

Comparative Analysis Of Financial Reporting Records In Sql And Manual Systems

(Case Study At Pt Pratiwi Asia Sejati For The Period 2022–2025)

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Abstract

This study aims to describe the accounting recording processes conducted manually and using a SQL-based system, as well as to compare the effectiveness of these two systems in supporting the preparation of the company's financial statements. The research method employed in this study is a qualitative approach with a descriptive comparative method. Data collection techniques included interviews, observations, and documentation involving parties directly engaged in the accounting recording process at PT Pratiwi Asia Sejati. The results of the study indicate that the manual recording system has limitations in terms of efficiency, data accuracy, and ease of transaction tracing. The step-by-step nature of manual recording, which heavily relies on individual accuracy, increases the risk of input errors and delays in financial reporting. In contrast, the SQL-based recording system is capable of integrating data within a centralized database, thereby accelerating the recording process, improving the accuracy of information, facilitating transaction tracking, and strengthening the company's internal control. The SQL-based accounting recording system is found to be more effective and efficient than the manual system in supporting the preparation of financial statements at PT Pratiwi Asia Sejati. The implementation of a SQL-based system contributes positively to the quality of financial information management and supports more precise managerial decision-making.

Keywords: *Accounting Information System, SQL, Manual Recording, Financial Statements, Accounting Digitalization.*

1. Introduction

The development of information technology drives the transformation of accounting recording systems from manual methods to integrated database-based systems. Accounting digitalization not only increases operational efficiency but also plays a role in producing financial information that is more relevant, reliable, and timely. SQL-based systems enable real-time data integration, automatic validation, as well as the provision of audit trails that strengthen the company's internal control.

Previous research shows that accounting digitization improves the efficiency and accuracy of financial reporting (Panjaitan et al., 2025; Syahputra, 2023). However, most studies focus on system development or general literature review. Comparative research based on real cases that compares manual systems and SQL-based systems during a company's transition period is still relatively limited. Additionally, studies that explore user experiences, workflow changes, and managerial implications of system transitions have not been discussed in depth.

Based on these conditions, there is a research gap regarding the lack of empirical comparative studies in the context of actual transitions and the limited qualitative approaches analyzing the impact of systems on organizational dynamics and management decision-making.

This study offers novelty in three aspects. First, contextually, this study examines the process of transitioning from a manual system to an SQL system at PT Pratiwi Asia Sejati during the 2022–2025 period. Second, analytically, this study not only compares technical aspects but also analyzes the implications for workflow and management decision-making. Third, methodologically, this study uses a comparative descriptive qualitative approach to explore user experiences during the digitalization process.

Thus, this research is expected to provide theoretical contributions in the development of Accounting Information Systems studies as well as practical implications for companies that are undergoing a digital transformation of their accounting recording systems.

2. Literature Review

This study discusses the comparison between manual recording systems and SQL-based systems in the preparation of financial reports. The analysis is based on the Accounting Information System (AIS) theory, Technology Acceptance Model (TAM), and the concept of Good Governance as a conceptual framework to understand the technical and behavioral aspects in system transformation.

Theoretical Foundation

The Technology Acceptance Model developed by Fred D. Davis explains that technology acceptance is influenced by Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). PEOU relates to the perception of the ease of use of the system, whereas PU relates to the perception of the system's benefits in improving performance.

In the context of accounting recording, an SQL-based system will be easier to accept if users feel ease in the processes of inputting data, searching for data, and compiling reports. In addition, if the system can increase efficiency, reduce errors, and speed up reporting, then the system is perceived as beneficial. Thus, the success of SQL implementation is determined not only by technical aspects but also by users' perceptions of ease and benefits.

This study is also supported by the concept of Good Governance developed by the United Nations Development Programme, which emphasizes the principles of transparency, accountability, and effectiveness in organizational management. An SQL-based system supports these principles through data integration, real-time reporting, and an audit trail that strengthens internal control.

Accounting Information Systems and Digitalization

Accounting Information Systems (AIS) are systems that process transaction data into relevant and reliable financial information to support decision-making. AIS plays a role in supporting company operations and strengthening internal control.

Technological developments encourage the transformation from manual systems to database-based systems. Manual systems are gradual and rely on individual accuracy, making them prone to human error and delays in reporting. In contrast, SQL-based systems allow for integrated data storage, automatic validation, and real-time report presentation, thereby improving the efficiency and accuracy of financial information.

Comparison and System Transition

The main difference between manual systems and SQL lies in the data processing mechanism. Manual systems require a hierarchical process from journals to financial statements, while SQL systems operate in an integrated manner so that transaction inputs are automatically reflected in the reports.

Transitioning to an SQL system is not only a technical change but also an organizational change that affects workflow and staff roles. The success of the transition is greatly influenced by human resource readiness as well as perceptions of the ease and benefits of the system as explained in the TAM.

Based on the synthesis of theory and previous research, digitization through SQL has the potential to improve the speed, accuracy, and transparency of financial reporting. Therefore, this study comparatively analyzes the effectiveness of manual and SQL systems in supporting the preparation of financial statements at PT Pratiwi Asia Sejati.

3. Research Methods

This study uses a qualitative approach with a comparative descriptive method to analyze the differences between manual recording systems and SQL-based systems in the preparation of financial statements. A qualitative approach was chosen because this research aims to understand processes, user experiences, and organizational dynamics during system transitions, rather than merely measuring relationships between variables statistically. The research object is PT Pratiwi Asia Sejati during the period 2022–2025, which is when the company experienced a shift from a manual recording system to an SQL-based system. This period allows the researcher to make direct comparisons between the two systems in a real operational context.

Data collection techniques were carried out through in-depth interviews with management and accounting staff, observation of the transaction recording process, as well as documentation of financial reports and company work procedures. The data obtained were analyzed through three stages, namely data reduction to filter relevant information, data presentation in the form of comparative descriptions, and drawing conclusions to identify differences in the effectiveness of the two systems. The analysis process was conducted systematically to obtain a comprehensive picture of the efficiency, accuracy, and managerial implications of implementing an SQL-based system compared to a manual system.

4. Results and Discussion

The research results indicate that the manual recording system has limitations in terms of efficiency and accuracy. The recording process is carried out in stages, starting from journals, ledgers, to the preparation of financial statements, thus requiring relatively more time. Dependence on individual accuracy increases the risk of human error, such as recording mistakes, data duplication, and delays in report preparation. In addition, the manual system complicates the process of tracking historical transactions because there is no automatic data search mechanism available. This condition affects the speed of information presentation and increases the workload of accounting staff.

Conversely, SQL-based systems show a significant improvement in speed and data integration. Transactions entered once are automatically linked to relevant reports, allowing the preparation of income statements and balance sheets to be done more quickly. This system also provides automatic validation and audit trail features that allow each transaction to be traced, thus reducing the potential for errors and data manipulation. Centralized database integration minimizes duplicate records and enhances information consistency across company departments.

Based on the Technology Acceptance Model (TAM) perspective, the implementation of the SQL system is accepted by users because it is perceived to improve performance (Perceived Usefulness) and is relatively easy to use (Perceived Ease of Use). Accounting staff experience ease in the processes of data entry, data retrieval, and preparing reports more systematically compared to manual systems. This perceived benefit is reflected in increased work efficiency and reduced recording errors, making the system considered helpful in completing tasks more effectively.

From the perspective of Good Governance, the SQL system strengthens transparency and internal control within the company. The presence of real-time reports, user access restrictions, and audit trails increases accountability in financial data management. This system enables management to obtain faster and more accurate information to support decision-making. Thus, the implementation of SQL not only impacts the technical aspects of record-keeping but also contributes to improving the quality of governance and the reliability of the company's financial reporting.

5. Conclusion

Based on the results of the comparative analysis that has been conducted, it can be concluded that the SQL-based recording system is more effective and efficient compared to the manual system in

supporting the preparation of financial statements at PT Pratiwi Asia Sejati. The manual system still has limitations in terms of data processing speed, accuracy of recording, and ease of transaction tracking, as it heavily depends on individual ability and accuracy. This condition has the potential to increase the risk of recording errors as well as delays in the presentation of financial statements.

Conversely, the implementation of SQL-based systems is able to integrate data into a centralized database, provide automatic validation, and present reports more quickly and systematically. The presence of audit trail features and user access restrictions also strengthens internal controls and enhances financial information transparency. From a technology acceptance perspective, SQL systems are perceived as more useful and relatively easy to use, thereby supporting improved performance of accounting staff. Overall, the transformation towards an SQL-based system not only increases reporting accuracy and speed but also contributes to the quality of management decision-making and the strengthening of corporate governance.

6. Bibliography

- Agustiniingsih, W., Suparlan, Wardiningsih, R., Noviwawan, L. A., Risprawati, D., & Ferdous, N. N. (2023). Optimasi Literasi Digital: Memahami Sistem Akuntansi Menggunakan Sql Server Untuk Pengelolaan Database Di Universitas Mataram. *Alkhidmad - Jurnal Pengabdian Masyarakat*, 7, 1–9.
- Davis, F. D. (2013). *Information Technology Introduction*. 13(3), 319–340.
- Fanshurna, T., Warda, I. L., Damayanti, R., & Aprilia, C. P. (2025). Implementasi Sistem Akuntansi Accurate Untuk Meningkatkan Efisiensi. *Jurnal Penelitian Nusantara*, 1(2), 71–79.
- Firdaus, R. (2024). Perbandingan Sistem Informasi Akuntansi Manual Dan Berbasis Teknologi. *JIIIC: Jurnal Intelek Insan Cendikia*, 1(9), 5975–5980. <https://jicnusantara.com/index.php/jiic>
- Hidayatussa'adah, & Firdaus, R. (2025). Pentingnya Accounting Information System: Definition, Components. *JICN: Jurnal Intelek Dan Cendekiawan Nusantara*, 1(6), 9172–9176.
- Irawan, D., & Gunawan, A. (2025). *Metode Penelitian Ekonomi dan Bisnis*. UMSU PRESS.
- James Gustave Speth. (1997). *UNDP Governance Policy Paper*. Communications Development Incorporated USA. Addis Ababa, Ethiopia.
- Panjaitan, C., Nayma, S., Afriliyani, I., & Yani Panggabean, F. (2025). Analisis Laporan Keuangan Di Era Digital: Tantangan Dan Peluang Bagi Perusahaan Modern. *Jurnal Akuntansi Keuangan Dan Bisnis*, 3(2), 121–125. <https://jurnal.ittc.web.id/index.php/jakbs/index>
- Pratiwi, N., & Sari, D. (2024). Analisis Sistem Informasi Akuntansi (SIA) Penggajian dan Pengupahan pada Rumah Sakit Ibu dan Anak Zainab Pekanbaru. *Ikraith-Ekonomika*, 7(1), 281–292.
- Putri, D. F. (2022). Analisis Sistem Pencatatan Manual Laporan. *SIBATIK Journal*, 1(6), 763–770.
- Rachmawati, S., & Nurjanah, N. (2017). Implementasi Data Keuangan Dengan Zahir Accounting Pada Pt. Anugerah Analisis Sempurna. *Jurnal Akuntansi, Ekonomi Dan Manajemen Bisnis*, 5(2), 267. <https://doi.org/10.30871/jaemb.v5i2.537>
- Syahputra, C. (2023). Rancang Bangun Sistem Informasi Akuntansi Berbasis Web (Studi Kasus: PT Solusi Integrasi Teknologi). *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 53(1), 1–19.