



# The Impact of ISO 9001 Management Implementation on Worker Output

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**Abstract.** The purpose of this study is to examine the effects of process approach, people participation, leadership, evidence-based decision-making, continuous improvement, and rational management on worker output. This study employs a quantitative methodology. This study was carried out in Makassar City at PLN UPDK Tello. The type of data is derived from data tabulation that happens after research questionnaires are distributed. While worker output reports provided secondary data, questionnaires were used to collect primary data. The 71 participants in the study were all workers of PT. PLN IP UPDK Tello. Census sampling is used in the sampling process. After the questionnaire was distributed, the results showed that just sixty-three people answered. The procedure of multiple linear regression analysis is used in the data analysis technique. The study's findings demonstrate the selective and synchronous important and beneficial impacts of relational management, process approach, evidence-based decision making, leadership, customer focus, and employee engagement on worker output.

**Keywords:** ISO 9001 Management, Human Resources Management, Worker Output.

## 1. Introduction

Implementing Total Quality Management (TQM), also known as Integrated Quality Management, is a technique that businesses and industries use frequently to boost productivity and increase their competitiveness by continuously improving their processes, people, products, and environment. In an effort to adapt and compete in this age of globalization, TQM also supports any employee who can significantly contribute with strong performance [1]. Therefore, it can be concluded that implementing TQM will increase job satisfaction because it will benefit the organization and its people [2].

Organizations utilize the idea of TQM (Total Quality Management) to preserve their competitive edge and guarantee the efficiency of their business operations [3]. Today's enterprises should use TQM as a strategy to boost productivity, lower production costs, and improve product quality. In order to generate output (goods and services) of the right quality, in the right amount, in the right time frame, and at the

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right cost, businesses might try to boost their productivity by managing their resources well [2]. In order to attain quality, TQM is, in theory, a method of structuring and leading the entire organization, every department, every activity, and every individual at every level. The implementation involves every member of the business, including the employees, and is focused on achieving customer happiness [4].

It is hoped that by implementing ISO 9001:2015, staff productivity will rise, leading to effective and efficient business outcomes at PLN UPDK Tello. The implementation of ISO 9001:2015 began in 2018 and has been integrated with SMK3, ISO 14001, and the Integrated Management System (SMT). accomplished in order to boost the competitiveness of the business [5]. Businesses that create goods and services for clients that adhere to globally recognized standards fall under the category of ISO 9001:2015 certified businesses. It is intended that all staff members would be able to consistently and constantly follow ISO standard required procedures in the upcoming process [5].

In compliance with the PT PLN Indonesia Power Board of Directors' Decree No. 026.K/010/IP/2022, dated March 30, 2022, regarding Amendments to Directors' Decision No. 025.K/010/IP/2021 regarding instructions for Organization Capital Readiness (OCR) and Human Capital Readiness (HCR) Assessment. The KPI (Key Performance Indicator) Management Contract of PLN UPDK Tello includes an evaluation of worker output, which is determined by the performance of the organization's human capital readiness and organizational capital readiness. It is envisaged that by putting ISO 9001:2015 into practice and applying the concepts of Total Quality Management (TQM), UPDK Tello will be able to gain a competitive edge through enhanced worker output. The purpose of this study is to examine the effects of process approach, people participation, leadership, evidence-based decision-making, continuous improvement, and rational management on worker output.

## 2. Literature Review

Buyers are all individuals who place demands on a company to fulfill specific quality criteria, hence influencing the performance of the firm [6]. Recognize and handle interdependent processes as a system that enhances organizational efficacy and efficiency in accomplishing goals [7]. In order to increase the organization's overall performance, this strategy encourages control over the linkages between the various processes inside the system.

One aspect of ISO 9001: 2008's quality management principles that has not changed is leadership. According to the leadership concept, all organizational leaders need to have a common goal and direction and foster an environment where all staff members are committed to helping the company meet its quality standards. The leadership must be able to guarantee that the goals and policies of the quality management system are in line with the strategic direction and organizational context [8]. Leaders encourage an awareness of risk-based thinking and process techniques. In order to implement the intended quality management system, the leader guarantees

the availability of the required resources [9]. In order for a company to have human resources that are capable, empowered, and actively involved in adding value to the business—value that will eventually be felt by consumers and other stakeholders—people engagement is essential [10]. Because these factors can all improve an organization's capacity to create value, the people engagement principle highlights the significance of competence, empowerment, and employee involvement [11].

The ideas of the systems approach are thought to share certain parallels with the process approach, and as such, they are regarded as a component of the process method [12]. Some of the gains of paying focus to this principle involve among someone else, it can help institutions identify the various tasks needed to methodically achieve/obtain the wanted results; can assist institutions in establishing clear duties and accountability for the administration of various key tasks; can assist the organization in evaluating and measuring the abilities of its main actions; can assist institutions in identifying interfaces of key activities both within and between institutional roles: can assist organizations in assessing the risks, implications and influences of tasks related to clients, suppliers and other curious parties; can assist institutions in arranging systems to achieve institutional goals in the most effective and efficient way and recognize the interdependence among the processes of the structure; can help institutions provide a better comprehending of roles and duties to achieve prevalent goals, reduce obstacles and interconnected targeting, and establish more easily how particular activities in a structure should function [5].

According to the improvement principle, businesses need to focus on continual improvement if they are to succeed. In addition to responding to changes in the organization's internal and external environments and generating new possibilities, continuous improvement can sustain the current level of organizational performance. Corrective measures can be implemented in quality management to improve the effectiveness and efficiency of the company [13]. The improvement principle in quality management highlights how crucial it is for businesses to train their staff members on improvement techniques and resources, as well as to make systematic changes to systems, processes, and products for every worker in the company. The improvement approach is one that is a part of the organization's everyday operations according to the quality management idea. This process is frequently referred to as the Deming cycle or the PDCA technique (plan, do, check, act) [14].

Making decisions based on information and data analysis and review will help to attain the intended outcomes [5]. Evidence in quality management refers to data that demonstrates or validates the existence or veracity of a claim. Tests, measurements, observations, and other suitable procedures can be used to gather evidence [15]. According to relational management concepts, organizations need to manage connections with different interested parties in order to achieve sustained success. It is emphasized in quality management that because interested parties have the power to affect an organization's performance, it is imperative for organizations to establish positive connections with them [12]. When an organization can effectively manage relationships with stakeholders to maximize its influence on organizational performance, it will have a higher chance of achieving sustainable success. The relational management principle highlights the significance of companies

collaborating in a way that benefits all parties involved, ensuring that no one is harmed, deciding how to develop and improve cooperative efforts, motivating, supporting, and acknowledging suppliers' accomplishments, being transparent and open in communication with shareholders, and identifying and building relationships by striking a balance between short- and long-term concerns [14].

### 3. Research Method

This research took the case of PT employees. PLN Indonesia Power Tello Generator Control Unit (UPDK Tello) located on Jalan Urip Sumoharjo KM 7, Tello Baru Village, Makassar. All PT. PLN IP UPDK Tello personnel made up the study's population.

In order to collect data for this study, written statements are given to respondents to complete on a questionnaire. Online questionnaires were sent to every worker at PT. PLN IP UPDK Tello. The Multiple Linear Regression analysis approach is the data analysis technique employed in this study.

### 4. Results and Discussion

The following outcomes are displayed by the multiple regression model calculation.

**Table 1.** Multiple Linear Regression Evaluation Output.

Variables	Unstandardized Coefficients		t	p-value
	Beta	Standard error		
Constant	2,008	0,609	3,295	0,002
X1-Customer_Focus	0,187	0,091	2,054	0,043
X2-Leadership	0,167	0,075	2,233	0,029
X3- People_Engagement	0,309	0,102	3,040	0,003
X4- Process_Approach	0,396	0,083	4,772	0,000
X5- Continuous_Improvement	0,179	0,089	2,007	0,048
X6- Evidence_Based Decision_Making	0,131	0,065	2,007	0,048
X7- Relational_Management	0,138	0,067	2,067	0,042

All variables in this study have an impact on worker output, as demonstrated by this equation, which also demonstrates that the multiple coefficients are positive for all variables and are significant at a probability of 0.05. Using the findings of multiple linear regression, an error level of 5% (0.05) is less than the computed F value of 15.103 with a p-value of 0.000. Ho is rejected based on the aforementioned criteria since the probability is less than 0.05. Worker output is significantly impacted by a

variety of factors, including relationship management, evidence-based decision making, process approach, leadership, customer focus, and engagement of people.

## 5. Conclusion

Customer focus on worker output shows a significant influence. Customer focus plays a key role in improving organizational performance. Customer focus in ISO 9001 refers to the recognition that organizations must understand and meet customer needs. Leadership on worker output shows a significant influence. ISO 9001 recognizes the important role of leaders in establishing and implementing an effective quality management system. Leaders clearly define roles and responsibilities within the context of the quality management system. Engagement of people on worker output shows a significant influence.

ISO 9001 places importance on the involvement of personnel in achieving the quality objectives and overall success of the organization. The ISO 9001 standard emphasizes personnel involvement as one of the main principles, with the aim of motivating, involving and rewarding contributions. The process approach to worker output shows a significant influence. The process approach emphasizes the need to understand and manage organizational processes holistically to achieve quality goals and improve overall performance. Continuous improvement on worker output shows a significant influence. The principle of continuous improvement encourages organizations to systematically improve their performance through the identification and implementation of continuous improvements. The impact of evidence-based decision making on worker output is noteworthy. With reference to ISO:9001 management, evidence-based decision making is important to ensure that decisions taken are objective, informed and supported by data. Relationship management on worker output shows a significant influence. Relationship management includes understanding and managing an organization's relationships with customers, suppliers, employees, related parties, and all those who contribute to the organization's success.

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