
How Corporate Culture Mediates ISO Implementation in Improving Power Plant Performance

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Abstract

Reliability and quality of electricity are important for industrial operations. A reliable power generation system and well-organized management pay special attention to these two aspects. The company implements a quality management system, ISO 9001:2015 to maintain consistency and improve power plant performance. In addition, the implementation of corporate culture is expected to improve organizational performance. The purpose of this study is to examine the effect of ISO implementation and corporate culture on power plant performance. Sampling in this study uses non-probability sampling with purposive sampling technique. Data were collected from 232 employee respondents and analyzed using Structural Equation Modeling (SEM) - AMOS program. The results show that ISO implementation has a positive effect on power plant performance and corporate culture is a mediating variable that can improve power plant performance. The implication is that the policy of prioritizing the availability of power plants, the process approach in implementing the quality management system, and trustworthiness in implementing culture are the right choices in improving power plant performance.

Keywords: ISO9001:2015, Quality Management Systems, Corporate Culture, Power Plant Performance, SEM-AMOS

1. Introduction

Electricity is a very important consumption for the public and industry, considering that almost all activities that utilize technological devices, use electrical energy to run or use it, therefore the availability and reliability of electricity supply is very important. Given the importance of the availability and reliability of the electricity supply, a reliable power generation system and well-organized management pay special attention to these two aspects. The companies have implemented various management systems, including ISO9001:2015 quality management to improve the operational performance of the power plant. In addition to the implementation of quality management, the company also implements a corporate culture to improve organizational performance.

Power plants are needed to produce electricity continuously, so that it is not expected to experience disturbances or failures. The reliability and availability of the power generation system is closely related to policies regarding the operation and maintenance of its components. To achieve this goal, Operation and Maintenance (O&M) activities of power plants in accordance with standards and procedures must be carried out consistently to ensure the

availability and reliability of power plants so that a high level of electricity utilization by consumers can be achieved. Failure to achieve high levels of availability and reliability can result in significant risks to the financial performance of the power generation business (Foon & Terziovski, 2014).

To improve efficiency, competitiveness, and customer satisfaction, many companies implement a Quality Management System (QMS). A quality management system is also required for planning and execution in the core business areas of an organization. One of the objectives of implementing ISO 9001:2015 is to help companies implement and run an effective QMS by increasing the company's ability to design, produce, and deliver quality products and services to customers (Mourougan & Sethuraman, 2017).

Corporate culture develops according to environmental developments. Corporate culture needs to always be developed by making changes, one of which is by changing the mindset of all human resources in it (Wibowo, 2012). A strong corporate culture supports the company's goals, otherwise a weak or negative culture will hinder or contradict the company's goals. Corporate culture is also able to control the way members make decisions, how they interpret and manage the organizational environment, what they do with information, and how they behave. Corporate culture affects organizational performance as well as employee performance (Sihotang & Zebedeus, 2013). An organization is usually formed to achieve a certain goal through the performance of all human resources in it. However, the performance of human resources is largely determined by the internal and external environmental conditions of the organization, including corporate culture. Therefore, the ability to create an organization with a culture that is able to encourage performance is a necessity (Wibowo, 2016).

Several studies have stated that the successful implementation of ISO 9001, positively affects delivery performance, efficiency, flexibility/innovation, inventory performance, operating costs, productivity, quality costs and quality performance. as mentioned in the journal Implementation and Impact of ISO 9001 (Manders, 2015). The results of other studies show that there is a positive and significant effect of internal motivation on continuous improvement, internal motivation on prevention of nonconformities, employee attributes on customer satisfaction, employee attributes on non-conformance prevention, and top management commitment to continuous improvement (Shaharudin et al., 2018). Other researchers state that the success or failure of implementing ISO is largely influenced by corporate culture factors, because ISO is essentially an organizational change program that requires transformation of corporate culture, processes and beliefs (Parncharoen et al., 2005). However, in previous studies, researchers have not shown a model that directly relates the effect of ISO 9001 implementation on company performance with corporate culture mediation.

Based on this research gap, the researchers are interested to see the correlation between ISO 9001 and corporate culture in influencing operational performance, either directly or indirectly, so that the total effect can be determined. This research was conducted by taking a sample of the power generation company PT XYZ, one of the electrical energy supply companies for industrial areas. The company has been supplying electricity to customers in a diversified industrial estate in various industrial sectors including automotive, electronics, plastics and others.

Literature review

Quality Management System

A quality management system (QMS) is a set of policies, processes and procedures required for planning and execution (production/development/service) in the core business areas of an organization, i.e., areas that can affect the organization's ability to meet customer needs (Mourougan & Sethuraman, 2017). ISO 9001:2015 is an example of a quality management system. A QMS integrates various internal processes within the organization and intends to provide a process approach to project implementation. A process-based QMS enables organizations to identify, measure, control and improve various core business processes that will ultimately lead to improved business performance. ISO 9001 is built on seven quality management principles. Following this principle will ensure the organization or business is set up to consistently create value for customers. With these seven pillars, implementing a quality management system will be much easier. Seven quality management principles are: Customer focus, Leadership, Engagement of people, Process approach, Improvement, Evidence-based decision making and Relationship management.

A study conducted by Sampaio (2011) states that the motivation for implementing ISO 9000 is a critical success factor in the impact of the quality management system on the economic performance of companies and, for some financial indicators, non-certified companies show, on average, higher performance than certified. Another researcher Bakator (2018), studied the impact of ISO 9001 on business performance. In addition, the impact on business performance metrics is also investigated, product and service quality, customer satisfaction, financial performance, and operational performance. For practical implications, companies can use this systematic review as a tool that can help make decisions about ISO 9001 standard certification or overall business performance improvement. Similarly, Kaziliunas (2014) states that organizations with different patterns of implementing quality management systems have significantly different performance results. A mature quality management system should take into account the success factors for the benefit of quality management system implementation from the early stages of the planning and design process. Researcher, Hamza (2013) stated that the ISO 9001 certification audit was found to have a positive effect on the performance of oil and gas companies in Qatar. Research conducted by Purwanggono (2018) examining implementation in the manufacturing industry with a gap analysis stated that the effectiveness of ISO 9001: 2015 implementation was in the range of 82% - 94%. Researcher on the implementation of ISO 9001 on employee performance, Rahman (2016) stated that the implementation of the ISO 9001:2008 quality management system had a significant effect either simultaneously or partially on the performance of Power Plant employees.

Corporate Culture

Corporate culture in principle is the values, assumptions, assumptions, attitudes, and behavioral norms that have been institutionalized and then take the form of appearances, attitudes and actions, so that they become the identity of a particular organization (Sudarmanto, 2009). Corporate culture can also be defined as a set of system values, beliefs, assumptions, or norms

that have long been in force, agreed upon and followed by members of an organization as a guide for behavior and solving organizational problems (Sutrisno, 2010).

Corporate culture is formed by internal factors of an organization and also by external factors (Sudarmanto, 2009). Each corporate culture is different from one organization to another, each has specific distinguishing characteristics (Wibowo, 2012). Specifically, corporate culture has five roles: first, corporate culture provides a sense of identity and pride for employees, such as creating a clear distinction between the organization and others. Second, corporate culture facilitates the formation of commitment and thinking that is broader than one's personal interests. Third, strengthen the standards of organizational behavior in building superior service to customers. Fourth, corporate culture creates a pattern of adaptation. Fifth, build a comprehensive organizational control system (Poerwanto, 2008). Dessler (1997), states that corporate culture is a system of spreading beliefs and values that develops in an organization and directs the behavior of its members. Quality culture research conducted by Cronemyr et al. (2017), stated that Behavioral frameworks, supporting or hindering Quality Culture, are genuine and may be very useful for diagnosing and developing Quality Culture.

Power Plant Performance

Continuous and uninterrupted supply of electricity can be achieved thanks to the reliability of the entire electrical system, this is in line with the quality and reliability that consumers expect. The reliability of the operation of the generation system depends on the amount of available power reserves and the forced outage of the power generation unit (Marsudi, 2016). A power generating unit may exit the electric power operating system and cannot supply electrical power. In this situation, the power generation unit experiences an outage. Outage is a condition where a component cannot work according to its function. Plant performance is measured along the dimensions with indicators: reliability, efficiency, availability, environmental compliances and safety (Foon & Terziovski, 2014).

Safety performance is an important part of achieving efficiency in continuous improvement, with the help of quantitative monitoring method they calculate the level of frequency, severity, incidence rate, level of deactivation, safe activity level (Kumar et al., 2015). HSE factor was significant in the assessment of power plant performance studied in this study, and among the HSE factors, health had the strongest impact on power plant efficiency (Azadeh et al., 2016). Reliability and maintainability analysis is very effective in deciding preventive maintenance intervals and also planning and organizing maintenance program (Adhikary et al., 2010). Another researcher, Adriwiyono (2018), analyzed critical equipment that affects gas turbine performance by using Failure Mode Effect Analysis to recommend maintenance.

Hypotheses and Correspondence to Research Design

In research conducted by Pusfitalisya & Wati (2020), the Effect of Implementation of ISO9001:2008 Quality Management System on Organizational Culture and Managerial Performance, it was found that there is a positive influence of ISO 9001:2008 quality management system on organizational culture. The influence of ISO Quality Management System on Employee Performance Through Corporate Quality Culture has also been researched by Samuel & Zulkarnain (2011), the results of research found that ISO 9001 certification

planning, company commitment and application of procedures are perceived to be very good by employees and have a significant positive effect on the company's quality culture. Based on the theory and research, the following hypotheses are made:

H1: ISO Implementation has an effect on corporate culture

Organizational culture change becomes an absolute necessity, only with organizational changes is expected to improve performance to create the necessary competitiveness (Wibowo, 2016). Pusfitalisya & Wati (2020), in the research showed that organizational culture has a positive influence on managerial performance variables. Based on the theory and research, the following hypotheses are made:

H2: Corporate culture affects power plant performance

In research conducted by Sulistyowati et al. (2020) mentioned that TQM has a positive influence on operational performance. Manders (2015), conducting research on the Implementation and Impact of ISO 9001, showed the entire of ISO 9001 had a positive effect on operational performance. The results also showed that ISO 9001 positively affects delivery performance, efficiency, flexibility/innovation, inventory performance, operating costs, product-vitas, quality costs and quality performance. The impact of ISO 9001 on business performance as well as product and quality of service, customer satisfaction, financial performance, and operational performance where companies can use this systematic review as a tool that can help decision making about ISO 9001 standard certification or overall improvement of business performance, this is in accordance with research conducted by Bakator (2018). The results of research on the effect of ISO 9001 implementation were also conducted by Hamza & Alenazi (2013), where ISO 9001 certification was found to have positive results affecting the company's performance. Based on this description, the proposed hypothesis is as follows:

H3: ISO Implementation has an effect on power plant performance

2. Method

The research was conducted at a private electricity provider that builds, operates, and manages power plants. The population of this research is company employees with positions at the level of manager, assistant manager, supervisor/engineer/officer, operator/technician/office staff. Sampling is included in the category of non-probability sampling with purposive sampling technique. The sample used is 232, where the minimum sample in the Structural Equation Modeling (SEM) analysis is 100 (Joe F. Hair, Sarstedt, Ringle, & Meda, 2012). The measurement scale of the data uses the interval scale (semantic format). In this study, researchers used SEM-AMOS as a method of analysis.

Conceptual Framework

This research has three latent variables including ISO Implementation, Corporate culture and Power Plant Performance. ISO Implementation has seven dimensions, as Customer focus, Leadership, Engagement of people, Process approach, Improvement, Evidence-based decision making and Relationship management. Corporate culture has 4 dimensions, as Serve, Trustworthiness, Accountability and Reliability. Meanwhile, the power plant performance plant

has 5 dimensions, as Reliability, Efficiency, Availability, Safety and Environmental compliance (Foon & Terziovski, 2014), (Mourougan & Sethuraman, 2017) and (PT XYZ, 2015). For more information, the framework thinking can be seen in Figure 1.

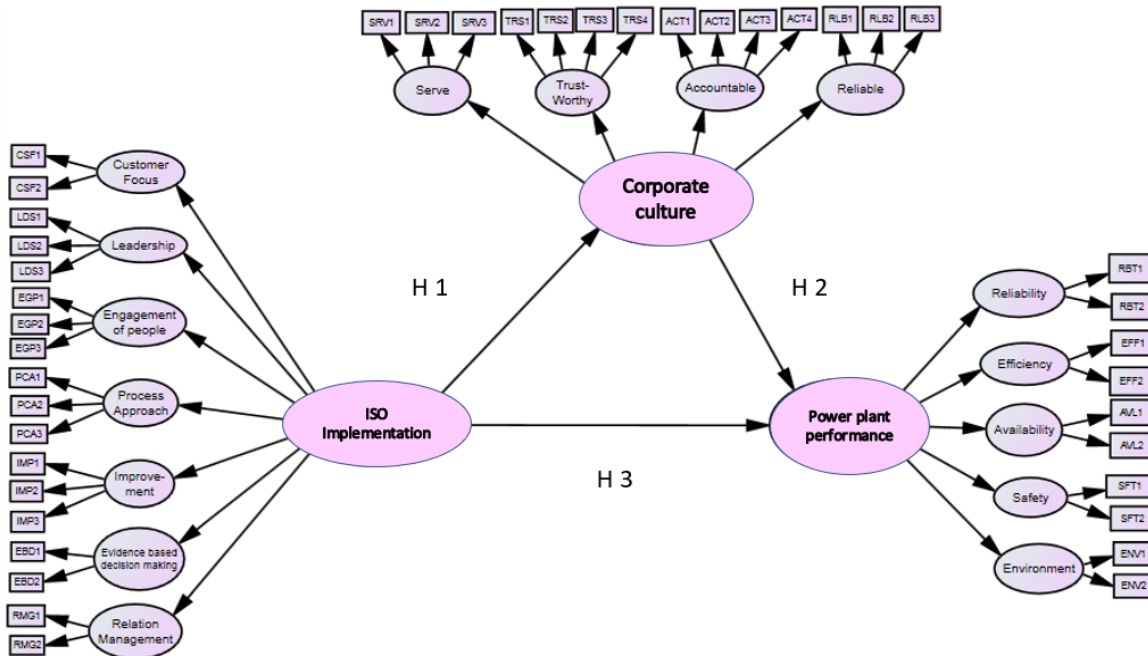


Figure 1. Model of ISO Implementation and Corporate Culture Effect on Power Plant Performance.

Figure 1 explains that ISO Implementation is expected to have a positive effect in increasing power plant performance. Through corporate culture, ISO Implementation is also expected to have a positive impact on power plant performance. Corporate culture makes ISO Implementation affect power plant performance to be more optimal.

Operational Definition and Measurement of Variables.

ISO Implementation

In this study, the implementation variable was measured by seven dimensions, customer focus, leadership, people involvement, process approach, quality improvement, evidence-based decision making, relationship management, as shown in Table 1.

Table 1: Operational Variable ISO Implementation

Variable	Dimension	Indicator	Code
ISO Implementation	Customer focus	Understanding and meeting customer needs, both external (consumers) and internal customers	CSF1
		Striving to be more responsive to customer needs	CSF2
	Leadership	Leaders/superiors actively encourage improvements and changes in the plant	LDS1
		Remove barriers that exist between individuals and/or departments.	LDS2
		Proactively promote continuous improvement rather than reacting to a crisis (“firefighting”).	LDS3
	Engagement of people	Cross-functional teams are often used	EGP1
		During problem solving discussions, the leader seeks to get all team members opinions and ideas before making a decision	EGP2
		Empowered staff and employees to make decisions	EGP3
	Process approach	Understanding activities as processes that link various systems to achieve more consistent results	PCA1
		Operations, Maintenance and other Team Personnel, fully involved in doing troubleshooting analysis	PCA2
		Preventive maintenance is widely practiced in power plants	PCA3
	Improvement	Have a continuous focus on improvement	IMP1
		React to changes required by the company's internal and external environment	IMP2
		Provide value for customers and in line with changing/evolving demand.	IMP3
	Evidence-based decision making	Ensuring decisions are based on data analysis and evaluation are more likely to produce the desired results	EBD1
		Make decisions about programs, implementation or policies based on research evidence and experience from the field and available references.	EBD2
	Relationship-ship management	Understand the need to maintain good relationships with suppliers/suppliers/contractors to drive the company's success	RMG1
		Establish plans and manage suppliers/ suppliers/ contractors to drive the company's success.	RMG2

Source: Mourougan & Sethuraman (2017).

Corporate culture

The dimensions of corporate culture are a pattern of basic assumptions owned by company members that contain values, norms and habits that influence the thoughts, talks, behavior, and

daily work of employees, so that it will lead to the quality of company performance (PT. XYZ), as shown in Table 2.

Table 2: Operational Variable Corporate Culture

Variable	Dimension	Indicator	Code
<i>Corporate culture</i>	<i>Serve</i>	Helping Others, shows a desire to help others become successful	SRV1
		Caring, Showing care and concern for others and the environment	SRV2
		Sincerity, shows a sincere attitude in serving others	SRV3
	<i>Trust-worthiness</i>	Mutual Respect, Shows respect and trust in the organization, and others	TRS1
		Engagement, showing high enthusiasm and passion in work	TRS2
		Synergy, Appreciating and accepting differences to create added value in working together	TRS3
		Honesty, Doing every activity with honesty and trustworthiness	TRS4
	<i>Accountability</i>	Commitment, keeping promises according to what has been agreed	ACT1
		Totality, Complete the job completely	ACT2
		Walk the talk, Shows the harmony between what is said and what is done	ACT3
		Responsibility, Doing every activity with responsibility	ACT4
	<i>Reliability</i>	Discipline, doing consistently the things that have been stated in the policies and procedures that have been determined	RLB1
		Diligent, never give up and never get bored in facing challenges	RLB2
		Responsive, Indicates the speed of action on customer demand and demand	RLB3

Source: PT XYZ, 2015.

Power Plant Performance

Power Plant Performance is measured based on the operational dimensions of reliability, efficiency, availability, safety and environmental compliance and safety (Foon & Terziovski, 2014) as shown in table 3 Operational Variable Power Plant Performance.

Table 3: Operational Variable Power Plant Performance

Variable	Dimension	Indicator	Code
Power Plant Performance	Reliability	The power plant and supporting equipment are operating properly and are maintained.	RBT1
		The distribution of electricity to consumers is guaranteed and reliable	RBT2
	Efficiency	Heat rate (generation efficiency) is achieved according to the target	EFF1
		There are savings in production/generation costs	EFF2
	Availability	High unit availability (unit is in standby and ready to operate)	AVL1
		Maintenance of generating equipment is completed in accordance with the target amount of time that has been determined	AVL2
	Safety	Take preventive action with the target of "zero accident"	SFT1
		Safety rules are implemented and their implementation monitored.	SFT2
	Environment	The power plant has succeeded in preventing environmental pollution	ENV1
		Comply with applicable environmental regulations	ENV2

Source: Foon & Terziovski (2014).

Structural Equation

Structural Equation Modeling (SEM) is a factor combining statistical techniques of multivariate analysis and regression analysis. SEM aims to test the correlation of complex variables to find a complete description of the entire model. The model in this study uses two structural equations as follows:

$$CC = \beta_1 ISO + e_1 \dots\dots\dots (1)$$

$$PPP = \beta_2 ISO + \beta_3 CC + e_2 \dots\dots\dots (2)$$

With parameter requirements: $\beta_1, \beta_2, \beta_3 > 0$

where:

CC = Corporate Culture

ISO = ISO Implementation

PPP = Power Plant Performance

β = Parameters estimated

e = error

3. Research Results

Confirmatory Factor Analysis Test

Output Regression Weight of the variables ISO, Culture, Performance shows that the probability value of all indicators and dimensions is 0.001 (***). The loading factor (estimated) value is

above 0.5, indicating that all indicators and dimensions can explain the ISO Implementation, Corporate Culture, Power Plant Performance variables. All indicators and dimensions of ISO, Culture, Performance variables are declared valid (Alhudri & Heriyanto 2015).

Construct Reliability Test

There are two test methods that can be used, construct reliability (CR) and variance extract (VE). The cut-off value of construct reliability is at least 0.70 while the extracted variance is at least 0.50 (Ghozali, 2017). All dimensions and indicators of the research construct have a Construct Reliability test result factor value of more than 0.7 and Variance Extract more than 0.5, meaning that all indicators and dimensions in this study are reliable.

Normality and Outlier Assumption Test

Multivariate normality analysis was performed using the multivariate critical ratio (CR) criteria in kurtosis. The results of the normality test showed that there was still a CR value greater than ± 2.58 . To meet the normality assumption, outlier data is removed. Outlier data was obtained by comparing the value of the mahalanobis distance with the Chi-square table at a significance of 0.001. In this study, the Chi-square table value was 76.08 (obtained from excel = chiinv (0.001,42)). So, the mahalanobis d-square value which is more than 76.08 is declared outlier data. There are 19 outlier data that must be deleted. After the outlier is deleted, normality test is performed again. The output of the normality test still shows that multivariate it is still not normal. Because the multivariate cr value of 46.532 is still above 2.58. To overcome the multivariate abnormal data, the effect test can be analyzed using bootstrapping technique (Ghozali, 2017).

Goodness of Fit Test

The results of the complete model structure test and model modification obtained Goodness of Fit data as shown in Table 4 below.

Table 4: Goodness of Fit data

Goodness of Fit	Required acceptance limit*)	Result after modification of the model	Decision
CMIN/DF	$\leq 2,00$	1.851	Good Fit
GFI	0 - 1	0.755	Marginal Fit
AGFI	0 - 1	0.726	Marginal Fit
NFI	0 - 1	0.87	Marginal Fit
RFI	0 - 1	0.861	Marginal Fit
IFI	$\geq 0,90$	0.936	Good Fit
TLI	$\geq 0,90$	0.931	Good Fit
CFI	$\geq 0,90$	0.935	Good Fit
RMSEA	$\leq 0,08$	0.063	Good Fit

*) Source: Ferdinand (2014), Widarjono (2015), Haryono (2017), Santoso (2021)

GFI test results obtained a value of 0.755 and AGFI (Adjusted Goodness of Fit Index) of 0.726. The GFI and AGFI numbers range from 0 to 1, with guidelines the closer to 1 the model will be better at explaining the existing data (Santoso 2018: 129). So, with this number which is close to 1, it shows that the model can be considered fit.

Incremental Fit Indices is a test comparing a certain model with a null model (baseline model), which is a model that has the assumption that all indicators are not correlated with one another. The NFI, CFI, IFI and TLI measuring instruments have a range of values between 0 to 1, where generally above 0.9 indicates the model is fit. NFI obtained a value of 0.870. CFI obtained a value of 0.935. IFI obtained a value of 0.936 and TLI obtained a value of 0.931. By obtaining a high number close to 1 and even some above 0.9, thus from the size of the incremental fit indices the model can be considered fit.

In Parsimony Fit Indices is a test that compares a complex model with a simple model. The model is considered fit if the PRATIO, PNFI, PCFI numbers are between the ranges of value for the saturated model and the independence model. PRATIO obtained a value of 0.938, PNFI = 0.816, PCFI = 0.878. from these results, the model is considered fit because it is between the value range 0 to 1. RMSEA is obtained 0.063 below 0.08 so it can be considered the model is still fit (Santoso, 2018).

Goodness of Fit can be assessed based on a minimum of 5 (five) criteria that are met (Ghozali, 2017). According to Latan (2012) citing Hair et al, 2010 said that the use of 4-5 GOF criteria is considered sufficient to assess the feasibility of a model, provided that each of the GOF criteria, Absolute Fit Indices, Incremental Fit Indices and Parsimony Fit Indices are represented (Haryono, 2017). It can be concluded that the whole model can be considered feasible and can be continued with hypothesis testing to find out how much influence between variables in the model.

In the complete structural model that has been declared fit, then the hypothesis is tested using the bootstrapping technique. Hypothesis testing was carried out using the bootstrap technique, because after removing 19 outlier data, it still showed a multivariate non-normal distribution. Bootstrapping is a resampling procedure where the original sample is treated as a population. Multiple sub samples with the same sample size as the original sample are then taken randomly with replacement from the population. With this method, researchers can create multiple samples from the original data base (Ghozali, 2017).

4. Discussion

The step after the data is declared valid, reliable, and the model is appropriate, then the hypothesis test is carried out. The results of hypothesis testing about the effect of latent variables and their correlations with latent variables and their dimensions can be seen in Table 5.

Table 5 shows that the hypothesis H1 is accepted, ISO implementation has a positive effect on corporate culture with an estimated parameter value of 0.828 and a significant level of 0.001. The results of this study are in line with research conducted by Semuel & Zulkarnain (2011) and Pusfitalisya & Wati (2020) which proves that the implementation of ISO9001 has a positive effect on the company's quality culture. The biggest correlations of the dimensions to the ISO Implementation variable are Process approach, PCA (0.994), Improvement, IMP (0.968),

Evidence-based decision making, EBD (0.949), Leadership, LDS (0.940), Engagement of people, EGP (0.910), Relationship management, RMG (0.900), Customer focus, CSF (0.87). The highest correlation of the Process approach dimensions is the PCA1 indicator, understanding activity as a process that connects various systems to achieve more consistent results. Therefore, training on understanding the process of electricity generation for every employee related to plant operations is vital. In addition, Operations & Maintenance personnel and other teams, must be fully involved in carrying out troubleshooting analysis that occurs during the operation of the plant.

The results of the analysis show that the hypothesis H2 is accepted, corporate culture has a positive effect on power plant performance with an estimated parameter value of 0.530 and a significant level of 0.001. The results of previous studies that support is Pusfitalisya & Wati (2020). The biggest correlation of the dimensions to the corporate culture variable, respectively, is the dimension Trustworthiness, TRS (0.978), Accountability, ACT (0.978), Reliability, RLB (0.966), Serve, SRV (0.935).

Table 5: Hypothesis Test Output Results

			Estimate	SE	CR	P
Corporate culture	<---	ISO Implementation	.828	.072	12,361	***
Plant Performance	<---	Corporate culture	.530	.071	6,791	***
Plant Performance	<---	ISO Implementation	.384	.076	4.980	***
CSF	<---	ISO Implementation	.870			
LDS	<---	ISO Implementation	.940	.081	13.437	***
EGP	<---	ISO Implementation	.910	.102	11,879	***
PCA	<---	ISO Implementation	.994	.088	13.001	***
IMP	<---	ISO Implementation	.968	.076	14,997	***
EBD	<---	ISO Implementation	.949	.068	16,248	***
RMG	<---	ISO Implementation	.900	.073	15,493	***
SRV	<---	Corporate culture	.935			
TRS	<---	Corporate culture	.978	.054	17,901	***
ACT	<---	Corporate culture	.978	.054	19,342	***
RLB	<---	Corporate culture	.966	.054	17.903	***
RBT	<---	Plant Performance	.939			
EFF	<---	Plant Performance	.872	.055	16,371	***
AVL	<---	Plant Performance	.959	.048	21.232	***
SFT	<---	Plant Performance	.928	.052	19,495	***
ENV	<---	Plant Performance	.931	.052	19,217	***

Source: Results of data processing (2021)

The highest correlation of the Trustworthiness dimension is the TRS3 indicator, as synergy, respecting and accepting differences to create added value in working together. The highest correlation of the Accountability dimension is the ACT1 indicator, commitment, keeping

promises in accordance with what has been agreed. Because the cultural values that have been owned and implemented are important and are still maintained in the company's activities.

The results of the analysis show that the hypothesis H3, ISO Implementation has a positive effect on power plant performance with an estimated parameter value of 0.384 and a significant level of 0.001. The results of previous studies that supports are Sulistyowati et al. (2020), Foon & Terziovski (2014); Hamza (2013), Bakator (2018). The biggest correlation of dimensions to Power plant performance, respectively, is the Availability, AVL (0.959), Reliability, RBT (0.939), Environment, ENV (0.931), Safety, SFT (0.928) dimensions, and the lowest is Efficiency, EFF (0.872). The highest correlation of the Availability dimension is the AVL1 indicator, which is high unit availability (the unit is in standby and ready to operate).

Table 6: Indirect Effect

Variable X	Mediator	Y variable	Coefficient
ISO Implementation	Corporate Culture	Power Plant Performance	0.439

Source: Results of data processing (2021)

Table 6 shows that ISO Implementation has an indirect effect on power plant performance through Corporate Culture of 0.439. Higher than the direct effect of ISO Implementation on Power Plant Performance of 0.384. This means that there is a total effect of 0.823. The total effect is that the simultaneous implementation of ISO and Corporate Culture can have a greater impact on Power Plant Performance. Because the indirect effect is greater than the direct influence, corporate culture is a mediating variable (intervening).

Implementation of ISO which emphasizes a process approach where employees understand activities as processes that link together and function as a system to help achieve more consistent and predictable results, supported by a corporate culture that emphasizes Trustworthiness, where every employee is committed to respect and is trusted to the organization and others (mutual respect), enthusiastic and passionate about work (engagement), respecting and accepting differences in order to provide added value in working together and carrying out every activity (synergy) with honesty and trustworthiness (honesty), can encourage the achievement of optimal power plant performance.

Conclusions and Policy Implications

This study aims to determine the relationship between ISO Implementation, Corporate Culture and Power Plant Performance. The results of the study prove that the application of ISO and corporate culture is able to provide a positive influence in increasing power plant performance. The effect of ISO implementation on power plant performance is direct and indirect, resulting in a large total effect. ISO Implementation has a direct positive effect on improving operational performance. Indirectly, ISO Implementation has a positive effect on operational performance through Corporate Culture, greater than the direct effect, then corporate culture is a mediating variable (intervening). Thus, all hypotheses are accepted.

Implementation of Corporate Culture makes ISO implementation more optimal in improving Power Plant Performance. ISO implementation policies and the implementation of a corporate culture that prioritizes a process approach by understanding activities as processes that link together and function as a system to help achieve more consistent results, employee involvement in organizational activities so as to increase efficiency, implementation of a corporate culture that promotes mutual respect, engagement, synergy and honesty, as well as always maintaining the availability and readiness of generating units are the right choices in increasing power plant performance. The implication is: employee training, implementation of work culture, are the key to company policy.

Theoretically, this research can add insight into theory, model implementation, propose dimensions, become a conceptual framework for implementing ISO, Corporate Culture and Power Plant Performance. Further research is suggested to further explore the model by adding variables related to the concept of service and the provision of advanced electrical energy services in a simultaneous equation model, so that it will enrich the knowledge base.

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