reports are essential because they can show transparency to stakeholders, which can increase public trust in the company and increase its value [7].

Technological advances in the business world drive other technological advances; almost all businesses benefit from technological innovation. Cottam et al. [8] argues that innovation is an alternative for organizational survival in a dynamic and volatile environment. John [9] agrees that companies operating in a highly competitive environment must be innovative. In addition, there are other impacts on the business environment, such as globalization, technological change, the emergence of the internet, and the development of information technology (IT), that affects its business, so companies are encouraged to continually adapt and change how they do business [10]. It thus reflects the importance of innovation for organizations in the business environment. The formation of innovation is a complex process that uses the results of technological activities. Therefore, technological innovation is in the form of new improvements. Innovation is three different things: innovation is a result, innovation is a process, and innovation is a mindset. Innovation, as a result, emphasizes what outputs are sought, including product innovation, process innovation, marketing innovation, business model innovation, supply chain innovation, and organizational innovation [11].

Production Strategy is needed in the changing business world. Production strategy helps companies make production decisions and strategies that follow a logical pattern to support the company's strategy and competitive priorities [12]. Meanwhile, according to Miltenburg [13], if the company does not make a strategy, then the company can make decisions with arbitrary actions, causing an irregular production system. Production strategy includes decisions that shape the long-term ability of the company's production to compete in the market by linking market requirements and production resources [13]. According to Indriyani and Johan [14], the company's production strategy includes a business strategy that has a focus on cost and differentiation.

The ownership structure is a separator between the owner and the manager, where the manager is the party appointed by the owner and given the authority to make decisions in Indriyani and S. Johan managing the company, with the hope that the manager acts in the owner's interests. Differences in the proportion of shares owned by investors can affect the level of completeness of the disclosure by the company [15]. Disclosures presented in full will attract the attention of many stakeholders [16].

Research results Smajlović et al. [10], shows that technological innovation as a type of innovation in a business model positively influences the success of an organization's business performance. In contrast to the research of Syakhroza et al. [17], that e-banking technology innovation hurts bank performance. The effectiveness of internal control can reduce the negative effect of e-banking technology innovation adoption on performance.

Rembulan [18] showed that the production strategy contained in the functional approach did not affect business performance. While Wiid et al. [19] stated that product strategy in SMEs impacts business development in companies.

Edison [15] stated that the ownership structure consisting of foreign ownership, institutional ownership, managerial ownership and CSR disclosure underwent different changes in each company. Partially and simultaneously, the ownership structure is foreign ownership. Institutional ownership and managerial ownership affect CSR disclosure. In contrast to Nurrahman and Sudarno [20], institutional ownership structure and foreign ownership significantly affect the probability of sustainability report disclosure. In contrast, managerial ownership structure has no significant impact on the profitability of sustainability report disclosure. Sari et al. [4] shows that managerial share ownership has a positive and significant effect on the quality of sustainability report disclosures in Indonesia. In contrast, institutional share ownership has no positive and significant impact on the quality of sustainability report disclosures in Indonesian companies.

Technological innovation, production strategy and ownership structure are closely related to the company's sustainability report, so research on sustainability reports is starting to develop. That means that the phenomenon of sustainability reporting is beginning to be carried out by many companies. A sustainability report also presents the organisation's values and governance model and shows the relationship between strategy and commitment to the global economy that exists in Indonesia [21].

Based on the description above, the formulation of the problem in this study is: does technological innovation partially affect the disclosure of sustainability reports in companies in Indonesia?, does production strategy partially affect the exposure of sustainability reports in companies in Indonesia? Disclosure of sustainability reports to companies in Indonesia? And do technological innovations, production strategies, and ownership structure simultaneously affect the exposure of sustainability reports for companies in Indonesia?

2 Research Methods

The method used in this research is quantitative with an associative approach. The research design used is causal research. This study aims to determine the effect of variables, namely (X1) technological innovation, (X2) production strategy, and (X3) ownership structure, on (Y) disclosure of sustainability reports. This study's population are companies included in the LQ45 index and listed on the Indonesia Stock Exchange (IDX) for the 2017–2019 period. The sampling technique used is non-probability sampling with purposive sampling. The sampling criteria in this study are Companies that are consistently listed in the LQ45 index during the 2017–2019 period and Companies that publish sustainability reports in a row in the 2017–2019 period. After the purposive sampling test was carried out, 16 companies passed the test for three periods, so the number of samples used in this study became 48 observations.

3 Results and Discussions

3.1 Results

The statistical test results of multiple linear regression analysis showed that the regression coefficient values were: technological innovation variable 0.418, production strategy 0.299, ownership structure 0.096. At the same time, the constant value is 0.434. That shows that if the technological innovation variable (ITDI) increases by one unit. At the same time, the production strategy (SPDI) and institutional share ownership (KSI) remain constant, then the disclosure of sustainability reports (SRDI) will increase by 0.418. The higher the technological innovation, the higher the disclosure of sustainability reports.

The Production Strategy Variable (SPDI) increased by one unit, while technological innovation (ITDI) and institutional share ownership (KSI) remained constant, so the disclosure of sustainability reports (SRDI) would increase by 0.299. The higher the production strategy, the higher the exposure of the sustainability report.

The variable of institutional share ownership increased by one unit, while technological innovation (ITDI) and Production Strategy (SPDI) remained constant, so the disclosure of sustainability reports (SRDI) would increase by 0.096. The higher the public shareholding, the more disclosure of sustainability reports.

While the constant value is positive 0.434, meaning that if the value of technological innovation (ITDI), production strategy (SPDI) and institutional share ownership (KSI) is zero, then the disclosure of sustainability reports (SRDI) will be positive at 0.434.

Simultaneous test results show that technological innovation, product strategy and institutional share ownership structure have a simultaneous influence on the disclosure of sustainability reports. That means indicated by the magnitude of the calculated f value, which is greater than the f table ($9.106 > 2.82$), while the signature is below 0.05 ($0.009 < 0.05$).

In the partial test, it is known that the t table is 1.679, and the significance level is 0.05. The test results show the t-count value of the technological innovation variable (ITDI) of 2.803 and a significance of 0.039 (<0.05), meaning that technological innovation affects the disclosure of sustainability reports. The t value of the production strategy variable (SPDI) is 2.436, and the significance is 0.018. It means that the production strategy affects the disclosure of the sustainability report. The t value of the institutional share ownership structure variable (KSI) is 2.265 and has a significance of 0.007. Institutional share ownership affects the disclosure of sustainability reports.

In the determinant coefficient test (R2), the number is 0.687. That means that the variables of technological innovation, production strategy, and institutional share ownership influence the sustainability report disclosure variable are 68.7%. The remaining 31.3% is influenced by other variables not examined.

3.2 Discussions

The statistical test results show that the company's technological innovation has a positive and significant impact on the disclosure of sustainability reports. Innovation and technology have become challenging factors, bringing uncertain business situations. Today, many business sectors focus on competitiveness by improving production processes and other operations. Innovation activities are characterized by endogeneity and uncertainty [22]. The size of technological innovation will affect the level of disclosure of sustainability reports. Public companies need to conduct scientific research to create a company's technological innovations that other companies cannot adopt. The invention must be efficient and effective, cheap and straightforward (efficient), but optimally efficient (practical). So that technological innovation can support a sustainable competitive advantage strategy. Creation must be simple, but on the other hand, innovation must also be difficult to imitate, which contains a high degree of complexity. The results of this study support the research conducted by Zhang et al. [23], showed that management and technological innovations significantly contribute positively to sustainability and organizational performance.

The company's product strategy has a positive and significant impact on the disclosure of sustainability reports. The good or bad of the production strategy that is carried out affects the exposure of the sustainability report. A good production strategy will generate profits, the process becomes more focused, and data collection is accessible. The influence of technology is closely related to its diffusion from the first triggered ideas until the market is formed [24].

The production strategy is related to technology, including information systems, work equipment, machines, measuring tools or as needed. The production process will be more effective through technology and reduce work problems. In addition, the work process can refer to the SOP (Standard Operating Procedure). However, in business matters, of course, there is a more complex management order. The main achievement is to get business value for the target, namely the customer. So that the work process can be carried out in a shorter time, it is highly recommended to cooperate with related parties. In addition, also arrange how the flow of material procurement before entering this stage. SOP is a more detailed description of the work process. The scope refers to the procedure for completing each part of the task. Thus, execution becomes more transparent and more accessible.

One of the procedures included is checking the availability of materials. That will be closely related to the process itself. SOP forms can vary according to the situation so that it is easy to understand. It can be a diagram visualization or a narrative that can guide a task. In the SOP, there must also be a list to check each activity unit. Work instructions are more technical about the steps in doing each part of the job. Usually, each level holds only one aspect. Indirectly, work instructions can give identity to the producer because it is easier to adapt to any changes in business trends. In addition, it is easy to improve the production system and work assessment objectively and more transparently. The production strategy can be pursued through four points, namely technology, work processes, SOPs and work instructions. In addition to saving time, all problems become easier to solve, and most importantly, indirectly provide an identity for the producer.

The results of this study support the research conducted by Rinandiyana et al. [25] and Wiid et al. [19], show the results that the strategy through product quality has a significant effect but does not support the research of Rembulan [18].

The ownership structure has a positive and significant influence on the disclosure of sustainability reports. The size of institutional share ownership will affect the level of exposure of the sustainability report. That reflects that institutional ownership in Indonesia has considered sustainability reports as one of the criteria for making investments. Institutional investors tend to pressure companies to disclose detailed sustainability reports in the company's annual report. This study found a positive influence between institutional share ownership and the disclosure of sustainability reports. The greater the share ownership by the institution, the more active the company will be in disclosing sustainability reports. The results of this study support the research of Azzahrah and Willy [21] namely, the ownership structure consisting of institutional ownership and public ownership, which affects the disclosure of the sustainability report. Meanwhile, managerial ownership and foreign ownership do not affect the exposure of sustainability reports. The results of this study do not support the research of Barnea and Rubin [26] and Rustiarini [27] state that institutional ownership has no significant effect on corporate social responsibility.

Technological innovation, production strategy, and company share ownership influence sustainability reports' disclosure. The complexity of technological innovations, production strategies and institutional ownership can influence the exposure of sustainability reports. Based on multiple linear regression analyses, technological innovation has a dominant influence on the disclosure of sustainability reports. In this study, the variables of technological innovation, information strategy and institutional share ownership in explaining or providing the effect of the sustainability report disclosure variable was 68.7%, and the remaining 31.3% was influenced by other variables not examined.

4 Conclusion

Technological innovation partially influences the disclosure of sustainability reports to companies in Indonesia. How much sophistication of technological innovation will affect the level of exposure of sustainability reports. Technological innovation must show the uniqueness that other companies cannot adopt. Thus, the company has unique special characteristics and is always in demand, so it is not easy for consumers to move to other producers/companies. Of course, this will impact the sustainability of the company. It is concluded that technological innovation affects sustainability reports. That supports the research of ref. Zhang et al. [23] but did not support the results of the study [17].

The production strategy partially influences the disclosure of sustainability reports to companies in Indonesia. The good or bad of the production strategy that is carried out affects the exposure of the sustainability report. A good production strategy will produce maximum profit, the process becomes more focused, and data collection is accessible. Different from technology, including information systems, work equipment, machines, measuring tools or as needed. The production process will be more effective through technology and reduce work problems. It is concluded that the production strategy affects the sustainability report. This study supports the results of research Rinandiyana et al. [25] and Wiid et al. [19], but do not support the research of Rembulan [18].

The ownership structure partially affects the disclosure of sustainability reports to companies in Indonesia. The size of institutional share ownership will affect the sustainability report's disclosure level. That reflects that institutional ownership in Indonesia has considered sustainability reports as one of the criteria for making investments. Institutional investors tend to pressure companies to disclose detailed sustainability reports in the company's annual report. Concluded that the ownership structure affects the sustainability report. The results of this study support research Azzahrah and Willy [21], Edison [15], Nurrahman and Sudarno [20] and Aziz [3].

Technological innovation, production strategy, and ownership structure simultaneously affect the disclosure of sustainability reports to companies in Indonesia. Based on multiple linear regression analysis, technological innovation has a dominant influence on the disclosure of sustainability reports.

It is hoped that this research will serve as a reference and comparison for further research on the same topic. For companies, it becomes important information to improve economic, social and environmental performance so that the company's value increases. For the government, it is an input to improve supervision that the company has carried out its operations in accordance with government regulations.

References

1. Wulandari, R., & Septiani, A. (2017). Pengaruh Ukuran Perusahaan, Profitabilitas Dan Leverage Terhadap Sustainability Disclosure. *Diponegoro Journal of Accounting, 6*(4), 472–480.
2. Global Reporting Initiative. (2011). *Sustainability reporting Guidelinestle.*
3. Aziz, A. (2014). Analisis Pengaruh Good Corporate Governance (Gcg) Terhadap Kualitas Pengungkapan Sustainability Report (Studi Empiris Pada Perusahaan Di Indonesia Periode Tahun 2011–2012). *Audit dan Akunt. Fak. Ekon. Univ. Tanjungpura, 3*(2), 65–84.
4. Sari, N. A., Budi, A., & Safriansyah, H. (2017). Sustainability Report dan Nilai Perusahaan di Bursa Efek Indonesia. *J. Spread, 7*(1), 21–30.
5. Karyawati, N. N. A., Yuniarta, G. A., & Sujana, E. (2017). Pengaruh Tingkat Pengungkapan Laporan Keberlanjutan terhadap Kinerja Keuangan Perusahaan. *Jurnal Akuntansi Universitas Pendidikan Ganesha, 7*(1), 1–10.
6. Elkington, J. (1997). *Cannibals with forks, the triple bottom line of twentieth century business.*
7. Astuti, A. D., & Juwenah, J. (2017). Pengaruh Pengungkapan Sustainability Report Terhadap Nilai Perusahaan Yang Tergabung Dalam LQ 45 Tahun 2012–2013. *Accounthink: Journal of Accounting and Finance, 2*(01), 301–313. https://doi.org/10.35706/acc.v2i01.733
8. Cottam, A., Ensor, J., & Band, C. (2001). A benchmark study of strategic commitment to innovation. *European Journal of Innovation Management, 4*(2), 88–94. https://doi.org/10.1108/14601060110390594

9. John, B. E. (1999). *Pengendalian Produksi Suatu Pendekatan Kuantitatif*. Akademika Presindo.
10. Smajlović, S., Umihanić, B., & Turulja, L. (2019). The interplay of technological innovation and business model innovation toward company performance. *Management, 24*(2), 63–79. https://doi.org/10.30924/mjcmi.24.2.5
11. Kahn, K. B. (2018). Understanding innovation. *Business Horizons, 61*(3), 453–460. https://doi.org/10.1016/j.bushor.2018.01.011
12. Hill, T., & Hill, A. (2009). *Manufacturing operations strategy*. Palgrave Macmillan.
13. Miltenburg, J. (2009). Setting manufacturing strategy for a company's international manufacturing network. *International Journal of Production Research, 47*(22), 6179–6203.
14. Nathaniel, R. (2016). Analisa Pengembangan Strategi pemasaran Demi Mencapai Keunggulan Kompetitif Pada Pt. Mandiri Makmur. *Agora, 4*(2), 164–173.
15. Edison, A. (2017). Struktur Kepemilikan Asing, Kepemilikan Institusional Dan Kepemilikan Manajerial Pengaruhnya Terhadap Luas Pengungkapan Corporate Social Responsibility (CSR). *Bisma, 11*(2), 164. https://doi.org/10.19184/bisma.v11i2.6311
16. Sudana, I. M. (2011). *Manajemen Keuangan Perusahaan Teori dan Praktik*. Erlangga.
17. Syakhroza, A., Diyanty, V., & Anggoro Dewo, S. (2019). The effects of the adoption of e-banking technology innovation on the performance with the internal control effectiveness as the moderating variable: an evidence from commercial banks in Indonesia. *Jurnal Akuntansi dan Keuangan Indonesia*, *16*(1), 35–60. https://doi.org/10.21002/jaki.2019.03
18. Rembulan, S. (2018). SKRIPSI Disusun oleh: Nama Nomor Mahasiswa Jurusan Bidang Konsentrasi: Rembulan Selaras: Manajemen: Operasional UNIVERSITAS ISLAM INDONESIA. Pengaruh Strateg. Fungsional Terhadap Kinerja Bisnis Perusah. Bagi Ukm Di Yogyakarta.
19. Wiid, J. A., Cant, M. C., & Holtzhausen, L. (2015). SWOT analysis in the small business sector of South Africa: Friend or foe? *Corporate Ownership and Control, 13*(1CONT4), 446–453. https://doi.org/10.22495/cocv13i1c4p3
20. Nurrahman, A., & Sudarno, S. (2013). Pengaruh Kepemilikan Manajerial, Kepemilikan Institusional, Dan Kepemilikan Asing Terhadap Praktik Pengungkapan Sustainability Report. *Diponegoro Journal of Accounting,* 273–285.
21. Azzahrah, Z., & Willy, S. Y. (2014). Pengaruh Mekanisme Good Corporate Governance Terhadap Nilai Perusahaan (Studi Pada Sektor Perbankan yang Terdaftar di Bursa Efek Indonesia tahun 2009–2013). *eProceedings of Management*, *1*(3), 203–213.
22. Wyrwich, M., Steinberg, P. J., Noseleit, F., & de Faria, P. (2022). Is open innovation imprinted on new ventures? The cooperation-inhibiting legacy of authoritarian regimes. *Research Policy, 51*(1), 104409. https://doi.org/10.1016/j.respol.2021.104409
23. Zhang, Y., Khan, U., Lee, S., & Salik, M. (2019). The influence of management innovation and technological innovation on organization performance. A mediating role of sustainability. *Sustainability, 11*(2). https://doi.org/10.3390/su11020495
24. Dzemko, M., Engelmann, B., Hartmann, J., & Schmitt, J. (2020). Toward shifted production strategies through additive manufacturing: A technology and market review for changing value chains. *Procedia CIRP, 86*, 228–233. https://doi.org/10.1016/j.procir.2020.01.029
25. Rinandiyana, L. R., Kurniawati, A., & Kurniawan, D. (2017). Analisis Faktor-Faktor Yang Mempengaruhi Keputusan Pembelian Oleh Generasi Milenial Pada Industri Kuliner Di Kota Tasikmalaya. *3*(Mei), 18–27.
26. Barnea, A., & Rubin, A. (2010). Center for responsible business conflict between owners corporate social responsibility as a conflict between owners. *Journal of Business Ethics* (April), 1–36.
27. Rustiarini, N. W. (2011). Pengaruh Struktur Kepemilikan Saham Pada Pengungkapan Corporate Social Responsibility. *Jurnal Ilmiah Akuntansi dan Bisnis, 6*(1).