



EVALUATION OF EXCEL APPLICATION IMPLEMENTATION IN SUPPORTING DESK AUDIT AT DIY INSPECTORATE

Heny Puspita Dewi and Krisnhoe Rachmi Fitrijadi

Faculty of Economics and Business, Jenderal Soedirman University

*Email Corresponding Author: heny.dewi@mhs.unsoed.ac.id

Abstract

The internship at the Inspectorate of the Special Region of Yogyakarta (DIY) focused on evaluating the use of Microsoft Excel in supporting desk audits. The main issue faced was inefficiency in processing and analyzing audit data due to manual methods. Manual auditing made it difficult for auditors to monitor the flow of funds received and disbursed by Regional Work Units (SKPD), as well as requiring them to re-examine accountability reports (SPJ). The purpose of the internship was to evaluate the effectiveness of Excel in managing audit evidence, identify operational challenges, and formulate solutions to improve audit accuracy and efficiency.

The methods used were observation and direct participation through document analysis by practically applying Excel during the audit process. Document audit analysis techniques were carried out by inputting nominal values for verification using an Excel formula programming template design for automated calculations.

The results showed that Excel significantly improved data accuracy, reduced processing time, and facilitated better decision-making. Auditors could track discrepancies more effectively and generate comprehensive reports. This internship demonstrated the importance of digital tools in modern audit practices. By adopting Excel, the Inspectorate can achieve higher efficiency and reliability in its operations.

Keywords: *Excel, Desk Audit, Efficiency.*

Abstrak

Magang di Inspektorat Daerah Istimewa Yogyakarta (DIY) berfokus pada evaluasi penggunaan Microsoft Excel dalam mendukung desk audit. Masalah utama yang dihadapi adalah ketidakefisienan dalam memproses dan menganalisis data audit akibat metode manual. Audit manual membuat auditor mengalami kesulitan dalam memantau aliran dana yang diterima dan disalurkan oleh Satuan Kerja Perangkat Daerah (SKPD), serta harus memeriksa ulang surat pertanggungjawaban (SPJ). Tujuan magang adalah mengevaluasi efektivitas Excel dalam mengelola bukti audit, mengidentifikasi tantangan operasional, dan merumuskan solusi peningkatan akurasi serta efisiensi audit.

Metode yang digunakan adalah observasi dan partisipasi langsung melalui analisis dokumen dengan menerapkan aplikasi Excel secara praktis selama proses audit. Teknik analisis dokumen audit dilakukan dengan menginput nominal untuk diverifikasi dengan desain template pemrograman formula Excel untuk otomatisasi perhitungan.

Hasilnya menunjukkan bahwa Excel secara signifikan meningkatkan akurasi data, mengurangi waktu pemrosesan, dan memfasilitasi pengambilan keputusan yang lebih baik. Auditor dapat melacak ketidaksesuaian dengan lebih efektif serta menghasilkan laporan komprehensif. Magang ini menunjukkan pentingnya alat digital dalam praktik



audit modern. Dengan mengadopsi Excel, Inspektorat dapat mencapai efisiensi dan keandalan yang lebih tinggi dalam operasionalnya.

Kata Kunci: Excel, Desk Audit, Efisiensi.

A. INTRODUCTION

In the era of growing digitalization, the use of information technology has become one of the keys to efficiency in various sectors, including financial audits (Muslimin, Purnamasari, & Nur, 2024). The Inspectorate of the Special Region of Financial (DIY), as an internal government oversight agency, plays a strategic role in ensuring accountability and transparency in regional financial management (Inspectorate, 2025). However, the desk audit process conducted by the DIY Inspectorate still relies on manual methods, such as conventional data recording and document analysis without automation support. Manual methods cause inefficiencies in data processing and analysis and are prone to human error due to limitations in automatic data processing (Fadilla et al., 2025). Additionally, auditors face challenges in monitoring the flow of funds received and disbursed by Regional Work Units (SKPD) and in re-examining accountability reports (SPJ), which require high precision.

The main issue faced by the DIY Inspectorate is the inefficiency in processing and analyzing audit data due to manual methods. According to Krisyandi and Noviyanti (2022), manual audit processes often lead to data inaccuracies and delays in report preparation. Therefore, a solution is needed to improve the efficiency and accuracy of the audit process.

The proposed solution is the use of Microsoft Excel to support desk audits. Excel has the ability to automate calculations through formulas, reducing the potential for human error and speeding up data analysis. According to

Learn Microsoft (2023), Excel can be used to create structured audit templates with data visualization features using colors, charts, and pivot tables.

During the Merdeka Belajar Kampus Merdeka (MBKM) internship, steps will include analyzing audit documents by inputting nominal values for verification using an Excel formula programming template design for automated calculations. Active participation from DIY Inspectorate auditor is also crucial in the desk audit process, particularly in providing input regarding data needs and formats that align with audit standards.

The expected output from implementing Excel is improved efficiency and effectiveness in the desk audit process. Evaluation results show that Excel significantly improves data accuracy, reduces processing time, and facilitates better decision-making. Auditors can track discrepancies more effectively and generate comprehensive reports (Septiana & Djasuli, 2024). Additionally, the use of Excel opens opportunities for developing more modern audit information systems in the future. These outputs are expected to support digital transformation in regional financial management within government environments like the DIY Inspectorate.

B. IMPLEMENTATION AND METHODS

The MBKM internship was carried out at the DIY Inspectorate located at Cendana Street No. 40, Semaki, Umbulharjo District, Yogyakarta City, Special Region of Yogyakarta. The internship location was chosen because of the strategic role of the DIY Inspectorate in supporting good financial governance.



The internship lasted four months, from August 5 to December 5, 2024, with a focus on evaluating the use of Microsoft Excel to support desk audits.

Most interns had backgrounds in accounting programs and possessed a basic understanding of financial audits and software applications like Microsoft Excel. The strategic location of the internship at the DIY Inspectorate provided participants with the opportunity to practice audit theories directly in a professional work environment. Additionally, the extended duration allowed participants to gain an in-depth understanding of the audit process and identify challenges faced by auditors in their daily work.

The method used during the MBKM internship involved observation and direct participation through document analysis, applying Microsoft Excel practically during the audit process. Audit document analysis techniques were carried out by inputting nominal values for verification using an Excel formula programming template design for automated calculations. According to Learn Microsoft (2023), the use of pivot tables and automatic formulas can help auditors analyze data dynamically and systematically. The steps taken during the desk audit process included: 1) collecting audit documents, including SPJ and SKPD financial reports; 2) designing Excel templates tailored to audit needs; 3) inputting data into templates for automatic verification; and 4) analyzing audit results using data visualization features such as charts or pivot tables. This method was designed to ensure that each stage of the audit could be performed faster and more accurately.

The internship activities covered two main aspects: theoretical and practical financial auditing. The theoretical aspect included understanding desk audit concepts, local government

accounting principles, and regulations related to regional financial management, as outlined in Government Regulation Financial. 60 of 2008 on the Internal Control System of the Government (SPIP). The practical aspect involved applying Microsoft Excel in the audit process, including creating audit templates, programming automatic formulas, and using data visualization features. Combining theory and practice in the internship activities enhanced participants' competencies in addressing real-world audit challenges (Cunha, Barros Da, Erom, & Talok, 2023).

From the implementation of the MBKM internship, it was found that the application of Excel significantly improved audit efficiency and accuracy. The time required to process data decreased by up to 40%, and auditors could track discrepancies more effectively. According to Oktaviani et al. (2024) in the article "Optimization of Accounting Information System Learning with Excel-Based Application Development in Supporting Digital Marketing and Financial Strategies," the use of technology like Excel can help auditors produce more comprehensive and easily understandable reports. These results indicate that the use of digital tools like Excel is highly relevant to supporting modern audit practices in government environments such as the DIY Inspectorate.

C. RESULTS AND DISCUSSION

The implementation of Microsoft Excel to support desk audits at the DIY Inspectorate has shown significant results in addressing issues of inefficiency and audit data inaccuracy. One of the main solutions was the use of specially designed Excel templates for automated calculations. The Excel template allows auditors to input nominal data from SPJ documents and SKPD financial reports,

then automatically verify it through pre-programmed formulas.

According to Learn Microsoft (2023), features such as pivot tables and conditional formatting greatly assist in analyzing data dynamically and systematically. Additionally, data visualization using tables, charts, and colors makes it easier for auditors to track discrepancies and generate more comprehensive reports. The implementation of Excel templates was supported by short training sessions for auditors to ensure proper utilization of advanced Excel features in accordance with audit standards.

The use of Excel in desk audits not only speeds up the analysis process but also improves data accuracy. According to Fadilla et al. (2025), manual methods often lead to human errors and take longer, while automation through Excel can significantly reduce these risks. With automated calculations, auditors can focus on data interpretation and strategic decision-making rather than repetitive manual tasks.

The outputs of the implementation of Excel in auditing show significant improvements in efficiency and accuracy. The picture of the time it takes to process data is reduced by up to 40%, while data accuracy is improved due to the lack of manual intervention. The following is an overview of table 1 which shows the comparison between manual and Excel-based methods in the desk audit process:

Table 1. Efficiency Comparison Between Manual and Excel Methods

Indicators	Method	
	Manual	Excel-based
Data Processing Time	5-7 days	3-4 days
Level Accuracy	85%	98%

Indicators	Method	
	Manual	Excel-based
Data (%)		
Accuracy Reports (%)	80%	95%
Number of Non-Conformities	15-20 cases	5-7 cases

The data in the table above shows that the implementation of Excel not only speeds up the audit process but also improves the quality of audit results. According to Oktaviani et al. (2024) in the article "Optimization of Accounting Information System Learning with Excel-Based Application Development in Supporting Digital Marketing and Financial Strategies," the use of technology like Excel can help auditors produce more comprehensive and easily understandable reports. This serves as an indicator of the success of the internship program in improving the efficiency and reliability of DIY Inspectorate operations.

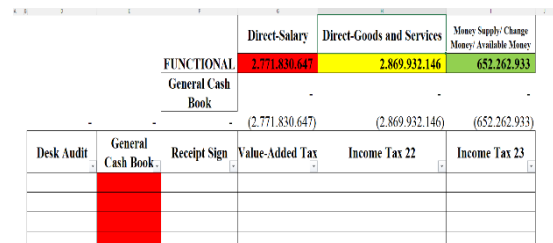


Figure 1. Examples of Data Visualization in Excel

The figure above shows how Excel's data visualization features help auditors present information more clearly and structured. Auditors can more easily identify trends, anomalies, and discrepancies in audit data through data visualization (Rahmawati, Maulida, & Rahmatika, 2024).

The main driving factors for implementing Excel in desk audits were the DIY Inspectorate management team's



support for technological innovation and the interns' strong foundational understanding of Excel, enabling them to design audit templates tailored to needs. Management support and human resource competence are key success factors in implementing new technologies (Gunawan, Rizki, Anindya, Amalia, & Setiani, 2025). Additionally, active participation from the auditor team in providing input on Excel template designs was another contributing factor to the program's success.

There are several inhibiting factors that need to be considered. First, some auditors are still resistant to change because they are more comfortable using manual methods. According to Ngoma, et al. (2024), resistance to new technologies is often caused by a lack of understanding of the benefits of these technologies. Second, the limited training time for auditors to understand Excel features in depth is also a challenge. According to Nurlaila, Zuriatin, & Nurhasanah (2024), low digital literacy often becomes a barrier to implementing technology in government environments. To address these challenges, more intensive training and practical guides should be prepared to help auditors gradually master Excel.

As a result of the implementation of the Excel-based solution, the DIY Inspectorate has succeeded in increasing efficiency and effectiveness in the desk audit process. The output of this program is not only in the form of structured audit templates, but also improving the quality of audit report results that are more accurate and timely. Although there are several obstacles, driving factors such as management support and intern competence are the key to the success of this program. It is hoped that this solution can be a model that can be replicated in other audit institutions to support digital

transformation in regional financial management.

D. CLOSING

Conclusion

The evaluation of the implementation of the Microsoft Excel application in supporting the desk audit at the DIY Inspectorate showed significant results in improving the efficiency and accuracy of the audit process. Using Excel through automated calculation templates, pivot tables, and data visualization features helped auditors reduce data processing time by up to 40% and increase data accuracy from 85% to 98%. According to Learn Microsoft (2023), Excel features greatly assist in analyzing data dynamically and systematically, making it easier for auditors to track discrepancies and generate comprehensive reports.

The main supporting factor in the implementation of Excel in the desk audit is the support of DIY Inspectorate management team to technological innovation, competence interns, and active participation of the auditor team in providing input related to the design of Excel templates. The support of management and human resource competence is a key factor in the success of the implementation of new technology (Gunawan, Rizki, Anindya, Amalia, & Setiani, 2025). However, the inhibiting factor encountered is the lack of digital literacy of some auditors towards advanced features of Excel, such as pivot tables and automatic formulas. According to Nurlaila, Zuriatin, & Nurhasanah (2024), lack of understanding of technology is often an obstacle in the implementation of innovation in the government environment.

Suggestion

Based on the analysis of strengths and weaknesses in implementing the



Excel program in the desk audit process, several suggestions can be made to improve audit performance at the DIY Inspectorate. First, more intensive training on advanced Excel features should be conducted regularly to improve auditors' digital literacy. Second, it is recommended to develop more complex Excel templates integrated with regional government accounting information systems to support broader data analysis. According to Oktaviani et al. (2024), developing Excel-based applications can be a strategic step to support digital transformation in financial audits. Third, collaboration between the DIY Inspectorate and universities through internship programs like MBKM can be expanded to introduce other technological innovations in audit practices. This will ensure the sustainability of activities and continuous improvement of auditors' capacities.

E. REFERENCES

- Cunha, Barros Da, A., Erom, K., & Talok, D. (2023). The Influence of Work Motivation, Internship Experience and Soft Skills on Student Work Readiness. *Journal of Applied Management Science*, 846-52.
- Fadilla, A., Army, E., Rustam, Y. D., Indrijawati, A., & Pontoh, G. T. (2025). The Role of Artificial Intelligence in Improving Audit Quality: A Systematic Literature Review. *Journal of Accounting and Governance*, 146-165.
- Gaol, L. L., Suryani, P., & Marpaung, C. R. (2024). The Role of Information Technology in Supporting the Implementation of Risk-Based Audit in the Toba Regency Government. *Journal of Audit and Accounting, Faculty of Economics, Tanjungpura University*, 20-35.
- Gunawan, A., Rizki, A. S., Anindya, T. F., Amalia, A. P., & Setiani, W. F. (2025). Human Resource Management in the Digitalization Era. *Center for Publication of Management Sciences*, 262-272.
- Inspectorate. (2025). *Duties and Functions: Inspectorate*. Taken back from Inspectorate.jogjaprovo: <https://inspektorat.jogjaprovo.go.id/page/0238134c-9f35-4f1d-bfd2-939dacac7578>
- Krisyadi, R., & Noviyanti. (2022). Analysis of Factors Affecting the Delay of Audit Reports. *Owner: Accounting Research & Journal*, 147-156.
- Learn Microsoft. (2023, March). Taken back from Microsoft Learn: <https://learn.microsoft.com>
- Muslimin, M. F., Purnamasari, R., & Nur, S. W. (2024). Audit Digitalization: A Transformation in Big Data Management. *Economos: Journal of Economics and Business*, 142-148.
- Ngoma, N. N., Zandrato, F., Nahampun, B., Siregar, N., Kadja, Z. H., & Manudjawa, D. (2024). Influencer of Perceived of Technology and Self-Efficacy on Technology Adoption and Digitalization in the Learning Process. *Edu Scholar: Scientific Journal of Education*, 1573-1580.
- Oktaviani, S. A., Ardhiarisca, O., Andriyani, F., Pratiwi, B. Y., & Pinandita, C. P. (2024). Optimizing Accounting



Information System Learning with the Preparation of Excel-Based Applications in Supporting Digital Marketing and Financial Strategies. *International Journal for accountancy, Finance, and Banking*, 2301-2312.

Rahmawati, I., Maulida, N. N., & Rahmatika, D. N. (2024). The Effect of the Application of Big Data Technology and Auditor Independence on the Effectiveness of the Audit Process. *Journal of Accounting Control*, 85-102.

Septiana, L. N., & Djasuli, M. (2024). The Role of Accounting Software in the Effectiveness of Financial Statement Preparation (Case Study on the Accounting Services Office of Lilis Ardini Bojonegoro). *Journal of Accounting and Economics*, 42-50.