

UDK 006.072

**QUALITY MANAGEMENT SYSTEM  
AS AN INTEGRAL PART OF IMPROVING THE MANUFACTURING SECTOR**

**Amrenova Anel**

Anel\_amrenova@mail.ru

Master student in the Faculty of Transport and Energy,

L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan

Scientific adviser – G.K. Taymanova

The manufacturing sector has become the third most prominent segment of the Kazakhstan economy due to the continuous improvement of performance through the introduction of a quality management system (QMS). The purpose of this article is to study the impact of quality management on the productivity of manufacturing enterprises in Kazakhstan using the example of Kurylysmet LLP. The results show that sample departments strictly follow ISO 9001-2015 recommendations to improve their performance. Organizations maintain appropriate assessment, mentoring, and measurement systems. The requirements and perceptions of the client are taken into account by an adequate feedback system, audits and reviews by the management. In general, production organizations are concerned about their work, so they are constantly improving the quality of their products.

Quality is an essential element of sustainability and customer satisfaction [1]. Over the past few decades, increased emphasis has been placed on global quality management, in particular in the manufacturing sector. Developed countries such as Japan, the USA and the UK have long imple-

mented ISO standards in their organizations. Inspired by the successful implementation of ISO standards in developed countries, the manufacturing sector has also begun to implement QMS. Therefore, more attention is currently being paid to the adoption of ISO standards in the manufacturing sector. ISO offers many benefits to the manufacturing industry. These benefits include improved quality, increased productivity and a good market image [2].

Organizations can improve product quality and even lower product costs in any industry by implementing a quality management system (QMS) and methods [3], which in turn also helps them meet their needs and even exceed customer needs.

In a highly competitive market and properly implemented, QMS can provide a very competitive advantage over other market players [4]. One of the most difficult parts of QMS implementation in any organization is a quality culture around the world [5]. Studies have also shown that various components and parts of the QMS must work with proper integration for the successful implementation of the QMS.

This study attempts to study the impact of QMS implementation for manufacturing in Kazakhstan. It also improves understanding of the QMS provisions, including general QMS requirements, responsibility for management, resource management, product sales, measurement, analysis and improvement show a similar impact on the performance of production tasks.

Most manufacturing organizations in Kazakhstan are ISO 9001 certified organizations and they have implemented QMS in accordance with the guidelines of the ISO 9001 standard. The result is reduced time to market, product risk check in real life, ensuring the quality of the final product to prevent repeated calls, as well as continuous improvement of quality and production processes to reduce waste and reduce product costs, to assess the adequacy and effectiveness [6].

*Why is ISO 9000 important for the manufacturing sectors?*

Many companies offer products and services, but it is those companies that effectively produce the best products and services that succeed. Using ISO 9000, an organization can identify the root of the problem and therefore find a solution. By increasing efficiency, you can maximize profits.

As a wide range of companies implements ISO 9000 standards, an integrated supply chain is created. Every company that participates in the process of developing, manufacturing, and marketing a product knows that it is part of an internationally recognized, reliable system.

Not only do companies recognize the importance of ISO 9000, but customers also recognize the importance of quality. And because the consumer is most important to the company, ISO 9000 makes it the center of attention [7].

To determine the importance of the QMS and its effectiveness in enterprises, we give as an example a plant for the repair of mining and transport equipment of Kurylysmet LLP. The main objective of the plant is to provide corporation enterprises with spare parts and equipment for engineering purposes.

The Kurylysmet LLP company has implemented and maintains a quality management system since 2012 in accordance with the requirements of ISO 9000 series standards. The main goal of the QMS implementation was to constantly improve and increase the company's performance. In 2018, an internal audit was conducted at the Kurylysmet LLP enterprise. As a result of which the auditors registered 64 non-compliance (table 1) and the remaining comments were advisory in nature.

According to the results of the internal audit, the largest number of discrepancies has the process 8.5 "Production of goods and provision of services". In this regard, measures were taken to eliminate them, as well as all the risks of a possible reappearance were considered. After an internal audit, the percentage of the probability of marriage fell by 3%, which in turn affected the growth in sales of the entire enterprise.

Table 1 - The number of discrepancies according to the clauses of ISO 9001-2016

Paragraphs of standard ST RK ISO 9001-2016	Number of discrepancies
5.2 Policy	3
6.3 Change planning	4
8.1 Planning and management of activities at the stages of the life cycle of products and services	5
8.3 Design and development of products and services	5
8.4 Managing processes, products and services, suppliers	7
8.5 Production and service provision	21
9.1 Monitoring, measurement, analysis and evaluation	7
9.2 Internal audit	11
9.3 Management review	1
Total:	64

taken from [authoring]

The quality management system at the enterprises of the Republic of Kazakhstan makes it possible to increase the competitive advantages of the enterprise, to prove to stakeholders the high quality of products, as well as the environmental and industrial safety of production.

#### References

1. Palaneeswaran E., Ng T., Kumaraswamy M. Client satisfaction and quality management systems in contractor organizations //Building and Environment. – 2006. – T. 41. – №. 11. – C. 1557-1570.
2. G. D. Krylova (2015). Fundamentals of standardization, certification, metrology: a training manual. - 3rd ed., Revised. and add. - M.: UNITY
3. Shewhart W. A., Deming W. E. Statistical method from the viewpoint of quality control. – Courier Corporation, 1986.
4. Agus A., Sagir R. M. The structural relationships between total quality management, competitive advantage and bottom line financial performance: An empirical study of Malaysian manufacturing companies //Total Quality Management. – 2001. – T. 12. – №. 7-8. – C. 1018-1024.
5. Awan H. M. et al. Critical success factors of TQM: Impact on business performance of manufacturing sector in Pakistan //International Journal of Business and Management Science. – 2008. – T. 1. – №. 2. – C. 187.
6. A. Sh. Zhunusova, I. A. Heydan (2007) Technology for the development of standards and normative documentation: a training manual. Ministry of Education and Science of the Republic of Kazakhstan, KSTU. -Karaganda: KSTU, -95 c
7. Kokhtev A.A. Fundamentals of a quality management system. Vol. 2-nd add. Tutorial. M. Higher School, 2011. - 296 s.