

# **The Influence of XBRL, Independent Commissioner, Management Ownership, and Operation Complexity on Timeliness of Financial Reporting: Evidence from Indonesian Energy Sector**

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## **Abstract**

Timeliness is one of the indicators of relevant characteristics which means that the information in financial statements is ready to be used before it loses its meaning by users of financial statements, especially in making business decisions. The purpose of this research is to investigate the effects of eXtensible Business Reporting Language (XBRL), independent commissioner, managerial ownership, and operation complexity on timeliness of annual financial reporting. The population are energy sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period. The samples are 49 energy sector companies or 245 observation, was selected by purposive sampling method and using secondary data. The collected data in this research were analyzed using logistic regression. The findings provide evidence that XBRL, independent commissioner, management ownership, and operation complexity affects timeliness of financial reporting simultaneously, while only XBRL affects timeliness of financial reporting partially. It implies that the XBRL format improves the timeliness of financial reports. The timely provision of information by agents to principals can help principals to make business decisions.

## **Keywords**

Independent Commissioner, Managerial Ownership, Operation Complexity, Timeliness, and XBRL.

## **1. Introduction**

Financial reporting is intended as a form of management's responsibility for the company's business activities and provide benefits for users of financial statements in making future economic decisions. The main components of the characteristics of the relevance of accounting information is the timeliness of submitting financial statements (Sirajo et al. 2020). Timeliness is considered because delays in submitting financial statements will affect decision making by users of financial statements and financial information is considered irrelevant. The quality of the financial statement helps managers and shareholders in reducing information asymmetry and uncertainty, these are two issues that lead to conflict in companies (Alsmady 2018).

The eXtensible Business Reporting Language (XBRL) format is supposed to enhance the timeliness of submission of financial reporting. XBRL offers a number of benefits, including a more accurate and efficient report, as well as flexibility in how users can use the data in line with their needs and requirements (Tohang et al.2 020).

The existence of independent commissioner is expected to ensure timely provision of financial reporting. Wahyuni (2020) argue that the existence of independent commissioners with a high percentage in the company will help to monitor management's opportunistic behavior, enhance the quality of disclosures in financial statements, and reduce the advantages of information concealment to ensure timely delivery of financial statements.

The managerial ownership percentage is another factor that improve the timeliness of financial reporting. Kusuma & Nawangsari (2017) states that in companies with managerial ownership, managers who are also shareholders are also likely to be concerned with their interests as shareholders.

The operation complexity is other factor that supposed to impact the delay of the timeliness of financial reporting. The timeliness of financial reporting is related to the complexity of the company's operations, because one of the causes of the length of financial reporting is the size of the company (Sujarwo 2019).

The purpose of this research is to investigate the determinants of timeliness of annual financial reporting for the energy sector companies listed on the Indonesia Stock Exchange over the period 2016-2020. The sample of this research are 49 energy sector companies or 245 observation. In this research, the timeliness measure on four determinants, including eXtensible Business Reporting Language (XBRL), independent commissioner, managerial ownership, and operation complexity.

This research makes a number of contributions. First, it adds to the body of knowledge on how the use of XBRL affects the promptness of financial reporting of companies in the energy sector listed on the Indonesia Stock Exchange. Although the XBRL format may affect how quickly information is processed to improve the timeliness of financial reporting, there is limited research on XBRL quantitative research Saragih et al. (2021). Second, this study contributes to the current research to explore evidence regarding the independent commissioner, managerial ownership, and operation complexity as timeliness drivers. In order to improve financial reporting and increase market efficiency, it presents useful insights for companies, investors, auditing firms, and regulators.

The remainder of the research is organized as follows: Section 2 (Two) gives a literature and hypothesis development; Section 3 (Three) describe the variable measurement and the research method; Section 4 (Four) describe the data; Section 5 (Five) presents the empirical findings and discussion; and the last, Section 5 provides the conclusion and suggestions for future research.

## **1.1 Objectives**

The main objective of this research is to investigate the effects of eXtensible Business Reporting Language (XBRL), independent commissioner, managerial ownership, and operation complexity on timeliness of financial reporting of energy sector companies listed on the Indonesia Stock Exchange. Other specific objectives of the research are to investigate the impact of:

1. XBRL, independent commissioners, managerial ownership, and operations complexity simultaneously affects the timeliness of financial reports of energy sector companies listed on the Indonesia Stock Exchange.
2. XBRL partially affects the timeliness of financial reporting of energy sector companies listed on the Indonesia Stock Exchange.
3. Independent commissioners partially affects the timeliness of financial reporting of energy sector companies listed on the Indonesia Stock Exchange.
4. Managerial Ownership partially affects the timeliness of financial reporting of energy sector companies listed on the Indonesia Stock Exchange.
5. Operation Complexity partially affects the timeliness of financial reporting of energy sector companies listed on the Indonesia Stock Exchange.

## **2. Literature Review**

### **2.1 Agency Theory**

This research is supported by agency theory which is consistent with previous research. Agency theory developed by Berle and Means (1932) and presented by Jensen and Meckling (1976) is based on the idea that in a modern companies, there is a separation of ownership and management, resulting in agency issues and agency costs associated with problem solving between principals and agents (Sirajo et al., 2020). The agency issues can be caused by differences in interests between the principal and the agent because both parties try to maximize their respective utilities. Agency theory usually focuses on how to reduce agency problems, such as asymmetric information arising from agency conflict (Al-Muzaiqer et al., 2018). Thus, reporting the financial report on time can reduce information asymmetry that occurs and maximize supervision from the principal to the agent. Furthermore, Alabi et al. (2021) states that agency theory suggests that shareholders should create strong monitoring diplomacy to complete supervisory responsibilities, ensure timely provision of financial information and align shareholders' interests with management interests. Moreover, the timely provision of information by agents to principals can help principals to make useful business decisions (Jao et al., 2021).

## **2.2 Timeliness of Financial Reporting**

Timeliness means having information available to decision makers when needed to be able of influencing their decisions (Sirajo et al. 2020). Delivering timely access to financial report information indicates the company is not hiding something and is transparent (Jao et al. 2021). The timely provision of financial reports reflects companies' readiness to convey information and announce their earnings to stakeholders (Ahmad et al., 2016). Furthermore, the timely provision of financial reports also contributes significantly to the correct functioning of the economy, especially the capital market (Lourenço et al. 2018).

Referring to the Copy of the Decree of Financial Services Authority Regulation Number: 29/POJK.04/2016 concerning the Annual Report of Issuers or Public Companies by the Financial Services Authority of the Republic of Indonesia (2016). If the submission is done beyond the predetermined time, the issuer is considered late submitting the financial report.

In 2020, the world and also Indonesia have experienced a certain state of emergency due to the Covid-19 pandemic. In response to this situation, the Financial Services Authority of the Republic of Indonesia (2020) issued Copy of the Circular Letter Number: S-92/D.04/2020 concerning Relaxation of the Obligation to Submit Reports and the Implementation of the General Meeting of Shareholders to capital market industry participants stating that the deadline for submitting reports is Annual financial reports for issuers and public companies are extended for 2 (two) months from the deadline for submitting reports following regulations in the Capital Market sector. Thus, the submission of the 2019 financial statements must be submitted to the public no later than the sixth month of 2020.

The Covid-19 pandemic is still a certain state of emergency which has resulted in the Financial Services Authority extending a letter related to the relaxation of the submission of financial reports in 2021. The Financial Services Authority of the Republic of Indonesia (2021) has again issued Copy of the Circular Letter Number: S-30/D.04/2021 Regarding Affirmation, Extension, or Revocation of Relaxation Policies Related to the Corona Virus Disease 2019 Pandemic to capital market industry participants who state that the deadline for submitting annual financial reports for issuers and public companies is still experiencing an extension time for 2 (two) months from the expiration date of obligation submission of reports as stipulated in the regulations in the Capital Market sector. Thus, the submission of financial statements for 2020 must be submitted to the public no later than the sixth month of 2021.

## **2.3 eXtensible Business Reporting Language (XBRL)**

Extensible Business Reporting Language (XBRL) is a language for electronic communication that is widely used for the transmission and exchange of business information, which offers significant advantages in the process of preparation, analysis, and accuracy for various parties that provide and use business information (PT Bursa Efek Indonesia 2021). XBRL as a global reporting standard makes it easier and faster for investors and other stakeholders to access and use financial information (Aksoy et al. 2021). XBRL brings structure to business information, which also supports contextual advanced analysis and it also improves the accuracy, timeliness, and reliability of financial data (Kumar et al. 2019).

Based on PT Bursa Efek Indonesia (2020), the Indonesia Stock Exchange has been working to develop reporting in the XBRL format since 2012. The Indonesia Stock Exchange must create a taxonomy that reflects a report in order to implement the XBRL format. An exclusive taxonomy for business financial statements has been finished by Indonesia Stock Exchange as a first development stage. Additionally, all Listed Companies will be disseminated this taxonomy of financial statements. However, the requirement to submit financial reports in XBRL format has been implemented since November 2 2015 and the submission of reports in XBRL format has reached 95% (ninety five percent) in the third quarter of 2019 financial reporting period compared to the first year of implementation which was only 78% (seventy eight percent) (PT Bursa Efek Indonesia 2021).

Prior researches from Lestari et al. (2021) and Aksoy et al. (2021) claim that XBRL format in financial reporting increase the timely submission of financial reports. Nevertheless, another research from Rao and Guo (2021) found that XBRL format in financial reporting not improve the timely submission of financial reports.

Based on the description above, the hypothesis can be formulated as follows:

H<sub>1</sub>: XBRL has a positively significant affects the timeliness of financial reporting

## **2.4 Independent Commissioner**

The Financial Services Authority Regulation Number 33/POJK.04/2014 concerning the Board of Directors and Board of Commissioners of Issuers or Public Companies issued by the Financial Services Authority of the Republic of Indonesia (2014) states that an independent commissioner is a member of the board of commissioners who comes from outside the issuer or public company and fulfills the stipulated requirements. Based on this regulation, the number of independent commissioners must be at least 30% (thirty percent) of the total members of the board of commissioners.

Wahyuni (2020) states that the larger percentage of the board of commissioners will have an impact on the timeliness of financial reporting because increasingly more outside parties who are not employees of the firm are monitoring management performance, giving preference to a review of company policies and financial reporting practices. Therefore, the existence of independent commissioners can improve the timely submission of financial reports and relate to the agency theory, which can minimize issues and conflicts of interest while also monitoring on agent performance (Kristiantini and Sujana 2017).

Prior researches from Jao et al. (2021) and Kristiantini and Sujana (2017) claim that the existence of independent commissioner within the company can encourage timely submission of financial reports. Nevertheless, other researches from Wahyuni (2020) and Rivandi and Gea (2018) show that the existence of independent commissioner within company can't encourage timely submission of financial reports.

Based on the description above, the hypothesis can be formulated as follows:

H<sub>2</sub>: Independent commissioner has a positively significant affects the timeliness of financial reporting

## **2.5 Managerial Ownership**

Managerial ownership is a situation where the manager owns the company's shares and when the management is also the company's shareholder (Kusuma and Nawangsari 2017). Managerial ownership can make management improve its performance because management has a responsibility to fulfill the wishes of shareholders, namely itself (Subagya, 2018). Decisions and activities in companies with and without managerial ownership will certainly be different (Kusuma and Nawangsari 2017). Thus, based on agency theory, managerial ownership can align the interests of the principal and the agent, thus reducing conflict of interest and agency problems (Kristiantini & Sujana 2017).

Prior researches from Kristiantini and Sujana (2017) and Kusuma and Nawangsari (2017) show that managerial ownership percentage influence the timeliness of financial reporting. However, other researches from Sirajo et al. (2020) and Alsmady (2018) show that managerial ownership percentage not influence the timeliness of financial reporting.

Based on the description above, the hypothesis can be formulated as follows:

H<sub>3</sub>: Managerial Ownership has a positively significant affects the timeliness of financial reporting

## **2.6 Operation Complexity**

The operation complexity is the total number of subsidiaries owned by the company, which represents that the company has more operating units that must be checked for each transaction and their records, thus that the auditor takes longer to carry out audit work (Nurlen et al. 2021). Sujarwo (2019) states that the complexity of the company's operations is one of the company's characteristics that can increase challenges in auditing and accounting. Thus, based on agency theory, companies with complex operations tend to increase agency problems, because companies tend to submit financial reports on time.

Prior research from Al-Najran and Faleel (2021) prove that operation complexity has an impact on the timeliness of financial reporting. However, another researches from Sujarwo (2019) and Nurlen et al. (2021) prove that operation complexity not impact the timeliness of financial reporting.

Based on the description above, the hypothesis can be formulated as follows:

H<sub>4</sub>: Operation Complexity has a negatively significant affects the timeliness of financial reporting

### 3. Methods

#### 3.1 Variables Measurement

Table 1 presents the measurement of variable in this research as follows:

Table 1. Variables Measurement

Variable	Variables Measurement	Reference
Timeliness of Financial Reporting (Dependent)	Measured using dummy variable, category 0 if the companies that are not reported their financial statements on time and category 1 if the companies that reported their financial statements on time.	(Asiriuwa et al., 2021)
eXtensible Business Reporting Language (Independent)	Measured using dummy variable, category 0 if the companies do not report their financial statements in XBRL format and category 1 if the companies report their financial statements in XBRL format.	(Lestari et al., 2021)
Independent Commissioner (Independent)	$\frac{\sum \text{Independent Board of Commisioners}}{\sum \text{Member of The Board of Commisioners}} \times 100\%$	(Wahyuni, 2020)
Managerial Ownership (Independent)	$\frac{\sum \text{Shares Owned by Management}}{\sum \text{Outstanding Shares}} \times 100\%$	(Alsmady, 2018)
Operation Complexity (Independent)	Measured by a dummy variable, category 0 if the company does not have subsidiaries and category 1 if the company has subsidiaries.	(Nurlen et al., 2021)

#### 3.2 Regression Model

The analytical model used in this study is a logistic regression analysis model because the dependent variable is metric and the independent variable is a combination of metric and non-metric. The model of this research is mathematically presented as follows:

$$\text{Ln} \frac{TL}{1 - TL} = \alpha + \beta_1 XB + \beta_2 IC + \beta_3 MO + \beta_4 OC + e$$

Where:

Ln	= Log of Odds
TL	= Probability of Timeliness of Financial Reporting
$\alpha$	= Constant
$\beta_1 \beta_2 \beta_3 \beta_4$	= Regression Coefficient
XB	= eXtensible Business Reporting Language (XBRL)
IC	= Independent Commissioner
MO	= Managerial Ownership
OC	= Operation Complexity
e	= Error Term

#### 4. Data Collection

The population on this research are energy sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period. The sampling technique used in this research is purposive sampling method, with the following criteria:

1. Energy sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period.
2. Energy sector companies listed on the Indonesia Stock Exchange that report annual reports consecutively during the 2016 - 2018 period.

Based on these criteria, 49 energy sector companies listed on the Indonesia Stock Exchange met the research sample criteria. Thus, the number of observations for three years is 168 data. The type of data used is in the form of annual reports of energy sector companies listed on the Indonesia Stock Exchange for the period 2016-2018. The data was obtained through the official website of the Indonesia Stock Exchange and related companies. The samples of 49 energy sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period as research samples are presented in Table 2 below:

Table 2. List of Sample Energy Sector Companies in This Research

No	Company Name	No	Company Name
1	Adaro Energy Tbk.	26	Resource Alam Indonesia Tbk.
2	Akbar Indo Makmur Stimec Tbk.	27	Mitra Energi Persada Tbk.
3	AKR Corporindo Tbk.	28	Logindo Samudramakmur Tbk.
4	Apexindo Pratama Duta Tbk.	29	Mitrabara Adiperdana Tbk.
5	Atlas Resources Tbk.	30	Mitrabahtera Segara Sejati Tbk
6	Ratu Prabu Energi Tbk.	31	Medco Energi Internasional Tbk
7	Pelayaran Nasional Bina Buana Raya Tbk.	32	Mitra Investindo Tbk.
8	Astrindo Nusantara Infrastruktur Tbk.	33	Capitalinc Investment Tbk.
9	Baramulti Suksessarana Tbk.	34	Samindo Resources Tbk.
10	Buana Lintas Lautan Tbk.	35	Perusahaan Gas Negara Tbk.
11	Bumi Resources Tbk.	36	Perdana Karya Perkasa Tbk
12	Bayan Resources Tbk.	37	Bukit Asam Tbk.
13	Exploitasi Energi Indonesia Tbk.	38	Indo Straits Tbk.
14	Darma Henwa Tbk.	39	Petrosea Tbk.
15	Delta Dunia Makmur Tbk.	40	Rukun Raharja Tbk.
16	Dian Swastatika Sentosa Tbk	41	Rig Tenders Indonesia Tbk.
17	Elnusa Tbk.	42	Radiant Utama Interinsco Tbk.
18	Energi Mega Persada Tbk.	43	Sillo Maritime Perdana Tbk.
19	Eterindo Wahanatama Tbk.	44	Golden Eagle Energy Tbk.
20	Golden Energy Mines Tbk.	45	SMR Utama Tbk.
21	Humpuss Intermoda Transportasi Tbk.	46	Soechi Lines Tbk.
22	Harum Energy Tbk.	47	TBS Energi Utama Tbk.
23	Indika Energy Tbk.	48	Trans Power Marine Tbk.
24	Sumber Energi Andalan Tbk.	49	Wintermar Offshore Marine Tbk.
25	Indo Tambangraya Megah Tbk.		

## 5. Results and Discussion

### 5.1 Descriptive Statistic

Table 3 presents the descriptive statistic of the data collection as follows:

Table 3. Descriptive Statistic Analysis

Variable	N	2016-2020		% Total	
		Category = 0	Category = 1		
Timeliness of Financial Reporting	245	9.4%	90.6%	100%	
XBRL	245	3.3%	96.7%	100%	
Operation Complexity	245	6.1%	93.9%	100%	
Variable	N	2016-2020		Mean	Std. Deviation
		Minimum	Maximum		
Independent Commissioner	245	0.25	1.00	0.4204	0.11449
Managerial Ownership	245	0.00	0.66	0.0498	0.13697

Based on Table 3, the timeliness of financial reporting shows that 9.4% of observations have a category 0, which indicates that they were not on time to report the financial statements. The remaining 90.6% of observations have a category 1, which indicates that they were on time to report the financial statements. Second, XBRL shows that 3.3% of observations have a category 0, which means that they have not reported the financial statements in XBRL format. The other 96.7% of observations have a category 1, which means that they reported the financial statements in XBRL

format. Third, operation complexity shows that 6.1% of observations have a category 0, which indicates that they don't have a subsidiary. The remaining 93.9% of observations have a category 1, which indicates that they have a subsidiary.

Besides, the independent commissioner had mean value of 0.4204 and standard deviation value of 0.11449, with minimum value of 0.25 and maximum value of 1.00 which indicates the independent board of commissioners to member of the board of commissioners. The managerial ownership had mean value of 0.0498 and standard standard deviation value of 0.13697, with minimum value of 0.00 and maximum value of 1.00 which indicates the shares owned by board of directors and board of commissioners to total share issued by the companies.

## 5.2 Regression Results

### Overall Model Fit Test

The first step to determine the most appropriate model is to assess the overall regression model by overall model fit test. The following table presents the test results of the Overall Model Fit Test:

Table 4. Overall Model Fit Test

	<b>-2 Log Likelihood</b>
<i>Block Number = 0</i>	152.595
<i>Block Number = 1</i>	133.267

Based on table 4, the iteration history block number 1 or when the independent variable was entered into the model with N = 245. The -2 Log Likelihood value is 133.267, which is smaller than the iteration history block number 0 or when the independent variable was not entered into the model with N = 245. It indicates that the model fits with the data by including independent variables and the model is getting better. Thus, the regression model is feasible to be analyzed in the next step.

### Goodness of Fit Test

The next step to determine the difference between the model and the data. The feasibility of the regression model (goodness of fit test) was assessed using Hosmer and Lemeshow Test as measured by Chi-Square. The probability of significance is then compared with the  $\alpha$  significance level of 5% or 0.05. The following table presents the test results of the Hosmer and Lemeshow Test:

Table 5. Hosmer and Lemeshow Test

<b>Chi-square</b>	<b>df</b>	<b>Sig.</b>
6.365	6	.384

Table 5 shows that from the Hosmer and Lemeshow Test has a Chi-Square value of 6.365 and a significance value of 0.384. The significance value is more than  $\alpha$  0.05. It indicates that the regression model matches the observed value, thus the model can estimate the observed value. Therefore, the regression model is valid to use.

## 5.3 Hypotheses Testing

### Parameter Estimation

The parameter estimation in this study is shown in Nagelkerke R Square from the Model Summary table. Nagelkerke R Square is used to measure how well the model can explain the variations in the dependent variable. The findings of the Model Summary are shown in the following table:

Table 6. Model Summary

<b>-2 Log Likelihood</b>	<b>Cox &amp; Snell R Square</b>	<b>Nagelkerke R Square</b>
133.267	.076	.164

Table 6 shows that from the Model Summary in this research has a Nagelkerke R Square value of 0.164 or 16.4%, which means that all of the independent variables (XBRL, independent commissioner, managerial ownership, and

operation complexity) can explain variations of the dependent variable (timeliness of financial reporting) by the 16.4% while the remaining 83.6% is explain by another variables that not examined in this model.

#### **Simultaneous Test (Omnibus Tests of Model Coefficients)**

The Simultaneous Test in this study is shown in Omnibus Tests of Model Coefficients. The purpose of this test is to find out whether the dependent variable (timeliness of financial reporting) has a linear relationship to all independent variables (XBRL, independent commissioner, managerial ownership, and operation complexity) simultaneously. The probability of significance is then compared with the  $\alpha$  significance level of 5% or 0.05. The findings of the Omnibus Tests of Model Coefficients are shown in the following table:

Table 7. Omnibus Tests of Model Coefficients

	<b>Chi-square</b>	<b>df</b>	<b>Sig.</b>
Step	19.328	4	.001
Block	19.328	4	.001
Model	19.328	4	.001

Based on table 7, the omnibus test of model coefficients has a significance value of 0.001. The significance value is less than  $\alpha$  0.05. It indicates that dependent variable (timeliness of financial reporting) has a linear relationship to all independent variables (XBRL, independent commissioner, managerial ownership, and operation complexity) simultaneously.

#### **Partial Test (Variables in The Equation)**

The Partial Test in this study is shown in Variables in The Equation. The purpose of this test is to find out whether the dependent variable (timeliness of financial reporting) has a linear relationship to each independent variables (XBRL, independent commissioner, managerial ownership, and operation complexity) partially. The value of the beta coefficient (B) is used to form the logistic regression equation in this research. Furthermore, the probability of significance is then compared with the  $\alpha$  significance level of 5% or 0.05. The findings of the Variables in The Equation are shown in the following table:

Table 8. Variables in The Equation

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
XB	2.058	.758	7.372	1	.007	7.831
IC	-.302	1.937	.024	1	.876	.739
MO	53.323	46.902	1.293	1	.256	143786395696 140350000000. 000
OC	-18.345	9196.671	.000	1	.998	.000
Constant	18.492	9196.671	.000	1	.998	107398623.081

Based on table 8, the following logistic regression model is presented as follows:

$$\ln \frac{TL}{1 - TL} = 18.492 + 2.058XB - 0.302IC + 53.323MO - 18.345OC + e$$

## **5.4 Discussion**

### **Effect of eXtensible Business Reporting Language (XBRL) on Timeliness of Financial Reporting**

The XBRL beta coefficient value of 2.058 with a significance value of 0.007. It indicates that the XBRL format has a positive and significant effect on timeliness of financial reporting, thus the hypothesis ( $H_1$ ) is accepted. This is linear with agency theory, the provision of financial reports using XBRL format makes the process faster, which can reduce agency problems between principals and agents. The XBRL format improves the accuracy, timeliness, and reliability of financial data (Kumar et al., 2019). The timeliness of financial reporting based on XBRL format can help principals to make business decisions and avoid delays information that can lead to violations of Financial Services Authority Indonesia regulatory.



This result is in line with researches from Lestari et al. (2021) and Aksoy et al. (2021) which prove that XBRL format in financial reporting increase the timely submission of financial reports.

#### **Effect of Independent Commissioner on Timeliness of Financial Reporting**

The independent commissioner beta coefficient value of  $-0.302$  with a significance value of  $0.876 > 0.05$ . It indicates that the existence of independent commissioner has a negative but not significant effect on timeliness of financial reporting, thus the hypothesis ( $H_2$ ) is rejected. This is not linear with agency theory, which Kristiantini and Sujana (2017) states that the existence of independent commissioners can improve the timely submission of financial reports and relate to the agency theory. Though in reality, not all companies comply with the Financial Services Authority Regulation Number 33/POJK.04/2014. This is because there are several companies that have proportion of independent commissioner under 30%.

This result is linear with researches conducted by Wahyuni (2020) and Rivandi and Gea (2018) which states that existence of independent commissioner within company not influence the timeliness of financial reports.

#### **Effect of Managerial Ownership on Timeliness of Financial Reporting**

The managerial ownership beta coefficient value of  $53.323$  with a significance value of  $0.256 > 0.05$ . It indicates that the managerial ownership percentage has a positive but not significant effect on timeliness of financial reporting, thus the hypothesis ( $H_3$ ) is rejected. This is not in line with agency theory, which Kristiantini and Sujana (2017) states that the managerial ownership can align the interests of the principal and the agent, thus reducing conflict of interest and agency problems.

This result is in line with researches from Sirajo et al. (2020) and Alsmady (2018) which states that managerial ownership percentage not impact the timeliness of financial reporting.

#### **Effect of Operation Complexity on Timeliness of Financial Reporting**

The operation complexity beta coefficient value of  $-18.345$  with a significance value of  $0.998 > 0.05$ . It indicates that the operation complexity has a negative but not significant effect on the timeliness of financial reporting, thus the hypothesis ( $H_4$ ) is rejected. This is not in line with agency theory, because companies with complex operations tend to increase agency problems, thus the company with the operation complexity has a negative impact and tend to submit financial reports on the longer time.

This result is in line with researches conducted by Sujarwo (2019) and Nurlen et al. (2021) which prove that operation complexity not impact the timeliness of financial reporting.

## **6. Conclusion**

This research aims to investigate the effects of eXtensible Business Reporting Language (XBRL), independent commissioner, managerial ownership, and operation complexity on timeliness of annual financial reporting. The information were obtained from the annual reports of energy sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period. Based on the logistic regression and research analysis results, it can be concluded that XBRL, independent commissioner, managerial ownership, and operation complexity affects timeliness of financial reporting simultaneously. Meanwhile only XBRL format that has a significant effect on the timeliness of financial reporting partially and the other independent variables has not significant effect on the timeliness of financial reporting partially.

Based on the research results, there are several research implications. First, this research is expected to inform investors that financial information of energy sector companies listed on the Indonesia Stock Exchange can be accessed via XBRL format. Second, the research results are expected to be a reference as a recommendation for companies, especially energy sector companies, that the XBRL format can provide accuracy and reliable information, faster data access, and can help the stakeholder to make business decision. Third, the results are also expected to be used as a reference to better comply with the Financial Services Authority Regulations regarding the timeliness of financial reporting and independent commissioners.

The research measure the timeliness of financial reporting by dummy variable, thus future research may uses another formula to measure the timeliness of financial reporting. This study will provide empirical evidence using the logistic regression technique, which has not been used in other studies in Indonesia. Further research could examine other independent variables such, audit quality and family firms on timeliness of financial reporting either in another sector from Indonesia Stock Exchange with another period.

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