Iso Series Certification System on The Financial Performance and Performance

Tri Widyastuti 1*

1* Universitas Bhayangkara Jakarta Raya, Jakarta, 12550, Indonesia

Email triwidhiastuti@yahoo.com 1*

Received: July, 30, 2022  Revised: August, 31, 2022  Accepted: September, 30, 2022

Abstract

The objective of this study was to compare the financial performance and stock performance of companies with and without ISO series certifications. In this study, EVA (Economic Value Added) and financial ratios, particularly Debt to Equity, Return on Equity, and Return on Assets, reflect financial performance, while anomalous returns represent stock performance. This study utilizes data from 2011 to 2019 firm reports that have acquired ISO 9000 and 14000 series certifications. The results indicate that organizations with ISO series certification and those without certification are comparable. There is no substantial difference between the EVA and ROE ratios' financial performance. Nevertheless, the DER and ROA financial performance ratios differ significantly. Moreover, there are considerable discrepancies between ISO corporations and non-ISO companies in terms of stock performance. The conclusion of the study is that there is no significant difference between the performance of companies that receive ISO certification and those that do not, because of insufficient research time, the fact that non-ISO companies already have good marketing management, and the lack of continued ISO implementation in companies that already have ISO certification.

Keywords: Financial Performance, Stock Performance, Product Quality, ISO Certificate

DOI: https://doi.org/10.57178/atestasi.v5i2.487
p-ISSN: 2621-1963
e-ISSN: 2621-1505

Introduction

As we enter the era of globalization, technical advancements and the liberalization of global capital markets are accelerating, generating upheavals in the business sector. This causes internal (national) and international (global) commercial competitiveness to intensify significantly (Winarno, 2008). To win the competition, many businesses are enhancing the quality of their products and services to ensure customer happiness. Companies that need to prepare themselves to enhance the quality of their work will struggle to compete (Latief, 2018). Product quality is essential to the company's ability to deliver excellent client satisfaction (Tjahjaningsih, 2016).

According to Prasastono & Pradapa, (2005) if a company's product quality fulfills consumer expectations, it will be able to set higher pricing, which will ultimately lead to a rise
in total sales, which is an indication of a growing market share. Product quality can no longer be proven solely by the test results of a final product that satisfies the requirements; it also requires additional evidence in the form of a certificate stating that the system implemented in the production of the product guarantees that its quality will always be high (Kodu, 2013).

The International Organization for Standardization (ISO) is a global organization that promotes international trade regarding product and service improvements. ISO is an organization that coordinates international work standards, produces internationally harmonized standards, and promotes the use of international standards (Murphy & Yates, 2009). According to Purnama, (2005) ISO 9000 is an international standard for quality management systems. ISO 9000 sets rules and principles for designing and evaluating a quality management system, guaranteeing that the organization will provide items that meet specific criteria. These specifications are customer- and market-specific, as determined by the company (Leonard, 2011).

ISO released the ISO 14000 series after the success of the ISO 9000 series. This series is based on the growing environmental consciousness. (Chandra, 2002) ISO 14000 is an international standard for environmental management systems in general. The environmental management system is a method used to manage the environment by businesses. The purpose of an environmental management system is to facilitate environmental protection or pollution avoidance following socioeconomic requirements. Organizational Evaluation Standards and Product Evaluation Standards make up ISO 14000. ISO 9000 and 14000 series are internationally recognized quality and environmental management systems, adding value for organizations competing in the global market (Dunu & Ayokanmbi, 2008).

Extensive market-based and basic research on quality management systems has been conducted domestically and overseas. Internal (productivity) and external (marketing) components of corporate performance are affected by ISO 9000 Standards and TQM, as demonstrated by Sun, (2000) in his research. In their research, Hendricks & Singhal, (1996) discovered evidence that investors respond positively to announcements of quality awards. Bayati & Taghavi, (2001) discovered that the market did not react to the announcement of the ISO 9000 certificate but did react to the announcement of the ISO 14001 certificate.

Magd et al., (2000) determined that ISO-certified companies are more concerned with quality management practices than non-ISO-certified companies; ISO-certified and non-ISO-certified companies tend to choose business strategies that emphasize cost or cost efficiency rather than quality strategies. ISO-certified and non-ISO-certified companies report performance in physical units rather than monetary units.

According to Levine & Toffel, (2008) adopting ISO 9001 can reduce organizational mortality, increase sales and employment, increase total wage and annual income per employee, and reduce average loss costs. On the other hand, Heras et al., (2002) observed no statistically significant difference in financial performance between enterprises with and without ISO certification. They discovered that organizations with ISO certification had superior financial performance. According to Shipper & Vincent (2003), financial reports are the fundamental way businesses communicate financial information on the accountability of management. These financial reports must be issued to suit the needs of external and internal parties who need more authorization to obtain the required information directly from the company's sources. Financial ratio analysis, undertaken by examining a company's financial
accounts and most prevalent method for evaluating a business's financial performance. Ratio calculations are a valuable tool for a financial account analysis. Brigham, (2001) classifies cash ratios into four categories: liquidity, asset management, debt management, and profitability. You can rapidly and efficiently generate financial ratios if you have access to relevant historical data. The limitation of this strategy is that it needs to gauge company performance accurately. This is because the accounting data must be separate from interpretation or estimation, leading to various errors and imprecise measurements of the company's financial success. Value-based (or intrinsically motivated) financial performance evaluation was created to solve the challenges inherent in using traditional accounting data to evaluate a company's success.

Stewart and Stern, financial analysts at Stern Stewart & Co, established the EVA method in 1993. In corporate finance, the EVA statistic is used to determine whether or not a corporation can create economic profit after accounting for all operating costs and expenses capital. The objective of optimizing EVA is to maximize shareholders' return on their financial investment in the company. EVA is calculated as the difference between NOPAT and the cost of capital. To anticipate future financial and stock market outcomes, researchers are reviewing resumes and conducting interviews to build upon previous work. The debt-to-equity, return-on-equity, and return-on-assets ratios, along with EVA (Economic Value Added), are financial metrics used to evaluate financial performance. Abnormal returns serve as a proxy for the performance of a stock. ISO certification is the independent variable in this study. This study's sample consists of ISO 9000 and ISO 14000-certified companies traded on the Indonesia Stock Exchange between 2011 and 2019.

The International Organization for Standardization (ISO) is an international organization with its headquarters in Geneva. This non-governmental organization was founded in 1974. A third-party agency can certify a company's quality or environmental management system as satisfying ISO requirements (Lestari & Dinata, 2019). According to Gaspersz (2002), ISO certification does not guarantee that a process or product is of the highest possible quality; instead, it merely demonstrates that the company in question has a quality system that inspires customer confidence by ensuring that it consistently adheres to its quality procedures. ISO 9000 is a collection of international standards for quality management systems that aims to ensure that suppliers (businesses) supply goods and services that fulfill preset criteria. The standards contain design and evaluation requirements and suggestions for management systems in accordance (Gaspersz, 2001). With ISO 9000, companies from all over the world can apply the same internationally recognized quality standard. ISO 9001 is a model quality assurance system for product planning, development, installation, and maintenance. ISO 9002 provides a model for quality control in the context of manufacture and installation. ISO 9003 is an example of an end-to-end testing and inspection quality management system (National, 2009). ISO 14000 is an international environmental management standard aiming to reduce negative environmental consequences caused by business operations. Common causes of environmental pollution include air emissions, liquid waste disposal, noise, odors, radiation, packaging, material use, and energy consumption (Rothery, 1996).

A company's financial results are attributable in significant part to its management (Umar, 2002). The financial performance of an organization is determined by stakeholder
assessments of its liquidity, activity, solvency, and profitability (Fachrudin, 2011). These factors serve as one of the parameters by which management allocates the resources it has been provided. Various financial ratios can be used to measure a company's financial health. A corporation's financial statements give vital information for analyzing its performance. Investors use financial statement analysis to predict the future and anticipate situations, while management uses it as a starting point for taking actions that will influence future events (Brigham & Houston, 2001).

EVA is a residual income metric that reduces the cost of capital to operating profit (Hanafi & Putri, 2013). Long-term debt, preferred stock, and common stock constitute the total capital. EVA indicates the profit remaining after subtracting all capital costs, including equity capital, whereas accounting profit does not account for equity capital (Astuti et al., 2022). EVA is a valuable indicator for analyzing whether a business has created value for its shareholders. Therefore, if managers focus on EVA, it will aid them in ensuring that they consistently maximize shareholder value.

It is a ratio that measures the company's ability to make profits for its shareholders. ROE measures the rate of return on a company's shares since it is the ratio of net profit after taxes to equity participation (Hendrarini, 2011). This ratio is determined by dividing net income available to shareholders by equity. According to Heikal et al. (2014), shareholders (stockholders) are more concerned with the return on equity because it pertains to the invested and managed share capital. ROE is essential for the internal evaluation of the company's performance in achieving shareholder expectations by management. This study focused on return on equity (ROE) to assess whether ISO certification influences a company's ability to compute the rate of return on shareholder investment.

Return on assets, or ROA, is a vital indicator of a company's financial health (Priatna, 2016). ROA is the most straightforward technique for calculating profitability when comparing reported net income to total assets. According to Amanah et al. (2014), return on assets is a ratio that evaluates the effectiveness with which all money invested in assets generates returns for all investors (bond and stockholders). Return on assets (ROA) is the earnings ratio to total assets used in financial statement analysis and performance reviews. This ratio is the effect of firm policies (strategy) and environmental conditions (environmental factors).

The ratio of total debt to total equity is known as the debt-to-equity ratio or leverage (Ginting, 2017). This ratio describes the firm's capital structure and aids in assessing the risk structure of uncollectible debt by analyzing if the firm's equity is sufficient to meet its obligations. According to the research of Amrah and Elwisam (2002), enterprises with high leverage are more likely than those with low leverage to provide relevant information to investors and creditors in order to demonstrate their accountability. This ratio was chosen to study the relationship between a company's management system (ISO 9000 and 14000) and its ability to meet all of its long-term financial obligations as a proportion of its total owner equity (net worth).

The term "abnormal return" refers to an outlier in which the actual return surpasses the expected return. This divergence may occur either before the publication of official information or because of information leakage after its release (Strong, 1992). Positive or negative abnormal returns can occur only after an event, such as a bomb explosion, that
cannot be foreseen in advance.

**Research Design and Method**

In this study, researchers utilized a quantitative methodology. Because the data source is secondary data, specifically annual or annual financial reports of companies listed on the Indonesia Stock Exchange, the author employed a quantitative methodology (database). According to its methodology, this study is ex post facto, meaning the author cannot alter the variables. The population of this study includes all companies that obtained ISO 9000 and 14000 series certifications between 2011 and 2019. The sample is a subset of the population whose characteristics will be analyzed and determined to represent the whole population. In this study, 20 samples of enterprises having ISO series certification and 18 samples of organizations without ISO certification were collected using purposive sampling. The dependent variable of this study is financial and stock performance. Economic Value Added (EVA) and financial ratios, particularly Debt to Equity, Return on Equity, and Return on Assets, indicate financial performance. Abnormal returns represent a stock's performance. This study analyzes its data using descriptive statistical approaches and hypothesis testing. Utilizing an absolute frequency table, the researcher determines the ratio's average and change before and after ISO 9000 and ISO 14000 certification. They evaluated the research hypothesis with the t-test (t-test), specifically t-test: paired two samples for mean, using Microsoft Excel and SPSS. Using the t-test to examine the study's hypothesis because, for observations involving fewer than 120 samples, the t-distribution has a larger tail area than the Z-distribution, which uses the standard curve (Jogiyanto, 2004). In this inquiry, the following is the hypothesis:

\[ H_1: \] There are differences in the financial performance of companies before and after ISO certification.

\[ H_2: \] There are differences in the financial performance of ISO-certified companies and non-ISO-certified companies.

\[ H_3: \] There are differences in stock performance in companies before and after ISO certification.

\[ H_4: \] There are differences in the stock performance of ISO certified companies and non-ISO certified companies.

**Results and Discussion**

**Statistical Result & Discussion**

In this study, testing was conducted using two types of tests and two types of statistics. If the data is normal, parametric statistics are used to conduct the test; if the data is not normal, a non-parametric test is conducted. The test employs a t-test of two paired samples and a t-test of independent samples. If the data have a normal distribution, the paired sample t-test is employed to analyze them. If the data are not normally distributed, however, the Wilcoxon test is utilized to assess them. If the data have a normal distribution, the Independent Sample T-test is utilized in place of the Free Sample T-test. However, if data are not normally distributed, the Kruskal Wallis Test is used.

560
The first hypothesis examines whether there are differences in financial performance before and after ISO implementation. Examine the normality of the data with the One-Sample Kolmogorov-Smirnov test. If the data have a normal distribution, parametric statistics are utilized for analysis; otherwise, non-parametric statistics are employed. The test results for data normality suggest that the data are not normally distributed. Therefore, non-parametric statistics and the Wilcoxon test instrument were used to study hypothesis testing 1 for the EVA ratio. Table 1 displays the results of the Wilcoxon test.

### Table 1. Wilcoxon EVA ratio for hypothesis 1

<table>
<thead>
<tr>
<th>Couple Variable</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eva t-2 &amp; Eva t+2</td>
<td>0.071</td>
<td>There is difference*</td>
</tr>
<tr>
<td>Eva t-1 &amp; Eva t+1</td>
<td>0.124</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Eva t-2 &amp; Eva t+1</td>
<td>0.013</td>
<td>There is difference**</td>
</tr>
<tr>
<td>Eva t-1 &amp; Eva t+2</td>
<td>0.909</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Eva t &amp; Eva t-2</td>
<td>0.017</td>
<td>There is difference**</td>
</tr>
<tr>
<td>Eva t &amp; Eva t-1</td>
<td>0.230</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Eva t &amp; Eva t+1</td>
<td>0.500</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Eva t &amp; Eva t+2</td>
<td>0.189</td>
<td>Not there is difference</td>
</tr>
</tbody>
</table>

Source: Data processing results (*, ** significant at 10% and 5%)

The Wilcoxon test results show that:
1. There is a difference in the EVA ratio in the two years before and two years after ISO certification.
2. There is no difference in the EVA ratio one year before and one year after ISO certification.
3. There is a difference in the EVA ratio two years before and one year after ISO certification.
4. There is no difference in EVA ratio one year before and two years after ISO certification.
5. There is a difference in the EVA ratio in the year of ISO and two years before ISO certification.
6. There is no difference in the ratio of EVA in the year of ISO and one year before ISO certification.
7. There is no difference in the ratio of EVA in the year of ISO and one year after ISO certification.
8. There is no difference in the EVA ratio in the year of ISO and two years after ISO certification.

The One-Sample Kolmogorov-Smirnov Test is used to assess the data's normality. According to the results of the test for data normality, only DER t is not normal, while all other data are normal. Using non-parametric statistics and the Wilcoxon Test, analysis of hypothesis testing 1 for the DER ratio was carried out. The Wilcoxon Test results are shown in the table 2.
There is a difference in the DER ratio one year before and two years after ISO certification. There is no difference in the DER ratio two years before and two years after ISO certification. There is a 10% significant difference between the DER ratio in the year of ISO certification and the year prior; There is no difference in the DER ratio between the year of ISO certification and one year afterward; There is no difference between the year of ISO certification and two years later.

Using the One-Sample Kolmogorov-Smirnov Test, determine the normality of the data. The normality test results reveal that only the ROE variable t+1 has a normal distribution. The Wilcoxon test was then utilized to do the data analysis. Table 3 displays the results of the Wilcoxon test:

<table>
<thead>
<tr>
<th>Couple Variable</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roe -2y &amp; Roe +2y</td>
<td>0.476</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe -1y &amp; Roe +1y</td>
<td>0.368</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe -2y &amp; Roe +1y</td>
<td>0.134</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe -1y &amp; Roe +2y</td>
<td>0.894</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe y &amp; Roe -2y</td>
<td>0.735</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe y &amp; Roe -1y</td>
<td>0.115</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe y &amp; Roe +1y</td>
<td>0.548</td>
<td>Not there is difference</td>
</tr>
<tr>
<td>Roe y &amp; Roe +2y</td>
<td>0.573</td>
<td>Not there is difference</td>
</tr>
</tbody>
</table>

Source: Data processing results (*, ** significant at 10% and 5%)

Wilcoxon test results indicate that there is no difference in the ratio of ROE in the two years before and after ISO certification; there is no difference in the ratio of ROE in one year before and one year after ISO certification; there is no difference in ROE ratio in year t before and after ISO certification; and there is no difference in ROE ratio in year t before and after ISO certification.

The One-Sample Kolmogorov-Smirnov Test can be used to determine whether the data are regularly distributed. The test results to ascertain whether the data are regularly distributed indicate that each variable follows a normal distribution. The Paired Samples T-test was used to analyze for evaluating hypothesis 1 regarding the ROA ratio.
The results of the Paired Sample T-test indicate: There is no difference in the ratio of ROA in the two years before and two years after ISO certification; There is a difference in the ratio of ROA in the year before and two years after ISO certification at a significance level of 10%; There is no difference in the ratio of ROA in the two years before and one year after ISO certification; There is a 10% significant difference between the ratio of ROA in ISO and two years prior to ISO certification; There is a difference between the ratio of ROA in the year of ISO certification and one year prior to ISO certification. There is no difference between the ratio of ROA in the year of ISO certification and one year following ISO certification.

The second hypothesis compares the financial performance (EVA, DER, ROE, and ROA) of ISO-certified and non-certified companies. There are 100 observations for ISO organizations and 100 for organizations that are not ISO certified. Test Results Using the One-Sample Kolmogorov-Smirnov Test, the normality of the data was determined. The results of the data normality test suggest that all data are not distributed normally. Thus, non-parametric statistics are used for tests of difference. The evaluation instrument is the Kruskal Wallis Test. The results of the Kruskal-Wallis Test are reported in Table 5.

The second hypothesis tests for differences in financial performance (EVA, DER, ROE, and ROA) between ISO-certified and non-certified enterprises. The findings of the Kruskal Wallis Test indicate disparities in the financial performance of DER and ROE ratios between ISO-certified and non-certified enterprises. As for the EVA and ROA ratios, it has yet to be demonstrated that ISO-compliant and non-compliant enterprises have different financial performances. The second theory only receives partial support.

The third hypothesis's purpose is to compare companies' stock performance before and after ISO certification. Abnormal returns judge a stock's performance. Using the One-Sample Kolmogorov-Smirnov Test, determine the normality of the data. Using the One-Sample Kolmogorov-Smirnov Test, determine the normality of the data. The results of the test for data normality are presented in Table 6.
The Wilcoxon test findings show the following: There is a difference in stock performance two years before and two years after ISO certification; There is no difference in stock performance one year before and one year after ISO certification; There is no difference in stock performance one year before and two years after ISO certification; There is a 10% significant change in stock performance between the year of ISO certification and the two prior years; There is no variation. This suggests a market response to ISO certification in the two years preceding and the following certification. In addition, the market responded in the two years preceding ISO and in ISO itself. In other years, the market has been unresponsive. There is no distinction between unusual returns. The third hypothesis is partly supported.

The fourth hypothesis aims to discover if there are disparities in stock performance between ISO-certified and non-certified enterprises. Using the One-Sample Kolmogorov-Smirnov Test, determine the normality of the data. The significance level of the findings of the data normality test was 0.000. Consequently, it is possible that the data do not follow a normal distribution. The testing of hypotheses requires non-parametric statistics because it is not normal. The instrument for evaluation is the Kruskal Wallis Test. The Kruskal-Wallis test results are presented in table 7.

According to the Kruskal Wallis Test results, the Chi-Square abnormal return for ISO and non-ISO organizations was 11.205 with a significance level of 0.001. This illustrates that the stock performance of ISO-certified and non-certified companies varies; Hypothesis 4 is supported.

Conclusions

This analysis concludes that there are significant disparities between the EVA, DER, and ROA ratios of enterprises with and without ISO certification in particular window pairs. As for the ROE ratio, there is no change between pre-and post-ISO financial ratios; there is no substantial difference between ISO and non-ISO enterprises in terms of EVA and ROE ratios. However, there are significant discrepancies in the financial performance ratios of DER and ROA; the stock performance in the two years preceding and two years following ISO differs
from the stock performance in the two years preceding ISO and the year ISO. There is no
difference in stock performance between other pairings of window periods; nevertheless,
there is a considerable difference between the stock performance of ISO-compliant and non-
compliant enterprises. There is no difference in the performance of ISO-certified companies,
which was made possible by several factors—the research period needed longer. Probably, the
results of the quality management method will not be observed until the following several
years, while researchers only use the research period two years before and two years after
certification. Before obtaining ISO certification, these businesses already have effective
marketing management, so ISO accreditation has no impact. Companies that want ISO
certification receive certificates solely to satisfy business requirements without implementing
their management systems further.

Reference

profitabilitas terhadap harga saham (Studi pada perusahaan Indeks LQ45 periode

Equity Ratio dan Total Assets Turnover Terhadap Harga Saham pada Perusahaan

Astuti, R., Kartawinata, B. R., Nurhayati, E., Tuhuteru, J., Mulatsih, L. S., Muliyani, A., ...

Bayati, A., & Taghavi, A. (2007). The impacts of acquiring ISO 9000 certification on the
performance of SMEs in Tehran. the TQM Magazine, 19(2), 140-149.


Kemungkinan Implementasinya oleh Para Kontraktor Kelas A di Surabaya. Civil
Engineering Dimension, 4(2), 77-84.


Pustaka Utama, Jakarta.

Ginting, M. C. (2017). Pengaruh current ratio dan Debt to Equity Ratio (DER) terhadap
financial distress pada perusahaan property & real estate di Bursa Efek Indonesia.
Jurnal Manajemen, 3(2), 37-44.

menenguk Kinerja dan Penentuan Struktur Modal Optimal Pada Perusahaan
Telekomunikasi (go Publik)(Studi Kasus: PT. Telekomunikasi Indonesia, Tbk dan PT.

Heikal, M., Khaddafi, M., & Ummah, A. (2014). Influence analysis of return on assets
(ROA), return on equity (ROE), net profit margin (NPM), debt to equity ratio (DER),
and current ratio (CR), against corporate profit growth in automotive in Indonesia
Sciences, 4(12), 101.

yang terdaftar di Jakarta Islamic Index. Journal of Business and Banking, 1(2), 93-104.


