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COMPARATIVE PERFORMANCE ANALYSIS OF MANUFACTURING COMPANY USING ACCOUNTING-BASED MEASUREMENTS AND MARKET-BASED MEASUREMENTS BETWEEN ISO 9001CERTIFIED AND NOT CERTIFIED COMPANIES

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Abstract

The purpose of this research is to analyzed the ratio of company performance measured by accounting-based measurementss with ROA and ROE and company performance measured by market-based measurements with MBV and MVA between ISO 9001 certified and non-certified companies in manufacturing sector listed on the Indonesia Stock Exchange during 2014-2016. Data analysis techniques used are different test with Mann-Whitney. The result of the research shows that there are significant differences to the performance of the organization by accounting-based measurements between ISO 9001 certified and non-certified companies. By market-based measurements, there are significant performance differences in the MBV variables but there is no performance difference in the MVA variables between ISO 9001 certified and non certified companies.

Key Words: ISO 9001, organizational performance, accounting-based measurementss, market-based measurementss.

1 Introduction

Improving the quality of products or services is an important thing for every organization to survive in the local and global competition that continues to increase in line with the development of business in the current era of globalization. This competitive pressure is forcing companies to continue to innovate with new products and make quality updates to their goods and services. Surviving in today's challenging environment requires organizational initiatives and motivation to change their strategy by improving the quality management of products and services. Providing quality products and services tailored to the expectations and demands of consumers will have an impact on the success and achievement of organizational goals, therefore the standard of quality assurance is required by the company before supplying products and services to customers. One such standard form is the ISO 9001 quality standard issued by the International Organization for Standardization (ISO).

The search for ISO 9001 certification among organizations around the world has become commonplace because of its increasingly widespread demand. ISO 9001 became a popular and widely sought-after management system evidenced by the increasing number of companies that have been certified ISO 9001. The results of a recent survey conducted by the International Organization for Standardization (ISO) in September 2017 show the number of organizations that have been certified ISO 9001 during 2016 of 1,106,356 valid certificates from all over the world and an increase of 72,176 or 7% over 2015 of 1,034,180 certificates (Standardization, 2017). The ISO 9001 standard is a generally accepted and applicable standard for all organizations, regardless of size, type of activity, and ownership of the organization itself (Islam, Habes, Karim, & Agil, 2015). A good quality management system will be beneficial to both internal and external parties. Companies that implement a quality management system well have a quality management that is structured and able to supply quality products that meet the standards. Improvement to the quality of the products produced in a company has the objective to minimize the number of damaged products (Setiyanto & Risdiana, 2017). The lack of damage to the product makes the company more efficient in terms of costs so that profits will increase. This has become an attraction for investors and potential investors to cooperate.

Research on the impact of ISO 9001 certification has been done by previous researchers such as Valmohammadi and Kalantari (2015) who found that ISO 9001 certified companies have better organizational performance compared to companies not certified ISO 9001. Agree with them, Charles (2015) found significant differences before and after ISO 9001: 2008 certification in terms of sales revenue, return on investment (ROI), and market share. The study also found a positive and significant relationship between ISO 9001: 2008 quality management system certification and market competition. The ISO 9001 quality management system is the source of operational performance that will have a positive effect on the operational performance of an organization, so that if the resources are well managed then the operational performance of the organization can also be improved again (Martin, 2016).

Although ISO 9001 certification has shown many benefits to the organization, researchers are still skeptical of the usefulness and potential advantages of ISO 9001 in improving overall company performance. Many studies have found various issues regarding the implementation of the ISO 9001 quality management system as the basis of the company performs ISO certification, the obstacles encountered during implementation, as well as the benefits and application in the company. High investment in time, effort, and organizational resources required the company to be certified and comply with ISO 9001 standards (Kafetzopoulos, Psomas, & Gotzamani, 2015).

Several studies have proven that ISO still can not produce a positive impact on company performance. According to Summers (2009), getting ISO 9001 certification is a series of processes that take up to thousands of hours of work and cost up to thousands of dollars. The costs incurred to obtain the certification depend on the size of the company, the strength of the quality system owned, and the number of factories within the company to be certified. As with any major process improvement, the risk of failure also has great opportunities. Agreeing with Summers, Neyestani (2016) found that the impact of the ISO 9001 standard on results and financial performance is inconclusive and unclear. Similarly, Farooqui and Ahmed (2009) state that the ISO 9001 standard only focuses on short-term goals and short-term benefits that make the organizational process less efficient.

Based on the above explanation there are still inconsistencies related to the results of research on the usefulness of the application of ISO in an organization, so the authors want to investigate further related differences of opinion. This research is a development of research conducted by Ochieng et al. (2015). The difference of this study with previous research lies in the location and object of research. This research takes sample of manufacturing companies listed on Indonesia Stock Exchange year 2014-2016, while research conducted by Ochieng et al. (2015) conducted a study in Kenya with a sample registered in the Nairobi Securities Exchange (NSE) for 2010-2013.

Another difference between this study and previous research is located on the variables used Ochieng et al. (2015) focuses on how ISO 9001 affects organizational performance defined in profit, turnover, and asset and ROA variables between certified and non ISO 9001 certified companies, while the authors in this study define organizational performance as measured in accounting or firm profitability measurements variables and the measurements of the market (investment) that, according to Al-Matari et al. (2014), Masa'deh et al. (2015), and Aliabadi et al. (2013), financial and accounting-based measurementss can be measured by several variables such as return on assets (ROA) and return on equity (ROE) and market-based measurementss measured using variables such as market to book value (MBV) and market value added (MVA).

2 Literature Review

2.1 Signalling Theory

The signaling theory explains how management always strives to disclose to the general public the private information of its organization that management considers highly desirable to investors and shareholders and customers, especially if the information is good news (Suwardjono, 2014). The signaling theory explains that companies that have "good news" information but are not disclosed to the public will try to distinguish themselves from companies that do not have "good news" by signaling and informing the market about their company's circumstances (Wolk, Dodd, & Rozycki, 2008).

ISO 9001 certification is one form of "good news" owned by the company. Signals or information regarding ISO 9001 certification can be used by companies to attract external parties to both customers and investors and potential investors. The implementation of a good quality management system will create good quality products and services as well. This will attract external parties, ie customers and investors to cooperate so that the company's performance will increase.

2.2 Quality Management

According to the American Society for Quality (ASQ), quality is defined as a subjective term in which everyone has their own definition of quality. By technical use, quality can have two meanings: the characteristics of the product or service in accordance with its ability to meet the needs of either implied or explicit requirements and products or services that are free from deficiencies. Quality can be interpreted in many ways, depending on who forms and what products or services it means (Russell & Taylor, 2011). The general definition of quality usually describes the immediate characteristics of a product such as performance, features, reliability, conformance, durability, serviceability, aesthetics, safety, and so forth. Quality is defined as the totality of the characteristics of a product that supports its ability to satisfy needs that have been first specified or defined.

Quality is often interpreted as customer satisfaction that describes conformity to needs or requirements (conformance to the requirements). Strategies to achieve good quality throughout the organization are essential to ensure products and services have pre-determined quality. The approach to quality management throughout the organization has evolved into a quality management system (Russell & Taylor, 2011).

Quality management is an aspect of the overall management function that defines and implements the quality policy of an organization. In general, the quality management system has three main components: quality control, quality assurance, and quality improvement. Quality management focuses not only on product quality, but also on how to achieve a quality product. Quality management uses quality assurance and control over processes and products to achieve quality more consistently.

2.3 International Organization for Standardization (ISO)

ISO is a non-governmental international organization that is independent and has 162 national standards bodies. Through the national standards body owned by the countries in the world, ISO then gathers experts to share knowledge and develop international standards in accordance with mutual and market-based agreements that fully support innovation and provide solutions to global challenges. The ISO central secretariat is in Geneva, Switzerland and was established in 1946 when delegation delegates from 25 countries met in the international forum of the Institute of Civil Engineers in London and agreed to create a new international organization that serves to facilitate the coordination and unification of international industry standards. Then ISO officially started operating on February 23, 1947. Since then, ISO has published more than 21,950 international standards covering almost all aspects of technology and manufacturing that have been implemented by organizations worldwide to date, including ISO 9001 standards that will be the author meticulous in this study. Based on International Organization for Standardization (ISO) data published in September 2017, ISO has members from 162 countries and 783 technical bodies to manage the development of those international standards (Standardization, 2017).

2.4 ISO 9001

The ISO 9001 standard is an international standard that provides the requirements for a quality management system of an organization called the quality management system (QMS). This standard is part of international standards published by the International Organization for Standardization (ISO). ISO 9001 is used by companies or organizations that want to ensure that their products and services meet customer requirements consistently, especially for the quality of products and services will continue to be consistently upgraded. Advantages gained from the application of ISO 9001 include business activities of the company can be done in a more efficient way because all company processes will be aligned and understood by everyone involved in business or organization. This can improve productivity and efficiency, so the internal costs of the company are down.

The implementation of the quality management system will help companies assess the overall corporate environment to determine who is affected by the company's activities and what they expect from the company so that the company can state the purpose of the company and can identify new business opportunities. Implementing ISO 9001 can also meet the requirements of established legislation or regulations and extend the company's activities to new markets, as some business and customer sectors make ISO 9001 one of the requirements that must be met before starting business (Standardization, 2017).

All ISO standards are reviewed and revised periodically, ie, every five years to ensure they remain relevant to market circumstances. ISO 9001 is updated on the grounds to consider and adapt the challenges facing businesses today (Standardization, 2017). Cendrawati and Haryanto (2011) explained that ISO has made several revisions, from the initial publication in 1987 that is ISO 9000: 1987 contains the quality assurance model for the design, development, product, installation and service process, then in 1994 the first change , so ISO 9000: 1994 formulated that contains the standards of ISO 9000, 9001, 9002, 9003 and 9004. In 2000 revised the ISO standard to simplify the previous version of the 1994 version, the standard version of 2000 adopted a process-based approach and eight principles quality management. The new standard version of ISO 9001: 2015 has just been released in place of the previous version of ISO 9001: 2008 which was inaugurated in 2008. In this study the authors rule out the ISO 9001 (revision) version, because considering the ISO 9001: 2015 was published in 2015 so not so many companies are upgrading ISO 9001 quality management system in the year of research that is year 2014-2016.

A clear description of performance is difficult to find in the literature, but it can be said that performance is related to the extent to which organizational or company goals can be met well (Ismyrlis & Moschidis, 2015). The use of data in the form of accounting data has historical characteristics and more short term. The measurements of company performance based on the accounting side has many advantages such as measurements based on the accounting side easier to use, easy to understand, and based on the numbers that have been audited (Aliabadi, Dorestani, & Balsara, 2013).

One way to judge that an organization is said to have good quality and have run the rules of management well, ie by looking at the accounting or financial side. The source of the assessment is in the company's financial statements. According Fahmi (2011), the company can estimate how the condition of a company in the future will only by using the data that existed in the past. The company's existing financial data is already able to describe or at least have been able to provide a view on the performance of a company or organization. Customers and business colleagues will love the results of products and services that will then impact on increasing a company's profits. That is, the financial performance generated by a company has been achieved in accordance with expectations.

The influence of ISO 9001 certification on financial performance has been proven empirically by some experts such as research by Psomas and Kafetzopoulos (2014) who examine the comparison of companies using ISO 9001 and companies that do not use ISO 9001 on company performance. Variables used for measuring company performance are product quality, customer satisfaction, operational, market and financial performance. The results of this study indicate that companies that implement ISO 9001 are significantly superior compared to companies that do not implement ISO 9001.

The study by Beydokhti and Sadeghi (2014) examines the correlation between the effect of ISO 9000 certification and the financial performance of the company. The study took 60 companies active on the Tehran Stock Exchange during 2008 to 2010 as a research sample. The results show that there is a strong correlation between the company's liquidity ratio to ISO 9000 certification, but there is a weak correlation between the leverage ratio with ISO 9000 certification. The results of research conducted by Chatzoglou et al. (2015) proves that ISO 9000 certification is closely related to financial performance. The results show that ISO benefits companies and stakeholders. Ferati et al. (2012) analyzed the impact of ISO 9001 implementation on the profitability of small and medium enterprises in the Republic of Macedonia. The results of the study found that the implementation of ISO 9001 standard has a positive effect on the profitability of the company, but in fact the data is not sufficient. Implementation of this standard may lead to an increase to the overall performance of the company. Research conducted by Heras et al. (2002) used a cross-sectional analysis method by comparing between certified companies and non-ISO 9001 certified companies. The results suggest that there is no evidence to support the relationship between ISO and sales growth and profitability.

H1a: There is a difference in organizational performance in terms of accounting measurements based on ROA between ISO 9001 certified companies and non ISO 9001 certified companies.

H2b: There is a difference in organizational performance in terms of accounting measurements based on ROE between ISO 9001 certified companies and non ISO 9001 certified companies.

Masa'deh et al. (2015) states that there are other techniques for benefiting from financial statements that are how to review and use information contained in market value. Market ratios are the most common ratios used by people or potential investors interested in investing in a company. That is, market ratios can be used to indicate how well a company's performance relates to stock prices and other matters, including issues regarding dividends and number of shares.

Starke et al. (2012) examines the impact of ISO 9000 certification using three dimensions of the company's performance to know the relationship to the implementation of ISO standards, namely annual sales revenue, cost of goods sold / sales revenue, and asset turnover ratio. The panel data approach was conducted using a research sample of all public companies in Brazil that have implemented ISO 9000 standards from 1995 to 2006, the researchers studied the impact of applying ISO 9000 certification to financial performance using three categories of economic regression models. The results show that ISO 9000 certification is proven to be associated with increased sales revenue and asset turnover ratio (ATO). However, ISO 9000 certification also contributes to a decrease in cost of goods sold / sales revenue which means that ISO certification contributes positively to cost saving.

However, the results of research conducted by Martinez-Costa and Martinez-Lorente (2003) found no positive relationship between ISO 9000 certification and firm value on the market, except for general sign test on the market model. The results show that there is no relationship between the information provided to the market regarding the ISO 9000 certification owned by the company and the profits that the company gains in the market.

H2a: There is a difference in organizational performance in terms of market measurements based on MBV between ISO 9001 certified companies and non-ISO 9001 certified companies.

H2b: There is a difference in organizational performance in terms of market measurements based on MVA between ISO 9001 certified companies and non ISO 9001 certified companies.

3 Results and Discussion

Research Method

Types of Data and Sample

This study uses secondary data that is cross-section data. The data used are archive data in the form of financial statements and annual reports are downloaded at www.idx.co.id. The sample of this research is manufacturing company taken by using purposive sampling method with judgment that is manufacturing company listed in Indonesia Stock Exchange during period 2014-2016, company that presented financial statements using rupiah currency, the availability of complete annual financial statements and contains related data the variables that the authors would carefully examine, and not delisting, merging, and moving sectors during the year. The samples obtained in this study amounted to 322 companies.

Hypotesis Testing

In this research the test is done by using two different test types, namely parametric and non parametrik. Parametric hypothesis testing is performed if the classical assumption test can be fulfilled. In this study, the authors used a different test Independent Sample T Test. This test is performed to determine whether or not there is an average difference between the two groups of unrelated samples. The test decision uses significance value, if the significance value> 0.05 then the hypothesis is rejected, but if the significance value <0.05 then the hypothesis is accepted (Wibowo, 2012). To conduct different test in this research also use non parametik test if classical assumption test not fulfilled. The authors chose the Mann-Whitney U Test for non-parametric testing. Pengujan accepted if the value of significance <0.05 and will be rejected if the significance value> 0,05 (Santoso, 2013).

Discussion

Descriptive Statistics

The author obtained the number of manufacturing companies listed on the Indonesia Stock Exchange during the year 2014-2016 as many as 430 companies. The amount is then reduced by the company that presented the financial statements using currency other than the rupiah of 84 companies, as many as 6 companies whose annual financial statements are not available and not complete related to the variables studied, and 2 companies are delisted during the study period. The reduction resulted total sample 388 companies that consisting of 110 companies for year 2014, 113 companies for year 2015, and 115 companies for year 2016.

During the study period, out of a total sample of 388 manufacturing companies, there are 233 companies that are ISO 9001 certified and 105 companies that are not ISO 9001 certified. In 2014 the number of ISO 9001 certified companies is 75 companies while non ISO 9001 certified companies are 35 companies. In 2015 as many as 78 ISO 9001 certified companies and 35 companies are not ISO 9001 certified. By 2016 there are 80 companies that have ISO 9001 certificate and 35 other companies do not have ISO 9001 certificate.

In this study, the authors conducted a descriptive statistical test in advance to know the description or description of data from each variable used for testing of this study. The description of the data is the average value (mean), maximum value, minimum value, and standard deviation. The result of descriptive statistic test in this research has been reduced with data outlier that amounted to 16 companies so that the sample in this company amounted to 322 companies and can be seen in Table 1 below:

Table 1. Descriptive Statistics

Variable		Min	Max	Mean	Std. Dev
ROA (%)	ISO 9001 Certified	-16,11	29,04	5,37	6,88
	ISO 9001 Non Certified	-27,92	43,17	3,10	11,56
ROE (%)	ISO 9001 Certified	-49,31	37,68	8,35	12,13
	ISO 9001 Non Certified	-157,73	163,13	7,98	41,40
MBV (x)	ISO 9001 Certified	-0,46	12,65	1,89	2,15
	ISO 9001 Non Certified	-17,41	56,06	2,59	9,11
MVA (triliun Rp)	ISO 9001 Certified	-3,54	116,36	5,65	16,16
	ISO 9001 Non Certified	-3,08	83,56	3,74	1,39

Source: Output Processed by SPSS 17.0

Hypotesis Testing

Parametric statistics require that a population be normally distributed and have the same (homogeneous) variant. If the data does not spread normally and the data variants are not the same, then the data is at least done transformation first so that it can be done with parametric statistics. According to Ghozali (2012), data that is not normally distributed can be transformed so that the data to be processed becomes normal. Various forms of data transformation done to normalize the data in this study, among others, root transformation, square, logarithm 10, natural logarithm, and etc., but the data owned by the author is still abnormal and not homogeneous.

Unfulfilled classical assumption test in this study, the authors can not use the test using parametric statistical methods. According Santoso (2013), if the existing data is not normally distributed, it is necessary to use alternative statistical motode to test the data using nonparametric statistics method. Nonparametric statistical method is a free-spread statistic, meaning it does not require the form of data that is normally distributed. Nonparametric statistical methods can be used in nominal, interval, or ratio data (Santoso, 2010). In the case of examining the differences between two unrelated samples, the previous hypothesis test using the Independent Sample T Test was then converted to Mann Whitney U Test.

Organization Performance by Accounting-Based Measurementss with ROA (H1a)

Based on Table 2 it can be seen that the mean rank or average rating of the group on the ROA variable of ISO 9001 certified companies is 170.17 while the mean rank value of the company that is not ISO 9001 certified is 141.96. It can be concluded that ISO 9001 certified companies have higher ROA ratios than firms that are not ISO 9001 certified. The differences are statistically shown in Table 3.

Table 2. Mean Rank for ROA Variable

	Remark	*Mean Rank*
ROA	ISO 9001 Certified Companies	170,17
	ISO 9001 Non Certified Companies	141,96

Source: Output Processed by SPSS 17.0

Table 3 shows the value of the Mann-Whitney test for the ROA variable that is 9104 and when converted to a Z value of -2.510. The value of significance indicating 0.012 is below the predefined significance value of 0.05 then H1a is accepted. This means that there is a difference in organizational performance in terms of accounting measurements based on ROA between ISO 9001 certified companies and ISO 9001 non-certified companies.

Table 3. Mann-Whitney Testing Result for Variabel ROA

Remark	ROA
Mann-Whitney U	9.104
Wilcoxon W	14.054
Z	-2,510
Asymp. Sig. (2-tailed)	0,012

Source: Output Processed by SPSS 17.0

Organization Performance by Accounting-Based Measurementss with ROE (H1b)

Based on Table 4, it can be seen that the mean rank or average rating of the group in the ROE variable of ISO 9001 certified companies is 168.49 whereas the mean rank value of the company that is not ISO 9001 certified is 145.75. It can be concluded that ISO 9001 certified companies have better ROE ratios than firms that are not ISO 9001 certified. The differences are statistically shown in Table 5.

Table 4. Mean Rank for ROE Variable

	Remark	*Mean Rank*
ROE	ISO 9001 Certified Companies	168,49
	ISO 9001 Non Certified Companies	145,75

Source: Output Processed by SPSS 17.0

Table 5 shows the value of the Mann-Whitney test for the ROA variable of 9,479 and when converted to a Z value of -2.023. The value of significance that shows the number 0.043 is below the predefined significance value of 0.05 then H1b accepted. This means that there are differences in organizational performance in terms of accounting measurements based on ROE between ISO 9001 certified companies and non ISO 9001 certified companies.

Table 5. Mann-Whitney Testing Result for Variabel ROA

Remark	ROE
Mann-Whitney U	9.479
Wilcoxon W	14.429
Z	-2,023
Asymp. Sig. (2-tailed)	0,043

Souce: Output Processed by SPSS 17.0

Organization Performance by Market-Based Measurementss with MBV (H2a)

Based on Table 6 it can be seen that the mean rank or average rating of the group on the MBV variable of ISO 9001 certified companies is 176,74 whereas the mean rank value of the company that is not ISO 9001 certified is 127,17. It can be deduced that ISO 9001 certified companies have better MBV values than firms that are not ISO 9001 certified. The differences are statistically shown in Table 7.

Table 6. Mean Rank for MBV Variable

	Remark	*Mean Rank*
MBV	ISO 9001 Certified Companies	176,74
	ISO 9001 Non Certified Companies	127,17

Source: Output Processed by SPSS 17.0

Table 7 shows the value of the Mann-Whitney test for the MBV variable of 7,639,500 and when converted to a Z value of -4.409. The value of significance which shows 0.000 is below the predefined significance value of 0.05 then H2a is accepted. This means that there is a difference in organizational performance in terms of market measurements based on MBV between ISO 9001 certified companies and non ISO 9001 certified companies.

Table 7. Mann-Whitney Testing Result for Variabel MBV

Remark	MBV
Mann-Whitney U	7.639,500
Wilcoxon W	12.589,500
Z	-4,409
Asymp. Sig. (2-tailed)	0,000

Source: Output Processed by SPSS 17.0

Organization Performance by Market-Based Measurementss with MVA (H2b)

Based on Table 8 it can be seen that the mean rank or average rating of the group on the variable of the MVA of ISO 9001 certified companies is 166,58 whereas the mean rank value of the company that is not ISO 9001 certified is 150.06. It can be concluded that ISO 9001 certified companies have superior MVA values compared to companies that are not ISO 9001 certified. The differences are statistically shown in Table 9.

Table 8. Mean Rank for MVA Variable

	Remark	*Mean Rank*
MVA	ISO 9001 Certified Companies	166,58
	ISO 9001 Non Certified Companies	150,06

Source: Output Processed by SPSS 17.0

Based on Table 8 it can be seen that the mean rank or average rating of the group on the variable of the MVA of ISO 9001 certified companies is 166,58 whereas the mean rank value of the company that is not ISO 9001 certified is 150.06. It can be concluded that ISO 9001 certified companies have superior MVA values compared to companies that are not ISO 9001 certified. The differences are statistically shown in Table 9.

Table 9. Mann-Whitney Testing Result for Variabel ROA

Remark	MVA
Mann-Whitney U	9.906
Wilcoxon W	14.856
Z	-1,469
Asymp. Sig. (2-tailed)	0,142

Source: Output Processed by SPSS 17.0

Organization Performance by Accounting-Based Measurementss with ROA (H1a)

The result of statistical test shows that the difference of organization performance from the side of accounting measurements based on ROA between ISO 9001 certified companies and non ISO 9001 certified companies has significance value less than 0,05. This states that H1a is accepted. These results are in line with research conducted by Ochieng et al. (2015), Corbett et al. (2005), Chatzoglou (2015), Beydokhti and Sadegi (2013), Vynaryk and Hanley (2015), and Tampubolon and Janitra (2011), which in essence prove that ISO 9001 certified companies outperform companies that are not ISO 9001 certified by measurements using ROA.

According to Tampubolon and Janitra (2011), the existing terms and conditions in the ISO 9001 quality management system can reduce non-compliance with the quality of goods and services. Requirements in ISO 9001 require employees to work according to established rules. Performing work in accordance with the required standards, the damage to products produced by a company will decrease and the level of productivity will increase which will also have an impact on the reduced costs of operating losses. The lack of costs incurred as a result of damaged products will have an impact on the increase in company assets because a company can already make cost savings.

For companies that do not have ISO 9001 quality management system, the business processes and operations of the company will run in a systematic way, there is no standard governing the procedures for doing the work, so employees work in an un-systematic way without a standardized system. The absence of a system makes the error rate at work to be high. These errors can cause internal losses of damage to products or services produced, decreased productivity levels, and increase external costs and losses that will lead to an inability to satisfy customers and shareholders.

Organization Performance by Accounting-Based Measurementss with ROE (H1b)

The result of statistical test shows that the difference of organization performance from the side of accounting measurements based on ROE between ISO 9001 certified companies and non ISO 9001 certified companies has significance value less than 0,05. This states that H1b is accepted. This is in line with research conducted by Mokhtar (2012) which states that companies that are ISO 9001 certified show better performance than companies that are not ISO 9001 certified with measurementss using ROE. ISO 9001 certified companies can obtain ROE value which is superior to its competitors because the company can utilize its owned resources, one of them in the form of capital from the shareholders because the company already ISO 9001 certified is considered to have fulfilled one of the requirements in the ISO management system 9001 which provides a standard in the management and utilization of resources owned company.

The results of the authors related to the ROE measurements variable is not in line with the research conducted Sari (2011) which states that there is no difference in profitability as measured by ROE before and after ISO 9000 certification on manufacturing companies listed on stock exchange. This can happen because the company has not been able to utilize the resources of the equity owned by the company to generate profits. ISO 9000 provides customers with the requirements to be cautious in every action and decision taken so that no resources are wasted and the company's business activities will become more effective and efficient.

Organization Performance by Market-Based Measurementss with MBV (H2a)

The result of statistical test shows that the difference of organizational performance from the market measurements based on MBV between ISO 9001 certified companies and non ISO 9001 certified companies has significance value less than 0.05. This states that H2a is accepted. Siougle et al. (2018) found that ISO 9001 certified companies have higher financial performance compared to companies that do not have ISO 9001 certification using control variables ie book to market ratio or MBV to measure growth opportunities of firms on return on asset (ROA) return on equity (ROE), profit margin ratio (PM), and asset turn over ratio (ATO). This can happen because the value of the company's stock price is ISO 9001 certified higher than the company that is not ISO 9001 certified.

Wulandari (2009) states that MBV or commonly called PBV is one indicator that can raise stock prices. Along with this, Ahmad et al. (2016) found that price-to-book value was positively and significantly related to stock prices in Nigerian listed firms. The high stock value makes investors and potential investors interested in investing. Investments by these investors will increase corporate profits that also affect the company's performance improvement.

Organization Performance by Market-Based Measurementss with MVA (H2b)

The result of statistical test shows that the difference of organization performance from the market measurements based on MVA between ISO 9001 certified companies and non ISO 9001 certified companies has significance value more than 0,05. This states that H2b is not accepted. Based on the results of this study, the authors found that companies that are certified and not ISO 9001 certified have not seen the difference based on market value added (MVA) owned by the company. This result is in line with research conducted by Martinez-Costa and Martinez Lorente (2003) which found no clear evidence that market value is positively related to ISO 9000 certification. Based on their results, it can not be proven that a company's certification will lead to an increase in corporate value in the market. This indicates that markets and stakeholders are not paying particular attention to ISO 9001 certification. This fact may imply that stakeholders do not consider ISO 9001 certified as a source of competitive advantage owned by the company and not as a distinction between one company and another, between firms which are certified as well as companies that are not ISO 9001 certified.

According to Husnan and Pudjiastuti (2015) the main purpose of the financial decisions taken by company management is to maximize the prosperity for shareholders in the company. This means that the results of this study found that both ISO 9001 certified companies and non-ISO 9001 certified companies reflect that the management of both groups of companies has not been able to maximize the prosperity of its shareholders. This may happen because many companies are less committed to implement the ISO 9001 standards by meeting the terms and conditions in the ISO standards.

Many companies tend to focus only on obtaining ISO 9001 certification by preparing all the requirements and terms of ISO 9001 standards in the last minute of certification audit. In fact, ISO 9001 can facilitate the company's operational activities because the company already has a standard to run the system in the company. Quality improvement that is included in the requirements in ISO 9001 enables the company to continue to take corrective action in order to meet customer requirements and company goals. However, companies should also be wise in making decisions about whether to implement ISO 9001. Companies are expected to compare costs incurred for certification such as consulting fees and certification audits that are quite expensive with revenue and benefits earned by the company. This may be one of the considerations for companies that do not have ISO 9001 certification.

4 Conclusion And Suggestions

Conslusions

Based on the results of the analysis can be concluded that this study aims to determine the comparison of company performance measured from the side of measurements based on accounting using ROA and ROE variables and company performance measured from the side of market-based measurements using variable MBV and MVA between certified companies and not ISO 9001 certified to a manufacturing company listed on the Indonesia Stock Exchange during 2014-2016. The number of samples in this study were 322 companies analyzed by unequal sample sample test using Mann-Whitney U Test.

The results showed that there were significant organizational performance differences between ISO 9001 certified companies and non ISO 9001 certified companies using measurements from the accounting side (profitability). Based on the results of data processing, company performance from the accounting side seen a significant difference using ROA and ROE variables. The results also show that there is no significant difference in organizational performance between ISO 9001 certified companies and non ISO 9001 certified companies using market-side measurementss. Based on the results of the data, the company's performance from the market side shows significant differences using the MBV variable, but it does not look different organizational performance using variable MVA between certified companies and not ISO 9001 certified. Based on the research results, from the average ROA, ROE , and MVA, ISO 9001 certified group companies are superior to companies that are not ISO 9001 certified, while the average value of MBV variables, group of companies not certified to ISO 9001 is superior to ISO 9001 certified companies. This indicates that the company's performance which is ISO 9001 certified is superior when compared to companies that are not ISO 9001 certified.

Implications

The implications of the research are for companies and investors as well as potential investors. Implications for companies should be able to take policy related to the optimal utilization of ISO 9001 quality management standards that have been owned or considered to implement ISO 9001 in the company. ISO 9001 can make the operational activities of the company to be structured and more effective because there has been a system that provides standards for doing work activities in the company. Implications for investors and potential investors is when will take investment decisions should investors and potential investors can see the performance of the organization not only in terms of accounting and market. Investors and potential investors can see the company's performance from another measurements point of view, such as company value, average annual stock price, customer trust and satisfaction level, company operational performance, and so on. Information on the performance of the company will be able to assist investors and potential investors in assessing the quality of a company.

Limitations and Suggestions

In this study there are many limitations that require improvement for further research. In this study, the sample of research is only taken on manufacturing companies so that this research is less generalize to all business groups contained in Indonesia. Company performance is limited to measurements based on accounting and market, without looking at other side like non financial side that can be used for measurements of company performance. The study only conducted a different test between certified companies and not ISO 9001 certified without testing whether ISO 9001 has an influence on company performance. In addition, because the data is not normally distributed and homogeneity test is not met, then this research uses nonparametric method to test hypothesis.

As an improvement on the limitations in this study, the researcher gives some suggestions for further research, such as this study focuses only on manufacturing companies with a period of research for three years so that the sample becomes less. Researchers can then anticipate this by adding another sector of the company, because considering the ISO 9001 can be applied to all types of companies. In addition, researchers can further increase the time range of research so that the results of research to be better with a high degree of representativeness. Furthermore, the size of different manufacturing companies causes inequality to the data being tested so that the next researcher should add a control variable of firm size. This separation will make the data normal and the results obtained become more specific. In this study, the authors only conduct different tests to find differences in organizational performance between certified companies and not ISO 9001 certified. Further research is also suggested to look for differences before and after the implementation of ISO 9001. Researchers can also find the relationship or influence of ISO 9001 on company performance. Further research is expected to add other variables to measure company performance such as return on investments (ROI), return on sales (ROS), price earning ratio (PER), Tobin's-Q, dividend yield, and add performance measurements from side nonfinancial as operational performance of company, product quality, customer satisfaction, and so on. This research only uses ISO 9001 quality management system standard, the researcher can add another international standard management system such as ISO 14001 environmental management system, ISO 22000 global food safety management system, OHSAS 18001 health and safety management system, etc. .

References

Ahmad, A. C., Ishak, Z., & Shittu, I. (2016). Price to Book Value, Price to Sales Multiples and Stock Price; Evidence from Nigerian Listed Firms. Journal of Advanced Research in Business and Management Studies, 3(1), 85-93.

Aliabadi, S., Dorestani, A., & Balsara, N. (2013). The Most Value Relevant Accounting Performance Measure by Industry. Journal of Accounting and Finance, 13(1), 22-34.

Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. (2014). The Measurements of Firm Performance’s Dimensions. Asian Journal of Finance & Accounting, 6(1), 24-49.

Al-Refaie, A., Ghnaimat, O., & Li, M.-H. (2012). Effects of ISO 9001 Certification and KAAE on Performance of Jordanian Firms. Jordan Journal of Mechanical and Industrial Engineering, 6(1), 45-53.

Beydokhti, A. T., & Sadeghi, M. (2013). Effect of Received ISO 9000 Certification on Financial

Performance such as Liquidity Ratios and Leverage Ratios. Journal of Life Science and Biomedicine, 3(2), 88-93.

Cendrawati, & Haryanto, M. (2011). Analisis Pengaruh Sertifikasi ISO 9000 Terhadap Rasio Return on Investments Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. Jurnal Bisnis dan Akuntansi, 13(3), 211-228.

Charles, U. (2015). Certification To ISO 9001:2008 Standard and Market Competitiveness of Local Manufacturing Companies In Rwanda: A Case Study of Sulfo Rwanda Industries LTD. East African Journal of Science and Technology, 5(2), 1-21.

Chatzoglou, P., Chatzoudes, D., & Kipraios, N. (2015). The Impact of ISO 9000 Certification on Firms' Financial Performance. International Journal of Operations & Production Management, 35(1), 145-174.

Corbett, C. J., Montes-Sancho, M. J., & Kirsch, D. A. (2005). The Financial Impact of ISO 9000 Certification in the United States: An Empirical Analysis. Management Science, 51(7), 1046-1059.

Fahmi, I. (2011). Analisis Kinerja Keuangan. Bandung: Alfabeta.

Farooqui, R. U., & Ahmed, S. M. (2009). ISO 9000: A Stepping Stone to Total Quality Management for Construction Companies? 7th Latin American and Caribbean Conference for Engineering and Technology, (hal. 1-9). San Cristóbal.

Ferati, R., Bytyqi, N., & Aqifi, E. (2012). Effects of Application of Standard ISO 9001 in Profitability of SME in the Republic of Macedonia. International Journal of Scientific & Engineering Research, 3(10), 1-5.

Ghozali, I. (2012). Aplikasi Analisis Multivariate dengan Program IBM SPSS 20. Semarang: Badan Penerbit Universitas Diponegoro.

Gunawan, K. H., & Sukartha, I. M. (2013). Kinerja Pasar dan Kinerja Keuangan Sesudah Merger dan Akuisisi di Bursa Efek Indonesia. E-Jurnal Akuntansi Universitas Udayana, 5(2), 271-290.

Heras, I., Dick, G. P., & Casadesús, M. (2002). ISO 9000 Registration's Impact on Sales and Profitability. International Journal of Quality & Reliability Management, 19(6), 774-791.

Husnan, S., & Pudjiastuti, E. (2015). Dasar-Dasar Manajemen Keuangan. Yogyakarta: UPP STIM YKPN.

Islam, M. M., Habes, E., Karim, A., & Agil, S. O. (2016). Quality Certification And Company Performance: The Newly Developed Country Experience. Journal of Business Economics and Management, 17(4), 628-644.

Ismyrlis, V., & Moschidis, O. (2015). The effects of ISO 9001 certification on the performance of Greek companies. The TQM Journal, 27(1), 150-162.

Kafetzopoulos, D. P., Psomas, E. L., & Gotzamani, K. D. (2015). The Impact of Quality Management Systems on the Performance of Manufacturing Firms. International Journal of Quality & Reliability Management, 32(4), 381-399.

Kasmir. (2010). Pengantar Manajemen Keuangan: Edisi Kedua. Jakarta: Prenamedia Group.

Kemenperin. (2016, - -). Kontribusi Industri Manufaktur Indonesia Peringkat Keempat Dunia. Dipetik January 31, 2018, dari www.kemenperin.go.id: http://www.kemenperin.go.id/artikel/18325/Kontribusi-Industri-Manufaktur-Indonesia-Peringkat-Keempat-Dunia

Martin, A. (2017). ISO 9001 Impact on Operational Performance. International Journal of Recent Advances in Multidisciplinary Research, 4(3), 2407-2415.

Martinez-Costa, M., & Martinez-Lorente, A. R. (2003). Effect of ISO 9001 Certification on Firm Performance: A Vision From the Market. TQM & Business Excellence, 14(10), 1179-1191.

Masa'deh, R., Tayeh, M., Al-Jarrah, I. M., & Tarhini, A. (2015). Accounting vs. Market-based Measures of Firm Performance Related to Information Technology. International Review of Social Sciences and Humanities, 9(1), 129-145.

Mokhtar, M. Z. (2012). Comparative Study on Performance Measures and Attributes between ISO and Non-ISO Certification Companies. International Journal of Business and Management, 7(3), 185-193.

Neyestani, B. (2016). Effects of ISO 9001 on Non-Financial and Financial Performance in the Organizations: A Review. 1-6.

Neyestani, B., & Juanzon, J. B. (2017). Impact of ISO 9001 Standard on the Quality Cost of Construction Projects in the Philippines. 2017 Manila International Conference on "Trends in Engineering and Technology" (MTET-17), (hal. 58-63). Manila.

Ochieng, J., Muturi, D., & Njihia, S. N. (2015). The impact of ISO 9001 implementation on organizational performance in Kenya. The TQM Journal, 27(6), 761-771.

Psomas, E., & Kafetzopoulos, D. (2014). Performance Measures of ISO 9001 Certified and Non-Certified Manufacturing Companies. Benchmarking: An International Journal, 21(5), 756-774.

Russell, R. S., & Taylor, B. W. (2011). Operations Management: Creating Value Along The Supply Chain (7th ed.). New Jersey: John Wiley & Sons, Inc.

Santoso, S. (2010). Statistik Nonparametrik: Konsep dan Aplikasi Dengan SPSS. Jakarta: PT Elex Media Komputindo.

Santoso, S. (2013). Menguasai SPSS di Era Informasi. Jakarta: PT Elex Media Komputindo.

Sari, R. O. (2011). Analysis of Financial Performance ISO 9000 Certified Company. Business and Entrepreneurial Review, 11(1), 13-32.

Setijawan, I. (2012). Sertifikasi ISO 9000 dan Kinerja Keuangan Perusahaan (ISO 9000 Cercification and the Firm Financial Performances). Fokus Ekonomi, 7(2), 29-44.

Setiyanto, A. I., & Risdiana, H. (2017). Analisis Komparasi Kinerja Keuangan Perusahaan Manufaktur Yang Bersertifikat Dan Tidak Bersertifikat ISO 9001:2008. Journal of Applied Managerial Accounting (JAMA), 1(2), 1-7.

Siougle, E., Economidou, C., Drivas, K., & Dimelis, S. (2018). Does ISO 9000 Certification Matter for Firm Performance? A Group Matched Analysis of Greek Listed Firms. International Journal of Production Economics, 3, 1-41.

Standardization, I. O. (2017). International Organization for Standardization. Dipetik December 6, 2017, dari International Organization for Standardization: www.iso.org

Starke, F., Eunni, R. V., Fouto, N. M., & Angelo, C. F. (2012). Impact of ISO 9000 Certification on Firm Performance: Evidence From Brazil. Management Research Review, 35(10), 974-997.

Sudana, I. M. (2011). Manajemen Keuangan Perusahaan Teori & Praktik. Surabaya: Penerbit Erlangga.

Sumanto. (2014). Statistika Terapan. Yogyakarta: CAPS (Centre of Academic Publishing Service).

Summers, D. C. (2009). Quality Management: Creating and Sustaining Organizational Effectiveness. Upper Saddle River: Pearson Education International.

Suwardjono. (2014). Teori Akuntansi: Perekayasaan Pelaporan Keuangan (Edisi Ketiga ed.). Yogyakarta: BPFE-YOGYAKARTA.

Tampubolon, B. D., & Janitra, T. (2011). The Effects Of ISO 9000 Standards On Financial Performance of Manufacturing Companies Listed In Indonesia Stock Exchange "Dampak Standar ISO 9000 Terhadap Kinerja Keuangan Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia". Jurnal Standardisasi, 13(3), 221-227.

Valmohammadi, C., & Kalantari, M. (2015). The moderating effect of motivations on the relationship between obtaining ISO 9001 certification and organizational performance. The TQM Journal, 27(5), 503-518.

Vynaryk, V. A., & Hanley, A. (2015). Effects of the QMS ISO 9000 Certification on Russian Manufacturing Companies. National Research University Higher School of Economic, 1-21.

Wayhan, V. B., Kirche, E. T., & Khumawala, B. M. (2002). ISO 9000 Certification: The Financial Performance Implications. Total Quality Management, 13(2), 217-231.

Wibowo, A. E. (2012). Aplikasi Praktis SPSS Dalam Penelitian. Yogyakarta: Gava Media.

Wolk, H. I., Dodd, J. L., & Rozycki, J. J. (2008). Accounting Theory: Conceptual Issues in a Political and Economic Environment (7th Edition ed.). California: Sage Publications, Inc.

Wulandari, D. A. (2009). Skripsi Analisis Faktor Fundamental Terhadap Harga Saham Industri Pertambangan dan Pertanian di BEI. Jurusan Ekonomi Akuntansi, Fakultas Ekonomi - Universitas Gunadarma, 1-13.