

## INVOICE MANAGEMENT ANALYSIS AT PT PERTAMINA EP CEPU USING P2P SYSTEM

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### ABSTRAK

Penelitian ini mengkaji sistem manajemen faktur di PT Pertamina EP Cepu, khususnya implementasi sistem Procure-to-Pay (P2P). Tujuannya adalah memahami operasi sistem, mengidentifikasi tantangan, menganalisis alur proses manajemen faktur dan memberikan rekomendasi untuk kemungkinan perbaikan di dalam sistem. Dengan pendekatan deskriptif kualitatif melalui analisis dokumen, wawancara, dan observasi, penelitian menemukan tantangan seperti ketidaksesuaian faktur dan pesanan, pembaruan lokasi vendor, keterlambatan dokumen, kesalahan sistem, dan kurangnya pemahaman pengguna. Rekomendasi mencakup peningkatan otomatisasi, komunikasi dengan vendor, persetujuan otomatis, keamanan data, dan pelatihan karyawan. Penelitian ini memberikan wawasan untuk perbaikan manajemen faktur di sistem P2P PT Pertamina EP Cepu.

**Kata Kunci:** Manajemen Faktur, Sistem, Procure-to-Pay.

### ABSTRACT

*This research examines the invoice management system at PT Pertamina EP Cepu, particularly the implementation of Procure-to-Pay (P2P) system. The objective is to understand the system's operation, identify challenges, analyze the flow of the invoice management process and give suggestions for possible improvements in the system. Using a qualitative descriptive approach through document analysis, interviews, and observations, the study identifies challenges such as discrepancies between invoices and orders, vendor location updates, document submission delays, system errors, and lack of user understanding. Recommendations include enhancing automation, vendor communication, automated approvals, data security, and employee training. This research provides insights for improving invoice management within PT Pertamina EP Cepu's P2P system.*

**Keywords:** Invoice Management, System, Procure-to-Pay.

### INTRODUCTION

In an era of increasing digitalization, companies are continuously seeking ways to optimize their financial operations to achieve greater efficiency and accuracy. One of the key areas where operational efficiency can have a direct impact on financial health is invoice management. Efficient management of invoices ensures timely payments to vendors, minimizes errors, and supports strong vendor relationships, all of which are essential for maintaining business continuity and compliance with corporate governance

At PT Pertamina EP Cepu, a subsidiary of Indonesia's state-owned oil and gas company, invoice management is a crucial part of the overall procurement process. The company interacts with numerous vendors for the supply of goods and services essential for its operations in the upstream oil and gas sector. Given the scale and complexity of these transactions, the manual handling of invoices can lead to inefficiencies, including delayed payments, mismatches between purchase orders and invoices, and a lack of transparency in the approval process.

### METHODOLOGY

This research adopts a qualitative descriptive approach to analyze the effectiveness of the Procure-to-Pay (P2P) system in managing invoices at PT Pertamina EP Cepu. The qualitative approach was chosen because it allows an in-depth understanding of the

operational intricacies, user challenges, and process gaps within the P2P system. Data collection involved various methods, including interviews with key personnel, document analysis, and direct observations. These methods were integrated to ensure a comprehensive exploration of the research objectives, including identifying challenges in invoice management and proposing actionable recommendations for improvement.

The primary method of data collection was semi-structured interviews, conducted with finance team members and assistant managers directly involved in the invoice processing workflow. The interviews focused on capturing detailed insights into system usage, including the specific stages of invoice submission, validation, and payment processing. Participants were also encouraged to share their experiences and opinions on system challenges, such as discrepancies in invoices, vendor-related delays, and technical system errors. These semi-structured interviews allowed for flexibility in exploring unanticipated issues and provided a rich qualitative dataset for analysis. Additionally, direct observations were conducted to understand the practical workflow of the P2P system in real-time. The researcher shadowed finance team members to observe how invoices are received, processed, and approved, while noting inefficiencies such as delays caused by manual intervention or errors during data entry.

Document analysis was also a critical component of this research, involving the examination of organizational records, including purchase orders, vendor invoices, and system-generated reports. This method validated the data collected from interviews and observations, offering a more objective perspective on the actual practices compared to documented procedures. Process maps were developed to visualize the workflow, from invoice receipt to payment completion, identifying bottlenecks such as mismatched data or delays in vendor submissions. Triangulation was applied to enhance the validity and reliability of the findings by comparing insights from interviews, observations, and documents. Together, these methods provided a holistic view of how the P2P system operates at PT Pertamina EP Cepu, highlighting areas for optimization and forming the basis for practical recommendations to improve the efficiency of invoice management.

## **RESULTS AND DISCUSSION**

### **PT Pertamina EP Cepu manages invoices through the Procure-to-Pay (P2P) system.**

PT Pertamina EP Cepu utilizes the P2P (Procure-to-Pay) system to manage its invoice processes efficiently. The system streamlines the entire workflow, starting from the receipt of invoices to final payment. When an invoice is received, it is verified by the finance team against purchase orders (POs) and service acceptance (SA) records to ensure data accuracy. Once verified, the data is entered into the i-P2P system and passed on to the Zone 4 Assistant Manager for approval. After obtaining approval, the Shared Processing Center (SPC) in Jakarta processes the payment, which is ultimately executed by the treasury team. Despite the system's ability to integrate procurement and payment activities effectively, occasional bottlenecks arise from vendor delays and system errors. To enhance this process, it is recommended to implement automated verification tools, such as Optical Character Recognition (OCR), to reduce manual efforts and ensure faster invoice matching.

### **PT Pertamina EP Cepu encounters challenges in managing invoices using the P2P (Procure-to-Pay) system**

The study identified several challenges faced by PT Pertamina EP Cepu in managing invoices through the P2P system. First, discrepancies between invoices and purchase orders often require documents to be returned to vendors for corrections, which delays the approval process. Second, vendors sometimes fail to update their information, such as the company's

location, leading to rejected invoices. Third, submission delays from vendors, combined with rare but disruptive system errors, further extend processing times. Finally, user unfamiliarity with system functionalities has resulted in incomplete submissions and delayed approvals. To address these challenges, PT Pertamina EP Cepu should strengthen communication with vendors by introducing a vendor portal, which would enable real-time updates and direct submission of corrected documents. Additionally, regular training sessions should be conducted to enhance users' understanding of the P2P system.

#### **How does PT Pertamina EP Cepu distribute the flowchart of their invoice management system using P2P (Procure-to-Pay)?**

PT Pertamina EP Cepu employs a structured flowchart within the P2P system to manage invoices systematically. The flow begins with vendors submitting invoices, which are verified by the finance team for completeness and accuracy. Verified invoices are entered into the i-P2P system and reviewed by the Assistant Manager at Zone 4 before being forwarded to the SPC for further processing. Payments are made only after the treasury team verifies the documents. This structured approach ensures traceability and accountability throughout the process. However, the current flowchart lacks flexibility for handling unexpected errors or urgent approvals. It is recommended to incorporate automated approval hierarchies and develop an escalation mechanism within the flowchart to handle urgent payments or issues without disrupting the entire process.

#### **What are the possible improvements that can be made to optimize current invoice management process using the P2P system at PT Pertamina EP Cepu**

The study highlights several areas for improvement in optimizing the invoice management process. First, the introduction of automated tools like OCR could expedite data entry and reduce manual errors. Second, establishing a dedicated vendor portal would allow vendors to upload invoices, track approval statuses, and receive feedback in real-time. Third, providing detailed training programs for both employees and vendors would address knowledge gaps and ensure smooth system usage. Finally, regular system audits should be conducted to identify and resolve technical errors promptly. By implementing these improvements, PT Pertamina EP Cepu can enhance the efficiency, accuracy, and reliability of its invoice management process while minimizing delays.

## **CONCLUSION**

Based on the analysis of the invoice management system at PT Pertamina EP Cepu using the Procure-to-Pay (P2P) system, this study highlights both its strengths and challenges. The implementation of the P2P system has improved transparency, efficiency, and accuracy in processing invoices by automating workflows and integrating procurement and payment processes. The system allows for seamless coordination between vendors and internal teams, ensuring timely document processing and minimizing manual errors. However, several challenges persist, such as delays in vendor submissions, mismatches between invoices and purchase orders, and occasional system errors, as identified through interviews, observations, and document reviews from PT Pertamina EP Cepu.

The findings emphasize that key improvements are necessary to optimize the system further. The introduction of advanced tools, such as Optical Character Recognition (OCR) for automated data entry, can reduce manual errors and speed up the verification process. Establishing a vendor portal would improve communication and allow vendors to directly upload and track the status of their invoices in real time. Moreover, regular training programs for employees and vendors can enhance user understanding and reduce delays caused by knowledge gaps. These measures are aligned with the recommendations derived

from primary data and internal documents provided by PT Pertamina EP Cepu.

In conclusion, the P2P system at PT Pertamina EP Cepu has proven to be a valuable tool for managing invoices effectively. However, addressing the identified challenges through process improvements, technological advancements, and stakeholder collaboration is essential to maximize its potential. This study provides actionable insights that can help the company enhance its financial processes, ensure timely payments, and maintain strong vendor relationships, while also contributing to the broader knowledge of efficient invoice management in the oil and gas industry.

## REFERENCES

- Ajayi, O. V. (2017). Distinguish Between Primary Sources of Data and Secondary Sources of Data. *Benue State University*, 1(1), 1–5. <https://doi.org/10.13140/RG.2.2.24292.68481>
- Finio, M., & Downie, A. (2024). What is Procure-to-Pay (P2P). IBM Think Blog. Retrieved from <https://www.ibm.com/think/topics/procure-to-pay>
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed). John Wiley & Sons.
- Volopay. (2024). What is Procure to Pay and How to Manage It. Retrieved from <https://volopay.com>
- Hammer, M., & Champy, J. (1993). *Reengineering the Corporation: A Manifesto for Business Revolution*. Harper Business.
- Constantine, L. L., & Yourdon, E. (1979). *Structured Design: Fundamentals of Discipline of Computer Program and Systems Design*. Prentice-Hall.
- Mulyani, S. (2012). Konsep-konsep Dasar Sistem Informasi Akuntansi. Universitas Terbuka. Retrieved from <https://pustaka.ut.ac.id>
- Pertamina. (2024). A New Chapter: JTB Records Full Capacity Production of 192 Million Cubic Feet per Day. Retrieved from <https://www.pertamina.com>
- Kirana, Q. D., Dafitri, H., & Andriana, S. D. (2024). Digital Platform to Manage Invoice and Purchase Orders Efficiently at PT Anugerah Wisnu Wicaksana. *Data Sciences Indonesia*, 4(1), 51–61. <https://doi.org/10.47709/dsi.v4i1.4094>