

IMPACT OF ISO 9001 QUALITY MANAGEMENT SYSTEM ON SMES: THE EXAMPLE OF GEORGIA

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Abstract. In the current era of globalization, many companies worldwide have adopted a quality management system that is recognized internationally. The International Organization for Standardization reports that over a million organizations across 170 countries have been granted the ISO 9001 certification as proof of their compliance with the quality management system standard (ISO, 2023). However, when we examine the certification data of Georgian businesses, only 134 companies in the country (ISO Survey, 2022) have been certified with the ISO 9001. The research conducted by various scholars indicates that ISO 9001 is a critical tool for enhancing competitiveness. Obtaining the ISO certification is an effective way to increase customer trust, and satisfaction, reduce production costs, and continuously improve companies.

The research aims to determine the effectiveness of the quality management system in small and medium-sized businesses in Georgia. It also highlights the benefits that service companies receive after obtaining an ISO certificate, such as increased process efficiency, improved service quality, better risk management, and a better company reputation. However, the study revealed that there is low awareness of the quality management system in Georgia, and the cost of certification is a hindrance for entrepreneurs when making a decision.

Key words: ISO 9001, quality certification, quality management system, business performance.

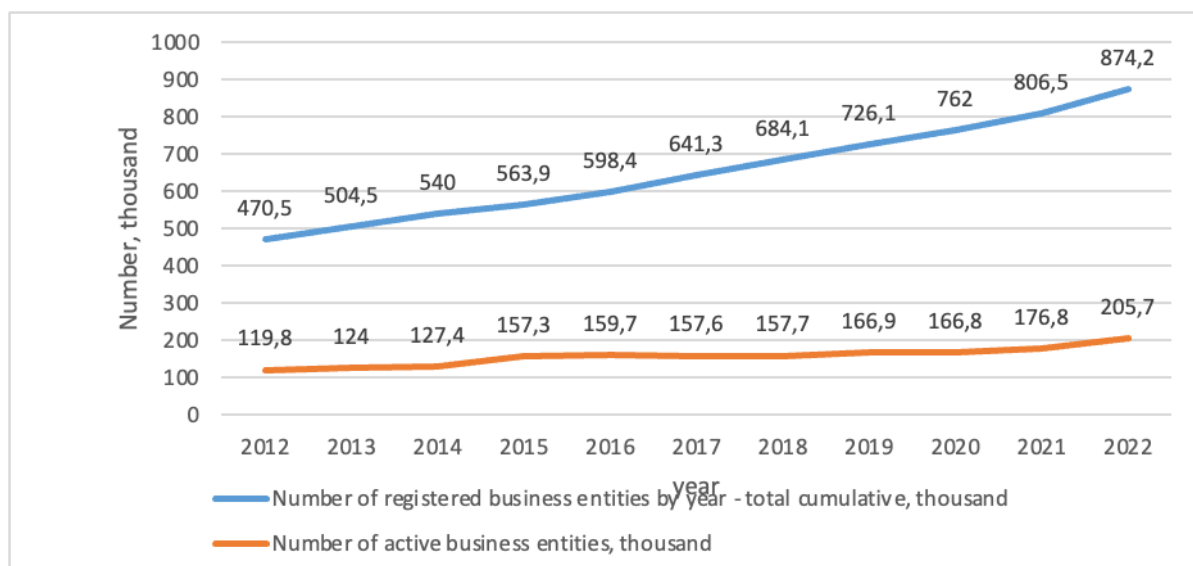
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Introduction

Small and medium business is the most important component of the country's economic system. It is the main source of employment and income of the population. As of 1 January 2024, 255 961 active small and medium-sized businesses are registered in Georgia, which is 97.9% of the total number of active enterprises (National Statistics Office of Georgia, 2024). Small and medium-sized business has a great place in the economy of Georgia, and its sustainability, maintaining competitiveness and continuous improvement are very important for any country. Sustainable development of companies is the biggest challenge of the 21st century for business owners.

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Source: National Statistics Office of Georgia

Fig. 1. Number of registered and active business entities

If we look at the statistical data of registered and active business entities in Georgia during the years 2012-2022 (Figure 1), we will see that the number of registered businesses increased by 403700 during the given 10-year period, and the number of active business entities by the end of 2022 is only 205700 entities, which is 51% of the total registered ones. This indicates that a significant part of the companies can no longer continue their development and stop being active. Under the strong competition of globalization, business needs a new, modern management approach, which will affect its quality and process efficiency and make it more competitive in the modern era. In order to maintain the sustainability of the companies, a number of companies in the world have already introduced a quality management system. According to the International Organization for Standardization, more than a million organizations in 170 countries around the world have received the ISO 9001 certificate as evidence of compliance with the requirements of the quality management system standard (ISO, 2023). If we look at the certification data of Georgian business entities, according to the data of the International Standardization Authority, only 134 companies in the country (ISO Survey, 2022) are ISO 9001 certified.

The purpose of the research paper is to determine the effectiveness of the quality management system in small and medium-sized businesses in Georgia. Many researchers worldwide have investigated the effectiveness of ISO 9001, although there are few studies in this field in Georgia, which shows the novelty and topicality of the research. The research reveals the positive effects that certification can have in Georgia.

In the research process, the research hypothesis was formed as follows: ISO 9001 has a positive impact on the efficiency of business processes in Georgia. The research methodology is based on qualitative and quantitative research methods: review of scientific literature, questionnaire survey. Also, quantitative data were obtained from the databases of national statistics of Georgia and International Organization for Standardization.

Data collection was carried out by remote survey method through google.doc questionnaire. The questionnaire was sent to representatives of 20 small and medium-sized businesses, which carry out crewing activities, namely the employment of seafarers in Georgia. All companies have been ISO 9001 certified for at least 1 year. Company managers were involved in the research. The surveyed companies employ a maximum of 50 employees. The questionnaire was answered by the heads of 8 companies, which represents 5% of ISO 9001 certified companies (134 companies in total) in Georgia. Diagrams were used

in the study to visualize the results. The study examined the impact of ISO 9001 on factors such as the efficiency of company processes, service quality, customer satisfaction, company cost reduction, profit growth, competitiveness, risk management and reputation.

During the research process, a review of the literature on the research topic was carried out. As can be seen from scientific works, many researchers confirm that ISO 9001 is an important tool for increasing competitiveness. In the conditions of strong competition in the era of globalization, companies should pay special attention to the quality of products and services. ISO certification is an effective way to gain customer trust, increase satisfaction, reduce production costs and continuously improve companies. As a result of the effective implementation of the quality management standard, companies are given the opportunity to significantly increase performance, stability and competitiveness (Almutairi, 2024).

According to a study by the International Organization for Standardization, which surveyed 10 small and medium-sized businesses about the impact of the ISO standard on their business, certification opened the way for them to tap into new customers and markets, which contributed to faster business growth and increased profits. The main advantages of the implementation were expressed in the following: improved products and services, cost reduction and increased profits, increasing competitiveness, opening export markets, adding new customers and strengthening business, the ability to compete with larger companies, gaining and increasing customer trust, increasing the efficiency of business processes, marketing Strengthening, promoting compliance with regulations (ISO, 2014).

In their research, Kim and Kumar revealed that the results of implementing a quality management system are reflected in an improved system, standardized processes and an improved communication environment (Kim et al., 2011). Some researchers have found that when the motivation for standard implementation is based mostly on the internal interest of the organization, the positive effect of implementation is also higher, which is caused by the pursuit of real quality improvement. On the other hand, if the motivation is limited to commercial motives, then the positive effect of the implementation is also limited by the external effect, and without the internal interest, the other benefits of the standard cannot be achieved. A significant correlation was found between the duration of system implementation and the resulting success. The longer the time since the certification, the higher the benefits, especially in those companies whose motive is not only determined by external factors (del Castillo-Peces, 2018).

Lepistö, K., Saunila, M. and Ukko, J., claim that quality management has a positive effect on customer satisfaction (Lepistö et al., 2022). In another study, researchers found that the quality management system affects the company's product excellence, which is directly related to competitiveness; on the increase of staff capacity; on increasing customer satisfaction; Implementation and continuous improvement of internal tools for meeting customer expectations (García et al., 2014). Several researchers such as Fazal Ali Shaikh and Samiullah Sohu confirm that the advantages of ISO in the construction industry are employee satisfaction, material cost reduction and new business contracts in global markets (Fazal & Samiullah, 2020).

Noteworthy is the work of researchers Zhiqing Yang, Peiyao Liu and Lianfa Luo, which deals with the impact of ISO 9001 certification implementation on China's agri-food business. The researchers concluded that ISO 9001 certification is positively related to the export of agricultural products, ISO 9001 certification promotes exports by increasing business innovation activities, and third, the export effect is greater for food than non-food manufacturing firms (Zhiqing et al., 2023).

Barkat Ullah, in his research, found that as a result of certification, companies innovate more in countries with weak institutions. These findings explain the rapidly growing popularity of quality certification in

developing countries (Barkat, 2022). As Simon Hillnhagen, Alexander Mütze, Peter Nyhuis and Matthias Schmidt point out in their research, by implementing ISO 9001, not only business owners get benefits as a result of continuous improvement, but also employees and customers (Hillnhagen et al., 2023). As for the main motivators that push companies to implement a quality management system, they are increasing efficiency in the direction of market, productivity and competitiveness (Fonseca, 2022).

The significant benefits of ISO 9001 certification are demonstrated by the positive effects of increased customer satisfaction, customer retention, market share growth, employee productivity, and employee satisfaction resulting from the implementation of a quality management system through improved employee education, communication, teamwork, measurable quality goals, continuous improvement, and better work. from the conditions. ISO 9001 certificate helps to raise the image of the company and overcome trade barriers (Milovanović, 2023).

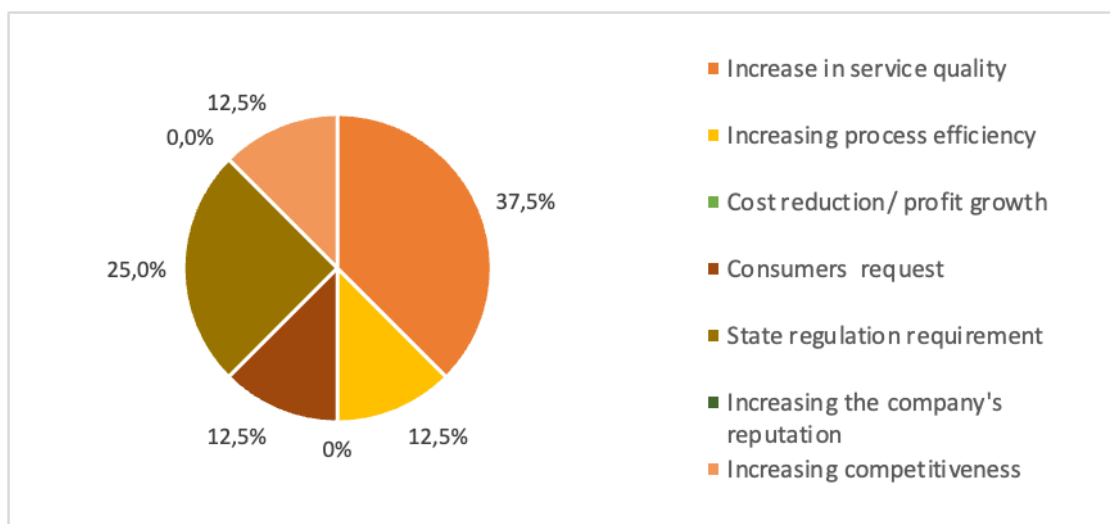
The implementation of the ISO standard on the one hand requires the organization to meet and bring the processes in line with the requirements of the standard, and on the other hand it promotes the development of the organization through continuous improvement (Olkiewicz, 2023). As a result of the implementation of the standard, there is a need to take into account user requirements, prevent defects and make continuous improvements in organizations, which affects the company's business results. This is the most important factor for gaining a competitive advantage (Nurcahyo et al., 2021).

Research results and discussion

A survey consisting of 10 questions was used to test the hypothesis, and the answer options ranged from zero impact to significant impact. The questionnaire was sent to representatives of 20 small and medium-sized businesses that carry out recruitment activities in Georgia. These are also all crewing companies, which are also recognized by the maritime regulatory body of the country, the Maritime Transport Agency of Georgia. The questionnaire was answered by the heads of 8 companies. The analysis of the obtained results is given in subsections according to each factor.

1. Motivations for certification of companies

Figure 2 shows that according to the respondents' answers, the motivations for certification differ for different companies. In addition, the motivators are both internal, such as: service quality, process efficiency, and external motivators: competitiveness, state regulation requirement, consumer request. The biggest share (37.5%) is the motivation to improve service quality, which means that most companies implement quality management systems to improve quality.

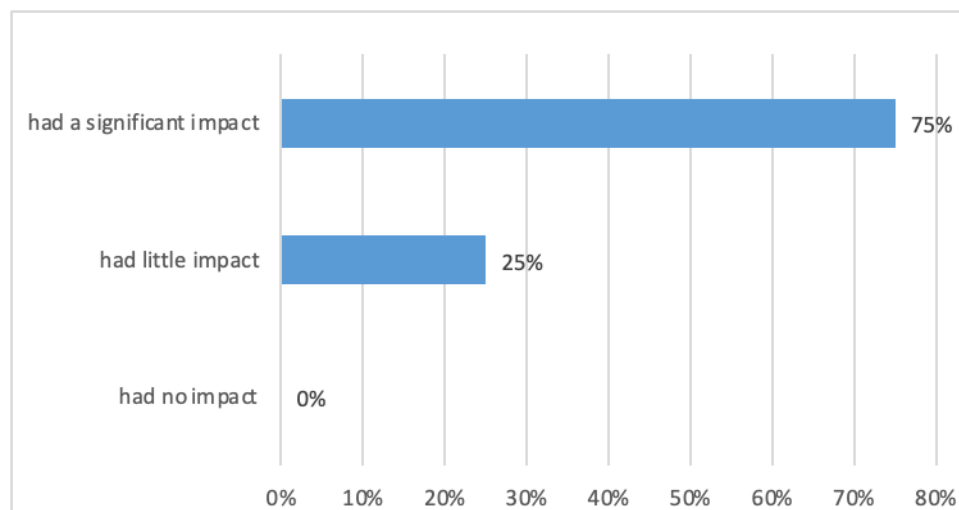


Source: authors' survey

Fig. 2. ISO certification motivators

2. Impact of quality management system on process efficiency

The results of the survey show (Figure 3) that 75% of respondents believe that ISO 9001 has a significant impact on increasing the efficiency of processes. In addition, according to 25%, the implementation of the quality management system had an insignificant impact. None of the respondents claim that ISO 9001 had no impact on processes. The obtained research results confirm the results of the previous research that ISO 9001 has a positive impact on the efficiency of the company's processes (Kim et al., 2011).

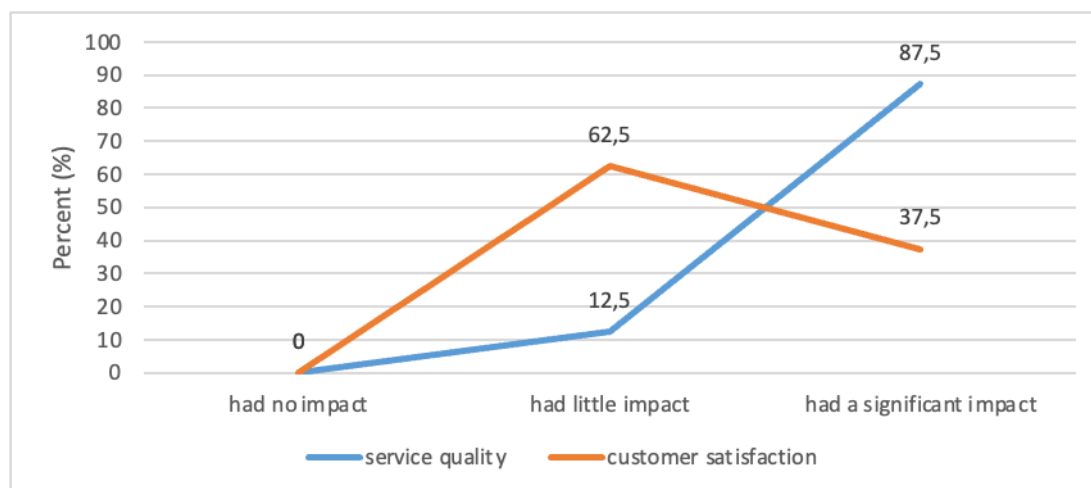


Source: authors' survey

Fig. 3. ISO 9001 impact on process efficiency

3. Impact of ISO 9001 on service quality growth and customer satisfaction

As Figure 4 shows, 87.5% of respondents believe that ISO 9001 has a positive impact on the company's customer service quality, and 62.5% believe that customer satisfaction has increased significantly. However, none of the respondents claimed that ISO 9001 had no impact on service. Therefore, within the framework of the results of the conducted research, it can be concluded that the quality management system has a significant impact on the quality of service of companies. The results are consistent with the results of a previous study regarding the positive impact of a quality management system on service quality (Milovanović, 2023).

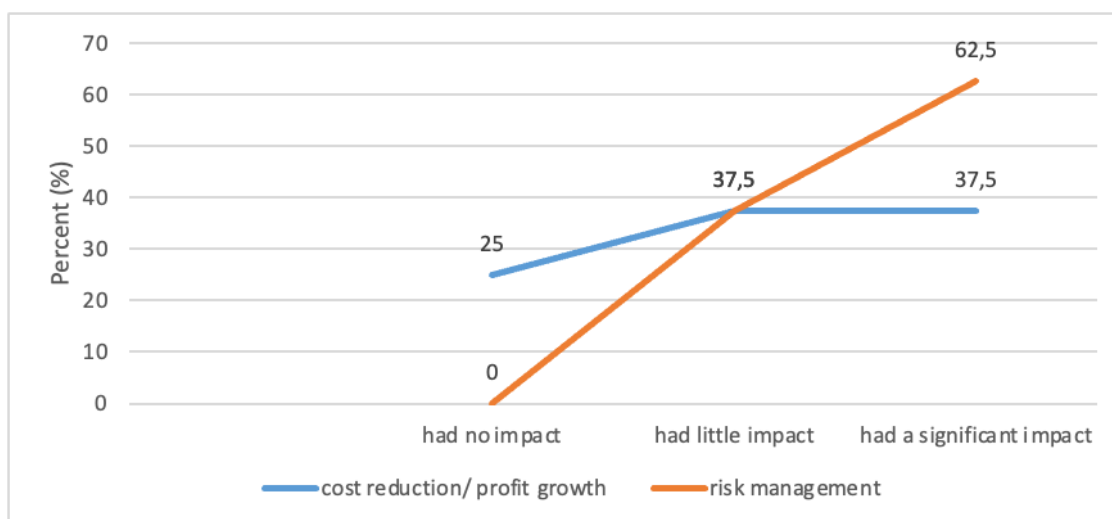


Source: authors' survey

Fig. 4. Impact of ISO 9001 on service quality growth and customer satisfaction

4. ISO 9001 impact on cost reduction, profit growth and risk management

Based on the results of the conducted research (Figure 5), the opinion of the respondents is divided in terms of cost reduction and profit growth. In particular, 25% of respondents believe that ISO 9001 has no impact on financial performance, however, the remaining 75% of respondents believe that the quality management system has had an impact on cost reduction and profit growth. As for risk management, the largest part (62.5%) believes that certification had a significant impact on risk prevention and reduction, while 37.5% believe that it had little impact on risk management. The obtained research results confirm the results of the previous research that ISO 9001 has a positive impact on the reduction of company costs (Fazal et al., 2020).



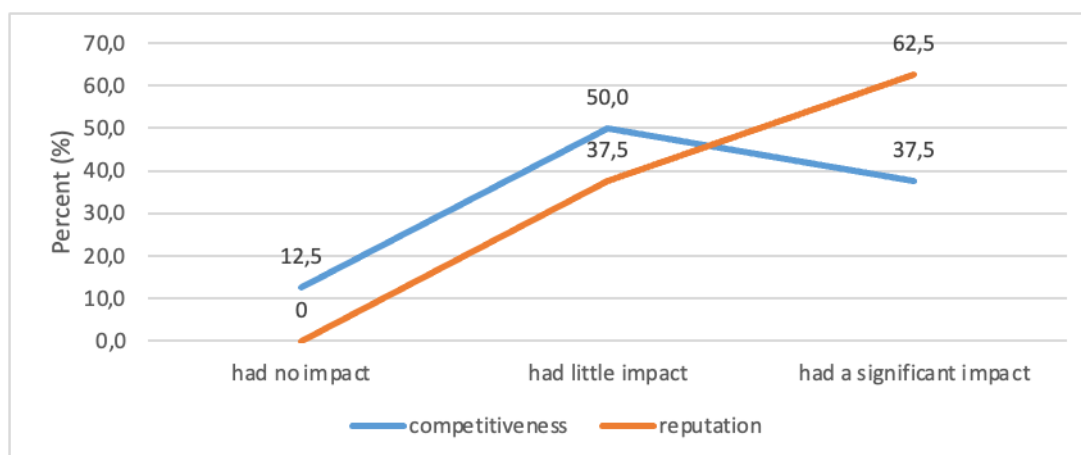
Source: authors' survey

Fig. 5. ISO 9001 impact on cost reduction, profit growth and risk management

5. Impact of ISO 9001 on the competitiveness and reputation of the company

Half of the surveyed respondents (50%) believe that the quality management system has little impact on the company's competitiveness (Figure 6), while 37.5% believe that ISO 9001 has a great impact on the company's competitiveness. In terms of reputation enhancement, a small number of company managers, 37.5%, believe that the certificate has a small impact on image enhancement, and the majority - 62.5% believe that the impact of the system on the company's reputation is significant. The positive

impact of ISO 9001 on company competitiveness has been found also in other studies (Fonseca et al., 2022; Nurcahyo et al., 2021; Almutairi et al., 2024).



Source: authors' survey

Fig. 6. Impact of ISO 9001 on the competitiveness and reputation of the company

6. ISO 9001 advantages and barriers

The respondents in the research emphasized the advantages that the certification brought to their company. These are: orderly and well-thought-out work processes that can always be improved, understanding and taking care to reduce risks, analysing the company's results through management analysis and understanding future plans, quality growth and continuous improvement. According to the respondents, the enterprises operating in the domestic market of Georgia will likely need to introduce an international standard to improve the efficiency of work processes and the quality of services. Some foreign companies may require ISO 9001 certification when approving suppliers or finding partners. Therefore, certification also increases the chance of attracting customers. One of the respondents emphasizes the benefits that the system has brought. Namely, high quality, transparency, lack of risks and analysis of processes.

As for the factors hindering business certification, companies mention the lack of awareness about ISO 9001 in Georgia, the absence of a national quality system, and the amount of service fees of certification organizations.

Conclusions, proposals, recommendations

Thus, as a result of the research we can draw the following conclusions.

- 1) The company's reputation, customer satisfaction, improved business processes are the most important levers for maintaining business sustainability in the face of global competition. One of the powerful tools to ensure the above is the implementation of the ISO 9001 quality management system.
- 2) The ISO certificate has a positive impact on the sustainable development of companies. It has especially positive impact on such factors as efficiency of processes, quality of service, risk management and growth of the company's reputation, which confirms the hypothesis – ISO 9001 has a positive impact on the efficiency of business processes in Georgia.
- 3) The quality management system ensures orderly and well-thought-out operation of work processes, prevention of company risks, continuous improvement of quality, thus gaining customer trust and increasing quantity, which ultimately, especially in the long term, results in increased profits.

- 4) The barrier to ISO 9001 certification in Georgia is low public awareness and difficult acceptance of its certification fee.
- 5) The limitation of this study is the small number of respondents and research focussing only on one specific direction of the investigated businesses - service industry. It is desirable to carry out studies on a larger scale in the future and also study the impact of the quality management system in the industrial and commercial spheres.

Bibliography

1. García, J. Á., Rama, M. D. L. C. D. R., & Alonso, M. V. (2014). The Effects of Quality Management Practices on Key Results: questionnaires sample for the industry of tourist accommodation in Spain. *Revista Brasileira de Gestão de Negócios*, 16, pp. 351-373.
2. Almutairi, S.; Weheba, G. (2024). Factors Correlating with Revisions of the ISO 9001 Quality Management Standard. *Journal of Management & Engineering Integration*, [s. l.], v. 11, n. 2, p. 25-36, 2018. Disponível em: <https://research.ebsco.com/linkprocessor/plinkid=9455b54b-2735-3498-9fdb-d74b6da7e577>.
3. Barkat, U. (2022). The impact of quality certification on SME innovation and the role of institutions. *Research in International Business and Finance*, Volume 62, 101748, ISSN 0275-5319.
4. Del Castillo-Peces, C., Mercado-Idoeta, C., Prado-Roman, M., & del Castillo-Feito, C. (2018). The influence of motivations and other factors on the results of implementing ISO 9001 standards. *European Research on Management and Business Economics*, 24(1), pp. 33-41.
5. Fonseca, L.M., Cardoso, M.C. and Nóvoa, M.H. (2022). "Motivations for ISO 9001 quality management system implementation and certification – mapping the territory with a novel classification proposal", *International Journal of Quality and Service Sciences*, Vol. 14 No. 1, pp. 18-36. <https://doi.org/10.1108/IJQSS-02-2021-0031>.
6. Fazal, A. S., Samiullah S. (2020). Implementation, Advantages and Management of ISO 9001 in the Construction Industry. *Civil Engineering Journal*. Vol. 6, No. 6, pp 1136-1142.
7. Hussain, M., Reynolds, P., Zahid, U., Khan, J., Tariq, R., & Maqbool, N. (2019). Relationship Between Total Quality Management Practices and Profitability: Case of Small Hotel Sector London (UK) (Doctoral dissertation, University of the West of Scotland).
8. Hillnhagen, S., Mütze A., Nyhuis, P., Schmidt, M. (2023). Influence of ISO 9001 on the configuration of production planning and control, *Procedia CIRP*, Volume 120, pp. 1292-1296, ISSN 2212-8271, <https://doi.org/10.1016/j.procir.2023.09.165>.
9. International Organization for Standardization. The ISO Survey of Management System Standard Certifications 2022. Retrieved from: <https://www.iso.org/the-iso-survey.html>.
10. International Organization for Standardization. (2014). Ten good thing for smes. Retrieved from: <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100283.pdf>.
11. Kim, D., Kumar, V. and Kumar, U. (2011). "A performance realization framework for implementing ISO 9000", *International Journal of Quality & Reliability Management*, Vol. 28 No. 4, pp. 383-404.
12. Lepistö, K., Saunila, M. and Ukko, J. (2022). "Enhancing customer satisfaction, personnel satisfaction and company reputation with total quality management: combining traditional and new views", *Benchmarking: An International Journal*, Vol. ahead-of-print No. ahead-of-print.
13. Milovanović, V., Paunović, M., & Casadesús, M. (2023). Measuring the Impact of ISO 9001 on Employee and Customer Related Company Performance. *Quality innovation prosperity*, 27(1).
14. Magodi A.Y., Daniyan I.A., Mpofu K. (2022). Investigation of the effect of the ISO 9001 quality management system on small and medium enterprises in Gauteng, South Africa. *South African Journal of Industrial Engineering*, 33 (1), pp. 126 - 138, DOI: 10.7166/33-1-2521.
15. Nurcahyo, R. Zulfadlillah, Habiburrahman, M. (2021). Relationship between ISO 9001:2015 and operational and business performance of manufacturing industries in a developing country (Indonesia), *Heliyon*, Volume 7, Issue 1, e05537, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2020.e05537>.
16. National Statistics Office of Georgia. (2024). Retrieved from: <https://www.geostat.ge/en/modules/categories/64/business-register>.
17. Olkiewicz, m., Dyczkowska J., Chamier-Gliszczyński, N., Królikowski, T. (2023). Quality management in organizations within the framework of standardized management systems, *Procedia Computer Science*, Volume 225, pp. 4101-4109, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2023.10.406>.
18. Shaohan C., Minjoon J. (2018). A qualitative study of the internalization of ISO 9000 standards: The linkages among firms' motivations, internalization processes, and performance. *International Journal of Production Economics* 196 (2018) pp. 248-260.
19. Zhiqing, Y., Peiyao, L., Lianfa, L. (2023). Growing exports through ISO 9001 quality certification: Firm-level evidence from Chinese agri-food sectors, *Food Policy*, Volume 117, 102455, ISSN 0306-9192.