

Internal Audits of Metrological Services: Prospects for Automation

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The features and problems of conducting internal audits of metrological services, as well as the prospects for their automation, are studied. The results obtained can be used as an example to improve the quality management systems of manufacturing enterprises. Based on the positive assessments of the test automation of the metrological support process, it is also recommended to automate internal audits of the metrological service using the model of this process presented in the study. As a result, this will make it possible to achieve maximum efficiency and effectiveness of automation of audit activities, as well as improve the quality management of the metrological support process in the organization.

References

1. Great Soviet encyclopedia, 3rd ed. [in 30 vol.], ch. ed. A.M. Prokhorov, ed. N.K. Baybakov, etc, Moscow, *Sovetskaya entsiklopediya*, 1976, vol. 25, 600 P.
2. RF Federal Law of 26.06.2008 N 102-FZ On ensuring the uniformity of measurements.
3. Posokhina A.V. Internal audit: study guide, Perm', *PGNU*, 2022, part 1, 116 P.; <http://www.psu.ru/files/docs/science/books/uchebnie-posobiya/posohina-vnutrennij-audit.pdf> (acc.: 11.06.2024).
4. Kadyrberdina Yu.A., Bannova A.V., Bakieva G.R., Khakimov R.M. Development of a methodology for assessing metrological support and proposals for improving the quality of metrological support at JSC UAPA, All-Russian sc. and pract. conf.: Topical issues of hardware engineering, Ufa, *UUNT*, 2023, pp. 73–82.
5. Nikolaeva E.A., Nikolaev A.V., Akseanova O.Yu., Eremin V.A., *Vestnik Kuzbasskogo gosudarstvennogo tekhnicheskogo universiteta*, 2019, no. 4(134), pp. 29–34.
6. Gordeeva G.V., *Evraziyskiy soyuz uchenykh*, 2020, no. 12-5(81), pp. 32–35.
7. Borontov R.S., *Nauchnyy Lider*, 2022, no. 48(93), pp. 14–16.
8. Karimbekov N.A., Tulekbaeva A.K., Otunshieva A.E., etc, *Vestnik nauki Yuzhnogo Kazakhstana*, 2021, no. 3(15), pp. 23–30.
9. Description, standardization and regulation of business processes. What is the difference? <https://deep-vision.one/knowledge/opisanie-standartizatsiya-i-reglamentatsiya-biznes-processov-v-chem-raznica> (acc.: 11.06.2024).
10. Kol'churina I.Yu., Kol'churina M.A., *Modern Economy Success*, 2022, no. 6, pp. 137–142.
11. Bazhanova N.V., *Studencheskiy vestnik*, 2022, no. 17-9(209), pp. 9–10. EDN CFXJUN.
12. Moskvitiina A.V., Filatova T.A., *Nauchnyy al'manakh*, 2022, no. 3-1(89), pp. 15–19. EDN DWFPSC.
13. Truntaeva Yu.V., Shibileva O.V., *Novyy universitet. Seriya: Ekonomika i pravo*, 2013, no. 11(33), pp. 89–92. EDN RVOEWW.
14. Rzhavin G.M., *Bankovskoe delo*, 2018, no. 5, pp. 52–56. EDN ORKGJS.
15. Gordeeva G.V., Rzhavin G.M., Bannikov S.A. Prospects for automation of metrological support processes, XVIII Int. sc. and pract. conf.: Challenges of modernity and strategies for the development of society in a new reality, Moscow, *ALEF*, 2023, pp. 231–239. DOI: 10.34755/IROK.2023.27.84.063. EDN SBPIVX.

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