



#### Performance Comparison of Support Vector Machine Algorithm and Logistic Regression Algorithm



- (1) Hanny Hikmayanti (Universitas Buana Perjuangan Karawang, Indonesia)
- (2) Anis Fitri Nurmasruriyah (Universitas Buana Perjuangan Karawang, Indonesia)
- (3) Ahmad Fauzi (Universitas Buana Perjuangan Karawang, Indonesia)
- (4) Nunung Nurjanah (Universitas Buana Perjuangan Karawang, Indonesia)
- (5) Arphilia Nur Rani (Universitas Buana Perjuangan Karawang)

[10.29099/ijair.v7i1.1.1114](https://doi.org/10.29099/ijair.v7i1.1.1114) Views of Abstract: 61 | PDF: 4

#### A Model of Indonesian Consumers' Online Shopping Behavior, an Extension of TAM



- (1) Anggalia Wibasuri (Darmajaya Institute of Informatics and Business, Indonesia)
- (2) Cahyani Pratisti (Darmajaya Institute of Informatics and Business, Indonesia)
- (3) Indah Ike Nurjanah (Darmajaya Institute of Informatics and Business, Indonesia)

[10.29099/ijair.v7i1.1.1115](https://doi.org/10.29099/ijair.v7i1.1.1115) Views of Abstract: 27 | PDF: 2

#### ISO, Contract Management And Blockchain On Profit Quality



- (1) Lauw Tjun Tjun (Maranatha Christian University, Indonesia)
- (2) Olivia Windy Sabrina (Maranatha Christian University, Indonesia)
- (3) Caritas Ignasia Yeni Thoma (Maranatha Christian University, Indonesia)

[10.29099/ijair.v7i1.1.1112](https://doi.org/10.29099/ijair.v7i1.1.1112) Views of Abstract: 88 | PDF: 13

#### Evaluation Of The Implementation Of The SELEDRI Policy Towards E-Government



- (1) Sri Haryaningsih (Tanjungpura University, Indonesia)
- (2) Yulius Yohanes (Tanjungpura University, Indonesia)
- (3) Farah Devi Andriani (Tanjungpura University, Indonesia)
- (4) Elyta Elyta (Tanjungpura University, Indonesia)

[10.29099/ijair.v7i1.1.1113](https://doi.org/10.29099/ijair.v7i1.1.1113) Views of Abstract: 69 | PDF: 7

#### The Influence Of Leadership, Work Environment On Work Spirit Of State Civil Apparatus In Sijunjung District



- (1) Kartika Shara Ningsih (UNIVERSITAS NEGERI PADANG, Indonesia)
- (2) Syamsir Syamsir (UNIVERSITAS NEGERI PADANG, Indonesia)

[10.29099/ijair.v7i1.1.1118](https://doi.org/10.29099/ijair.v7i1.1.1118) Views of Abstract: 61 | PDF: 9

# Iso, Contract Management And Blockchain On Profit Quality

Lauw Tjun Tjun <sup>a,1</sup>, Olivia Windy Sabrina <sup>a</sup>, Caritas Ignasia Yeni Thoma <sup>a</sup>

<sup>a</sup> Business Faculty, Maranatha Christian University, Jl. Prof. drg. Surya Sumantri, M.P.H. N0. 65, Bandung, Jawa Barat

<sup>1</sup> [lauwtjuntjun@gmail.com](mailto:lauwtjuntjun@gmail.com)

\* corresponding author

## ARTICLE INFO

### Article history

Received 09 May 2023

Revised 18 July 2023

Accepted 03 Sep 2023

### Keywords

Earnings Quality,

ISO,

Management Contracts,

Blockchain

## ABSTRACT

The purpose of this research is to determine the effect of ISO, Management Contracts, and Blockchain on Earnings Quality in manufacturing companies listed on the Indonesia Stock Exchange for the period of 2016-2018. The 2016-2018 period was chosen because before the COVID-19 pandemic, Indonesia's economic condition was still stable, thus providing ideal information to see the company's performance. The approach of this research is quantitative research. The population of this research is 10 companies listed on the Indonesia Stock Exchange in 2016-2018. The sampling technique is done by using purposive sampling method that produces 30 samples during 2016-2018. The data used are secondary data taken through documentation techniques consisting of manufacturing companies annual report in 2016-2018. The method of data analysis in this research is panel data regression analysis. The results showed that Blockchain has a positive influence on Earnings Quality, ISO and Contract Management have no influence on Earnings Quality.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



## 1. Introduction

External entities utilize profit as a gauge to assess the operational efficiency of the company. Managers as internal parties of the company have more information about the condition of the company than external parties. This leads to the action of company management to report profits that do not reflect the actual condition of the company (profit management) for personal gain, for example to get bonuses. If this happens, it will result in low quality of profit. Low quality of profit will make decision-making mistakes for users such as investors and creditors. Profits that do not show true information about management performance can mislead the users of the report so that it has a bad impact on the company because then investors or creditors become hesitant in investing their funds in the company.

ISO (International Standard of Organization) is one of the factors that can affect the quality of a company's profits. Purpose of the standard ISO is to ensure that certified companies maintain a quality management system that will allow to meet published quality standards, in relation to processes and activities for delivering goods and services. However, the implementation of certification ISO Not for the purpose of obtaining a certificate. Therefore, it is very wrong for companies to apply certification ISO only aims to get a certificate. Thus, if a company cannot maintain or even increase the ability to meet or exceed customer satisfaction both in terms of product function, quality and even performance in a company, it can make it difficult for the company to generate optimal profits and thus the company becomes difficult to maintain the quality of its company profits.

Contract management is “an activity carried out by both parties to manage a contract so that the contract can be used as a guideline and as a means of controlling the implementation of work”.

Thus, the implementation of contract management, planning, and administration is necessary [1]. Management contracts must be made as accurate as possible, taking into account the details to be worked out so that in the future there are no errors in the interpretation of the contents of the contract. Nevertheless, during the field implementation of the work, there are still frequent challenges, like mistakes in implementing employment agreements that lead to the work not aligning with the initial expectations. This can be attributed to negligence on the part of both the first and second parties in fulfilling their obligations and responsibilities. Consequently, the impact is financial loss borne by both parties, and it can also adversely affect the company's reputation.

According to, Blockchain is a distributed ledger technology that was originally developed to support currencies (cryptocurrency) Bitcoin. This technology allows direct transactions (peer-to-peer) without the need to involve trusted third parties. From the description above about blockchain, indicates that technology as one of the factors that support the company's operations to run optimally so that it can boost the performance of a company which will thereby improve the quality of profit. This is because: blockchain Do not use third parties where records of transactions that have occurred are stored by computers scattered on the network itself with a system that is very difficult to use. Hack It will be able to better guarantee the data of a company so that the data is safe and there are no errors in the recording so that investors can more accurately see the data or records of the company which can thus prevent a loss that will be caused. However, most companies until now are still slow to update their technology systems and have not implemented the system blockchain in recording transactions in his company which thus makes financial statements more vulnerable to the occurrence of levels human error and cause poor quality of financial statements, "resulting in a decrease in the quality of the company's profits."

## 2. Literature Review And Hypothesis Development

### 2.1 Literature Review

#### 1) *Stewardships Theory*

Theory stewardship Based on psychological and sociological theories and derived from management accounting thinking, where Steward motivated to behave as you wish principal. Theory stewardship is the description of the condition of managers who are motivated from the target of the main results of the organization's interests rather than motivated by their personal interests [2]

Thus, the relationship of stewardship theory in this study is executives or stewards who have behavior where they can be formed so that they can always be invited to cooperate in the organization, have collective or group behavior with high utility than individuals and are always willing to serve, so that it will maximize the company's financial performance by producing quality financial statements and providing credible profit information that is free from fraud so that the company's image becomes positive. This will influence stakeholders to respond positively to profit information, thereby improving the quality of earnings.

In addition, the relationship of stewardship theory in research is where stewardship theory motivates to advance a company, therefore there is a need for ways that can support the company to achieve its progress, one of which is by multiplying international standards such as ISO certification. Because ISO is a world standard formed for the enhancement of international trade related to goods and services. When a company has an ISO certificate, it shows that the products issued by the company have met national and international standards which means that the product is a high-quality product and shows that the company is of high quality and quality with the ability to increase public trust so that it has an impact on the progress of a company.

By multiplying work contracts in a company turns out to be another way to advance a company. Because the employment contract serves as a means of controlling the execution of a job. When the company collaborates a lot with other companies, the amount of cooperation makes the company more likely to get profits from the results of the cooperation that has been carried out, which can be by multiplying relationships or by effectively communicating. Because when entering into an agreement, communication is very important so that the work contract that has been agreed between the two parties is successfully carried out so that it can advance a company.

### 2) *Positive Accounting Theory*

The primary focus of “positive accounting theory” in the accounting “field lies in elucidating and forecasting the selection of management standards by examining the costs and benefits associated with specific financial disclosures, their connection to diverse individuals, and the distribution of economic resources.” Positive accounting theory operates on the premise that managers, shareholders, and regulatory mechanisms act rationally, aiming to optimize their utility directly tied to their compensation and overall well-being. The decision-making regarding accounting policies within these groups is contingent upon a relative evaluation of the costs versus benefits and alternative accounting methods, all geared towards maximizing their utility [3].

The relationship between “positive accounting theory” in this study is that positive accounting theory provides a basis for company managers to be motivated to improve the company's financial performance by applying generally accepted accounting policies, so that these accounting policies can be adjusted to the real company conditions. In addition, managers must also prioritize the company's goal to provide real profit information that is useful for stakeholders in making investment decisions in order to create a better company image and reflect quality financial statements so as to influence investors to respond positively to published profit information and will improve the quality of company profits.

In addition, the relationship between “positive accounting theory” in this research is that the application of blockchain technology is the company's choice to be able to maintain data / information in order to minimize the level of errors and fraud that occur in the company. The importance of managers following the development of blockchain technology is that it can help improve efficiency and effectiveness in the company's operational activities. Blockchain is used in the financial sector to be able to conduct transactions directly without the need to involve trusted third parties so that companies that have implemented blockchain technology appropriately, the company will achieve the company's long-term goals through the selection of appropriate technology policies and to face certain conditions in the future which will be based on the three hypotheses in accounting theory.

### 3) *Profit Quality*

The quality of profit is an indicator of the quality of financial information. Profit in financial statements is “an indicator that can be used to measure the company's operational performance.” Quality accounting profit can reflect the company's actual financial performance. The existence of management actions that report profits that do not describe the actual condition of the company results in the profits generated being of doubtful quality [4].

When the announcement of financial statements, basically the market has expectations about the amount of published profits. If the actual profit is greater than the investor's expectations, then this will be good news. But if the actual profit is smaller than the investor's expectations, then this will be Bad News. The market's response to profit information can be seen from the magnitude of earnings response coefficient (ERC) is believed to be able to provide a clear picture of profit quality by looking at market reactions or published profit information. The market's reaction to the stock price is proxied by cumulative abnormal return (CAR). Earnings response coefficient (ERC) is a measure of the abnormal amount of return of a security in response to the shock profit component (unexpected earnings) reported by the company issuing the securities [5].

### 4) *ISO (International Standard of Organization)*

Iso is a word of Greek origin meaning the same. First ISO It was founded in Geneva, Switzerland, in 1947. ISO is a world standards body formed to increase international trade related to changes in goods and services. ISO It can be concluded as coordination of international work standards, publication of international standards, and promotion of the use of international standards. In essence, ISO aims to harmonize national standards in each country into one common international standard.

### 5) *Contract Management*

Contract management is “an activity to manage a contract so that the contract can be used as a guideline and as a means of controlling the implementation of work.”

### 6) *Blockchain*

Blockchain is a distributed ledger technology that was originally developed to support currencies (cryptocurrency) Bitcoin. This technology allows direct transactions (peer-to-peer) without the need to involve a trusted third party. Although initially used in finance, this technology carries great potential to be used in many fields.

## 2.2 Hypothesis Formulation

### 1) ISO on Profit Quality

ISO is “a world standards body formed to enhance international trade related to changing goods and services.” ISO can be concluded as coordination of international work standards, publication of international standards, and promotion of the use of international standards.

<http://jurnalsdm.blogspot.com/2009/07/iso-international-organization-for.html>.

No studies have been undertaken to examine how ISO affects the quality of profits, but if you look at the understanding of ISO shows that the more ISO certificates obtained by the company, it means that the products issued by the company have met National and International standards. This means that the product is a high-quality product, thereby increasing public confidence which will have an impact on profit quality. On that basis, the research hypothesis is that:

H1 = ISO has a positive effect on Profit Quality.

### 2) Management Contracts on Profit Quality

Successful and efficient contract management practices according to [6] are “those that meet the needs of the company's stakeholders, achieve optimal conditions and value in terms of the allocation of taxes scarce of payer resources, ensure rational and efficient available funds, stimulate valuable competition and manage potential risks and liabilities to buyers thereby improving the delivery services of goods or services.” The people in charge of the contract need to play an important and meaningful role in ensuring that the company's contractual objectives are fully achieved at the lowest possible cost.

No studies have been conducted regarding the impact of management contracts on profit quality. However, an examination of the comprehension of management contracts reveals that a well-structured management contract contributes to building a positive company image and influencing stakeholders to respond favorably to disclosed profit information. This, in turn, is expected to result in high-quality company profits. On that basis, the research hypothesis is that:

H2 = Management Contract has a positive effect on Profit Quality

### 3) Blockchain on Profit Quality

Blockchain is a ledger technology distributed in the Internet form database Transactional is distributed, secured by cryptography, and governed by a consensus mechanism. Blockchain is basically a digital event record. However, it is not just a record, as it can also contain smart contract calls, which are programs stored in blockchain that runs as applied without risk downtime, censorship, or fraud[7].

No research has been conducted on the impact of blockchain on the quality of profits. However, if you look at the understanding of blockchain, it shows that more and more companies are implementing blockchain systems, it shows that it is more efficient and can increase effectiveness in making financial statements that will be made by management and can minimize the occurrence of error levels that will occur in the process of making reports which can thereby increase the integrity of the financial statements so as to provide value Positive for the company in the eyes of investors and also with the presence of blockchain can boost the performance of a company so that it can cause an increase in the quality of profit. On that basis, the research hypothesis is that:

H3 = Blockchain positively affects Profit Quality

## 3. Method

### 3.1. Population and Sample

All manufacturing companies listed on the IDX during the period 2016-2018 constitute the population in this study. The 2016-2018 period was chosen because before the COVID-19 pandemic, Indonesia's economic condition was still relatively stable, thus providing ideal

information to see the company's performance. The sampling methods used in this research are: *purposive sampling* That is a technique where the sample to be used as an object in research that only meets predetermined criteria. A sample of 10 companies was obtained over a period of 3 years, resulting in a total of 30 observational data points used in this research.

### 3.2. Definition and Measurement of Variables

#### 1) Variable Dependencies

The dependent variable is “a variable that is affected or that becomes a result due to the presence of an independent variable [8].” In this study, the dependent variable is the quality of profit. In this study, the quality of profit is measured by proxy *Earnings Response Coefficient (ERC)*. The calculation of the magnitude of ERC is obtained in the following way:

#### 1) Calculating *Cummulative Abnormal Return (CAR)*

CAR to according [9] for each company is “an accumulation of averages *abnormal return* During the 7-day event period, namely 3 days before (T-3) the date of the announcement of shares (earnings), 1 day (T) at the time of the announcement of shares (earnings) or publication of the Company's annual financial statements and 3 days after (T+3) the date of announcement of shares (earnings)”, using the formula:

$$CAR_{i,t} = \sum_{t=-3}^{t=+3} AR_{i,t}$$

Source: [9]

Where:

$CAR_{i,t}$  = Cummulative abnormal return of company i at 3 days before the announcement of shares (earnings) to 3 days after the announcement of shares (earnings).

$AR_{i,t}$  = Abnormal return for company i on the t-day

The abnormal daily return in this study was calculated using a market adjusted model with the formula:

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

Source: [9]

Where:

$AR_{i,t}$  = Abnormal return for companyi on the t-day

$R_{i,t}$  = Actual return (daily stock return) of companyi on the t-day

$R_{m,t}$  = Daily market return on the t-day

#### 1) Actual Stock Return

To obtain the daily stock return, using the formula:

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}}$$

Source: [9]

Where:

$R_{i,t}$  = Daily stock return of companyi on the t-day

$P_{i,t}$  = Closing price of company i shares on the t-day

$P_{i,t-1}$  = Closing price of companyi shares on day t-1

2) Daily market returns are calculated as follows:

$$R_{m,t} = \frac{IHSG_{it} - IHSG_{t-1}}{IHSG_{t-1}}$$

Source: [9]

Where:

$R_{m,t}$  = Return market (Market) daily on the T-day

$IHSG_{i,t}$  = Composite Stock Price Index on day t

$IHSG_{t-1}$  = Composite Stock Price Index on day t-1

2) Menghitung *Unexpected Earning (UE)*

*Unexpected earnings* (EU) is a proxy of *earnings per share* (earnings per share) reflecting the company's performance during a certain period using the formula:

$$UE_{i,t} = \frac{EPS_{i,t} - EPS_{i,t-1}}{EPS_{i,t-1}}$$

Source: [9]

Where:

$UE_{i,t}$  = Unexpected Earnings of companyi in period t

$EPS_{i,t}$  = Earnings per share (earnings per share) of Companyi in period T

$EPS_{i,t-1}$  = Earnings per share (earnings per share) of the company in the period T-1

The amount of *earnings response coefficient* (ERC) is obtained from a regression between *cummulative abnormal return* (CAR) and *unexpected earnings* (EU), using the following formula:

$$CAR_{it} = + \beta + \alpha UE_{i,t} \epsilon_{i,t}$$

Source: [9]

Where:

$CAR_{i,t}$  = Cummulative abnormal return of companyi in period t

$\alpha$  = Constant

$\beta$  = Coefficient of profit response to abnormal return

$UE_{i,t}$  = Coefficient of profit response to abnormal return

$\epsilon_{i,t}$  = Company error componenti in period t

### 3.3. Independent Variables

According to Sugiyono [8], the independent variable is often referred to as stimulus, predictor, antecedent. An independent variable is a variable that affects or causes its change

or the emergence of a dependent variable. In this research, which is an independent variable, namely:

1) ISO ( $X_1$ )

In this research, Measuring ISO with instruments in the form of various certificates obtained by manufacturing companies listed on the IDX for the 2016-2018 period. This is because more and more companies obtain certificates, indicating that the products produced by the company are of high quality and internationally recognized. The formula used is as follows:

$$ISO = \frac{\sum \text{Sertifikat ISO Perusahaan Sampel}}{\sum \text{Sertifikat ISO Perusahaan Sampel Tertinggi}}$$

2) Contract Management ( $X_2$ )

In this research, “management contracts are measured using the number of agreements or employment contracts made by the companies studied with other companies in the notes to the financial statements of each sample company. The highest number of agreements or work contracts in a company in a certain period is used as a divisor to get the ratio value for management contract variables.” The formula used is as follows

$$KM = \frac{\text{Jmlh Perjanjian/Kontrak Kerja}}{\text{Jmlh Perjanjian/Kontrak Kerja Terbanyak}}$$

Source: [10]

3) Blockchain ( $X_3$ )

In this study “*blockchain* measurements can be revealed using *blockchain* indices that have been compiled based on theories from various sources. Items in the *blockchain index* can be viewed through the company's *annual report* or through information available on the company's *website*. From each item in the index, a score is given. If the company meets the items that match the *blockchain index*, it will be given a score of 1 (one). Meanwhile, if the company does not meet the items according to the *blockchain index*, it will be given a score of 0 (zero).” Measurement is done by calculating the proportion between the total number of criteria met by the company to the maximum total score. The following *blockchain index* has been compiled as follows:

Dimensi	Indeks
Database terdistribusi	Kemudahan dalam mengakses informasi perusahaan. Pengendalian teknologi yang dikendalikan oleh setiap user. Kemudahan dalam melihat dan memesan produk perusahaan.
Peer-to-peer transmission	Perusahaan mengungkapkan sistem penyimpanan data digital.
Transparansi	Perusahaan mengungkapkan prosedur keamanan data informasi. Adanya antisipasi pemulihan data dalam keadaan darurat. Adanya tata kelola teknologi informasi.
Terdentralisasi	Perusahaan mengungkapkan biaya teknologinya.
Perisitan	Adanya jaringan yang membangun antara induk dengan anak perusahaan.
Dapat diaudit	Transaksi tidak mudah dihapus dikarenakan telah tercatat dalam setiap blok. Kemudahan melacak dan memverifikasi transaksi.

Sumber: Data yang diolah peneliti, 2019

So that the amount of disclosure level can be determined by the following formula:

$$Disclosure\ Level = \frac{\text{Jumlah skor dipenuhi}}{\text{Jumlah skor maksimum}}$$



### 3.4. Data Analysis Methods

This research uses “secondary data, namely data in the form of numbers, which refers to information collected from sources that have used documentation techniques by examining various kinds of documents such as: Financial statements and annual reports. The analysis in this study used panel data which is a combination of *time-series* data and crosssection data.”

## 4. Results and Discussion

### 4.1 Sample Selection Results

Based on sampling criteria, this study used samples of manufacturing companies listed on the IDX for the 2016-2018 period. Sample determination in this research using “techniques *purposive sampling*”, can be seen in the following table:

No.	Kriteria	Jumlah
1	Perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2016 – 2018	144
2	Perusahaan manufaktur yang tidak mempublikasikan laporan keuangan dan <i>annual report</i> secara lengkap selama periode 2016-2018	(37)
3	Perusahaan manufaktur yang tidak menyajikan laporan keuangan menggunakan mata uang rupiah	(25)
4	Perusahaan manufaktur yang tidak memperoleh laba berturut-turut selama periode 2016-2018	(41)
5	Perusahaan manufaktur yang tidak mempunyai data mengenai variabel yang diteliti yaitu <i>ISO</i> selama periode 2016-2018	(31)
<b>Jumlah Sampel Penelitian</b>		<b>10</b>
<b>Jumlah Periode Penelitian</b>		<b>3</b>
<b>Jumlah Data Observasi Penelitian</b>		<b>30</b>

Sumber: Data yang diolah peneliti, 2019

### 4.2 Research Results

#### 1) Panel data regression model selection techniques

##### a) Test Chow

Redundant Fixed Effects Tests			
Equation: UC			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.138223	(9,17)	0.0019
Cross-section Chi-square	39.413612	9	0.0000

Sumber: Output EViews 9.0

Based on the table above, it can be seen that “p-value cross section F and p-value cross section chi-square (0,0019) and (0,00000) <  $\alpha$  (0.05).” then  $H_a$  accepted, which means “Fixed Effect Model (FEM) is better used in estimating regression panel data than Common Effect Model (CEM).”

##### b) Uji Hausman

Correlated Random Effects - Hausman Test			
Equation: UC			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	35.726908	3	0.0000

Sumber: Output EViews 9.0

Based on the table above, it can be seen that “the probability value of *random cross section* ( $0.0000 < \alpha (0.05)$ .” So  $H_a$  is accepted, which means that “*Fixed Effect Model* (FEM) is better used in estimating regression panel data than *Random Effect Model* (REM).”

**c) Lagrange Multiplier**

Lagrange Multiplier Tests for Random Effects			
Null hypotheses: No effects			
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	1.210706 <b>(0.2712)</b>	0.001962 (0.9647)	1.212668 (0.2708)

Sumber: Output EVIEWS 9.0

Based on the table above, it can be seen that “the probability value of the *Breusch-pagan cross section* ( $0.2712 > \alpha (0.05)$ .” So  $H_0$  is accepted, which means that “*the Common Effect Model* (CEM) is better used in estimating regression panel data than the *Random Effect Model* (REM).”

**d) Regression Model Conclusion**

No	Metode	Pengujian	Hasil
1	Uji Chow	CEM vs FEM	FEM
2	Uji Hausman	REM vs FEM	FEM
3	Uji Lagrange Multiplier	CEM vs FEM	CEM

Source: Processed data

Based on the three tests above, it is concluded that “the panel data regression model that will be used in testing the hypothesis and panel data regression equation is the *Fixed Effect Model* (FEM) model.”

**2) Classical Assumption Test**

The classical assumption test is “a statistical requirement that must be met in regression analysis using *Ordinary Least Square* (OLS) in its estimation technique.” In the data regression based model panel *Ordinary Least Square* (OLS) is “*Common Effect Model* (CEM) and *Fixed Effect Model* (FEM), thus it is necessary to test classical assumptions only tests of Multicollinearity and Heterskedasticity are needed.”

**1) Multicollinearity Test**

	KL	ISO	KM	BC
KL	1.000000	0.361102	0.181238	0.352338
ISO	0.361102	1.000000	-0.036248	-0.004119
KM	0.181238	-0.036248	1.000000	0.162129
BC	0.352338	-0.004119	0.162129	1.000000

Sumber: Output EVIEWS 9.0

From the *output* table above, it can be seen that “the independent variable has a value of less than 0.8, so it can be concluded that multicollinearity does not occur in the regression model.”

**1) Heteroscedasticity Test**

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: UC			
Periods included: 3			
Cross-sections included: 10			
Total panel observations: 30			
Cross-section effects were removed during estimation			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	60.53551	45	0.0608
Pesaran scaled LM	0.583494		0.5596
Bias-corrected scaled LM	-1.916506		0.0553
Pesaran CD	-0.817031		0.4139

Sumber: *Output EViews 9.0*

From the *output table* above can be seen “the value of Prob. *Breusch-Pagan LM* of 0.0608 > 0.05 (5%), then H<sub>0</sub> is accepted so that it can be concluded that heteroscedasticity does not occur in the regression model.”

### 3) Uji Hypoplant

#### a) Test f (Model Qualification)

Dependent Variable: KL			
Method: Panel Least Squares			
Date: 09/15/19 Time: 16:17			
Sample: 2016 2018			
Periods included: 3			
Cross-sections included: 10			
Total panel (balanced) observations: 30			
R-squared	0.805091	Mean dependent var	-0.340720
Adjusted R-squared	0.667509	S.D. dependent var	2.970041
S.E. of regression	1.712587	Akaike info criterion	4.212570
Sum squared resid	49.86023	Schwarz criterion	4.819756
Log likelihood	-50.18855	Hannan-Quinn criter.	4.406814
F-statistic	5.851693	Durbin-Watson stat	3.748743
Prob(F-statistic)	0.000572		

Sumber: *Output EViews 9.0*

The table above shows that “the *F-Statistic* value is 5.851693 while *F Table* with  $\alpha = 5\%$ ,  $df_1 (k-1) = 3$  and  $df_2 (n-k) = 26$  obtained *F table* value of 2.98. Thus *F-Statistic* (5.851693) > *F Table* (2.98) and *Prob* (*F-Statistic*) value 0.000572 < 0.05 it can be concluded that H<sub>a</sub> is accepted, which means that the independent variables in this study consisting of *ISO, Management Contracts, and Blockchain together have a significant influence on Profit Quality, meaning the model is worth using.*”

#### a) Adjusted R-squared (Coefficient of Determination)

Dependent Variable: KL			
Method: Panel Least Squares			
Date: 09/15/19 Time: 16:17			
Sample: 2016 2018			
Periods included: 3			
Cross-sections included: 10			
Total panel (balanced) observations: 30			
R-squared	0.805091	Mean dependent var	-0.340720
Adjusted R-squared	0.667509	S.D. dependent var	2.970041
S.E. of regression	1.712587	Akaike info criterion	4.212570
Sum squared resid	49.86023	Schwarz criterion	4.819756
Log likelihood	-50.18855	Hannan-Quinn criter.	4.406814
F-statistic	5.851693	Durbin-Watson stat	3.748743
Prob(F-statistic)	0.000572		

Sumber: *Output EViews 9.0*

The table above shows that “the value *Adjusted R Squared* 0.667509 means that the variation in changes in the rise and fall of Profit Quality can be explained by *ISO, Management Contracts, and Blockchain* 66.75% with a low correlation level, while the remaining 33.25% was explained by other variables that were not studied in this study.”

**b) Test t**

Dependent Variable: KL				
Method: Panel Least Squares				
Date: 09/15/19 Time: 16:17				
Sample: 2016 2018				
Periods included: 3				
Cross-sections included: 10				
Total panel (balanced) observations: 30				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-38.79383	5.548026	-6.992366	0.0000
ISO	2.847565	2.668696	1.067025	0.3009
KM	4.407627	2.305356	1.911907	0.0729
BC	142.5395	24.30601	5.864371	0.0000

Sumber: Output EViews 9.0

From the table above, the table t value with “the level of  $\alpha = 5\%$ ,  $df_1 (k) = 3$ ,  $df_2 (n-k) = 26$  of 1.70562” and shows the results that:

1. The t-statistic (*ISO*) value is “1.067025, while t Table with  $\alpha = 5\%$ ,  $df (n-k) = 26$  gets the table t value of 1.70562. Thus *t-statistic (ISO)* (1.067025) < *t Table* (1.70562) and Prob values. 0.3009 > 0.05 concluded that the *ISO* variable in this study has no effect on the quality of profit.” **Thus,  $H_1$  in the study was rejected.**
2. The *t-statistic value of the management contract (KM)* is “1.911907, while t Table with the level of  $\alpha = 5\%$ ,  $df (n-k) = 26$  obtained the value of t Table is 1.70562. Thus *t-statistic contract management (KM)* (1.911907) > t Table (1.70562) and Prob value. 0.0729 > 0.05 It can be concluded that the management contract variable in this study has no effect on profit quality.” **Thus,  $H_2$  in the study was rejected.**
3. The t-statistic value of the *blockchain (BC)* is 5.864371, while t Table with  $\alpha = 5\%$ ,  $df (n-k) = 26$  “gets the t value of the Table of 1.70562. Thus *t-statistic blockchain (BC)* (5.864371) > t Table (1.70562) and Prob value. 0.0000 < 0.05 then it can be concluded that the *blockchain* variables in this study have a positive influence on the quality of profits.” **Thus,  $H_3$  in the study was accepted.**

**4) Panel Data Regression Model Equation**

$$\hat{Y}_{it} = -38.79383 + 2.847565 \text{ ISO} + 4.407627 \text{ KM} + 142.5395 \text{ BC}$$

From the equation of the panel data regression model above, it is explained that:

- a. The constant is -38.79383. This indicates that “if there are no values in the independent variable (independent variables equal to 0), then the quality of profit has a value of -38.79383.”
- b. The value of the international standard of organization (*ISO*) variable coefficient of 2.847565, means that “every increase of 1 (one) *ISO* unit, the quality of profit will increase by 2.847565 assuming other independent variables are constant (fixed).”
- c. The value of the management contract variable coefficient (*KM*) of 4.407627, means that “every increase of 1 (one) unit of international standard of organization, the quality of profit will increase by 4.407627 assuming other independent variables are constant (fixed).”
- d. The value of the blockchain variable coefficient (*BC*) of 142.5395, means that “every increase of 1 (one) blockchain unit, the quality of profit will increase by 142.5395 assuming other independent variables are constant (fixed).”

**The effect of international standard of organization (*ISO*) on profit quality**

Based on testing *the international standard of organization (ISO)* variables on profit quality (KL), it is obtained that “*ISO* has a *Prob value*. (0.3009) > significance level (0.05) and *t-statistic* (1.067025) < *t Table* (1.70562), meaning that the regression results of panel data show a direction that is not the same as the hypothesis thus H1 is rejected which means *ISO* has no effect on profit quality.” This indicates that *ISO* has no relationship with profit quality. The reason *ISO* does not affect the quality of profit is because the number of *ISO* certifications owned by the company cannot guarantee that the company can be said to be a company with good profit quality because good profit quality can be seen in terms of other aspects such as Companies that present profit information in financial statements represent actual profits and describe the company's actual financial performance. *ISO* certification can also prevent creative and critical thinking in an organization, as employees are forced to work according to well-described procedures and rules. In addition, to achieve *ISO certification*, incur additional costs and the costs incurred are not necessarily proportional to the benefits received. The number of costs results in reduced revenue and profits so that it can adversely affect the quality of a company's profits.

### **The effect of management contracts on profit quality**

Based on testing the variable management contract (KM) against profit quality (KL), it is obtained that “the management contract has a value of *Prob*. (0.0729) > significance level (0.05) and *t-statistic* (1.991907) > *t Table* (1.70562), meaning that the regression results of panel data show a direction that is not the same as the hypothesis thus H2 is rejected which means that the management contract has no effect on profit quality.” This indicates that the Management Contract has no relationship with the quality of profits. The cause of the management contract does not affect the quality of profits because the possibility of *stakeholders* does not attach importance to the company entering into agreements or work contracts with a large or small amount and with anyone. For *stakeholders*, it is likely that any company wants to be able to enter into an agreement or work contract with a manufacturing company. Furthermore, if “the report only includes details about the agreement between the sample company and other companies without providing information about the financial performance of the company in the current year, then the report is insufficient in giving stakeholders an overview of the company's expected future profits. The report cannot be used by *stakeholders* as a basis for decision making to invest their capital.” It is suspected that *stakeholders* value more in terms of the company's financial performance published through the company's annual financial statements, because it better describes actual profit information and shows the company's sustainability prospects in the next year, so that it is considered more relevant and can be used as a basis for investment decision making.

### **The effect of blockchain on profit quality**

Based on testing the *Blockchain (BC)* variable against Profit Quality (KL), it is obtained that “the *blockchain* has a *Prob value*. 0.0000 < significance level (0.05) and *t-statistic* (5.864371) > *t Table* (1.70562), meaning that the regression results of panel data show the same direction as the hypothesis thus H3 is accepted which means blockchain has a positive effect on profit quality.” This indicates that *Blockchain* has a relationship with the quality of profit. Because more and more companies are implementing the *blockchain* system, it shows that it is more efficient and can increase effectiveness in making financial statements that will be made by management and can minimize the occurrence of errors and fraud that will occur in the process of making reports which can thereby increasing the integrity of the financial statements so as to cause the reported profit information to be a good profit. Such quality provides positive value for the company in the eyes of investors.

## 5. Conclusion

Based on the results of data analysis, hypothesis testing, and interpretation of results, conclusions are obtained as follows:

1. ISO variables had no effect on Profit Quality in manufacturing companies for the 2016-2018 period. Indicated by “the value of Prob. (0.3009) > significance level (0.05) and t-statistic (1.067025) < t Table (1.70562), thus H1 is rejected.”
2. Management Contract variables had no effect on Profit Quality in manufacturing companies for the 2016-2018 period. Indicated by “the value of Prob. (0.0729) > significance level (0.05) and t-statistic (1.991907) > t Table (1.70562), thus H2 is rejected.”
3. Blockchain variables affect Profit Quality in manufacturing companies for the 2016-2018 period. Indicated by “the value of Prob. 0.0000 < significance (0.05) and t-statistic (5.864371) > t Table (1.70562), thus H3 is accepted.”

## References

- [1] W. Y. Tumembow, J. Tjakra, and T. T. Arsjad, “Analisis Kontrak Kerja Owner Terhadap Kontraktor (Studi Kasus: Perumahan Taman Mapanget Raya),” *J. Sipil Statik*, vol. 4, no. 5, 2016.
- [2] L. Donaldson and J. H. Davis, “Stewardship theory or agency theory: CEO governance and shareholder returns,” *Aust. J. Manag.*, vol. 16, no. 1, pp. 49–64, 1991.
- [3] R. L. Watts and J. L. Zimmerman, “Towards a positive theory of the determination of accounting standards,” *Account. Rev.*, pp. 112–134, 1978.
- [4] S. B. R. Tarigan, “Pengaruh persistensi laba, struktur modal, kualitas audit, dan ukuran perusahaan terhadap kualitas laba,” *EBISTEK Ekon. Bisnis dan Teknol.*, vol. 5, no. 1, 2022.
- [5] W. R. Scott, *Financial accounting theory*. prentice hall, 1997.
- [6] A. Mchopa, “Integrating contract management practices into the achievement of value for money in tanzania public procurement: Evidence from selected procuring entities in moshi municipality,” *J. public Procure.*, vol. 15, no. 2, pp. 129–149, 2015.
- [7] R. Beck, M. Avital, M. Rossi, and J. B. Thatcher, “Blockchain Technology in Business and Information Systems Research,” *Bus. Inf. Syst. Eng.*, vol. 59, no. 6, pp. 381–384, Dec. 2017, doi: 10.1007/s12599-017-0505-1.
- [8] P. D. Sugiyono, *Metode penelitian kuantitatif dan kualitatif dan R&D*. 2014.
- [9] E. Pitria, “Pengaruh Kesempatan Bertumbuh, Leverage dan Profitabilitas Terhadap Kualitas Laba,” *Artik. . Fak. Ekon. Univ. Negeri Padang*, 2017.
- [10] A. Eksandy and E. Milasari, “PENGARUH ENVIRONMENTAL DISCLOSURE, KUALITAS AUDITOR INTERNAL, DAN KONTRAK MANAJEMEN TERHADAP KUALITAS LABA (Pada Perusahaan Indeks Kompas 100 yang Terdaftar di Bursa Efek Indonesia Periode 2013-2016),” *Compet. J. Akunt. dan Keuang.*, vol. 3, no. 1, p. 88, Apr. 2019, doi: 10.31000/competitive.v3i1.1546.