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## Digitalization Disclosure and Accounting Information Quality

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### Abstract

**Purpose** - This study aims to examine how digitalization disclosures affect the quality of accounting information. The quality of accounting information is important for a company because it has an impact on internal and external parties. However, in Indonesia, digitalization disclosure is still an issue. Therefore, this study was conducted to address this problem by making digitalization a variable that can influence the quality of accounting information. Digitalization can increase transparency and accuracy through automation in the financial reporting process. Hence, it increases the quality of financial reporting. However, the hypothesis of this research was rejected because the measurement of digitalization used in this research was measured through voluntary disclosures by companies in the company's annual report, where in this case not all companies implementing digitalization disclosed their digitalization efforts.

**Design/methodology/approach** - The sample in this study are companies engaged in food and beverage, textile, and chemical sectors. This study focused on these three sectors because they are in line with a development initiative called "Making Indonesia 4.0". Research on this topic is still in the exploratory stage.

**Findings** - The results of this study show that the application of digitalization in companies has not been maximized. However, this study shows that the application of digitalization has a negative but insignificant effect on absolute discretionary accruals which describes the behavior of accrual earnings management.

**Originality/value** - Further research on the effect of digitalization disclosure on the quality of accounting information is still rare and is still in the exploratory stage. In addition, this study is supported by the Indonesian government's initiatives in order to encourage the implementation of digitalization of Indonesian companies called "Making Indonesia 4.0" which is in line with this research.

**Research limitations/implications** - The results of this study show that the application of digitalization in companies has not been fully maximized. This research shows that the application of digitalization is able to reduce the absolute level of discretionary accruals which describes accrual earnings management behavior. This can be seen from the negative influence of the variable implementing digitalization on absolute discretionary accruals. Hence, the application of digitalization is considered capable of reducing information asymmetry so that it can improve the quality of accounting information. The future aim is that this information can be useful to generate more profits or help resolve future financial problems because quality information is able to present the actual state of the company.

**Keywords:** Accounting information quality; accrual quality; digitalization disclosure; voluntary disclosure.

**Article Type:** Research Paper



## Introduction

Accounting provides information that can be used by managers in running their company ([Warren et al., 2018](#)). Accounting also provides information that can be used by other interested parties to assess the performance and economic condition of the company. One of the accounting processes is financial reporting. Financial reporting aims to provide useful information in making economic decisions by users of financial statements. For this reason, the financial information produced must be of high quality. The quality of accounting information is the extent to which accounting information accurately reflects the company's performance ([Hribar et al., 2014](#)). Quality information can significantly improve better decision making so that it can increase profits for the company ([Baltzan, 2012](#)). Success in decision-making depends on the information available, and on the functions that are elements of the process ([Ranisavljević et al., 2012](#)).

The quality of accounting information is an important part of a company. However, the quality of the information provided is still a problem today. Based on the *Transparency International* report ([Ahdiat, 2022](#)), from a scale of 1-100 Indonesia received a Corruption Perception Index (CPI) score of 34 in 2022. This makes Indonesia the 5th most corrupt country in Southeast Asia ([Ahdiat, 2022](#)). The worsening condition of corruption in Indonesia indicates that the quality of accounting information is not yet qualified. This phenomenon is reinforced by the occurrence of several cases of financial statement fraud in Indonesia. Fraud in financial reporting indicates that the company does not display information in accordance with the actual situation so that the accounting information presented is not of high quality. In 2018, PT Tiga Pilar Sejahtera Food Tbk. (AISA) experienced a case of fraudulent financial reporting with an alleged inflation of IDR 4 trillion in its accounting items and several other allegations ([Bareksa, 2019](#)). The latest case of fraudulent financial statements occurred at PT Garuda Indonesia in 2019 where there was an unreasonable inflation of profits in its financial statements. This happened because PT Garuda Indonesia recognized fictitious income from the cooperation with PT Mahata Aero Teknologi (MAT) ([Sugianto, 2019](#)). This incident shows that PT Garuda Indonesia does not present actual company information. The information provided is not of high quality because the information is irrelevant. Based on this phenomenon, it can be argued that information quality is still an important issue to discuss because it not only affects the company itself but also the stakeholders who receive the information. For this reason, companies must pay more attention to the quality of published accounting information.

Agency theory discusses the relationship between the principal as the owner of the company and the agent as the manager of the company ([Jensen & Meckling, 1976](#)). In agency theory, company managers (agents) often get better information about the condition of the company than company owners (principals). This bias can affect information asymmetry in the financial reporting process and earnings quality because it motivates managers to provide biased information.

Hence, the role of digitalization is needed to reduce information asymmetry so that decisions taken are not misleading. Digitalization is one way to increase transparency. It automates financial reporting, hence the information provided present the actual situation. Therefore, by providing information that is transparent and in accordance with the actual situation, information asymmetry can be reduced. Unqualified information is information that does not match the actual situation. The information may cause errors in decision making so that it can harm the party receiving the information. Hence, it is necessary to know whether the information is of quality or not. One of the indicators that can be used to show whether the financial statements are of high quality or not is accrual quality ([Novita & Sebrina, 2022](#)).

[Jonas & Blanchet \(2000\)](#) argue that quality financial statements are financial statements that provide complete and transparent accounting information. The information provided is not intended to obscure or mislead those who read financial statements. Digitalization is able to increase transparency and accuracy through automation in the financial reporting process. It supports the quality of financial reporting. Disclosure of digitalization is a digitalization effort undertaken by the company and disclosed in the annual report through voluntary disclosure. The concept of corporate digitalization is still in the structuring process and yet to have a generally accepted definition. Several

digitalization terms such as "digitization," "digitalisation," and "digital transformation" are used interchangeably. These terms describe the phenomenon of change experienced and disseminated by companies in the environment in which they operate by adopting digital technologies, with different intensities ([Ionaşcu et al., 2022](#)).

[Fang et al. \(2022\)](#) stated that companies with higher levels of digitalization have lower levels of earnings management because these companies have better quality accounting information. Digitalization reduces human involvement in the production and operation process, hence narrowing the scope of companies for earnings management ([Wang et al., 2021](#)). Similarly, study conducted by [Zhan & Jing \(2022\)](#) stated that the development of fintech reduces corporate earnings management by reducing information asymmetry and reducing corporate financing constraints. However, studies on the effect of digitalization disclosure on the quality of accounting information is still in the exploratory stage ([Fang et al., 2022](#)). The "Making Indonesia 4.0" program is a motivation for researchers to conduct research on this theme. The program was implemented in order to support the development of corporate digitalization in Indonesia. The aim of the program is to improve the quality of accounting information in Indonesia.

Based on the discussion of previous studies and fraudulent phenomena that occur, this study emphasized that the quality of accounting information is essential in companies in Indonesia. Furthermore, given that Indonesia is one of the most corrupt countries in Southeast Asia as well as several cases of fraudulent financial reports that have occurred in the country. Hence, this study needs to be done to address the problem of transparency and relevance of financial reports. This is an effort to improve the quality of accounting information. In addition, the lack of research on digitalization on the quality of accounting information is also a consideration to conduct this research, because research with this theme is still in the exploratory stage ([Fang et al., 2022](#)).

This study contributes to reducing the level of corruption and financial reporting fraud by improving the quality of accounting information. Quality of information accounting can be improved by implementing digitalization. This study also provides insight and knowledge on quality of accounting information which can be used as a reference for future researchers.

## Literature Review

### Agency Theory

Agency theory discusses the relationship that occurs in a company where there is a company owner (principal) and company manager (agent) ([Jensen & Meckling, 1976](#)). Agency theory views the firm as a set of contracts between self-interested individuals ([O'Donnell & Sanders, 2003](#)). In agency theory, company managers (agents) often get better information than company owners (principals) about the condition of the company. Information asymmetry occurs when there are parties who get more and better information than other parties. This is the cause of information asymmetry in the contractual relationship between agents and principals.

Quality information is needed to reduce information asymmetry so that decisions taken are not misleading. This relates to the quality of accounting information which is the dependent variable in this study. In this context, quality refers to the way a party shows the true state of the company without any information gaps. This information is in the form of a report on the financial condition published by the company. The information contained in the financial statements used as a guide or reference by stakeholders in making decisions ([Ulfa & Primsari, 2017](#)). Voluntary disclosure is one of the ways that can reduce agency conflicts, managers minimize agency costs by disclosing more voluntary information ([Barako et al., 2006](#)).

### Accounting Information Quality

The quality of accounting information is the extent to which accounting information accurately reflects the performance of the company ([Hribar et al., 2014](#)). Accounting information implements the entire series of processes for recording, calculating, and reporting or presenting the financial transactions of a company ([Warren et al., 2018](#)). Information that does not match the actual situation can caused

errors in decision making and can harm people that depend on the decisions. Therefore, it is critical that decision makers know whether the information is of quality or not.

To make quality financial information, relevant information is needed that is able to accurately represent the state of the company. Relevant information has predictive value or confirmatory value that can influence decision outcomes. [Jonas & Blanchet \(2000\)](#) argue that financial reporting quality consists of complete and clear accounting information, it is not intended to obscure or mislead readers of financial statements. Useful qualitative characteristics of financial information are applied to financial information available in financial statements, as well as financial information available in other ways to support the quality of financial reporting ([IAI, 2019](#)). According to Ikatan Akuntan Indonesia (2019) fundamental qualitative characteristics of useful financial information include:

- a. Relevance  
Relevant financial information is able to make a difference in decisions made by users. Financial information is able to make a difference in decisions if it has predictive value, confirmatory value, or both.
- b. Materiality  
Materiality is an entity-specific aspect of relevance based on the nature or magnitude, or both, of the items to which the information relates in the context of each entity's financial statements.
- c. Faithful Representation  
In order to be useful information, in addition to representing relevant phenomena, financial information must also accurately represent the represented phenomena. In order to show faithful representation, the information must be complete, neutral, and free from errors.

### Digitalization Disclosure

Digitalization disclosure is a digitalization effort made by the company and disclosed in the annual report through voluntary disclosure. Voluntary disclosure is a disclosure made by the company outside the regulations of the regulatory body or accounting standards ([Suwardjono, 2006](#)). Voluntary disclosure is an alternative for company management to present accounting information and other information that is considered relevant for decision making by users of its annual report. The disclosure includes a description of the company's strategy in the long term and important non-financial indicators that serve to effectively implement the company's strategy. The information is useful in explaining the relationship between these important indicators and future profits ([Healy & Palepu, 1993](#)). The information contained in voluntary disclosures aim to provide an overview in explaining the risks that may be minimized as well as the possible returns that will be obtained.

Digitalization is a phenomenon of change experienced and disseminated by companies in the environment in which they operate by adopting digital technologies, with different intensities ([Ionaşcu et al., 2022](#)). In Indonesia, digitalization is still in the developing stage. The following are the developments in digitalization that have occurred in Indonesia:

- a. 2011 - IR 4.0  
"Indonesia has entered industry 4.0 since 2011, characterized by many interactions, connections, and boundaries between humans, machines, and other resources that are increasingly connected through information and communication technology," ([Kemenperin, 2018](#)).
- b. 2016 - The development of IR 4.0  
Digital economy, big data, Internet of Things, robotics, and cloud systems are some examples of activities that show the development of the Industrial Revolution 4.0 which began in 2016 ([Qothrunnada, K., 2022](#)).
- c. 2018 - Making Indonesia 4.0  
To support the development of digitalization in Indonesia, the President established an initiative in order for Indonesia to be ready to enter the industrial era 4.0. This initiative is named "Making Indonesia 4.0". The aim is to implement various strategic programs that are part of the Making Indonesia 4.0 roadmap. This initiative was inaugurated by President Joko Widodo on April 4, 2018 and became one of the national agendas ([Kemenperin, 2022](#)). The government is prioritizing the implementation of Industry 4.0 in five national industries as the first step in implementing the

"Making Indonesia 4.0" roadmap. These industries are food and beverage, textile, automotive, electronics, and chemical sectors ([Kominfo, 2018](#)).

### Previous Research on Digitization Disclosure

Research that provides empirical evidence on the effect of digitalization disclosure on the quality of accounting information is still relatively small. This is because research on this topic is still in the exploratory stage. Research on the effect of digitalization has been conducted on *listed* companies in the European Union (EU). [Ionaşcu et al. \(2022\)](#) investigate the digitalization gap between EU companies and US companies. The results of the study explain that more advanced companies have a significant advantage in digitizing their activities.

In China, which is a developed country in the Asian region, has also conducted research on the topic of digitization ([Gao et al., 2022](#); [Wang et al., 2021](#); [Zhan & Jing, 2022](#)). The study explains that digitalization is able to reduce information asymmetry and suppress earnings management. Digitalization reduces human involvement in the production and operation process, hence narrow the scope of companies for earnings management ([Wang et al., 2021](#)) by reducing information asymmetry and reducing corporate financing constraints ([Zhan & Jing, 2022](#)). Furthermore, [Feng & Kim \(2021\)](#) examines the effect of digitalization disclosure on the quality of accounting information. The study shows that digitalization reduces management's ability and motivation to manipulate profits by reducing information asymmetry and optimizing management decisions. Digitalization increases the quality of existing accounting information.

[Novita & Sebrina \(2022\)](#) discusses accrual quality and its economic consequences. In this study, accrual quality is one of the indicators to show whether the financial statements produced are of high quality or not. Accounting information is a consideration in decision making made by managers and other parties. This is because business leaders tend to use accruals in determining earnings management to report higher accounting profits.

Based on the discussion of previous research, it can be argued that digitalization can improve the quality of accounting information by reducing information asymmetry and reducing earnings management. Users of financial statements can be harmed by inaccurate information from excessive earnings management. Inaccurate information will reduce the quality of accounting information. For these reasons, similar research needs to be carried out in Indonesia. Being one of the developing countries in Asia, digitalization is expected to be able to support the quality of accounting information to encourage the economy in Indonesia.

### Hypothesis Development

Agency theory discusses the relationship that occurs in a company where there is a company owner (principal) and company manager (agent) ([Jensen & Meckling, 1976](#)). In agency theory, company managers (agents) often have better information about company conditions than company owners (principals). This is what causes information asymmetry in the contractual relationship between agents and principals. This information asymmetry needs to be reduced so that the opportunistic behavior of the agent can be suppressed. Quality accounting information is able to reduce the asymmetry that occurs between the agent and principal relationships. Digitalization is one of the efforts to reduce information asymmetry. Digitalization is expected to increase transparency and accuracy in quality financial reporting.

With the implementation of digitization, the level of human involvement in the reporting process will be reduced, producing consistent and transparent information automatically. Since the requirements of accounting standards and accounting choices have been set in the digital reporting process, human involvement is unlikely to change the results of profit reporting unless the procedure settings are changed. Previous research states that digitization reduces human involvement in the production and operation process ([Wang et al., 2021](#)) resulting in suppress management behavior in earnings management and reduce information asymmetry of financial statements ([Zhan & Jing, 2022](#)).

Furthermore, [Fang et al. \(2022\)](#) explained that digitization improves accounting quality by reducing information asymmetry in financial reporting.

Digitalization plays a role in automating the accounting process of a company both in the production process and in the operation process allowing minimal human involvement in the accounting process. Reducing human involvement reduces management behavior and increases transparency and accuracy of information in financial reporting. The application of in-depth digitization, improves the quality of accounting information. Therefore, the information provided becomes more relevant for the consideration of accounting professionals and stakeholders in decision making. Based on this argument, this study formulates the research hypothesis as follows:

H1: The more companies disclose the application of digitalization, the higher the quality of their accounting information.

## Methods

This research uses a causal associative design with a quantitative approach. According to [Sekaran & Bougie \(2017\)](#) associative design is a research design that aim of knowing the relationship between variables and the level of dependence between the independent variable and the dependent variable. This study was conducted with the aim of examining the effect of disclosure of digitalization on the quality of accounting information. This study used panel data for the quantitative analysis.

The total research population for this study was 89 companies. The population in this study are companies engaged in the food and beverage, textile, and chemical sectors. The population focused on these three sectors because they are in line with the "Making Indonesia 4.0" program inaugurated by the government. The focus of the program is five industrial sectors. The sectors are food and beverages, textiles, automotive, electronics, and chemicals ([Kominfo, 2018](#)). Of the five sectors included in this government program, three sectors were selected, namely the food and beverage, textile, and chemical sectors. The automotive and electronics sectors were excluded from the population because previous research ([Fang et al., 2022](#); [Ionaşcu et al., 2022](#); [Wang et al., 2021](#)) stated that the characteristics of this sector reveal a large number of terms related to technology in their industrial products which are not necessarily related to their business processes in digitalization.

The sampling in this study used the *purposive sampling* technique. The study will use the annual reports of companies in the food and beverage, textile and chemical sectors listed in the Indonesia Stock Exchange (IDX) in 2019-2021. The sampling started from 2019 due to the development of digitalization in Indonesia which is supported nationally by the president through the "Making Indonesia 4.0" program inaugurated on April 4, 2018 (Ministry of Industry, 2022). This study started sampling in 2019, taking into consideration the lag in the use of digitalization in 2018. In 2018, digitalization has not been fully utilized effectively in one full year. Based on the justifications, the criteria in this study are as follows:

1. Food and beverage, textile, and chemical sector companies listed on the Indonesia Stock Exchange (IDX) in 2019-2021.
2. The company publishes annual financial reports during the observation period and has complete data related to research variables.

From the criteria set out in this study, there were 52 companies that were sampled in this study.

A summary of the sample selection criteria is presented in Table 1 below.

**Table 1** Sampling Criteria

No.	Description	Total
1.	Food and beverage, textile, and chemical sector companies listed on the Indonesia Stock Exchange (IDX)	89
2.	The company did not publish annual financial reports during the observation period and had incomplete data related to the research variables.	(37)
	Number of sample companies (per year)	52
	Number of sample observations (2019-2022)	156

### 1. Accounting Information Quality

Accounting information is presented in the form of financial statements prepared by the company. Accrual quality is an indicator that shows whether the financial statements are of high quality or not (Novita & Sebrina, 2022). The accrual basis is an accounting basis in which accounting events are recognized, recorded, and presented in the financial statements based on the effect of events at the time the accounting event occurs regardless of when money is received or paid (Kieso et al., 2008). Accrual quality is proxied by *absolute discretionary accrual* ( $|DA|$ ) which is calculated using the Modified Jones Model (Dechow et al., 1995).

### 2. Digitalization Disclosure

The digitization of a company is disclosed in the company's annual report through voluntary disclosure. Voluntary disclosure is a disclosure made by a company which can be done outside the regulations of the regulatory body or accounting standards (Suwardjono, 2006). This study measure digitalization disclosure using content analysis using keyword frequency to quantitatively measure the intensity of digitalization disclosed in the company's annual report. This study measures the disclosure of the application of digitalization (DIGI\_DUM) using a dummy variable where companies that disclose digitalization are given a value of 1, otherwise it will be equal to 0 if not disclosed at all. This study uses the digitization keyword adopted from Fang et al., (2022) attached in Table 2 as follows.

**Table 2** Digitization Keywords

No.	Digitization Keywords
1.	Intelligenization
2.	Digitization
3.	Automation
4.	Artificial Intelligence
5.	Machine Learning
6.	Cloud Computing
7.	Big Data
8.	Blockchain

Source: Adopted from Fang et al., (2022)

## Results and Discussion

Before the Eviews 12 statistical formula is used to analyze the research variables, the data from each variable is described first. The purpose of this variable description is to facilitate understanding and provide an overview of the research variables. Table 3 below will provide a descriptive statistical description of 52 chemical companies, food and beverage companies, and textile companies as samples for further analysis.

Based on Table 3, the number of observations in this study was 156 observations. The descriptive statistical test results on the dependent variable show that the absolute maximum value of discretionary accrual as the dependent variable is 3972.553 and the minimum value is 0.004. There is a considerable distance between the maximum value and the minimum value with an average of 31.947. The standard deviation in this variable is quite high at 322.019, this value exceeds the average value. The digitization disclosure variable (DIGI\_DUM) as an independent variable shows a maximum

value of 1 and a minimum value of 0. This variable has an average value of 0.513 with a standard deviation of 0.501. The standard deviation in this variable has a value smaller than the average value.

**Table 3** Descriptive Statistics Results

Sample: 2019 2021

	DA	DIGI_DUM
Mean	31.94672	0.512821
Median	0.610711	1.000000
Maximum	3972.553	1.000000
Minimum	0.004441	0.000000
Std. Dev.	322.0188	0.501445
Observations	156	156

(Source: Data processed with Eviews 12)

This study uses the Random Effect Model (REM) approach to estimate the effect of digitalization disclosure on the quality of accounting information. This model is used based on the panel regression model estimation results. The panel regression results using the Random Effect Model approach are presented in Table 4.

**Table 4** Panel Regression Results

Dependent Variable: |DA|

Method: Panel EGLS (Cross-section random effects)

Sample: 2019 2021

Cross-sections included: 52

Total panel (balanced) observations: 156

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CON	60.48275	43.21742	1.399499	0.1637
DIGI_DUM	-55.64526	58.20670	-0.955994	0.3406
R-squared			0.005924*	
Adjusted R-squared			-0.000531**	
S.E. of regression			282.6029	
F-statistic			0.917751	
Prob(F-statistic)			0.339568	

Note: Significance levels: \*\*\* 1%, \*\* 5%, \* 10%

(Source: Data processed with Eviews 12 Year 2023)

Based on Table 4, the panel data regression equation of this study is as follows:

$$|DA| = 60.48275 - 55.64526 \text{ DIGI\_DUM}$$

1. Constant

The constant value in the proposed regression model is 60.48275. The value can be infer as without the influence of the independent variables, the absolute value of discretionary accrual (|DA|) is 60.48275.

2. Regression Coefficient of Digitalization Disclosure (DIGI\_DUM)

The regression coefficient of digitization disclosure (DIGI\_DUM) is -55.64526. This means that if the DIGI\_DUM variable increases by one unit, the |DA| variable will decrease by 55.64526. The quality of information increases with the assumption that other variables are constant / fixed.

**Model Test**

The regression model in this study was tested using the coefficient of determination ( $R^2$ ). The coefficient of determination ( $R^2$ ) is used to determine how well the regression model created can

explain the dependent variable. In Table 4 the regression results produce an  $R^2$  value of 0.005924 or 0.5%. The results indicate that the contribution of the independent variable to the dependent variable in the equation model is 0.5% and 99.5% is determined by other variables not analyzed in this research model.

### Hypothesis Test

Hypothesis testing in this study used the t statistical test (t-test). To determine whether the model used in the study have a significant effect, the t-test is carried out by comparing the  $t_{\text{count}}$  value resulting from statistical calculations with the  $t_{\text{tabel}}$  value. This test is conducted to determine the resulting effect of the independent variable with the dependent variable partially. In the model used, the estimated effect of disclosure of digitalization on the quality of accounting information in Table 4 is known that the DIGI\_DUM coefficient is negative at -55.6456 with a probability of 0.3406 (0.34). These results indicate a negative effect of digitalization disclosure on absolute discretionary accruals. However, the results are not significant because the probability value of DIGI\_DUM is 0.34 which is greater than the significance level  $\alpha$  0.05.

The results of panel regression testing indicate that the disclosure of digitalization has a negative but insignificant effect on absolute discretionary accruals. This means that the disclosure of digitalization is not significant in improving the quality of accounting information. Referring to the regression results, the hypothesis of this study is rejected. The hypothesis of this study is "the more companies disclose the application of digitalization, the higher the quality of accounting information."

### Discussion

The hypothesis in this study is the more companies disclose the application of digitalization, the higher the quality of their accounting information. Disclosure of digitalization is disclosed in voluntary disclosures made by the company. Annual report disclosures can be categorized as mandatory and voluntary. Mandatory disclosures is regulated by the *Otoritas Jasa Keuangan* (OJK). Voluntary disclosures are disclosures provided by companies in addition to mandatory disclosures. Voluntary disclosure is one way for managers to improve the credibility of their financial reporting ([Healy & Palepu, 1993](#)). Companies has the freedom to decide voluntary disclosure of information that they considered relevant and supportive in decision making by users of annual reports. The freedom to determine what information to disclose makes the diversity in voluntary disclosure between companies. In voluntary disclosure, management will consider the cost and benefit factors. If the benefits obtained exceed the costs that must be borne, then management will disclose its information to the public more widely. The amount of costs and benefits in disclosing certain information of a company will differ from one company to another. Management only conveys information that can increase its credibility and the company's success even though the information is not required. The company is expected to disclose its information more, namely voluntarily disclosing its financial statements in the presentation of relevant, full and precise information in accordance with the company's condition.

Digitalization plays a role in automating the accounting process of a company both in the production process and in the operation process. Hence, reducing human involvement in the accounting process. Consequently, reduce management behavior and increase transparency and improve the accuracy of information in financial reporting. The application of in-depth digitalization can improve the quality of accounting information, resulting in information provided becomes more relevant for the consideration of accounting professionals and stakeholders in decision making. The digitization disclosure variable in this study was identified using content analysis by using digitization keywords adopted from [Fang et al., \(2022\)](#). The results of the hypothesis testing is reject the hypothesis. The result provide evidence that disclosure of digitalization is not significant in improving the quality of accounting information. This is evident from the panel regression results generated in Table 4 explaining the probability of DIGI\_DUM is greater than the alpha ( $\alpha$ ) significance level of 0.05. The rejection of this hypothesis is reinforced by the average level of absolute discretionary accruals in

Table 5 which continues to increase each year accompanied by an increase in digitalization disclosed by the company in Table 6, where each increase in absolute discretionary accruals that occurs shows the quality of accounting information decreases, so that the disclosure of digitalization in this study is not able to improve the quality of accounting information.

**Table 5** Data on Accrual Quality Level of Sample Companies in 2019-2021

NO.	CODE	<i>Absolute Discretionary Accrual</i>		
		2019	2020	2021
1	ADMG	0,63693891	0,838331856	1,098547137
2	AGII	1,084169517	0,830882143	0,905505853
3	BRPT	1,008875483	1,004589226	0,994066917
4	DPNS	0,574581398	0,547446623	0,689782822
5	ETWA	1,272426292	1,327127174	1,141092292
6	INCI	0,683000767	0,641772177	0,750273514
7	MDKI	0,931365965	0,91245424	0,890441324
8	MOLI	0,647294185	0,960486998	0,665196132
9	SAMF	0,054376326	0,280347472	0,602318112
10	SRSN	0,541319515	0,681246011	0,417432486
11	TDPM	0,579341043	0,677079297	0,638367023
12	TPIA	0,862401338	0,71453266	0,804068206
13	UNIC	0,20722304	0,057384847	0,311961423
14	ADES	0,508373315	0,50970468	0,726479304
15	AISA	1,701106282	1,475767872	0,767084353
16	ALTO	1,038690499	1,013527884	1,015073656
17	BTEK	0,413662417	0,356691427	0,554778866
18	CAMP	0,202898849	0,153425864	0,152432459
19	CEKA	0,137552653	0,305572611	0,695791512
20	CLEO	1,483422921	1,014488362	0,978533647
21	COCO	0,728735198	0,547909631	0,500017119
22	DLTA	0,108344614	0,024846645	0,004440931
23	DMND	0,544218373	0,422877335	0,498752077
24	FOOD	0,846435943	0,792716203	0,821247283
25	GOOD	0,90932354	0,811829505	0,651001906
26	HOKI	0,706317571	0,723908	0,716854648
27	ICBP	0,412627094	0,423409028	0,20876248
28	FISH	0,451649405	0,784679341	0,194865515
29	INDF	0,527191441	0,594982619	0,391751947
30	MYOR	0,357632856	0,377867309	0,513538041
31	PANI	0,015609264	2,168362812	0,281053015
32	PSGO	0,339221166	0,376482983	0,457291525
33	ROTI	0,750169982	0,623422304	0,666855118
34	SKBM	0,520239461	0,497849482	0,42946192
35	STTP	0,630167968	0,633768032	0,630771342
36	ULTJ	0,400836214	0,339936277	0,334613685
37	ARGO	336,876253	580,8345744	3972,552882

NO.	CODE	<i>Absolute Discretionary Accrual</i>		
		2019	2020	2021
38	BELL	0,496708683	0,318694171	0,399444533
39	CNTX	0,735558858	0,70002238	0,774878963
40	ERTX	0,792007811	0,593936014	0,737639341
41	ESTI	0,541527135	0,478472487	0,501156356
42	INDR	1,043904481	0,892469302	0,907786232
43	MYTX	0,953038815	1,02733454	1,007127272
44	PBRX	0,348131198	0,280077401	0,201334477
45	POLU	0,276477929	0,265948027	0,100789224
46	POLY	0,350394868	0,54686641	0,665454017
47	RICY	0,375269632	0,389384807	0,107216383
48	SBAT	0,440924873	0,619104042	0,567125505
49	SRIL	0,788617069	0,757568142	0,174361728
50	SSTM	0,534946606	0,629787042	0,726113517
51	TRIS	0,324980165	0,36819282	0,28522513
52	ZONE	0,647520458	0,22576089	0,15907776
	Maximum	336,876253	580,8345744	3972,552882
	Minimum	0,015609264	0,024846645	0,004440931
	Average	7,083538508	11,79569038	76,96092535

(Source: Data processed with Microsoft Excel in 2023)

However, different results were found in the study of [Fang et al. \(2022\)](#) which shows negative significant results at 1% level. Digitization reduces management's ability and motivation to manipulate earnings by reducing information asymmetry and improving the quality of accounting information. Similar to previous research [Wang et al. \(2021\)](#) explained that companies that implement digitalization experience a significant decrease in accrual, real, and total earnings management. This result is in line with research by [Zhan & Jing \(2022\)](#) which states that digitalization has a significant effect in reducing corporate earnings management by reducing information asymmetry and reducing corporate financing constraints.

There are several factors that can cause the results of this study to be different from previous studies. First, the limited number of samples and observation periods conducted. Second, factors that were considered in the hypothesis are not supported because the nature of digitalization information in this study is voluntary disclosure in the company's annual report. In the case of Indonesia, not all companies that implement digitalization disclose their digitalization efforts. Based on the data on the level of disclosure of the application of digitalization of sample companies in Table 6, there are 20 out of 52 companies with a digitalization disclosure level of zero (0). It shows that there are quite a large number of companies that consider digitalization disclosure as unimportant information to be disclosed in their annual reports. After all, the decision in selecting information to be voluntarily disclosed is company's management discretion. Companies are free to choose in providing information that is considered relevant for users' decision making. This voluntary disclosure is inseparable from the cost and benefit factors, where the costs and benefits of disclosing certain information differ from one company to another. This is what makes the diversity of the extent of voluntary disclosure between companies.

**Table 6** Data on the Level of Disclosure of Digitalization of Sample Companies in 2019-2021

NO.	CODE	Digitalization Disclosure		
		2019	2020	2021
1	ADMG	1	1	1
2	AGII	1	1	1
3	BRPT	0	1	1
4	DPNS	0	0	0
5	ETWA	0	0	1
6	INCI	0	0	1
7	MDKI	0	1	1
8	MOLI	1	1	1
9	SAMF	0	0	0
10	SRSN	0	0	0
11	TDPM	1	1	1
12	TPIA	1	1	1
13	UNIC	0	0	0
14	ADES	1	1	1
15	AISA	1	1	1
16	ALTO	0	0	0
17	BTEK	0	0	0
18	CAMP	1	1	1
19	CEKA	0	0	0
20	CLEO	1	1	1
21	COCO	0	1	1
22	DLTA	0	0	0
23	DMND	1	1	1
24	FOOD	0	0	1
25	GOOD	1	1	1
26	HOKI	0	0	1
27	ICBP	1	1	1
28	FISH	0	0	0
29	INDF	1	1	1
30	MYOR	0	0	0
31	PANI	0	0	0
32	PSGO	1	1	1
33	ROTI	1	1	1
34	SKBM	0	0	0
35	STTP	0	0	0
36	ULTJ	1	1	1
37	ARGO	0	0	0
38	BELL	1	1	1
39	CNTX	0	0	0
40	ERTX	1	1	1
41	ESTI	0	0	0

NO.	CODE	Digitalization Disclosure		
		2019	2020	2021
42	INDR	0	0	1
43	MYTX	1	1	1
44	PBRX	0	0	0
45	POLU	0	0	0
46	POLY	1	1	1
47	RICY	0	0	0
48	SBAT	0	0	1
49	SRIL	1	1	1
50	SSTM	0	0	0
51	TRIS	0	1	1
52	ZONE	1	1	1
Maximum		1	1	1
Minimum		0	0	0
Average		0,42	0,50	0,62

Finally, the third factor is the difference in the application of digitalization in each country and the infrastructure support owned by each country. [Ionaşcu et al. \(2022\)](#) studied the digitalization gap in companies in the EU with companies in the United States. The study found different level of digitalization implementation between the EU and the United States. Indicating that geographical differences have different levels of digitalization implementation. Furthermore, the level of digitalization disclosure of sample companies per digitalization keyword in Table 7 shows that for some digitalization keywords with relatively low values, namely, artificial intelligence, big data, blockchain, and cloud computing. This may occur because these technologies are relatively new in Indonesia, hence there is little discussion of these technologies in the annual reports.

**Table 7** Digitalization Disclosure Data per Digitalization Keyword

NO.	Keywords Digitization	Disclosure
1	Artificial Intelligence	0
2	Automation	44
3	Big Data	8
4	Blockchain	1
5	Cloud Computing	5
6	Digitisation	58
7	Intelligenization	15
8	Machine Learning	15

(Source: Data processed with Microsoft Excel in 2023)

## Conclusion

Empirical evidence on the effect of digitalization disclosures on the quality of accounting information is still relatively scarce. Research on this topic is still in the exploratory stage. This study aims to examine how the disclosure of digitalization affects the quality of accounting information. Based on the findings and hypothesis testing that has been proposed previously, the hypothesis in this study is rejected and the disclosure of digitalization is not significant in improving the quality of accounting information. Factors that can cause this hypothesis to be rejected are the limited number of samples and the observation period carried out. Another factor that can cause the hypothesis to be rejected is

that the measurement of digitalization used in this study. In this study, digitalization is measured through voluntary disclosure by the company in the company's annual report, in which case not all companies that implement digitalization disclose their digitalization efforts.

This research has implications in providing references for companies to fully utilize digital technology. The results of this study show that the application of digitalization in companies is not yet fully maximized. The application of digitalization is able to reduce the absolute level of discretionary accruals that describe accrual earnings management behavior. This can be seen from the negative effect of the digitalization application variable on absolute discretionary accruals. So that the application of digitalization is considered capable of suppressing information asymmetry so as to improve the quality of accounting information. The hope is that this information can be useful to generate more profits or help solve future financial problems because quality information is able to present the actual state of the company.

Some limitations in this study are as follows:

1. The sample used in this study is limited, this study uses chemical companies, food and beverage companies, and textile companies listed on the IDX in 2019-2021.
2. This study only measures the quality of accounting information from an accrual quality perspective.
3. This research only measures the application of digitalization using secondary data through disclosures made voluntarily by the company in the company's annual report.

Based on the conclusions and limitations of the research previously described, the researcher suggests the following:

1. For future researchers can increase the number of samples studied from various other company sectors to obtain more complex data, not only companies that are prioritized for the "Making Indonesia 4.0" initiative.
2. For future researchers can use other perspectives of accounting information quality by using the dimensions of relevance, materiality, and exact representation with a qualitative approach.
3. For future researchers can use digitalization measurements with primary data so that they can show the company's digitalization implementation directly and in more detail.

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