Proceedings of ICMRED 2026 Symposium: The Future of Work: Strategy, Workforce Transformation, and Organizational Renewal
DOI: 10.54254/2754-1169/2026.LD32878

Analysis of the Application of Artificial Intelligence -Robotic Process Automation Technology in Intelligent Verification of Electronic Vouchers: A Case Study of Weaver Technology Co., Ltd

Jiahui Yin

Accounting College, Beijing Wuzi University, Beijing, China
liujing@sksxcs.wecom.work

Abstract. With the rapid development of technology, the scale of enterprise accounting information continues to grow, and problems such as difficult invoice collection and cumbersome document processing are becoming increasingly prominent, Artificial Intelligence -Robotic Process Automation (AI-RPA) technology, with its advantages of simulating manual operations and automating repetitive tasks, has become an important means of accounting informatization transformation. This article is based on the case study method, combined with Weaver's Qianli Ling platform and its customer practice, to analyze the application effect of this technology in financial tax reporting and invoice issuance. In the tax declaration process, the platform can automatically log in to the business finance system through robots, obtain tax information, and complete automatic declaration of multiple tax categories in the electronic tax bureau and tax declaration client; In the invoice management process, the full automation of invoice query, information verification, automatic invoicing, result backfilling, and automatic printing can be achieved. Research has shown that AI-RPA effectively reduces labor costs, minimizes operational errors, and improves enterprise operational efficiency, providing practical reference and reference value for intelligent financial and tax applications in enterprise digital transformation.

Keywords: AI-RPA technology, digital transformation, cost control management.

1. Introduction

In the context of rapid technological development and continuous digital transformation of enterprises, the amount of information that accounting personnel need to handle is also increasing day by day, which greatly increases the difficulty of accounting personnel in processing relevant financial information, Common difficulties include: Tax paying enterprises often face multiple types of tax declaration, and the tax declaration process for each type of tax is different, with numerous declaration steps involved; Due to the strong confidentiality of tax data involving core company information, the consistency verification of various data during declaration is complicated and cumbersome to process manually.

DOI: 10.54254/2754-1169/2026.LD32878

On December 6, 2024, the Ministry of Finance officially issued the "Guiding Opinions on Fully Deepening the Application of Management Accounting", which clearly states that, Comprehensively enhancing the digitalization and intelligence level of management accounting, and promoting the transformation and upgrading of management accounting from the informatization stage to the digitalization and intelligence stage, is the core task for the future development of the industry. RPA technology can simulate manual operations and automatically complete repetitive tasks, and its deep integration with management accounting has become an inevitable trend in line with policy guidance and addressing industry pain points.

Against the backdrop of the vigorous development of AI-RPA technology, scholars have analyzed the problems and current development status of enterprise expense reimbursement, These articles elaborates on the technical applications in the automated expense reimbursement process, and provides an automated optimization solution for the current process processing of financial shared service centers through the analysis of robot process automation technology represented by "small operators" [1]. Wu Wei and Zhao Liang explored the practical application of AI and RPA in accounting informatization, and combined the two technologies in data processing and analysis, financial process automation, etc. This can significantly reduce labor costs, accelerate data processing, and help enterprises respond more flexibly to market changes and regulatory requirements [2]. Liu Shengying and Sun Jianing have pointed out that RPA technology, with its advantages of high efficiency, precision, and empowering financial personnel to transform, can be widely applied in financial digitalization scenarios such as expense reimbursement and bank reconciliation. Although it faces problems such as data security and talent shortage, it can effectively promote the digital transformation and upgrading of enterprise finance through governance measures such as improving regulations, cultivating compound talents, and building a human-machine collaboration ecosystem [3]. Salwekar et al.'s RPA data robot based on UiPath can combine OCR and natural language processing to automatically complete invoice monitoring, information extraction, system input, and information verification, effectively reducing manual errors and exception handling, and significantly improving the efficiency of financial invoice processing [4].

Based on the review of the literature above, multidimensional exploration has been conducted around the application of RPA technology in the financial field, which not only confirms the adaptability of RPA technology to the digital and intelligent transformation of management accounting, but also provides specific path references for the practical implementation of technology. This article will explore the application of AI-RPA technology in intelligent verification of electronic vouchers, focusing on Weaver and their related clients.

2. Introduction to the Weaver AI-RPA platform

Weaver is mainly engaged in the research and development, sales, and related technical services of collaborative management software products. It is the only key software enterprise in the national collaborative management software field within the national planning layout, including a digital operation system for ten special applications such as personnel management, contract management, and procurement management. In 2023, Weaver will launch a new generation of digital operation platform E10 and add three major special applications. By 2025, the full product adaptation of enterprise WeChat, Weaver OA, and HarmonyOS operating systems will be completed, and its mobile office applications will cover more than 5000 domestic enterprise customers.

RPA is a technology based on software robots or AI workers that automatically execute highly repetitive and rule-based tasks by simulating human operations on a computer. Its core lies in utilizing user interface (UI) and surface level feature combinations to create scripts that

DOI: 10.54254/2754-1169/2026.LD32878

automatically handle routine and predictable data transcription work, replacing manual completion of low value and repetitive workflows, improving efficiency, and reducing errors.

The application of RPA technology in multiple industries such as finance, government, and public sector continues to deepen, driving the continuous expansion of market size. With the acceleration of enterprise digital transformation and continuous technological progress, RPA has also been widely applied in multiple accounting-related fields such as electronic invoices. It is expected that more enterprises will widely apply AI-RPA technology to accounting work in the future, bringing more development opportunities for accounting work.

Qianli Ling RPA relies on AI RPA technology to provide customers with standardized financial business automation solutions, which can be widely applied in various financial scenarios and deeply empower electronic voucher intelligent review and financial process automation. This platform can run through the entire process of expense management, including reimbursement form acquisition, process filling, intelligent verification, and automatic payment, achieving automation and intelligence in expense processing; Support automatic declaration of multiple types of taxes such as comprehensive income tax, value-added tax, and corporate income tax for natural persons, complete tax information collection, declaration form filling, and declaration result retention, effectively reducing the tax reporting pressure on financial personnel; At the same time, it can automatically complete operations such as downloading bank statements, obtaining reconciliation statements, verifying transactions, and preparing financial statements, greatly reducing the workload of financial personnel in fund management and comprehensively improving financial processing efficiency and data accuracy.

3. Application analysis of pan micro RPA platform - a case study of RPA platform using Shanghai Kehua Bioengineering as an example

In the process of promoting the integration of business and finance, Shanghai Kehua Biotechnology faces a large number of standardized and repetitive financial tasks such as invoice deduction selection and cross system input of supplier information, which are highly compatible with typical scenarios of electronic voucher intelligent audit and tax automation, and have strong industry representativeness. Weaver Qianli Ling RPA can achieve invoice information reading, automatic deduction and selection at the tax bureau end, automatic synchronization of supplier information between OA and Kingdee K3 system, and status backfilling. It can connect heterogeneous systems without complex interfaces, significantly reducing errors, improving efficiency, and releasing manpower. Therefore, this article selects the company as the case study object, with the Weaver Qianli Ling RPA platform as the technical core, to deeply analyze the application path and practical value of AI RPA in the intelligent review of electronic vouchers and the entire process of tax declaration. It can not only demonstrate the landing effect of technology in real enterprises but also provide practical experience and reference ideas for similar enterprises to solve the efficiency, security, and compliance pain points in electronic voucher processing and tax declaration.

The AI-RPA solution built on the Qianli Ling RPA platform by Weaver focuses on the automation of the entire process of electronic voucher data collection, verification, review, and application. Its technology is implemented in two core scenarios: intelligent processing of tax data and synchronization of heterogeneous system data. The Shanghai Kehua Biotechnology Practice Project presented in this case is a typical application of this technology in the intelligent review of electronic vouchers in the in vitro diagnostic industry. Before the project was implemented, Kehua Biotechnology was promoting the integration of industry and finance but faced two core pain points in electronic voucher processing: One is that electronic vouchers for invoices require manual

DOI: 10.54254/2754-1169/2026.LD32878

extraction of information from Excel lists, and then logging into the official website of the tax bureau to complete deduction selection. The operation is cumbersome and prone to selection errors, which consumes a lot of manpower; The second issue is that electronic vouchers for supplier information need to be manually entered across OA and Kingdee K3 systems. Heterogeneous system data is not synchronized, resulting in low efficiency in auditing and entry, which contradicts the needs of enterprises to release manpower and improve financial operational efficiency.

In response to the above pain points, Weaver has customized an intelligent electronic credential verification and processing solution based on AI-RPA technology for Kehua Biology, achieving full process automation from electronic credential data extraction to verification, application, and feedback. The core implementation is in two key scenarios, and its operation process and technical implementation are as follows.

Checking the box for automatic verification and deduction of electronic invoice vouchers. The AI-RPA robot first reads the invoice Excel list in the specified directory, completes the automated extraction of electronic voucher data, and then automatically logs into the official website of Shanghai Electronic Taxation Bureau to achieve intelligent verification and matching of invoice information based on the invoice number. After completing the deduction check operation, the processing result is automatically backfilled to the Excel operation status column to achieve visual feedback of the electronic voucher review result. The entire process does not require manual intervention, completing the closed-loop process of invoice electronic vouchers from data extraction to audit application.

Crosssystem review and synchronization of electronic supplier information vouchers. The AI-RPA robot automatically obtains electronic voucher data of supplier information from the OA system, completes intelligent verification and standardization of data format, and automatically enters the designated account set of Kingdee K3 to complete information import. At the same time, it backfills the import status, breaks down the data barriers between heterogeneous systems through technology, and achieves batch rapid synchronization of electronic voucher data without complex interface docking, ensuring consistency and accuracy of cross system electronic voucher review.

There is a significant difference between implementing AI-RPA technology and traditional manual review mode. The system has achieved full process automation and improved audit efficiency. Replacing manual operations such as data extraction, verification, matching, and application of electronic vouchers solves the problems of heavy workload and low efficiency in manual operations, especially for high-frequency electronic voucher review scenarios such as invoice deduction and selection, completely avoiding the problems of missed or incorrect selection in manual operations. The platform relies on the heterogeneous system adaptation capability of AI-RPA technology to achieve data interoperability among multiple platforms such as OA, Kingdee K3, and electronic tax bureau, unify the storage categories and file paths of electronic vouchers, and standardize the circulation of electronic voucher audit data between various systems, ensuring the consistency of audit results. By using robot agents to manually process sensitive electronic voucher data such as invoices and supplier information, data tampering and leakage prevention have been achieved. At the same time, relying on the standardized execution capability of technology, the problem of voucher data distortion caused by improper operation during manual review has been eliminated.

In addition to invoice review and supplier information synchronization, AI-RPA technology can also be widely applied in other practical scenarios. Syaiful Anwar et al. constructed a human resource management system model based on RPA, and empirical evidence shows that RPA can significantly improve employee information processing efficiency and data accuracy, effectively

DOI: 10.54254/2754-1169/2026.LD32878

replacing manual completion of repetitive and regularized HR transactions [5]. There are also studies indicating that the integration of artificial intelligence, machine learning, and robotic process automation (RPA) has the potential to drive the comprehensive digital transformation of the healthcare industry, optimizing core processes such as diagnosis and treatment, revenue cycle management, and improving operational efficiency and patient prognosis [6].

In this case, the Qianli Ling platform under Weaver not only applies RPA technology to invoice review and supplier information synchronization but also has applications in various other aspects.

In production order management, AI-RPA can automatically collect multi-channel orders such as e-commerce, supplier systems, and emails across platforms. Through intelligent recognition, key information of orders and attachments is extracted, automatically entered into the business system, and classified, split, signed, and archived throughout the entire process, greatly reducing omissions and errors, and improving order response and production scheduling efficiency. In market operations, RPA can collect advertising effectiveness, negative public opinion, industry hotspots, and policy regulations 24/7, push key information in real time, and assist enterprises in quickly responding to public opinion, hot spot marketing, and strategic adjustments. In personnel management, AI RPA can automatically publish recruitment information on multiple platforms, intelligently search for candidates, and screen resumes in bulk. It can also automatically log in to government platforms to complete social security and housing fund applications, update information, and archive data, effectively reducing repetitive work for HR. Overall, AI-RPA can replace high-frequency and standardized manual operations, achieve cross system data collaboration and business automation, reduce costs and increase efficiency for enterprises, and accelerate digital transformation.

The application of AI-RPA technology in the intelligent review of electronic vouchers through Weaver has achieved two major goals: human efficiency release and risk reduction. By combining the intelligent recognition and verification capabilities of AI with the process automation capabilities of RPA, the electronic voucher review of enterprises has shifted from the traditional manual operation mode to a standardized, automated, and intelligent processing mode. This not only solves the efficiency pain points of electronic voucher processing in the construction of enterprise financial integration but also provides technical support for the compliance review and data security of electronic vouchers. The practical case of Kehua Biology shows that AI-RPA technology has strong industry adaptability in intelligent electronic voucher verification, especially suitable for enterprises with cross system data processing and high-frequency electronic voucher verification needs, providing a feasible technical path for the digital transformation of enterprise finance.

4. Suggestion

At the enterprise level, promoting the implementation of AI-RPA requires avoiding blind process selection. Drawing on the quantitative decision-making approach proposed by Jonas Wanner et al., feasibility assessment is conducted using process execution frequency, standardization level, and stability as core indicators, combined with process mining techniques [7]. Priority deployment is given to high-repetition and rule-based financial scenarios such as electronic voucher review, tax reporting, and supplier synchronization. Through cost-benefit analysis and investment return calculation, high-value processes are screened and implemented to avoid generalized deployment, allowing AI-RPA to accurately connect with electronic voucher processing and cross system data synchronization pain points of enterprises such as Kehua Biotechnology, maximizing cost reduction and efficiency gains.

DOI: 10.54254/2754-1169/2026.LD32878

On the technical level, strengthen collaborative adaptation, enhance intelligence and security. Currently, AI-RPA still has technical shortcomings and security risks. On the one hand, the processing of unstructured voucher data in financial scenarios relies on AI empowerment, and pure RPA cannot complete intelligent parsing. Moreover, automation has low fault tolerance and is prone to errors, which is the core bottleneck of technology implementation [8]. On the other hand, the high authority and imperceptible execution characteristics of RPA can easily breed "shadow robots", leading to internal control risks such as data leakage and process loss of control [9]. Enterprises need to improve RPA filing control and authorization audit mechanisms, strengthen the integration of AI and RPA, and enhance the stability of unstructured voucher processing.

At the talent level, the industry should guide the transformation of financial personnel. Existing research suggests that the popularity of AI-RPA is not a replacement for accounting personnel, but rather a driving force for the transformation of the financial profession towards high value [10]. RPA can only complete repetitive operations such as electronic voucher extraction, verification, and cross system synchronization. Financial in-depth analysis, decision-making, and risk control still rely on professional personnel. The industry should guide financial personnel to transform into process optimizers and data analysts, promote human-machine collaboration, focus AI-RPA on low value-added work, release manpower to focus on high-value work such as management accounting and strategic finance, and help enterprises with digital transformation.

5. Conclusion

This study focuses on the application value of AI-RPA technology in intelligent electronic credential verification, using Weaver as the research object and the implementation of its Qianli Ling RPA platform in Shanghai Kehua Biotechnology. Research has found that AI-RPA technology combines the advantages of AI intelligent verification and RPA process automation to achieve full process automation of electronic voucher collection, review, and cross system synchronization. It can efficiently handle high-frequency financial work such as invoice deduction and selection, and also break down data barriers in heterogeneous systems, solving the industry pain points of low efficiency, error prone, and inconsistent data in traditional manual review. The application of Weaver's solution in Kehua Biotechnology has achieved a dual effect of human efficiency release and risk reduction. It not only reduces the manpower consumption of repetitive financial work but also improves the compliance and security of electronic voucher review through data tampering prevention and standardized execution.

This case confirms the high adaptability of AI-RPA technology to the digital transformation of management accounting, and its practical application in the field of electronic voucher review provides a reference technical path for the digital transformation of finance in various industries. In the future, with the continuous development of technology, the collaborative application of AI-RPA with big data and cloud computing will further expand its application depth and breadth in the financial field, providing stronger support for the intelligent development of enterprise management accounting.

References

[1] Cheng, P. and Wang, W. (2018) Research on cost reimbursement optimization of financial sharing service center based on RPA. Friends of Accounting, (13), 146-151.

[2] Wu, W. and Zhao, L. (2025) Research on the Application of AI and RPA in Accounting Informatization. Information and Computer, 37(19), 63-65.

DOI: 10.54254/2754-1169/2026.LD32878

[3] Liu, S. and Sun, J. (2025) Research on the application of RPA technology in financial digital transformation. Business Watch, 11(32), 42-45.
[4] Salvekar, S. (2020) Invoice Processing Using Robotic Process Automation. International Journal of Scientific Research in Computer Science, Engineering and Information Technology.
[5] Mohamed, S.A., Mahmoud, M.A., Mahdi, M.N. and Mostafa, S.A. (2022) Improving Efficiency and Effectiveness of Robotic Process Automation in Human Resource Management. Sustainability, 14(7), 3920.
[6] Macha, K.B. (2025) Integrating AI, ML, and RPA for end-to-end digital transformation in healthcare. World Journal of Advanced Research and Reviews, 25(1), 2116-2129.
[7] Wanner, J., Hofmann, A., Fischer, M., Imgrund, F., Janiesch, C. and Geyer-Klingeberg, J. (2019) Process selection in RPA projects–towards a quantifiable method of decision making.
[8] Afrin, S., Roksana, S. and Akram, R. (2024) AI-enhanced robotic process automation: A review of intelligent automation innovations. IEEE Access, 13, 173-197.
[9] Eulerich, M., Waddoups, N., Wagener, M., et al. (2024) The dark side of robotic process automation (RPA): Understanding risks and challenges with RPA. Accounting Horizons, 38(2), 143-152.
[10] Egiyi, M. A. and Chukwuani, V. N. (2021) Robotic process automation (RPA): its application and the place for accountants in the 21st century. International Journal of Advanced Finance and Accounting, 2(1), 30-40.