

QUALITY CULTURE THROUGH THE IMPLEMENTATION OF MBNQA QUALITY MANAGEMENT AND ITS RELATION TO THE COMPANY’S HUMAN CAPITAL PERFORMANCE

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ABSTRACT

This study investigates the relationship between the quality culture fostered by implementing MBNQA quality management and human capital performance in one of Indonesia's largest industrial gas companies. One hundred eight employees with a level of management below that of a manager completed the survey questionnaires. Analyzing the relationship between seven variables of quality culture based on the Malcolm Baldrige Criteria for Performance Excellence, namely Leadership, Strategic Planning, Customer Focus, Measurement, Analysis and Knowledge Management, Focus on Manpower, Process Management, and Results, multiple linear regression techniques were employed. The study hypothesizes a statistically significant relationship between Customer Focus, Measurement Analysis and Knowledge Management, Focus on Human Resources, Process Management and Human Capital Performance. The study's findings suggest that the four quality cultures - Customer Focus, Measurement, Analysis, Knowledge Management, Focus on Human Resources, and Process Management - can be utilized effectively within the context of an industrial gas company to improve Human Capital performance. Few studies have examined the relationship between quality culture and the human capital performance of low-level managerial employees at Indonesia Gas Company, so the results are significant.

Keywords: Quality Management, Human Capital, Performance, MBNQA

1. INTRODUCTION

In all industries, quality is essential. Globalization and technological advances compel industry to become more adaptable in the face of competition. Additionally, the development of social media makes it simple for modern consumers to share their product experiences, which other social media users can rapidly access. According to (Ingelsson et al., 2010), one of the leading causes for its lack of success is that Quality Management, also known as QM, needs to be more focused on tools and processes and comprehend the impact of quality culture. As a result, corporate leaders must find new approaches to QM that differ from the old, often short-term oriented view and of various tools and techniques (Cronemyr et al., 2017). An organizational culture must be aligned with a company's quality objectives to ensure the implementation of QM.

In contrast, an organizational culture aligned with a company's quality objectives will encourage the implementation of QM. Soria-garcía and Martínez-Lorente (2020) stated that even though the corporate culture was not initially aligned with the intended quality, it was possible to change the corporate culture to align with QM. Prajogo and Mcdermott (2005) and Naor et al. (2008) asserted that an organization's culture must transform with a focus on the customer, senior management support, continuous improvement, and employee participation; these factors significantly impact the success of TQM.

Resources Based Theory explains how a company creates a competitive advantage with all company resources that are scarce, valuable, and difficult to duplicate or substitute (Akio, 2005; Bromiley & Rau, 2015; Kabue & Kilika, 2016). Rupidara (2008) suggests that RBT is a relevant theory in an economy characterized by a knowledge/learning economy or an economy that relies on intangible assets. Meanwhile, Riahi-belkaoui (2003) said a company could achieve a comparative advantage by controlling its tangible and intangible assets. Through this explanation, an organization that can maximize the utilization of its intangible assets—in this case, intellectual capital, which is unique and rare, will be able to achieve a higher advantage than its competitors.

Akio (2005) noted that the central core of RBT at the beginning of its development was to identify resource characteristics that were difficult to duplicate or imitate by competitors because the easier it was for resources to be duplicated or found substitutes, even though at first these resources could create a competitive advantage, the advantages it will not last long. Simanungkalit (2015) argues that a company can have the most sustainable competitive advantage if it can maximize its intellectual capital management, including all the company's resources, including human capital.

Businesses must employ effective measurement techniques to analyze and determine which quality dimensions should be prioritized for improvement and which should be maintained. The Malcolm Baldrige National Quality Awards (MBNQA) is a measurement method recognized internationally and known to have been beneficial in assisting the implementation of quality management—correct implementation of MBNQA results in high-quality performance. Only some parties comprehend the relationship between Human Capital performance and quality culture, which is a component of the corporate culture. Consequently, this study will conceal the impact of quality culture on the performance of intangible assets such as Human Capital in Indonesian gas companies. At the same time, existing research focuses on research in educational institutions.

2. LITERATURE REVIEW

The essence of culture consists of the fundamental presumptions or beliefs that relate to how the world functions and are embodied in practices and values. Culture can be observed at various levels, including individual, social milieu, workplace, and country (Wu, 2015); however, this study focuses on corporate culture. The influence of culture on Quality Management has been examined in the past, with most researchers concluding that to manage Total Quality Management, a central set of values that can shape a quality-oriented organizational culture is required (Svensson & Klefsjo, 2006). If every organization has a set of values that can produce a quality-focused organizational culture, it can develop its own quality culture (García-Fernandez et al., 2022). QM has been introduced for more than two decades in Indonesia. Several studies state that Quality Management can succeed with the commitment to reforming organizational culture to maintain and increase customer satisfaction through continuous improvement activities (Alotaibi et al., 2013). With such a quality culture, the company's resources, such as raw materials, apparatus, and labour, can be effectively utilized within a quality management system. An integrated Quality Culture is required to implement Quality Management practices, which will subsequently support quality performance excellence. Ali and Musah (2012) stated that Quality Culture is how the entire organization unites to examine and implement the concept of quality and customer satisfaction in all company activities.

Quality Culture is unavoidably intertwined with Quality Management (QM). Each QM expert identifies a set of essential quality culture variables that they consider indispensable for achieving the best QM. Sila and Ebrahimpour (2003) determined that customer orientation, leadership commitment, participation by all, continuous improvement, fact-based management, and process orientation are the most frequently mentioned values in the QM literature. Similar to Lagrosen's (2006) research and the recently revised ISO9001 Standard (ISO9001:2015), which is also founded on seven values (principles): customer focus, leadership, employee engagement, process approach, improvement, evidence-based decision-making, and management relationship (ISO, 2015). Even Cronemyr et al. (2017) research identified eighteen essential values for a quality culture. Even though the sets of quality culture key variables provided by previous researchers appear diverse and dissimilar, their contents are generally comparable.

The Malcolm Baldrige National Quality Award (MBNQA) is an award for quality performance given to organizations in the United States. However, in this paper, we will discuss the assessment, also called the Baldrige Assessment, in detail. Utilizing measurements and providing feedback on the organization's performance in providing quality products and services, the Baldrige Assessment is one of the tools used to improve the organization's overall performance perpetually. Malcolm Baldrige Criteria for Performance Excellence or Baldrige Criteria is a guide for a company to achieve high-quality performance, consisting of seven criteria. We believe that Baldrige Criteria can cultivate a culture of quality within the daily operations of an organization.

In the literature, the influence of organizational culture on operations management practices, such as quality management practices, has been examined. Human Capital, namely the ability of employees in the form of energy, intelligence, attitude, commitment, creativity, learning ability, and knowledge and skills to contribute to the creation of added value for the company. Bratianu and Pinzaru (2015) also added indicators of motivation, spirituality, and capacity to innovate in the human capital category. Human Capital, according to Golshahi et al. (2015), is an internal part of the company. Still, the company cannot acquire it because there is a risk of 'losing' if the employee leaves. Performance refers to measuring the achievement of employee tasks or work results (Simamora, 2002). Furthermore, Mangkunegara (2005) defines performance as work performance as measured by the quality and quantity of worker responsibilities. Thus, performance is also the result or output of a job or activity to achieve common goals within a certain period in an organization.

Previous research has demonstrated that businesses cultivating a high-quality corporate culture are more likely to benefit from increased employee productivity and work quality. Employees must genuinely assimilate into the organizational culture; that can only be accomplished with upper management's time, effort, and direction, which provides information and motivation to employees to understand what the company expects of them. The primary effect of instituting a quality culture is increased continuous work (Cameron & Sine, 1999), consistent with Maani et al. (1994) findings that a company's quality culture can enhance quality, operations, and business.

According to Detert et al. (2000), cultural values are significant because they promote attitudes and behaviours that subtly influence how practices or systems are implemented and institutionalized within an organization. Nahm et al. (2004) demonstrate that the assumptions of a customer-focused culture influence professed values, positively affect time-based

manufacturing practices, and ultimately contribute to more remarkable performance. Given this, a quality culture can also be an antecedent of Human Capital performance, which is part of the company's assets. Culture will have a direct impact on Intellectual Capital-oriented practices. The overall performance will be achieved once a company's Intellectual practice is established. Therefore, quality culture is closely related to Human Capital Performance.

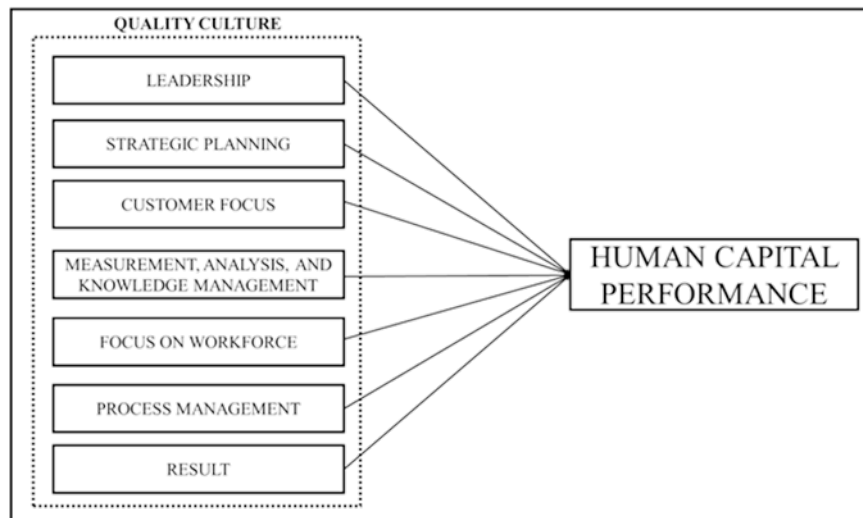


Figure 1. Model Analysis.

3. RESEARCH METHODS

This research is descriptive analysis research with a quantitative approach method. It is intended to obtain a systematic description of scientific information originating from the research object. The population in this study are employees of one of Indonesia's largest industrial gas companies. This company was chosen because the oil and gas industry must have a strict quality culture, so the research results are expected to reflect the influence of quality culture on the company's human capital performance. We use a questionnaire to measure the variables used in the study. The sample used in this study were 108 employees with lower managerial levels who had worked at least two years in the company because these people were adapting to enter the company culture; people who had been in the company for a long time had been involved in the company culture.

Independent Variable is seven criteria of Malcolm Baldrige for Performance Excellence, namely (1) Leadership; (2) Strategic Planning; (3) Customer Focus; (4) Measurement, Analysis and Knowledge Management; (5) Focus on Manpower; (6) Process Management; and (7) Results, while the dependent variable is the performance of human capital. We used regression analysis to process our data.

4. RESULTS AND DISCUSSION

Table 1 shows the results of the descriptive statistics of the seven quality culture variables. Strategic Planning has the largest average (4.4907), and Results has the lowest average (4.2963). The respondents interpret the seven quality culture variables differently because of the relatively narrow average range. The standard deviation ranges from 0.7053 to 1.103, indicating the respondents' relatively uniform answers. All variables have a maximum value of 5, and Leadership and Strategic Planning have the smallest minimum value of 1.

Table 1. Descriptive Statistics

Variable	Min	Max	Standard Dev	Mean
Leadership	1.0000	6.0000	0.9667	4.3333
Strategic Planning	1.0000	6.0000	0.9521	4.4907
Customer Focus	2.000	6.000	1.103	4.417
Measurement, Analysis and Knowledge Management	2.3333	6.0000	0.7053	4.3025
Focus on Manpower	2.0000	6.0000	0.9175	4.4074
Process Management	3.0000	6.0000	0.9255	4.3241
Results	2.0000	6.0000	0.9248	4.2963

Source: Data analysis, 2024

The results in Table 2 showed that of the seven criteria of Malcolm Baldrige for Performance Excellence, namely (1) Leadership; (2) Strategic Planning; (3) Customer Focus; (4) Measurement, Analysis and Knowledge Management; (5) Focus on Manpower; (6) Process Management; and (7) Results, only four criteria have a significant influence on human capital performance, namely: (1) Customer Focus (2) Measurement, Analysis and Knowledge Management; (3) Focus on Manpower; and (4) Process Management. While the other criteria, although they have a positive effect, do not significantly affect the performance of human capital. The reason is that these four criteria will directly impact employees so that they become part of the employee's work culture.

Table 2. Linear Regression

Predictor	Coefficient	Estimate	Standard Error	t-statistic	p-value
Constant	β_0	0.5959	0.4569	1.3042	0.1952
QC1	β_1	0.0839	0.0626	1.3407	0.1831
QC2	β_2	0.0865	0.0680	1.2730	0.2060
QC3	β_3	0.1459	0.0570	2.5592	0.0120
QC4	β_4	0.1967	0.0973	2.0214	0.0459
QC5	β_5	0.1441	0.0682	2.1113	0.0372
QC6	β_6	0.1861	0.0683	2.7249	0.0076

QC7	β_7	0.0467	0.0651	0.7167	0.4752
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Source: Data analysis, 2024

Customer focus affects the performance of human capital; this shows that a quality culture created through customer focus can make employees believe that focus on customers is essential for the survival of the company, and they will try to find ways to increase innovation and satisfy consumers through their services so that can build and maintains strong, lasting relationships with customers, especially for new employees who are more often in contact with consumers daily. Measurement, Analysis and Knowledge Management affect human capital performance. Companies that use data to support critical processes and manage performance will create a culture of quality that is flexible in taking action. Employees will use that data as the basis for work. Continuous learning, analysis and corrective action will affect the performance of the company's employees. Focus on human resources affects the performance of human capital. Companies that build a quality culture by empowering and involving their workforce will be able to support their workers in developing individual potential and how their workers can follow organizational goals.

Process management affects human capital performance; companies focusing on crucial processes will build a quality culture focusing on essential aspects of work. With good process management, each process flow is designed in a streamlined and efficient manner without complicated and well-coordinated bureaucracy. A good management process will minimize cross-disputes between various sections and departments to improve human capital performance. Leadership, Strategic Planning and Results in this study do not affect human capital performance; this is logical because this research focuses on lower-level employees who have just started working, so their involvement in Leadership, Strategic Planning and Results is minimal.

Kotter and Heskett (1992) state that company culture is a crucial success factor for developing the required commitment to any change. Work culture is analogous to the organization's spirit, and this will infuse the organization with vitality (Tang, 2006). Since organizational culture reflects the values, beliefs, and behavioural norms that employees use to give meaning to the current situation, culture can influence the attitudes and behaviours of staff. The organizational culture serves as a vital link within the organization.

In its "2023 Oil and Gas Industry Outlook Report", Deloitte (2022) states that 2023 natural gas markets are anticipated to remain constrained, with European and Asian demand absorbing the additional LNG export volumes. Approximately 45% of the companies surveyed stated that an unfavourable regulatory environment and substantial capital expenditures had prevented more investment in natural gas production. These conditions are anticipated to strengthen in 2023, and investments in natural gas infrastructure in 2022–2023 could lead to market equilibrium later in this decade. It is anticipated that gas companies will improve their quality culture through customer focus, measurement, analysis, and knowledge management, focus on human resources, and process management to improve human capital performance and further enhance the company's competitiveness.

5. CONCLUSIONS

This study finds that quality culture is an integral component of quality management (QM) and that a high-quality culture will result in superior human capital performance. Only four of Malcolm Baldrige's seven criteria for Performance Excellence. In contrast, although there is a positive correlation between the other criteria and Human Capital performance, these criteria do not significantly impact the performance of Human Capital; this is because the three criteria will be directly influenced by employees, thereby becoming a part of the employee culture. It is possible to provide training, direction, and support from upper management.

We conceptualized quality culture as a unidimensional construct, and we used a questionnaire that was returned from the one we distributed, so the data we processed were limited to information from employees who were willing to complete the questionnaire. Additionally, we only investigate the unidirectional connection between quality culture and human capital performance. We researched the employees of companies in the Gas industry; therefore, additional research is required to verify and expand our findings using various research objects or quality standards.

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