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Design And Implementation Of A Web-Based E-Voucher Platform As A Digitalization Media At PT Hutama Karya

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Abstrak

Penelitian ini bertujuan untuk mengembangkan dan mengimplementasikan sistem E-Voucher berbasis web untuk meningkatkan efisiensi, akurasi, dan transparansi di PT Hutama Karya (Persero). Penelitian ini membahas keterbatasan sistem berbasis Microsoft Excel yang ada, khususnya kesalahan entri data, tidak adanya riwayat perubahan, dan pemantauan kewajiban yang belum terbayar yang tidak efisien. Penelitian ini menggunakan pendekatan penelitian terapan dengan metodologi Design Science Research (DSR). Sistem dikembangkan mengikuti model Waterfall. Data dikumpulkan melalui observasi, wawancara terstruktur, dokumentasi, dan kuesioner. Aplikasi dikembangkan menggunakan framework Laravel dengan MySQL sebagai sistem manajemen basis data. Pengujian fungsional dilakukan menggunakan Black Box Testing, sedangkan efektivitas sistem dievaluasi menggunakan framework PIECES. Sistem E-Voucher yang dikembangkan berhasil mengintegrasikan manajemen voucher ke dalam platform berbasis web yang menampilkan manajemen pengguna, pencatatan voucher, pencatatan stempel waktu otomatis, pembuatan dokumen, dan pencetakan PDF. Black Box Testing mengkonfirmasi bahwa semua fungsi sistem beroperasi sesuai yang diharapkan, sedangkan evaluasi PIECES menunjukkan peningkatan kinerja, kualitas informasi, kontrol, efisiensi, dan layanan dibandingkan dengan proses manual sebelumnya. Sistem yang diusulkan memberikan solusi praktis untuk meningkatkan administrasi kewajiban dan mengurangi kesalahan pemrosesan manual di divisi keuangan. Namun, temuan ini terbatas pada satu perusahaan konstruksi milik negara dan mungkin memerlukan validasi lebih lanjut sebelum digeneralisasikan ke pengaturan organisasi lain. Studi ini berkontribusi dengan merancang dan mengimplementasikan sistem E-Voucher berbasis web khusus untuk manajemen pembayaran voucher di perusahaan konstruksi milik negara. Integrasi manajemen voucher digital, jejak audit otomatis, dan evaluasi sistem yang komprehensif memberikan referensi praktis untuk inisiatif digitalisasi di masa mendatang dalam sistem informasi akuntansi.

Kata Kunci: *Sistem Informasi Akuntansi, E-Voucher, Manajemen Kewajiban, Voucher Hutang, Sistem Berbasis Web*

Abstract

This study aims to develop and implement a web-based E-Voucher system to improve the efficiency, accuracy, and transparency at PT Hutama Karya (Persero). The study addresses the limitations of the existing Microsoft Excel-based system, particularly data entry errors, the absence of change history, and inefficient monitoring of outstanding liabilities. This study employed an applied research approach using the Design Science Research (DSR) methodology. The system was developed following the Waterfall model. Data were collected through observations, structured interviews, documentation, and questionnaires. The application was developed using the Laravel framework with MySQL as the database management system. Functional testing was conducted using Black Box Testing, while system effectiveness was evaluated using the PIECES framework. The developed E-Voucher system successfully integrated voucher management into a web-based platform featuring user management, voucher recording, automatic timestamp logging, document generation, and PDF printing. Black Box Testing confirmed that all system functions operated as intended, while the PIECES evaluation indicated improvements in performance, information quality, control, efficiency, and service compared with the previous manual process. The proposed system

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provides a practical solution for improving liability administration and reducing manual processing errors in the finance division. However, the findings are limited to a single state-owned construction company and may require further validation before being generalized to other organizational settings. This study contributes by designing and implementing a web-based E-Voucher system specifically for voucher payable management in a state-owned construction enterprise. The integration of digital voucher management, automated audit trails, and comprehensive system evaluation provides a practical reference for future digitalization initiatives in accounting information systems.

Keywords: *Accounting Information System, E-Voucher, Liability Management, Voucher Payable, Web-Based System*

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INTRODUCTION

State-Owned Enterprises (SOEs) play a strategic role in Indonesia's economic development by generating state revenue while supporting national economic growth through infrastructure development and public services (Esfandiatri, 2023; Law of the Republic of Indonesia No. 19 of 2003). In recent years, Indonesia's construction industry has faced increasing financial pressure due to the substantial liabilities borne by state-owned construction enterprises. According to the first-quarter financial reports of 2025, the combined liabilities of major Indonesian construction SOEs exceeded IDR 184.12 trillion. PT Waskita Karya recorded the highest liabilities at IDR 68.13 trillion, followed by PT Wijaya Karya (IDR 50.04 trillion), PT Pembangunan Perumahan (IDR 41.14 trillion), and PT Adhi Karya (IDR 24.81 trillion). This condition indicates that Indonesia's largest construction companies continue to experience considerable financial pressure while maintaining their operational commitments. Moreover, the construction sector remains one of the country's primary employment generators and creates significant multiplier effects across other economic sectors (Priatna et al., 2023).

The rapid acceleration of national infrastructure development since 2015 has substantially increased the debt burden of construction SOEs. Following the implementation of large-scale infrastructure projects during President Joko Widodo's administration, the total liabilities of major construction companies increased dramatically. PT Waskita Karya, for example, experienced an increase in liabilities from IDR 7.85 trillion in 2014 to IDR 84.37 trillion in the first quarter of 2023. According to Sinarmas Sekuritas, this increase was partly driven by the company's involvement in strategic national projects, including the Nusantara Capital City (IKN) development, resulting in a debt-to-asset ratio approaching 89%. Overall, Indonesian construction SOEs continue to face significant financial challenges due to high leverage, increasing raw material prices, inflationary pressure, and exchange rate volatility despite several debt restructuring initiatives (Stephanie & Fatimah, 2024).

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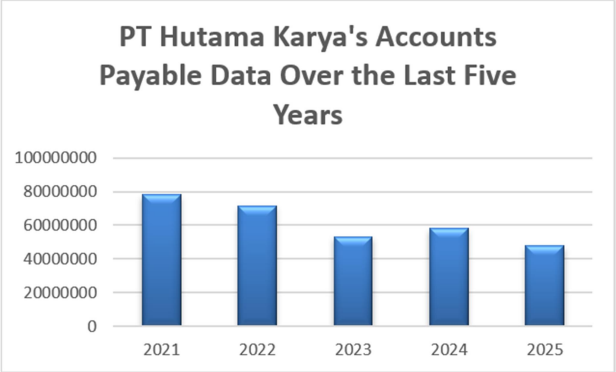


Figure 1. PT Hutama Karya's Accounts Payable Data Over the Last Five Years

PT Hutama Karya (Persero), one of Indonesia's state-owned construction companies, has also experienced fluctuations in its liabilities over the last five years. Although the company's liabilities have generally declined since reaching their peak in 2021, financial obligations remain substantial because of continuous infrastructure investments. The declining trend observed between 2021 and 2025 indicates ongoing efforts to improve financial management through debt restructuring, liability settlement, and tighter financial control. Nevertheless, the company's financial performance continues to require efficient debt administration to support sustainable business operations.

Within debt management practices, voucher cards constitute essential accounting documents used to record cash disbursements and debt settlement transactions. Under the voucher payable procedure, accounting records rely primarily on voucher registers and check registers instead of subsidiary accounts payable ledgers. Voucher cards contain detailed information regarding purchase transactions, including the type of goods, quantities, prices, and payment terms, thereby serving as fundamental documents supporting financial accountability.

Prior to this study, PT Hutama Karya managed voucher card administration using Microsoft Excel. Although spreadsheets provide flexibility for data processing, they have several limitations in large-scale accounting environments. Microsoft Excel does not automatically record user activity or maintain audit trails, making it difficult to identify historical data modifications or recover deleted information. Consequently, manual errors, accidental data deletion, and undocumented revisions may compromise data reliability and reduce audit effectiveness (Ogearti, 2023). In addition, identifying and correcting errors requires considerable manual effort because users must compare multiple spreadsheet versions to determine what changes have been made and by whom (Cantika & Masyhuri, 2026). Such limitations become increasingly problematic when organizations manage thousands of financial records simultaneously.

The growing adoption of digital transformation has encouraged organizations to modernize Accounting Information Systems (AIS) to improve operational efficiency, reporting accuracy, and managerial decision-making. A web-based accounting information system enables real-time data processing, centralized database management, automatic audit trails, and simultaneous multi-user access, thereby overcoming many limitations associated with spreadsheet-based administration (Nehemiatoscany et al., 2022). Furthermore, digital transformation of AIS has been recognized as an effective approach to enhancing financial reporting quality, operational efficiency, and organizational decision-making (Veronica & Indrabudiman, 2025).

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Accordingly, this study aims to analyze the existing voucher management process at PT Hutama Karya, develop a web-based E-Voucher system, implement the proposed application, and evaluate its effectiveness using Black Box Testing and the PIECES framework. The findings are expected to contribute to the development of accounting information systems for debt management while providing practical recommendations for improving the efficiency, transparency, and reliability of financial administration within construction companies.

METODE PENELITIAN

This study employed an applied research approach using the Design Science Research (DSR) methodology to develop a web-based E-Voucher system for liability management at PT Hutama Karya (Persero). The study was conducted at the company's headquarters in Jakarta, Indonesia. Primary data were collected through direct observation of the existing voucher management process, structured interviews with finance personnel, documentation of voucher-related records, and questionnaires distributed after system implementation. Secondary data were obtained from company documents, financial reports, books, and relevant journal articles to support the system development process.

RESEARCH METHODS

This study employed an applied research approach using the Design Science Research (DSR) methodology to develop a web-based E-Voucher system for liability management at PT Hutama Karya (Persero). The study was conducted at the company's headquarters in Jakarta, Indonesia. Primary data were collected through direct observation of the existing voucher management process, structured interviews with finance personnel, documentation of voucher-related records, and questionnaires distributed after system implementation. Secondary data were obtained from company documents, financial reports, books, and relevant journal articles to support the system development process.

The E-Voucher system was developed using the Waterfall model, which consists of the requirements analysis, system design, implementation, testing, and maintenance phases. The application was implemented using the Laravel framework with MySQL as the database management system. Functional testing was performed using the Black Box Testing method to verify that each feature operated according to its intended specifications. The effectiveness of the developed system was then evaluated using the PIECES framework, while user responses were measured through a five-point Likert scale questionnaire and analyzed descriptively to assess the system's performance, information quality, economic value, control, efficiency, and service quality

RESULTS AND DISCUSSION

Existing Voucher Management Process

Prior to the implementation of the web-based E-Voucher system, voucher management at PT Hutama Karya was performed manually using Microsoft Excel. Voucher records were created, updated, and stored in separate spreadsheet files, requiring users to manually verify payment status and transaction history. This process was time-consuming and susceptible to data entry errors, duplicate records, and the accidental deletion of financial information. Furthermore, Microsoft Excel did not provide an audit trail, making it difficult to identify who modified data and when the changes occurred.

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The observation and interview results revealed that manual reconciliation became increasingly inefficient as the volume of voucher transactions grew. During the annual closing process, finance personnel were required to compare multiple Excel files to verify historical records, resulting in longer processing times and reduced operational efficiency. Through the situation, indicate the need for an integrated accounting information system capable of providing real-time data processing, centralized storage, and automated transaction tracking.

Design and Implementation of the Web-Based E-Voucher System

Based on an analysis of the voucher card issuance process implemented at PT Hutama Karya, a computerized program is needed to manage e-vouchers and financial information to ensure greater transparency, organization, and compliance with applicable standards. The primary reference standard for developing this e-voucher system is Minister of Finance Regulation (PMK) Number 8/PMK.03/2021 concerning procedures for collecting, depositing, and reporting Value Added Tax (VAT) on the delivery of goods and services by partners. This system design aims to create a structured framework, from design to implementation to evaluation, involving various technical and administrative aspects to achieve optimal tax compliance. This system will be built entirely based on the results of the needs analysis and the technical provisions stipulated in PMK Number 8/PMK.03/2021. During the development process of this e-voucher program, an evaluation of the required supporting devices was also carried out.

Table 1. Hardware Specifications

No	Specification	Description
1	Processor	Intel Core i5
2	Memory RAM	4 GB
3	System Type	64-bit
4	Monitor LCD	14”

Table 2. Software Specifications

No	Specification	Description
1	Operating System Database	Intel Core i5
2	Operating System Server	MySQL dan Laravel
3	Program Web	Xampp
4	Operating System Computer	MySQL
5	User Interface Software	Windows 11
6	Web Browser	Google Chrome

The hardware and software specifications provide the technical environment required for developing and implementing the proposed web-based E-Voucher system. Based on these specifications, the system was designed by defining its functional requirements and user interactions through a Use Case Diagram. This diagram illustrates the relationship between system actors and the primary functions available within the application, providing an overview of the system’s operational workflow.

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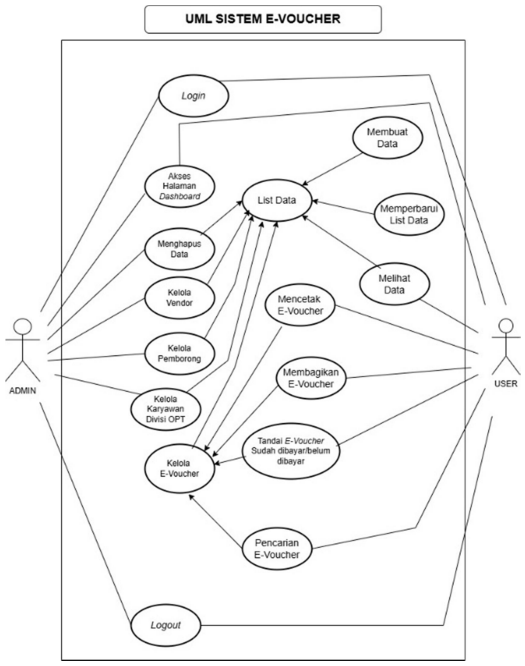


Figure 2. Use Case Diagram

The picture above illustrates the functional interactions between the two system actors, namely the administrator and the user. The administrator has full authority to manage user accounts, company data, vendors, contractors, employees, and E-Voucher records, while users can create, update, search, print, share, and monitor voucher payment status. Both actors authenticate through the login feature before accessing the dashboard and terminate their sessions through the logout function. The use case diagram demonstrates that the proposed system supports role-based access control while providing complete voucher management functions.

The Entity Relationship Diagram (ERD) illustrates the database structure of the proposed E-Voucher system. The database consists of four main entities, namely User, User Management, Company Management, and Voucher Data, which are interconnected to support user authentication, company information management, and voucher processing. The relationships among these entities ensure data integrity, reduce data redundancy, and enable efficient storage and retrieval of voucher transaction data within the web-based system.

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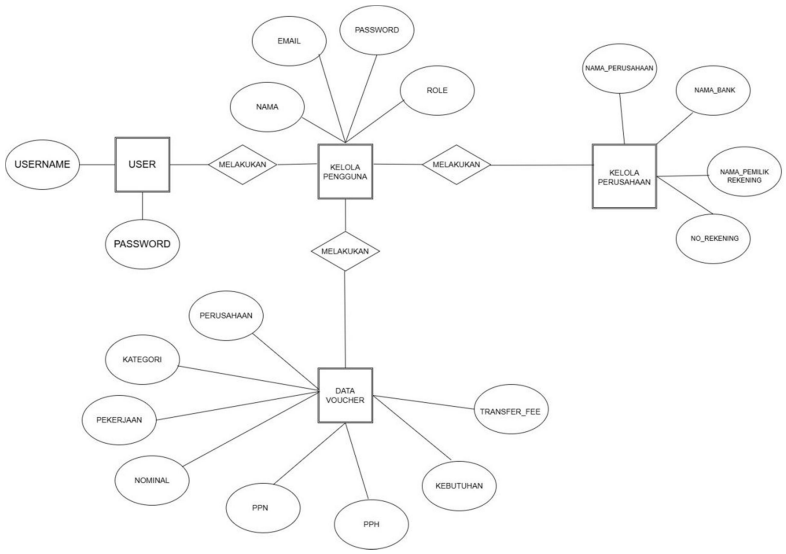


Figure 3. Entity Relationship Diagram (ERD) of the E-Voucher System

Black Box Testing Results

Black Box Testing was conducted to evaluate whether each feature of the web-based E-Voucher system performed according to its intended functions. The testing focused on validating system outputs based on user inputs without examining the internal program code. The results of the functional testing are presented below.

Table 3. Black Box Testing

Page/Module	Input	Output	Test Result
Login	Enter a valid email address and password, then click Login.	The system displays the Dashboard page.	Successful
User Management	Click Add User, enter the email address, password, select the user role, then click Save.	The system redirects to the User Management page.	Successful
Company Management	Click Add Company, enter the Company Name, Bank, Account Holder, and Account Number, then click Save.	The system redirects to the Company Management page for managing company payment information to vendors.	Successful
Voucher Data	Click Add Voucher, then enter the required voucher data.	The voucher data is successfully added.	Successful
Voucher Data	Select the Company action and enter the company name. Then select the Category action (Vendor, Contractor, or OPT Division Employee) and enter the amount (invoice, VAT, withholding tax, operational needs, and transfer fee).	The voucher data is successfully added according to the selected category.	Successful
Voucher Data	Search voucher records using company name and category filters.	The system displays voucher records that match the selected filter criteria.	Successful
Voucher Data	Click the Print, Edit, or Delete action button.	The system displays the print preview in Microsoft	Successful

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		Excel format or performs the edit/delete function accordingly.	
Logout	Click the profile button and select Logout.	The user is logged out of the E-Voucher system.	Successful

Based on table 3, all tested features, including login, user management, company management, voucher management, search, printing, editing, deleting, and logout, successfully produced the expected outputs. No functional errors were identified during the testing process, indicating that the developed system met the specified functional requirements. These results demonstrate that the E-Voucher platform is capable of supporting voucher management activities reliably and can be implemented in the Finance Division of PT Hutama Karya.

System Evaluation Using the PIECES Framework

To evaluate the usability and performance of the developed E-Voucher platform, a questionnaire based on the PIECES framework was distributed to four respondents from the Finance Division. The questionnaire employed a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The evaluation results were analyzed using the Quartile Mean (RK) method to determine the overall assessment of each evaluation dimension. The six evaluated dimensions include Performance, Information, Economy, Control, Efficiency, and Service.

1. Performance

Table 4. Performance Indicator

No.	Statement	SD	D	N	A	SA
1	The web-based E-Voucher platform processes voucher transactions quickly and responsively.	0	0	0	0	4
2	The loading speed of the E-Voucher platform is adequate for daily operations at PT Hutama Karya.	0	0	0	0	4
3	The E-Voucher system supports simultaneous access by multiple users without performance degradation.	0	0	0	0	4
4	The platform design ensures minimal downtime during implementation.	0	0	0	0	4
5	The E-Voucher platform provides accurate and real-time transaction data.	0	0	0	0	4
Total		**0**	**0**	**0**	**0**	**20**
Mean (RK)						**5.00 (Excellent)**

As presented in Table 4, the Performance dimension obtained an RK value of 5.00, indicating an Excellent category. All respondents strongly agreed that the web-based E-Voucher system processes voucher transactions quickly, provides responsive page loading, supports simultaneous user access without performance degradation, minimizes downtime, and generates real-time information accurately. These findings demonstrate that the developed system successfully improves operational performance within the finance division.

2. Information

Table 5. Information Indicator

No.	Statement	SD	D	N	A	SA
1	The platform provides accurate and complete voucher information.	0	0	0	1	3

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2	E-Voucher information is easy to access and understand.	0	0	0	0	4
3	The system generates relevant voucher documents.	0	0	0	0	4
4	The platform maintains voucher data integrity.	0	0	0	0	4
5	The search and filtering features facilitate voucher management.	0	0	0	0	4
Total		**0**	**0**	**0**	**1**	**19**
Mean (RK)						**4.95 (Excellent)**

Table 5 shows that the Information dimension achieved an RK value of 4.95, which is categorized as Excellent. Respondents agreed that the system provides complete and accurate voucher information, facilitates easy access to financial data, maintains data integrity throughout the transaction process, and supports efficient information retrieval through search and filtering features. These results indicate that the platform delivers reliable information for daily operational activities.

3. Economy

Table 6. Economy Indicator

No.	Statement	SD	D	N	A	SA
1	The implementation of the E-Voucher platform reduces operational costs.	0	0	1	1	2
2	The platform minimizes long-term maintenance costs.	0	0	0	1	3
3	The platform improves budget efficiency.	0	0	0	1	3
4	The initial investment provides high value.	0	0	2	0	2
5	The system minimizes administrative resource waste.	0	0	0	0	4
Total		**0**	**0**	**3**	**3**	**14**
Mean (RK)						**4.55 (Excellent)**

The Economy dimension presented in Table 6 produced an RK value of 4.55, which also falls within the Excellent category. Respondents perceived that the implementation of the E-Voucher platform reduced operational costs compared with manual procedures, minimized administrative resource waste, and improved budget efficiency. Although opinions regarding the initial investment were relatively more varied, the overall economic impact of the system remained highly positive.

4. Control

Table 7. Control Indicator

No.	Statement	SD	D	N	A	SA
1	The platform provides strong security mechanisms.	0	0	0	0	4
2	The audit trail feature facilitates transaction tracking.	0	0	0	0	4
3	The system complies with organizational regulations.	0	0	0	1	3
4	Role-based access control functions effectively.	0	0	0	0	4
5	The system protects data against leakage and manipulation.	0	0	0	0	4
Total		**0**	**0**	**0**	**1**	**19**
Mean (RK)						**4.95 (Excellent)**

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According to Table 7, the Control dimension obtained an RK value of 4.95, indicating an Excellent evaluation. Respondents confirmed that the platform provides adequate security mechanisms, supports audit trails for transaction monitoring, applies role-based access control effectively, and protects voucher data from unauthorized access or manipulation. These findings suggest that the developed system strengthens internal control over financial transactions.

5. Efficiency

Table 8. Efficiency Indicator

No.	Statement	SD	D	N	A	SA
1	The E-Voucher platform simplifies voucher processing.	0	0	0	0	4
2	Users can complete voucher-related tasks more quickly.	0	0	0	0	4
3	The system reduces redundant workflow steps.	0	0	0	0	4
4	The platform improves administrative productivity.	0	0	0	0	4
5	The automation features improve overall efficiency.	0	0	0	0	4
Total		**0**	**0**	**0**	**0**	**20**
Mean (RK)						**5.00 (Excellent)**

As shown in Table 8, the Efficiency dimension received the highest RK value of 5.00, representing an Excellent category. Respondents strongly agreed that the system simplifies voucher processing, reduces redundant administrative activities, improves employee productivity, and accelerates task completion through an intuitive web interface. The automation features significantly enhance the efficiency of voucher management compared with the previous Microsoft Excel-based process.

6. Service

Table 9. Service Indicator

No.	Statement	SD	D	N	A	SA
1	The platform is regularly updated based on user feedback.	0	0	0	1	3
2	Voucher layouts can be customized according to company branding.	0	0	0	1	3
3	The platform provides automatic backup and recovery.	0	0	0	0	4
4	Initial user training is comprehensive.	0	0	0	1	3
5	The development team responds promptly to improvement requests.	0	0	0	3	1
Total		**0**	**0**	**0**	**6**	**14**
Mean (RK)						**4.70 (Excellent)**

Table 9 indicates that the Service dimension achieved an RK value of 4.70, which is also categorized as Excellent. Respondents positively evaluated the availability of system updates, backup and recovery features, user training, and developer responsiveness in handling improvement requests. Although this dimension obtained the lowest score among the six evaluation aspects, the results still demonstrate a high level of user satisfaction with the services provided by the platform.

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Continuous development is essential to ensure the e-voucher system keeps pace with technological advancements and regulatory changes. Improvements may include enhancing the user interface, strengthening data security, and optimizing system performance to handle higher transaction volumes. These enhancements are expected to improve service quality, increase operational efficiency, and support overall productivity.

CONCLUSION

This research developed a web-based E-Voucher platform to support the digitalization of voucher management at PT Hutama Karya. The findings indicate that the proposed system addresses several limitations of the previous manual and Microsoft Excel-based process by improving administrative efficiency, data accuracy, transaction tracking, and data security. The results of Black Box Testing showed that all system functions operated as intended, while the PIECES evaluation indicated very good user perceptions across the Performance, Information, Economy, Control, Efficiency, and Service dimensions. These findings suggest that the proposed platform can support more effective voucher management within the Finance Division. However, this study was limited to implementation in a single organization with a small number of respondents. Future research may evaluate the system in different organizational settings, involve more users, and incorporate additional features, such as ERP integration, digital signatures, and advanced reporting, to further enhance system functionality and applicability.long-term impact of the platform on organizational performance and user satisfaction.

REFERENCES

Achlison U, Santoso JT, Rozikin K, Diapoldo F. 2025. Analisis Model Implementasi Tracking Pengiriman Barang Menggunakan Waterfall dan Rapid Application Development. Jurnal Ilmu Teknologi dan Informasi. 5(1):90–97.doi:https://doi.org/10.51903/teknik.

Adham MF. 2024. Analisis Implementasi Sistem Informasi : Studi Literatur. Jurnal Teknologi Sistem Informasi. 5(1):264–275.

Adi M, Wibowo P. 2025. Perancangan dan Implementasi Sistem Buku Tamu Berbasis Web Menggunakan Framework Laravel untuk Meningkatkan Efisiensi Perpustakaan MAN 1 Banyuwangi. JEKIN Jurnal Teknologi Informasi. 5(2).doi:10.58794/jekin.v5i2.1387.

Anna, Lisnawanty. 2024. Sistem Informasi Pengelolan Laporan Keuangan Berbasis Web Pada CV. Damar Abadi. JUSTIAN: Jurnal Sistem Informasi Akuntansi 5(1):67–78.

Antoro B. 2025. Kesalahan Sistematis Penggunaan Skala Likert dalam Penelitian. Jurnal Multidisiplin Sosial Humaniora. 2(2):63–81.

Aruperes VG, Hartomo KD, Studi P, Informasi S, Kristen U, Wacana S. 2025. Evaluasi Sistem Informasi menggunakan PIECES Framework (Studi Kasus : Sistem Informasi Administrasi Persediaan (SIAP) Pemerintah Provinsi Sulawesi Utara Evaluation of an Information System using the PIECES Framework : A Case Study of the Inventory Admin. Jurnal Sistem Informasi. 14:726–739.

Bodnar, G.H., & Hopwood W. 2025. Sistem Informasi Akuntansi (Edisi 11). Edisi 11. Jakarta: Salemba Empat.

Cantika N, Masyhuri. 2026. Analisis Pengendalian Internal untuk Mengurangi Risiko Human Error dalam Excel Accounting: Studi Literatur. Musytari Neraca Akuntansi Manajemen dan Ekonomi. 25(6).doi:10.8734/mnmae.v1i2.359.

E-ISSN : 2962-9713
P-ISSN : 2963-928X

Derivansyah DR, Ayu M, Sudrajat A, Min JL, Hutahaean J, Kunci K. 2025. Model Konseptual Sistem Pendukung Evaluasi Pembelajaran Berbasis Proyek dengan Integrasi Educational Data Mining dan Learning Analytics. IRWNS Industry Research Workshop. National Seminar.:27–33.

Esfandiatri YGY. 2023. Analisis Financial Distress pada Perusahaan Konstruksi BUMN Karya. Syntax Idea. 5(11).doi:https://doi.org/10.46799/syntax-idea.v5i11.2663 2684-883X.

Fahmi Y, Sutaji D, Gresik UM. 2025. Rancang Bangun Data Flow Diagram (DFD) untuk Sistem Pelayanan Masyarakat Berbasis Whatsapp. JITET J. Inform. dan Tek. Elektro Terap. 13(3).doi:Fahmi Y, Sutaji D, Gresik UM. 2025. Rancang Bangun Data Flow Diagram (DFD) untuk Sistem Pelayanan Masyarakat Berbasis Web. JITET: Jurnal Informasi dan Teknik Elektro Terapan. 13(3).

Harianda MF, Nadya Y. 2025. Sistem Informasi Bagian Sortasi Menggunakan Data Flow Diagram Pada Pabrik Minyak Kelapa Sawit PT. XYZ. Jurnal Industri Samudra. 6(1):17–25.doi:https://doi.org/10.55377/jis.v6i1.11381 Sistem.

Herrhyanto N, Agustina F, Rahmawati F. 2025. Distribusi Kuartil Berdasarkan Statistik Urutan dari Sampel Acak Berdistribusi Seragam Sederhana. Jurnal Matematika Integratif. 21(1):123–130.doi:10.24198/jmi.v21.n1.63667.123-130.

Jebb AT, Ng V, Tay L. 2021. A Review of Key Likert Scale Development Advances : 1995 – 2019 Two Views of Validity. Frontier Psychology. 12(May):1–14.doi:10.3389/fpsyg.2021.637547.

Krismiaji. 2024. Sistem Pengendalian Internal. Edisi 4. Yogyakarta : UPP STIM YKPN. :8–24.

Kurozy DN, Pratama RG, Muhammad AE, Pamulang U, Prototype M, Pendaftaran S, Baru M, Testing UA. 2025. Penerapan Metode Prototype Pada Perancangan Sistem Pendaftaran Mahasiswa Baru. JNPM: Jurnal Pustaka Nusantara Multidisiplin. 3(1):1–9.

Molla MI, Ahmad J, Mohd W, Wan N. 2024. A Comparison of Transforming the User Stories and Functional Requirements into UML Use Case Diagram. International Journal of Innovative Computing. 14(1):29–36.doi:https://doi.org/10.11113/ijic.v14n1.463.

Mulyadi. 2023. Akuntansi Keuangan Lanjutan: Integrasi Teknologi Digital. Edisi 4. Jakarta: Penerbit Erlangga.

Nafiisa BL, Djajanto L. 2024. PIECES Framework for Information System Needs Analysis using Website-based Appsheet : A Technopreneurship Digitalization Solution in Indonesia. EAJMR East Asian Journal of Multidiscipline Research. 3(7):2407–2418.doi:https://doi.org/10.55927/eajmr.v3i7.9563 (.

Nehemiatoscany A, Jusia PA, Bustami MI, Saputra C. 2022. Pengembangan Sistem Informasi Penelitian Dan Pengabdian Masyarakat Universitas Dinamika Bangsa. Jurnal Ilmu Media SISFO. 16(2):92–103.doi:https://doi.org/10.33998/mediasisfo.2022.16.2.1215.

Nur W, Ningsih R, Setiajatnika E, Amran S, Ardi M, Hasyim N. 2024. Rancang bangun sistem informasi akuntansi piutang dagang berbasis website. Hexatech: Jurnal Ilmu Teknologi. 3(1):6–24.doi:https://doi.org/10.55904/hexatech.v3i1.1294.

Nurhasan U, Prasetya DD. 2025. Student Flowchart Automated Evaluation for Scalable Assessment in Introductory Programming. Jurnal Penelitian Pendidikan. 11(12):1230–1240.doi:10.29303/jppipa.v11i12.13594.

Ogearti R. 2023. Identifikasi Kendala Pemanfaatan Microsoft Excel dalam Penyusunan Laporan Keuangan. Jurnal Akuntansi Profesi. 11(2):339–350.

E-ISSN : 2962-9713
P-ISSN : 2963-928X

Pratama J, Informasi S, Tgd K, Pratama SD, Dadaprawira MN. 2023. Pengujian Black Box Testing Pada Aplikasi Edu Digital Berbasis Website Menggunakan Metode Equivalence Dan Boundary Value Jurnal Teknologi Sistem Informasi dan Sistem Komputer TGD. Jurnal Teknologi Sistem Informasi dan Sistem Komputer. TGD. 6(2):560–569.

Priatna H, Sofwan SV, Susanti ML, Ekonomi F, Studi P, Universitas A, Bandung B. 2023. Pengaruh Totak Modal dan Total Utang Terhadap Laba Bersih. Akurat: Jurnal Ilmiah Akuntansi. 14(3):119–131.

Priyadi A, Hadi AP, Nugroho SA. 2024. Sistem Informasi Akuntansi Berbasis Web pada Yayasan PPA Sumber Kasih Ambarawa. GO INFOTECH: Jurnal Ilmiah STMIK AUB. 30(1):10–19.doi:10.36309/goi.v30i1.255.

Romney, M.B., & Steinbart P. 2021. Sistem Informasi Akuntansi (Edisi 14, Jilid 10. Jakarta: Salemba Empat.:5–6.

Saniah, Doharma R. 2024. Analisa PIECES Dalam Rancangan Sistem Informasi Penagihan Utang Piutang Dagang Bagi Customer Berbasis Web Dengan Metode Waterfall. Scientica: Jurnal Ilmiah Sains dan Teknologi. 3(1):49–66.

Stephanie JG, Fatimah. 2024. Analisis Financial Distress dengan Altman Z-Score dan Springate pada Perusahaan Konstruksi Terkait Proyek IKN. Prosiding Seminar Nasional Akuntansi dan Manajemen. 6(1).

Sumbodo M, Mustofa. 2025. Analisis Metode System Development Life Cycle (SDLC) dalam Rancangan Sistem Informasi. Ikraith Informatika. 9(3):255–262.doi:https://doi.org/10.37817/ikraith-informatika.v9i3.

Tasya Amelia Veronica AI. 2025. Studi Literatur: Sistem Informasi Akuntansi Dalam Era Digital. Jurnal Akuntansi dan Keuangan. 16(2):62–70.