

Development of Quality Management in Increasing Company Competitiveness

Suwanda

Universitas Krisnadwipayana, Jakarta, Indonesia

Email: suwanda@unkris.ac.id

Keywords	Abstract. Product quality and production processes are key factors in competing in an increasingly tight global market. This research aims to investigate and develop effective quality management strategies to increase company competitiveness. This research uses a descriptive qualitative approach. The research results show that the development of quality management plays a crucial role in increasing the competitiveness of manufacturing companies. Through the implementation of Total Quality Management (TQM), Six Sigma, and Lean Manufacturing, companies can increase efficiency, reduce waste, and improve product quality. Information technology integration, especially through Quality Management Systems (QMS), helps companies track, measure and improve quality performance more efficiently. Employee training is a key factor in ensuring understanding of quality standards and their role in achieving the company's quality goals. Additionally, the collection and analysis of quality data supports the identification of trends, root causes of problems, and more informed decision making.
Quality Management, Competitiveness, Total Quality Management (TQM), Six Sigma, Lean Manufacturing	

1. INTRODUCTION

A company's ability to achieve excellence in the market is closely related to quality factors, which act as the main driver of competitive advantage (Lestari, 2019). As highlighted by Evans & Lindsay (2010), sustainable competitive advantage is the result of exceptional performance over time. In this context, quality can be considered a fundamental and essential attribute of a product or service, which significantly influences its ability to meet specified requirements.

The definition of quality as a fundamental attribute reflects its important role in determining the competitiveness of products or services in the market (Siregar et al., 2016). High quality not only creates customer satisfaction, but also shapes the company's reputation. In this view, quality is not only seen as a product standard, but also as an element that differentiates a product or service from competitors (Firmansyah et al, 2019).

The importance of quality in the context of competitiveness is reinforced by the understanding that the performance of a product in the market is highly dependent on the level of quality it provides. Products or services that meet or even exceed customer expectations have the potential to dominate the market and build consumer loyalty (Ahmad, 2020). Therefore, companies that are able to develop and maintain high quality standards have greater opportunities to achieve and maintain a superior position in a competitive market (Muljani, 2002).

Thus, an emphasis on quality development is not only a short-term strategy to win customers, but also a long-term investment to build the foundation of sustainable competitive advantage (Yunus, 2016). In an era of ever-changing business, companies that prioritize and continuously improve the quality of their products or services will have greater resilience to face dynamic market challenges (Martoyo et al, 2022).

The implementation of quality management plays a crucial role in ensuring the sustainability and competitiveness of a company (Idris & Nurnajamuddin, 2023). Quality management, as an approach that is generally applied in various industrial sectors, is the basis for companies to ensure that consumer preferences and expectations are not only met, but also continuously updated in accordance with ongoing trends (Herjanto, 2011).

The uniqueness of quality management lies in its ability to be a versatile approach that can be applied successfully in both the context of the production of goods and the provision of services. Involving a structured system, quality management focuses primarily on improving and developing the quality system, which covers the entire range of company activities (Ritonga, 2020).

Systematic quality management involves monitoring and measuring performance, identifying and handling non-conformities, and continuous improvement (Gandara & Hasibuan, 2020). The main objective of this approach is to provide maximum satisfaction to customers regarding the quality of the products and services provided. This includes not only the physical or functional dimensions of the product, but also aspects such as reliability, durability and responsiveness to customer needs (Amanah, 2010).

Implementing quality management within a company can include involving the entire supply chain, employee training, and developing efficient production processes (Cahyanum, 2023). By considering customer feedback and keeping up with changing market trends, quality management can help companies stay relevant and adapt to evolving consumer needs. Quality management is not just a temporary initiative, but rather an operational philosophy that continuously seeks to improve and perfect products and services (Wono et al, 2023). Through implementing effective quality management, a company can build a strong reputation, win customer trust, and remain competitive in an ever-changing marketplace

Innovation is key in understanding consumer preferences and meeting their expectations. Companies that are successful in implementing quality management not only create products that satisfy current consumers, but also proactively look for ways to introduce new products or improve existing products (Ahmad, 2020). This can include improving product features, using more environmentally friendly materials, or even restructuring production processes to increase efficiency and reduce environmental impacts (Nurahma, 2004).

Apart from that, quality management also encourages companies to collaborate with stakeholders, including customers, suppliers and other business partners, in order to obtain valuable input for product development (Syukron, 2017). By adopting an open attitude to feedback and actively involving stakeholders, companies can more easily capture market trends, identify innovation opportunities, and design solutions that are relevant to consumer needs (Hartatik et al., 2023). Thus, quality management is not only a tool for maintaining product quality, but also a catalyst for company growth and sustainability through product development that is sustainable and relevant to market dynamics (Azzahra & Wibawa, 2021).

This research aims to investigate the role of quality management in encouraging product innovation as the main strategy for increasing company competitiveness. It is hoped that this research can provide practical guidance for companies in creating solutions that are relevant to consumer preferences. By implementing quality management effectively, companies can not only maintain the quality of existing products but also identify and respond to new innovation opportunities. This will help companies build a strong reputation, win customer trust, and remain competitive in an ever-evolving market.

2. METHOD

In this research, the author uses qualitative descriptive methods to describe, analyze and construct meaning about existing phenomena. Qualitative research is conducted in real-life settings with the aim of investigating and understanding phenomena. The aim of this research is to create a systematic, factual and accurate description, picture or painting of the facts, characteristics and relationships between the phenomena being investigated (Moleong, 2014). The data collection technique uses library research, namely by utilizing various literature such as books, magazines, journals and previous research reports. By using literature, authors hope to obtain information relevant to their research and avoid duplication of results. According to Nazir (2013), library studies can provide benefits to researchers in utilizing all information and thoughts that are relevant to their research.

3. RESULTS AND DISCUSSION

The development of Quality Management in increasing a company's competitiveness involves a number of strategies and practices aimed at increasing efficiency, product or service quality, and

customer satisfaction (Rihardi, 2021). The following are several forms of quality management development that can be implemented:

Implementation of Total Quality Management (TQM)

Total Quality Management (TQM) is a holistic approach to management that focuses the entire organization on achieving continuous improvement in product or service quality. In TQM, not only certain parts of the company are involved, but the entire organization is considered as a single unit that has a common goal of achieving optimal quality. The importance of TQM is not only in the end result of the product or service, but also in the internal processes that make up the product.

TQM involves developing an organizational culture that supports continuous improvement. This creates an environment where every member of the organization feels responsibility for quality, and innovation and improvement are considered an integral part of the daily routine. Implementing TQM also includes employee involvement in decision making related to quality. By empowering employees and recognizing the value of their contributions to quality improvement, TQM can stimulate higher motivation and engagement.

Systematic performance measurement is also a key element in TQM. By leveraging tools such as statistics and quality performance indicators, organizations can measure, analyze, and monitor the results of implemented improvement efforts. This provides the data base necessary to make informed decisions in order to achieve and maintain high levels of quality. In order to develop an effective quality culture, organizations need to pay special attention to open communication, organizational learning, and support from top leadership. By consistently applying TQM principles, organizations can achieve high operational efficiency and sustainable competitiveness in a competitive market.

Implementation of Six Sigma

Six Sigma is a methodology directed at improving the quality of products or services with a special focus on reducing variability in the production process. Developed as a highly structured quality management approach, Six Sigma aims to minimize errors and improve overall process accuracy. The main focus of Six Sigma is on stability and consistency in producing products or services, so that companies can meet or even exceed customer expectations.

Through the identification and reduction of defects, Six Sigma brings companies towards high and measurable levels of quality. This approach involves using sophisticated statistical methods and tools to analyze production data, identify root causes of problems, and take appropriate steps to minimize variability. By reducing this variability, companies can achieve a higher level of precision in their processes.

Overall, Six Sigma is not just about reducing random defects, but also about aligning production processes to conform to specified quality standards. The result is a significant increase in product or service consistency, which in turn helps the company build a strong reputation and increase customer trust. By understanding and effectively applying Six Sigma concepts, companies can achieve consistently high levels of quality, provide a competitive advantage, and meet increasingly stringent market demands.

Adopt Lean Manufacturing

Lean Manufacturing is a philosophy and operational management approach designed to reduce waste and increase efficiency in the production process. This philosophy is rooted in the basic idea of identifying and eliminating activities that do not add value, so that resources can be allocated more effectively. The main focus of Lean Manufacturing is to create a smoother work flow, eliminate waiting times, and optimize the use of resources.

By eliminating waste, companies can achieve a number of significant benefits. First, operational efficiency increases because activities that do not add value are eliminated, resulting in a more responsive and faster production process. Second, cost reductions occur because resources are used more effectively, including reductions in unnecessary inventory and increased use of labor.

Apart from that, Lean Manufacturing also has a positive impact on product quality. By reducing variation and uncertainty in the production process, companies can achieve a higher level of consistency in the products or services produced. A more structured and controlled process helps

reduce the possibility of defects or errors. Overall, Lean Manufacturing is not just about cost efficiency, but also about creating value for customers by minimizing waste. By implementing Lean concepts, companies can build a strong foundation for long-term competitiveness, as they can respond more quickly to market changes, improve product quality and optimize the use of their resources.

Use of Information Technology

The integration of information technology, especially with the implementation of a Quality Management System (QMS), makes a significant contribution to improving the company's efficiency and quality performance. QMS is a platform that allows companies to track each stage of a product or service life cycle, measure quality achievements, and provide a framework for continuous improvement. By using QMS, companies can collect, store, and analyze quality data more efficiently. Information obtained from each step in the supply chain, production process and customer feedback can be compiled systematically, providing a holistic view of quality performance. The application of information technology also allows companies to respond quickly to necessary changes or improvements, reducing response time to quality issues.

In addition, the Quality Management System facilitates risk management by providing better visibility into potential risks that may affect quality. This risk identification allows companies to take preventive steps and manage risks proactively, thereby reducing the possibility of defects or non-conformities that could be detrimental to the company. Real-time process monitoring is another advantage of QMS. Companies can monitor and evaluate quality performance in real time, allowing them to respond quickly to changing conditions or trends that may affect product or service quality. This provides the flexibility and responsiveness needed to manage and improve quality dynamically according to market needs.

By implementing information technology integration, companies not only improve quality management efficiently, but also gain competitive advantages in providing high-quality products or services. Continuous monitoring, sophisticated data analysis, and effective risk management are some of the key aspects that make QMS integration a valuable asset in efforts to improve a company's quality and competitiveness.

Employee training

Quality development in a company is not only limited to systems or technology, but also involves critical factors such as increasing employee capabilities and understanding of quality standards. Therefore, employee training is a very important aspect in ensuring that all members of the organization have a deep understanding of the established quality standards, work procedures, and the significance of their role in achieving the company's quality goals.

Employee training in the context of quality development covers various aspects, such as understanding quality control methods and tools, improving technical skills, and instilling quality values in organizational culture. By providing comprehensive training, companies can ensure that employees have the skills and knowledge necessary to understand, engage and contribute positively to the achievement of high quality standards. Apart from that, employee training also includes an in-depth understanding of existing work procedures, including an understanding of the production process and quality control implemented. This not only provides employees with clarity regarding their duties and responsibilities, but also helps avoid potential errors or discrepancies that could result from a lack of understanding.

The importance of employee training also lies in their understanding of the role they play in achieving the company's quality goals. By emphasizing the importance of each individual's contribution, companies can build a work culture that supports collective quality improvement. This understanding will help build motivation and responsibility, as well as motivate employees to continue participating in quality development efforts. By engaging employees through effective training, companies can ensure that the entire team has a uniform understanding of quality standards, work procedures, and the contribution they bring to the achievement of the company's quality goals. As a result, employee training becomes a strategic step in creating a strong foundation for overall quality development in the organization.

Data Analysis and Data-Based Decision Making

The process of collecting, analyzing and using quality data is a key pillar in the company's efforts to improve and maintain high quality standards. By systematically collecting quality data, companies can build a strong information base for understanding the dynamics of their operations and products. Quality data analysis is key to identifying trends and patterns that may not be immediately apparent, helping companies respond more quickly to changing market or internal conditions.

Furthermore, quality data analysis allows companies to delve deeper into the root causes of problems. By investigating the underlying cause of a nonconformity or defect, companies can take more effective and specific actions to address the problem. This process provides a deeper understanding of critical aspects of operations that may require special attention or procedural changes. The importance of using quality data is also reflected in its ability to support more informed decision making. By having accurate and up-to-date data, companies can make more timely and effective decisions to improve quality performance. Data-driven decisions reduce speculation and increase the level of confidence in a company's strategy.

Additionally, the use of quality data can support a cycle of continuous improvement. By monitoring performance periodically and comparing it with certain targets or standards, companies can evaluate the effectiveness of the corrective actions that have been implemented and make adjustments if necessary. This creates a continuous learning cycle and helps companies stay adaptive to market changes and challenges. In a dynamic global context, the ability to collect, analyze and use quality data is not only a necessity, but also a strategic asset for companies. By understanding the potential information contained in quality data, companies can optimize their operations, respond quickly to market dynamics, and maintain high quality standards to win customer trust.

4. CONCLUSION

The development of quality management is a critical element in ensuring a company's competitiveness, especially in a dynamic business environment. Various approaches, such as Total Quality Management (TQM), Six Sigma, Lean Manufacturing, and integration of information technology through Quality Management Systems (QMS), have become important instruments for increasing efficiency, reducing waste, and improving product or service quality. The importance of employee involvement in understanding quality standards and work procedures, as well as improving skills through training, is a main element in quality development efforts. Additionally, the collection, analysis, and utilization of quality data provides a strong information base for identifying trends, addressing root causes of problems, and supporting more informed decision making. In an effort to increase competitiveness, companies need to have an orientation towards product innovation and sustainable production methods. This involves a deep understanding of consumer needs, supplier engagement, and the ability to respond quickly to market changes. By integrating all these aspects, companies can achieve effective quality management, create high-quality products or services, win customer trust, and remain competitive in an ever-changing business environment. Overall, developing quality management is not just a task, but rather an operational philosophy that involves the entire organization in a continuous effort to improve and perfect quality as a whole.

REFERENCES

1. Ahmad, S. T. (2020). *Manajemen Mutu Terpadu*. Nas Media Pustaka.
2. Amanah, D. (2010). Pengaruh harga dan kualitas produk terhadap kepuasan konsumen pada majestyk bakery & cake shop cabang HM Yamin Medan. *Jurnal keuangan & bisnis*, 2(1), 71-87.
3. Azzahra, B., & Wibawa, I. G. A. R. P. (2021). Strategi optimalisasi standar kinerja UMKM sebagai katalis perekonomian indonesia dalam menghadapi middle income trap 2045. *Inspire Journal: Economics and Development Analysis*, 1(1), 75-86.
4. Cahyanum, M. N. (2023). Pengembangan Sistem Manufaktur Adaptif dalam Industri. *WriteBox*, 1(1).

5. Evans, J. R., & Lindsay, W. M. (2010). *Managing for quality and performance excellence*. Delmar Learning.
6. Firmansyah, F., Haryanto, M. M., & Rudy, D. R. (2019). Manajemen Kualitas Jasa: Peningkatan Kepuasan & Loyalitas Pelanggan.
7. Gandara, G. S., & Hasibuan, S. (2020). Analisis penerapan SNI ISO 9001: 2015 melalui jumlah ketidaksesuaian produk, proses dan pelayanan pada PT. X. *Jurnal Standardisasi*, 22(3), 171-188.
8. Hartatik, H., Rukmana, A. Y., Efitra, E., Mukhlis, I. R., Aksenta, A., Ratnaningrum, L. P. R. A., & Efdison, Z. (2023). *TREN TECHNOPRENEURSHIP: Strategi & Inovasi Pengembangan Bisnis Kekinian dengan Teknologi Digital*. PT. Sonpedia Publishing Indonesia.
9. Herjanto, E. (2011). Pemberlakuan SNI secara wajib di sektor industri: efektifitas dan berbagai aspek dalam penerapannya. *Journal of Industrial Research (Jurnal Riset Industri)*, 5(2).
10. Idris, H., & Nurnajamuddin, M. (2023). Transformasi Manajemen Produksi melalui Inovasi dan Total Quality Management (TQM): Memperkuat Kualitas dan Efisiensi Operasional: A Narrative Review. *SEIKO: Journal of Management & Business*, 6(2), 258-265.
11. Lestari, E. R. (2019). *Manajemen Inovasi: Upaya Meraih Keunggulan Kompetitif*. Universitas Brawijaya Press.
12. Martoyo, A., Susilawati, E., Kusumawardhani, N., Dawis, A. M., Novalia, N., Fransisca, Y., ... & Nurlaila, Q. (2022). *Manajemen Bisnis*. TOHAR MEDIA.
13. Moleong, L. J. (2014). Metode penelitian kualitatif edisi revisi. *Bandung: PT Remaja Rosdakarya*.
14. Muljani, N. (2002). Kompensasi sebagai motivator untuk meningkatkan kinerja karyawan. *Jurnal Manajemen dan Kewirausahaan*, 4(2), 108-122.
15. Nazir, M. (1988). Metode Penelitian. *Jakarta: Ghalia Indonesia*.
16. Nurahma, M. (2004). Penerapan Strategi Time-Based Competition pada Perusahaan Manufaktur. *Sinergi: Kajian Bisnis dan Manajemen*, 6(2).
17. Rihardi, E. L. (2021). Pengembangan manajemen sumber daya manusia sebagai sebuah keunggulan kompetitif pada industri pariwisata dan perhotelan. *Komitmen: Jurnal Ilmiah Manajemen*, 2(1), 10-20.
18. Ritonga, Z. (2020). *Buku ajar manajemen strategi (teori dan aplikasi)*. Deepublish.
19. Siregar, Y. A., Sinaga, S., & Tarigan, L. (2016). Hubungan Kualitas Pelayanan dan Kepercayaan terhadap Loyalitas Pelanggan pada Konsumen di PT. INASA LAFACOS. *Fundamental Management Journal*, 1(03), 28-44.
20. Syukron, B. (2017). Implementasi Manajemen Mutu Terpadu (Studi Transformasi Pada Perguruan Tinggi). *Jurnal Pendidikan Ekonomi Dan Bisnis (Jpeb)*, 5(1), 51-62.
21. Wono, H. Y., Supriaddin, N., Amin, F., Indriastuti, Y., & Sufa, S. A. (2023). Media Sosial, Literasi Digital, Dan Inovasi Bisnis Trikotomi Baru Dalam Manajemen Strategi. *Branding: Jurnal Manajemen dan Bisnis*, 2(1).
22. Yunus, E. (2016). *Manajemen strategis*. Penerbit Andi.