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Iso 9001:2015 and OHS Integration to Improve Product Quality and Workplace Safety at PT Cipta Kridatama

Putu Yukie Peramesti A,[1] Sutarman[2]
Fakultas Ekonomi dan Bisnis, Universitas Telkom Bandung[1,2]
Email: yperamesti@gmail.com

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Integration Effectiveness, ISO 9001:2015, Occupational Health and Safety (OHS), PT Cipta Kridatama, Quality Management System.

ABSTRACT
At PT Cipta Kridatama, the full potential for product quality improvement has not yet been achieved due to persistent challenges in the field, such as a high rate of workplace accidents—especially among junior employees—and production volumes and operational efficiencies that have not met established targets. Furthermore, risk mitigation plans have not been effectively implemented, creating ongoing obstacles to establishing a safe and productive work environment. Consequently, this research examines the effectiveness of implementing and integrating the ISO 9001:2015 Quality Management System with the Occupational Health and Safety (OHS) Management System within the company, while also identifying the factors that support or hinder their execution.
The primary objective of this study is to analyze the implementation of ISO 9001:2015 and the effectiveness of its integration with the OHS Management System in improving coal product quality and fostering a safer workplace at PT Cipta Kridatama. Additionally, the research aims to identify the challenges faced during the implementation of ISO 9001:2015, the strategies used to address these challenges, and the factors that influence the successful execution of both quality and OHS management systems. The findings are expected to provide strategic recommendations for improving the company's management systems. This study employs a qualitative case study approach with a descriptive design. Data is collected through in-depth interviews with managers and staff, field observations, and analysis of internal documents, including production reports and accident records. Data analysis is conducted using coding techniques, thematic identification, and interpretation supported by ATLAS.ti software to ensure validity and reliability. The results will inform recommendations for enhancing the integration of quality and OHS management systems at the company.

INTRODUCTION

PT Cipta Kridatama (PT CK) officially joined the ABM Investama Group in 2010, a strategic investment company focused on the energy, energy services, and infrastructure sectors. Through this integration, PT CK has been able to leverage a broader business network, from heavy equipment services to integrated energy solutions. Between 2013–2014, PT CK expanded its business scope by providing integrated solutions for various industrial sectors, including mining, oil and gas, geothermal, and public infrastructure.

PT CK carries out open-pit mining activities by utilizing various types of heavy equipment for loading and hauling processes. Supported by more than 3,000 experienced experts, the company owns an inventory of approximately 650 units of both primary and supporting equipment. PT CK's operational activities

primarily take place in Sumatra and Kalimantan.

In carrying out its mission as a leading mining service provider, PT CK manages mining operations comprehensively from upstream to downstream. The services provided include surveying and exploration, geological modeling, drilling and blasting, overburden removal, mining extraction, transportation, construction of supporting facilities, storage and processing management, as well as mine rehabilitation. PT CK prioritizes quality, occupational health and safety, and environmental management, as evidenced by certifications ISO 14001:2004, OHSAS 18001:2007, and ISO 9001:2015.

The company upholds six core values: integrity, sustainable progress, excellence, proactivity, accountability, and teamwork. With continuous innovation, PT CK is able to provide reliable solutions to support effective and efficient mining operations.

1.2 Background of the Study

In the era of globalization, the world economy has become increasingly integrated and competitive. As a result, several industrial sectors, including mining, are required to adapt in order to remain competitive globally. As one of the strategic sectors, the mining industry plays a crucial role in the global economy by contributing to energy needs and the provision of raw materials for other industries. In Indonesia, a country rich in natural resources, the management of the mining industry is crucial to supporting national economic growth.

In line with this, the Indonesian government, through Law No. 3 of 2020 on Mineral and Coal Mining, emphasizes the importance of good governance in mining activities, production standards, and strict reporting. This regulation mandates mining companies to comply with work safety regulations, environmental management, and applicable environmental quality standards. Yanti & Idayanti (2022) emphasize that product quality in the mining industry significantly affects work safety and environmental impact. Similarly, Lu, Taksa, and Jia (2020) assert that effective management practices, including the implementation of stringent safety standards and a positive organizational culture, have a significant influence on safety performance in the mining sector. Therefore, the implementation of stringent regulations is not only essential for legal compliance but also crucial for the operational sustainability of companies amidst global challenges.

Product quality is of paramount importance because it is used in various sectors such as construction, manufacturing, and energy. Poor quality can lead to workplace accidents, inefficiency, and negative environmental impacts, as well as harm to the company's reputation. A quality control system is key to controlling and verifying the chemical composition, physical properties, and characteristics of mining products in order to minimize risks while ensuring production quality. Aisyah et al. (2023) found that the application of statistical control methods like DMAIC could reduce defect levels in the production process, thereby improving product efficiency and competitiveness in the global market.

The implementation of international standards such as ISO 9001:2015 has become critical. This standard sets the requirements for a Quality Management System (QMS) that helps companies design, assess, and maintain their quality systems through regular internal and external audits. The main goal of ISO 9001:2015

is to ensure that the company's products and processes consistently meet customer requirements and prevent quality failures during production. Fakhrunnas & Adi M (2023) show that the implementation of ISO 9001:2015 in the mining sector not only improves product quality but also enhances customer satisfaction and operational efficiency.

Sustainable operational success heavily relies on the implementation of the Occupational Health and Safety Management System (OHSMS). This system not only protects employees from accident risks but also contributes to improving productivity and company competitiveness. Therefore, the integration of ISO 9001:2015 and OHSMS is a strategic step to enhance operational efficiency, reduce accident risks, and improve employee and customer satisfaction. This integration is crucial because the quality management system focuses on meeting customer requirements and improving product quality, while OHSMS focuses on workplace safety and health. By integrating these two systems, companies can ensure that product quality is achieved without compromising the safety and health of employees.

PT Cipta Kridatama, as a mining contractor company, realizes the importance of implementing quality management to improve competitiveness and operational efficiency. Since 2010, the company has held ISO 9001 certification as proof of its commitment to international quality standards. The company's achievements were further strengthened with the Aditama award received at the Good Mining Practice Award 2024, as recognition for its commitment to work safety management and high-quality standards in the mining industry (SWA, 2024). However, this achievement has not fully reflected the effectiveness of the integration between the ISO 9001:2015 quality management system and the OHSMS in day-to-day operational practices.

The Management Review results for 2023 and 2024 indicate that, although the quality performance targets for 2023 were successfully achieved, several key aspects of OHSMS (Occupational Health and Safety and Environment) still require special attention. Accident analysis reveals a disparity in incident rates between senior and junior employees, mainly due to personal factors such as lack of knowledge and experience. Internal data shows that the accident rate among junior employees is still 30% higher than that of senior employees. Furthermore, while the safety program has focused on three main issues, more proactive incident monitoring and prevention are still needed. This is reflected in the need for updates to the Risk Treatment Plan (RTP) and further analysis of the correlation between the number of accidents and the imposition of sanctions. For example, in 2023, there were 12 work accidents causing lost work time, and only 60% of the risk mitigation plan was effectively implemented.

From a quality perspective, PT Cipta Kridatama's performance is showing good results, but there is still room for improvement, especially in achieving production volume and competitive pricing. The BMB scorecard results showed an average score of 4.1 out of 5, with sub-criteria such as production volume, quality performance, and OHSMS performance only receiving a score of 4. This indicates that although the quality management system is in place, product quality and operational efficiency have not yet been fully optimized. The average production volume is still 10% below the annual target, and the production cost per ton of coal is still 8% higher than the industry standard. In

addition, the review of the Mining Safety and Environmental Management policy highlights the need to improve personnel competence, enforce OHS discipline, and strengthen the organizational structure dealing with environmental and safety aspects more specifically.

The gap between the potential for improving product quality through the implementation of ISO 9001:2015 and the actual conditions on the ground becomes evident when observing the less-than-optimal integration of the quality management system and OHSMS at PT Cipta Kridatama. This integration is vital because, while ISO 9001:2015 focuses on improving product quality and customer satisfaction, the system does not explicitly address occupational health and safety aspects. On the other hand, OHSMS focuses on preventing accidents and work-related illnesses but does not emphasize improving product quality and supporting services. A concrete example of the less-than-optimal integration is the ongoing occurrence of work accidents that affect productivity, as well as customer complaints regarding product quality fluctuations that have not been fully addressed.

The selection of PT Cipta Kridatama as the subject of this study is based on several important considerations. As one of the largest and leading mining contractors in Indonesia, PT Cipta Kridatama has operational complexity that is representative of the effectiveness of integrating quality management and OHSMS. The company has also long implemented ISO 9001 and has a strong commitment to workplace safety, providing a rich context for in-depth analysis. Moreover, the availability of sufficient data and accessibility allows for comprehensive qualitative research, so the findings are expected to make significant practical and academic contributions to improving mining company performance in Indonesia.

Based on the phenomena, trends, symptoms, and issues outlined above, this study is crucial to explore the effectiveness of integrating ISO 9001:2015 and OHSMS in improving product quality and workplace safety at PT Cipta Kridatama. This study also aims to identify the supporting and inhibiting factors in the implementation of system integration, thus providing practical recommendations for mining companies to improve their competitiveness and operational performance sustainably.

METHOD

Descriptive Case Study - Qualitative: This study focuses on an in-depth analysis of the system integration implementation at PT Cipta Kridatama, using a qualitative approach to understand its impact on product quality and workplace safety.

1. Identification of Research Problem
The initial step of this research begins with identifying the main issue, which is how the implementation of the integration of ISO 9001:2015 and OHS affects operational quality and workplace safety at PT Cipta Kridatama. The problem is formulated based on observed phenomena in the field, such as discrepancies in procedures, audit reports, and the actual condition of system integration implementation. Research questions are developed to explore the perceptions, experiences, and challenges faced by various stakeholders during the implementation process.

2. Initial Literature Review
This phase is conducted to understand the

relevant theoretical foundation. The researcher reviews literature related to the ISO 9001:2015 quality management system, occupational health and safety (OHS) management systems, and models for integrating these two systems. Sources of literature include academic books, scientific journals, internal audit reports, and company policy documents. This review provides an initial framework for understanding the context and significance of the research.

3. Focus on the Objectives and Research Questions

The primary objective of this research is to understand how the integration of ISO 9001:2015 and the OHS system is implemented, and its impact on improving operational quality and workplace safety. Based on this objective, the research questions are formulated in an exploratory manner:

a. How does the implementation of the ISO 9001:2015 Quality Management System contribute to the quality of coal products at PT Cipta Kridatama, specifically in the aspects of production process management, document control, and employee involvement?

b. What challenges does PT Cipta Kridatama face in implementing ISO 9001:2015, and how does the company address these challenges to improve product quality and operational efficiency?

c. How effective is the integration of ISO 9001:2015 with the occupational health and safety (OHS) system in enhancing product quality and creating a safe working environment at PT Cipta Kridatama?

4. Selection of Qualitative Research Design

This study employs a descriptive-qualitative design with a case study strategy. This design allows the researcher to thoroughly explore one specific context, namely the implementation of system integration within the operational environment of PT Cipta Kridatama. Data collection is carried out through in-depth interviews, participatory observations, and internal document analysis. The research site is purposively selected at one of the company's operational sites.

5. Participant Selection

Participants in this study are purposively selected, meaning they have direct roles in the implementation of the quality management and OHS systems. Participant categories include quality managers, OHS supervisors, and heavy equipment operators. The number of participants is determined based on the principle of data saturation, which occurs when the data obtained no longer provides significant new information.

6. Qualitative Data Collection

Data is collected through three main techniques:

a. In-depth interviews are conducted to explore participants' experiences, perceptions, and understanding of the system integration process.

b. Participatory observation is carried out by monitoring the implementation of procedures in the field, such as the use of personal protective equipment (PPE) and the management of work activities in the overburden area.

c. Document analysis includes a review of SOPs, audit reports, and incident records related to safety and quality.

7. Qualitative Data Analysis

Data analysis is conducted inductively, starting

with data reduction to filter relevant information. The organized data is then grouped into key themes, such as system effectiveness, implementation barriers, and employee involvement. The final stage is the interpretation of the findings to answer the research questions and explain the relationship between system integration implementation and operational performance and workplace safety.

Population and Sample

1. Population

The population in this study consists of all employees of PT Cipta Kridatama who are directly involved in the operational process of overburden stripping and the implementation of the ISO 9001:2015 quality management system as well as the Occupational Health and Safety (OHS) system. According to company data, PT Cipta Kridatama has more than 3,610 employees spread across various work functions, both technical and administrative. This population includes several key role categories, such as:

a. Quality Manager
Responsible for planning, implementing, monitoring, and evaluating the ISO 9001:2015 quality management system within the company. They play a role in integrating the system with OHS aspects.

b. OHS Supervisor
Oversees the implementation of OHS procedures in the field, including compliance with OHS regulations, the use of personal protective equipment (PPE), and conducting regular training and inspections of OHS practices.

c. Lead/Foreman
Supervises mining operational activities in the field, including assigning heavy equipment operators based on their skills and job difficulty levels, conducting safety briefings before work starts, as well as coordinating and reporting on the condition of heavy equipment and operational challenges to ensure activities are carried out safely, securely, and productively in accordance with company standards.

d. Administrative Staff
Supports the documentation process of the management system, controls quality and OHS documents, and assists with reporting and internal audits.

2. Sample

The sample in this study was determined using purposive sampling technique, which is a deliberate sampling method based on the participants' direct involvement with the research focus. This technique is considered appropriate because the researcher needs in-depth information from individuals who have knowledge, experience, and a direct role in the implementation of the integration of ISO 9001:2015 and the OHS system.

The sample size in this study is 11 individuals, consisting of:

a. Managers and Supervisors (6 people)
Including quality managers, field supervisors, and OHS supervisors, to gather information from the perspective of policy, management of system implementation, and integration strategies.

b. Lead/Foreman (5 people)
To understand directly how OHS procedures and quality management systems are implemented in the field by the technical staff.

If relevant and necessary during the data exploration process, the researcher may also

add administrative staff or internal auditors as additional informants to enrich the perspectives.

The criteria for selecting the sample are as follows:

a. Active employees of PT Cipta Kridatama who have been working for at least 1 year.
b. Have a strategic or operational role in the implementation of ISO 9001:2015 and/or the OHS system.
c. Directly involved in the supervision, reporting, or implementation of SOPs related to quality and work safety.
d. Willing to provide information openly and reflectively.

RESULT AND DISCUSSION

Characteristics of Informants

This study involves six informants selected purposively based on their roles and knowledge within the organization, allowing them to provide in-depth insights into the implementation of the ISO 9001:2015 Quality Management System and occupational safety at PT Cipta Kridatama. The informants consist of the Project Manager, Sr. Specialist Integrated Management System, Division Head of Occupational Safety, Health, and Environment, Division Head of Mining Operations, Division Head of Human Capital and Support Services, and Division Head of Technical Services and Engineering. Each informant has a different background and experience, reflecting specific responsibilities within the organization.

The Project Manager is responsible for overseeing the entire project and ensuring that all aspects proceed as planned, while the Sr. Specialist Integrated Management System focuses on the implementation of the integrated management system for quality and OHS. The Division Head of Occupational Safety, Health, and Environment is focused on implementing safety and health standards. The Division Head of Mining Operations directly manages mining operations, while the Division Head of Human Capital and Support Services handles human resources and administrative support. Finally, the Division Head of Technical Services and Engineering plays a role in the technical and engineering aspects that support operations.

Through in-depth interviews, the researcher is able to explore the views, experiences, and strategies implemented by each informant in performing their duties. This approach allows the researcher to obtain rich and detailed data, in line with the characteristics of qualitative research. In addition to interviews, participatory observations and focus group discussions were also conducted to enrich the understanding of dynamics and interactions within the organization.

Implementation of the ISO 9001:2015 Quality Management System and Its Contribution to Improving Coal Product Quality

A. Key Elements of ISO 9001:2015 and Implementation in Aspects of Production Process Management, Documentation Control, and Employee Involvement

Organizational Context

a. Production Process Management:

The company conducts risk analysis and identifies customer needs to ensure the coal production process meets quality standards and market demand. This includes understanding the operational environment and applicable regulations, so the production process can be appropriately adjusted.

b. Documentation Control:

SOPs and work instructions are periodically adjusted according to changes in organizational needs and regulations. The documentation system is maintained to ensure it remains relevant and easily accessible to all involved parties.

c. Employee Involvement:
Employees are engaged through discussion forums, training, and socialization of quality policies, ensuring they understand their roles and responsibilities in achieving the company's quality objectives.

Leadership
a. Production Process Management:
Top management is fully committed to ensuring that quality standards are consistently applied through coordination meetings, supervision, and regular evaluations.

b. Documentation Control:
The appointment of a person-in-charge (PIC) responsible for managing and updating documents, ensuring that the documents are well-documented.

c. Employee Involvement:
Management actively encourages employee participation in training and competency development, as well as recognizing positive contributions to quality.

Planning
a. Production Process Management:
Setting annual production and coal quality targets with strategic plans to achieve them, including mitigation of production risks.

b. Documentation Control:
Planning for periodic updates of documents and SOPs to ensure they are in line with operational needs and the latest regulations.

c. Employee Involvement:
The development of structured training programs and competency development, ensuring that employees have the adequate skills to carry out tasks according to quality standards.

Support
a. Production Process Management:
Provision of resources, including training for heavy equipment operators and the provision of personal protective equipment (PPE) to support safe and efficient production processes.

b. Documentation Control:
Implementation of a digital system for document management that facilitates access, updates, and real-time auditing of documents.

c. Employee Involvement:
Regular training and socialization involving all employees to ensure a comprehensive understanding of quality standards and OHS.

Operations
a. Production Process Management:
Standardization of operating procedures (SOPs) that must be followed by all operators and supervisors, including strict inspections and supervision in the field.

b. Documentation Control:
Use of digital platforms for document management and reporting of inspection results as well as internal audits.

c. Employee Involvement:
SOP for reporting issues and suggestions encourages employees to actively contribute to process and product quality improvement.

Performance Evaluation

a. Production Process Management:
Monitoring of key performance indicators (KPIs) for production and coal quality periodically, as well as conducting internal and external audits to ensure compliance with standards.

b. Documentation Control:
Periodic document audits to ensure documents are up-to-date and comply with applicable procedures.

c. Employee Involvement:
Evaluation of the effectiveness of training and employee participation in quality and workplace safety improvement programs.

Improvement

a. Production Process Management:
Corrective and preventive actions based on audit and monitoring results, as well as the implementation of continuous improvement to enhance product quality and process efficiency.

b. Documentation Control:
Ongoing updates to documents and SOPs based on evaluations and regulatory changes.

c. Employee Involvement:
Providing rewards and incentives for employees who actively contribute to quality and safety improvements, as well as reinforcing a collaborative work culture.

B. Data on the Impact of ISO 9001:2015 Implementation on Coal Quality

According to the 2024 Management Review data, the implementation of ISO 9001:2015 has shown a positive impact on the quality of coal.

C. Interview Results with Project Manager and Division Head

Implementation of the ISO 9001:2015 Quality Management System and Its Contribution to Improving Coal Product Quality

a. Standardized Production Process Management

The Project Manager of CK-BMB PT Cipta Kridatama explained that the implementation of ISO 9001:2015 has a significant impact on coal production process management. "All production processes, from planning, execution, to evaluation, must follow well-documented work procedures. This ensures that each production stage is tightly controlled, so the coal product quality remains consistent and meets the established standards." He added that quality control is conducted through regular internal audits and scheduled field inspections.

The Division Head of Mining Operations also emphasized that these quality standards encourage better work discipline in the field. "Heavy equipment operators and field employees now adhere more strictly to SOPs that integrate quality and safety standards, ensuring that production processes are more efficient and the risk of errors is reduced," he said.

b. Systematic Documentation Control

The Division Head of OSHE stated that documentation control is a crucial aspect of ISO 9001:2015. "Well-managed documentation facilitates the tracking of production processes and quality control. We use digital technology to manage documents, so audits and evaluations can be conducted quickly and accurately." This was further supported by the Division Head of Technical Services and Engineering, who added, "Systematic documentation of work procedures and monitoring results is extremely helpful in conducting continuous evaluations and

improving production processes."

c. Employee Involvement in Quality Improvement
The Division Head of Human Capital and Support Services emphasized the importance of employee involvement in the quality system implementation. "We conduct regular training and socialization to ensure that employees understand quality standards and work procedures. Additionally, we encourage active participation through discussion forums and a reward system for employees who contribute positively to quality improvement." He also added that employee involvement has fostered a collaborative and proactive work culture, where employees not only follow procedures but also take the initiative to report potential issues and provide solutions.

Challenges and Strategies in Implementing ISO 9001:2015

A. Challenges in Implementing ISO 9001:2015
The following explains the challenges faced in implementing the ISO 9001:2015

Quality Management System (QMS) in three main aspects: production process management, documentation control, and employee involvement, particularly in the context of the mining industry like PT Cipta Kridatama.

Challenges in ISO QMS Implementation on Production Process Management

a. Changes in Government Regulations and Industry Standards
Changes in environmental, occupational safety regulations, and quality standards by the government or regulatory bodies are often dynamic. Rapid adjustments to these regulations present an external challenge that affects the production process and the application of SOPs, requiring the company to be always alert and adaptive.

b. Extreme Weather and Natural Conditions
The mining industry is highly influenced by natural conditions such as heavy rainfall, flooding, or unstable geological conditions. These factors can disrupt the production flow and pose safety risks that must be anticipated and managed appropriately.

c. Fluctuations in Coal Market Prices and Demand
Changes in global and domestic coal prices and market demand can impact production targets and quality strategies. This market uncertainty demands flexibility in managing the production process to remain efficient and comply with standards.

d. Operational Complexity
The production process in the mining industry is highly complex, involving various stages and dynamic field conditions. Adjusting quality standards to these conditions requires intensive coordination and flexibility in the application of SOPs, often presenting a major challenge for the company.

e. Resistance to Change
Operators and field staff, who are accustomed to old working practices, often find it difficult to adapt to new, stricter, and more thoroughly documented procedures. This can hinder the consistent application of quality standards.

f. Administrative Burden
Implementing ISO 9001 requires more detailed and routine record-keeping and reporting, which adds to the administrative workload of the production staff. This burden can sometimes reduce the effective time available

for field operations.

g. Resource Availability
The provision of adequate training, personal protective equipment (PPE), and supporting equipment becomes a challenge, particularly in maintaining continuity of safe and efficient production processes.

Effectiveness of Integrating the ISO 9001:2015 Quality Management System with ISO 45001:2018 OHS Management System

Integration Process of ISO 9001:2015 Quality Management System with the OHS System in the Field

The integration process of the ISO 9001:2015 Quality Management System (QMS) with the Occupational Health and Safety Management System (OHS) in the field, particularly in the mining industry such as PT Cipta Kridatama, is carried out systematically to create a safe working environment while maintaining product quality. The aim of this integration is to ensure that both systems operate synergistically, enhance operational efficiency, and minimize the risk of accidents and quality disruptions.

Table 1,
Data on the Impact of the Integration of ISO 9001:2015 and the OHS System Implementation
Source: Management Review 2024

Indicators	2022	2023	2024	Target
Number of Work Incidents	112	85	68	0
SOP Compliance (%)	89	94	98	100
Coal Quality Achievement (%)	94,5	97,6	99,2	100

The data shows a significant reduction in the number of work incidents, from 112 cases in 2022 to 68 cases in 2024. This decline reflects the effectiveness of the integrated Quality Management System (QMS) and Occupational Health and Safety (OHS) systems. Efforts to improve SOP compliance and ongoing safety training have successfully reduced the risk of accidents and incidents in the field, making the work environment safer. The level of SOP compliance increased from 89% in 2022 to 98% in 2024. This improvement indicates that employees are becoming more disciplined in following standardized work procedures. High compliance with SOPs is crucial for ensuring that the production process adheres to quality and safety standards while minimizing operational errors.

The percentage of coal quality achievement also saw consistent improvement, from 94.5% in 2022 to 99.2% in 2024. This indicates that the coal products produced increasingly meet or even exceed the quality standards set by the company and its customers. This quality improvement is a direct result of standardized production process management, strict quality control, and active employee involvement in maintaining product quality.

Although there has been significant improvement in reducing work incidents, SOP compliance, and coal quality, PT Cipta

Kridatama has not fully achieved the 100% target on these indicators. This is due to several factors, including the highly dynamic and diverse nature of mining operations, which sometimes makes it difficult to apply procedures uniformly across all work areas. Additionally, resistance to old work culture and the need for employee adaptation to new procedures and technologies still pose barriers that require time and further effort. The limited availability of training resources, especially in remote locations, also affects the effectiveness of knowledge transfer and the consistent application of standards. Therefore, the company continues to increase training frequency, strengthen two-way communication, and optimize the use of information technology to accelerate the achievement of the expected quality and safety targets.

The integration of the ISO 9001:2015 Quality Management System with the OHS System also impacts the quantity of overburden and coal production. Below is the production graph for overburden and coal at PT Cipta Kridatama.

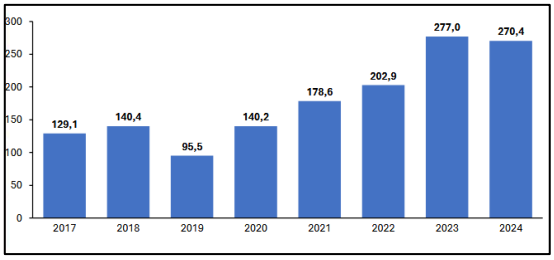

Figure 1, Overburden Production at PT Cipta Kridatama from 2017-2024
Source: Management Review 2024

Implementation of the ISO 9001:2015 Quality Management System at PT Cipta Kridatama

The implementation of the ISO 9001:2015 Quality Management System at PT Cipta Kridatama has shown a significant impact on improving the quality of coal products. This study aims to analyze how the application of this standard affects the production process, quality control, and employee involvement. Interviews with the Project Manager and Division Head reveal that standardized production process management, systematic documentation control, and employee involvement in quality improvement are key factors in the success of this implementation. These findings align with the research by Motta Barbosa et al. (2022), which emphasizes the importance of best practices in ISO 9001 certification and identifies the challenges faced by industrial companies in Brazil. The study indicates that companies successfully implementing ISO 9001 can significantly improve operational performance and product quality.

Challenges in Implementing the ISO 9001:2015 Quality Management System at PT Cipta Kridatama

Although the implementation of ISO 9001:2015 at PT Cipta Kridatama has had a significant positive impact on improving the quality of coal products, the company has faced several internal challenges. One of the main obstacles is employee resistance to change, particularly among staff and operators who have been working with conventional methods for a long time. They feel burdened by the new, more complex procedures and the increased demand for detailed documentation. Research by Sweis and Jaradat (2022) further confirms that resistance to change is a common barrier in the implementation of ISO 9001:2015, which can hinder the organizational adaptation process. In response, PT Cipta Kridatama adopted a hands-on training approach and a reward system to increase employee engagement. This strategy

aligns with the findings of Chiarini et al. (2020), which emphasize the importance of active human resource participation to ensure the sustainable success of the quality management system.

Effectiveness of the Integration of the ISO 9001:2015 Quality Management System at PT Cipta Kridatama

Employee involvement in the training and socialization processes has also helped build a collaborative and proactive work culture. Research by Ahsan and Ullah (2025) shows that critical factors for the success of Total Quality Management (TQM), including employee involvement, have a positive impact on organizational performance. At PT Cipta Kridatama, regular training sessions based on hands-on practice and field simulations have proven effective in enhancing employee understanding and preparedness. Post-training evaluations showed significant improvements in competence and compliance, which aligns with the findings of Antwi-Afari et al. (2025), who emphasize the importance of training in boosting productivity and job satisfaction.

CONCLUSIONS

The implementation of the ISO 9001:2015 Quality Management System at PT Cipta Kridatama has made a significant contribution to improving coal product quality through strict production process management, effective digital documentation control, and active and proactive employee involvement. The application of risk analysis, routine audits, and ongoing training has successfully enhanced quality achievements over the past three years, while also fostering a collaborative work culture that supports quality improvement and workplace safety.

PT Cipta Kridatama faces key challenges in the implementation of ISO 9001:2015, such as dynamic regulatory changes, rapid technological advancements, and shifts in organizational culture. To address these challenges, the company has implemented a comprehensive strategy that includes top management commitment, continuous socialization and training, documentation digitization, and the formation of a dedicated team for regulatory monitoring. Open communication approaches and reward systems have also strengthened the quality culture and reduced employee resistance to change.

The integration of the ISO 9001:2015 Quality Management System with the Occupational Health and Safety (OHS) System at PT Cipta Kridatama has proven effective in improving product quality and creating a safe working environment through integrated procedures, combined audits, and joint training. Data shows a decrease in work incidents and an increase in SOP compliance, while heavy equipment productivity has improved due to strong inter-departmental coordination. Although challenges such as cultural resistance and operational complexity still exist, the company continues to strengthen training, communication, and the use of technology to maintain the sustainability of this integrated system.

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