

## The Role of The Integrated Tusbung Online (ITO) Application and Biller Performance in Encouraging Cash in Acceleration at PT PLN (Persero) Parent Unit Distribution of East Kalimantan and North Kalimantan

Muhammad Asranuddin <sup>1)</sup> & Sri Wahyuni Ratnasari <sup>2)</sup>

<sup>1)</sup> Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: [muhammadasranuddin.std@unissula.ac.id](mailto:muhammadasranuddin.std@unissula.ac.id)

<sup>2)</sup> Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: [sriwahyuniratnasari@unissula.ac.id](mailto:sriwahyuniratnasari@unissula.ac.id)

**Abstract.** *This study aims to analyze the role of the Integrated Tusbung Online (ITO) application and biller performance in driving cash in acceleration at PT PLN (Persero) East Kalimantan and North Kalimantan Main Distribution Units. The problem formulations proposed are: 1) how does the Integrated Tusbung Online (ITO) application influence cash in acceleration at PT PLN (Persero) East Kalimantan and North Kalimantan Main Distribution Units; 2) how does the Integrated Tusbung Online (ITO) application influence biller performance at PT PLN (Persero) East Kalimantan and North Kalimantan Main Distribution Units; 3) how does biller performance influence cash in acceleration at PT PLN (Persero) East Kalimantan and North Kalimantan Main Distribution Units. This study uses a quantitative approach with an explanatory research method. The research location is PT PLN (Persero) East Kalimantan and North Kalimantan Main Distribution Units. The research sample is 188 employees. Data analysis uses Smart PLS. The results of the study 1) Integrated tusbung online (ITO) has a positive and significant effect on the acceleration of cash in, this means that the more ITO can facilitate reporting, verification, and follow-up on customer receivables more accurately, quickly, and transparently, it can accelerate cash in PT PLN (Persero) UID East Kalimantan and North Kalimantan. 2) Integrated tusbung online (ITO) has a positive and significant effect on biller performance, this means that high ITO shows efficiency in managing and processing electricity bill payment transactions, both postpaid and prepaid (tokens), which can have a positive impact on biller performance. 3) Biller performance has a positive and significant effect on the acceleration of cash in and biller performance can mediate the effect of integrated tusbung online on the acceleration of cash in, this means that the ITO application makes biller performance more effective where billers can more easily monitor payment status, manage outstanding receivables, so that billers can achieve revenue targets and ultimately accelerate the cash in process.*

**Keywords:** *Biller Performance; Cash in Acceleration; Collection Efficiency; Customer Receivables; Explanatory Research; Pln; Integrated Tusbung Online (Ito).*

## 1. Introduction

PT PLN (Persero), as the primary electricity provider in Indonesia, has a significant responsibility to ensure a reliable electricity supply for the public. However, in carrying out its duties, the company faces various challenges, one of which is managing complex customer receivables. Delays in customer payments not only impact the company's cash flow stability but can also hinder operational efficiency and investment in electricity infrastructure development.

According to the Working Capital Management (WCM) theory proposed by Gitman (2009), effective accounts receivable management is crucial for companies to maintain liquidity and ensure operational sustainability. In practice, late payments by customers can disrupt a company's financial balance, ultimately impacting the quality of service received by the public. Therefore, PT PLN (Persero) continues to strive to improve efficiency in the billing and payment collection process, both through optimizing digital systems and adopting a more proactive approach to customers.

Beyond just the financial aspect, accelerating payment receipts, or cash-in, is also a crucial element in maintaining a sustainable electricity supply throughout the country. With a healthy cash flow, PT PLN (Persero) can continue investing in network improvements and developing energy sources.

more environmentally friendly systems, and improved customer service. Customer awareness and discipline in fulfilling electricity payment obligations not only helps the company but also contributes to creating a more stable and sustainable electricity system for all Indonesians.

In the ever-evolving digital era, PT PLN (Persero) is constantly innovating to improve operational efficiency, especially in terms of the billing process and accelerating cash receipts. One form of innovation implemented is the use of the Integrated Tusbung Online (ITO) application system, which is designed to facilitate the monitoring and management of customer receivables that have outstanding payments. It is hoped that with this system, the billing process can be monitored and evaluated more quickly in accordance with the set performance targets. The Integrated Tusbung Online (ITO) Application System is part of the digitalization effort to accelerate the billing process and improve operational efficiency. The implementation of this system is in line with the Diffusion of Innovation (DOI) theory developed by Rogers (2003), which states that technology adoption in an organization is influenced by five main factors, namely relative advantage, compatibility, complexity, trialability, and observability.

For large companies such as PT PLN (Persero), the success of implementing the ITO Application depends on the extent to which this system can provide benefits.

Real benefits for business processes, compatible with existing systems, easy to use by PT PLN (Persero) employees and billers, and can improve efficiency in managing customer receivables. However, although the ITO Application system is expected to improve billing effectiveness, challenges in its implementation remain a significant obstacle in the field. Some of the problems that arise include the system's incompatibility with operational needs in various distribution units, limited integration with other systems used by PT PLN (Persero), and suboptimal biller performance. This is in line with the findings of DeLone and McLean (2003) in the Information System Success Model, which states that the success of an information system depends not only on the quality of its technology, but also on the quality of service, user satisfaction, and its impact on organizational performance. If system users, in this case PT PLN (Persero) billers, feel that the system does not optimally support their needs, the system's effectiveness in accelerating cash in will be hampered.

In addition, the performance of billers as the spearhead in the billing process plays a crucial role in determining the effectiveness of the ITO application system. Billers are responsible for ensuring that customer bills are collected according to the established schedule and targets. Based on the Goal-Setting Theory proposed by Locke and Latham (1990), the success of individual performance in an organization is greatly influenced by the clarity of goals, the level of task difficulty, feedback, and commitment to achieving targets. In a company like PT. PLN (Persero), billing effectiveness is highly dependent on the clarity of targets given to billers, adequate system support, and feedback mechanisms that enable continuous improvement in their work processes.

Furthermore, the role of technology in improving business effectiveness can also be linked to the Resource-Based View (RBV) Theory developed by Barney (1991), which emphasizes that a company's competitive advantage depends on how the company manages its internal resources, including technology and human resources. The implementation of ITO applications as a technological resource must be accompanied by increased competence and training for billers so they can optimize the use of the system in the billing process. Without the support of competent human resources, even sophisticated technology will not provide maximum results.

At PT PLN (Persero), the success of the ITO application system and biller performance in accelerating cash in can also be attributed to the Business Process Reengineering (BPR) concept introduced by Hammer and Champy (1993). BPR emphasizes that to achieve significant improvements in business performance, companies must fundamentally analyze and redesign business processes, rather than simply make incremental improvements. If the ITO application system still faces obstacles in field implementation, a more in-depth evaluation of the billing workflow is necessary.

as a whole, so that more effective solutions can be found to increase the efficiency and effectiveness of the collection process.

Beyond being a technological tool, the successful implementation of this system also depends heavily on the role of billers. They are on the front lines of collecting payments directly from customers. With the support of the ITO application system, billers are expected to work more effectively, have access to more accurate information, and be able to carry out their duties in a more structured manner. In other words, innovation in this system is not just about digital transformation, but also about how technology can truly contribute to improving the performance of the workforce in the field.

However, reality on the ground sometimes doesn't always live up to expectations. Although the ITO application system is designed to increase efficiency, various obstacles still arise in its implementation. Some of the challenges encountered include limited integration with other systems, a lack of alignment with operational needs in various regions, and various technical constraints that hinder the smooth running of the billing process. Furthermore, the human factor also plays a crucial role. Billers tasked with collecting payments often face challenges such as a lack of training support in using the system, a lack of motivation due to high targets, and external constraints such as varying customer responses to the billing process.

Research gap found on the influence of system quality on organizational performance. Gorla et al (2010) found that system quality does not significantly influence organizational performance. In contrast, Salleh et al. (2016) and Benmoussa et al. (2018) demonstrated that system quality has a positive and significant effect on organizational performance. Given these differences in results, this thesis aims to examine the influence of system quality (ITO) on organizational performance (cash-in acceleration). This study proposes employee performance (biller performance) as another variable that bridges the influence of ITO on cash-in acceleration.

Based on the findings of the gap phenomenon and research gap above, this thesis research is proposed with the title: "The Role of the Integrated Tusbung Online (ITO) Application and Biller Performance in Encouraging Cash In Acceleration at PT PLN (Persero) East Kalimantan and North Kalimantan Distribution Main Units".

## **2. Research Methods**

The Main Distribution Units in East and North Kalimantan owned by PT PLN (Persero) were the location of this quantitative research, which employed an explanatory research method. The use of quantitative methodology in this study allows for objective and organized measurement of variable correlations, resulting in more systematic and statistically testable results (Sugiyono, 2018). The purpose of this explanatory research approach is to explain the nature and interactions of the variables studied (Sugiyono, 2018). The primary objective of this explanatory research approach is to verify or refute the hypothesis. The independent

and dependent variables of the hypothesis are the focus of this research. To accelerate cash-in, this study will examine how the ITO application and biller performance interact.

### 3. Results and Discussion

#### 3.1. The Impact of Integrated Tusbung Online on Cash In Acceleration

The research findings show that integrated online tusbung has a positive and significant effect on accelerating cash in. Integrated online tusbung in this study consists of indicators of ease of use, data accuracy and reliability, integration with other systems, features according to needs and security in managing customer data, all of which have an effect on accelerating cash in, which can be explained in the ease of use indicator, where billers do not need to spend a lot of time and energy to understand how it works or make transactions, they are confident that The process will be smooth and error-free. Data accuracy and reliability indicators, where ITO can produce accurate data and process it to produce the right information, so that follow-up on receivables can be done more quickly, and transparently and have a positive impact on accelerating cash in. Integration indicators with other systems, ITO allows financial data to flow in real-time between systems, so that billers can monitor payments and receivables from customers directly, thus facilitating decision making.

An ITO with appropriate features can simplify the recording, management, and receipt of electricity payments, thereby accelerating customer transactions. A security indicator for customer data management can improve efficiency, reduce errors, and simplify the payment process because the ITO is integrated with various methods, such as digital wallets (e-wallets), which provide biometric security verification for faster and more secure transactions.

The results of this study align with research conducted by Laudon and Laudon (2020), which found that an integrated information system can improve operational efficiency and accelerate the cash receipts cycle in a company. Furthermore, research by Stair and Reynolds (2018) shows that implementing information technology in financial systems can reduce transaction completion time, increase cash flow speed, and minimize the risk of human error. Furthermore, according to McLeod, and Schell (2022), the use of cloud-based information systems can increase a company's flexibility in managing financial transactions and speed up the payment verification process.



Figure Integrated Tusbung Online (ITO) Application

The Integrated Tusbung Online (ITO) application is an internal management application developed to centralize all team-related notifications and information, simplifying communication and organization. This application can also function as an integrated digital solution for controlling and monitoring customer receivables, particularly within the PLN environment. The ITO application is presented and is expected to become an integrated digital solution for controlling and monitoring customer receivables. With this system, the reporting, verification, and follow-up processes for receivables can be carried out more accurately, quickly, and transparently. Organized and monitored receivables management properly is the key to maintaining PLN's overall financial health.

### 3.2.1. Influence Integrated Tusbung Online on Biller Performance

The research findings show that integrated online tusbung has a positive and significant effect on biller performance. Integrated online tusbung in this study consists of indicators of ease of use, data accuracy and reliability, integration with other systems, features according to needs and security in managing customer data all have an effect on biller performance, it can be explained that this ease of use indicator reduces the learning curve and time required to master the application, so that billers can immediately be productive and complete more work. Data accuracy and reliability indicators, this allows billers to access and process customer data more quickly and accurately, this reduces time spent on manual information searches and minimizes errors in invoicing, so that billers can handle more customers at the same time.

Integration indicators with other systems, ITO system integration with other systems allows billers to access billing and transaction information in real-time, simplifying financial tracking and management. Feature indicators as needed, where ITO also includes inventory management features, so that billers' performance in recording electricity meters, controlling customer receivables, issuing billing letters, and carrying out Temporary power outages in the event of arrears become more efficient. Security indicators in customer data

management, ITO automatically produces structured data thereby reducing manual errors such as nominal or calculation errors, so that billers no longer need to worry about potential data loss or input errors that could cause financial losses for PT PLN.

Billers rely heavily on the ITO to obtain billing information and validate payments. If the ITO experiences disruptions, billers cannot access the data needed to properly process transactions, which can lead to payment delays, data errors, or even transaction failures, ultimately impacting biller performance. Conversely, if the ITO can operate stably and reliably, biller performance will improve. Furthermore, with a stable ITO system, the risk of errors in bill calculation, late bill delivery, or other errors in the billing process will be reduced.

The results of this study align with research conducted by Pearlson, Saunders, & Galletta (2019) that found that automation-based information systems can reduce administrative workloads, allowing billers to focus more on more effective billing strategies. These results are also relevant to research conducted by Bodnar and Hopwood (2022) that the effective implementation of information technology in billing systems can reduce the likelihood of errors in recording transactions and increase customer satisfaction because the payment process becomes more transparent and structured.

The integrated online payment system (ITO) application is part of PLN's digital transformation efforts to improve customer service. ITO records all payment transactions in detail, including customer information, payment amounts, and transaction times. ITO can generate accurate reports regarding payment receipts, receivables, and other customer data. ITO is integrated with PLN's financial system to ensure accurate data reconciliation. The integrated online payment system impacts biller performance because, as a team information and communication center, ITO helps simplify workflows and ensures all team members receive the same and up-to-date information. By automating several processes, ITO helps improve teamwork efficiency and accounts receivable management. Furthermore, ITO provides centralized and transparent data, enabling better monitoring of various operational aspects, thus increasing biller performance. Thus, with ITO, billers can manage electricity bill payments more effectively and efficiently, and provide better service to PLN customers.

### **3.2. The Influence of Biller Performance on Cash In Acceleration**

The research findings show that biller performance has a positive and significant effect on cash in acceleration. This means that biller performance...

Optimality plays a significant role in ensuring accelerated cash inflow. Aspects such as work speed, data accuracy, and effectiveness in billing customers can increase the collection success rate, which ultimately increases cash inflow acceleration.

Biller performance in this study consisted of indicators such as work speed, data accuracy, billing effectiveness, digital system competency, and compliance, all of which impacted cash inflow. This can be explained by the work speed indicator. Billers who can work faster in following up and collecting customer receivables can ensure faster cash inflows to PT PLN, shortening the receivables cycle. Data accuracy indicator: Billers who can provide accurate data can assist in developing effective billing schedules, ensuring timely collection of receivables and faster cash flow to PT PLN. Billing effectiveness indicator: Billers ensure that overdue receivables are promptly collected, thus reducing the number of uncollectible or bad debt receivables.

Digital system competency indicator: Billers with digital technology competency improve the efficiency of the recording process and accelerate the reporting cycle. This reduces the risk of recording errors and time-consuming manual processes, allowing PT PLN to monitor up-to-date and accurate financial data and make timely decisions that can accelerate the conversion of receivables to cash inflows. Compliance indicator: Billers who can ensure timely payment of invoices, resulting in faster cash flow to PT PLN.

Research conducted by Almagribi, Lukviarman, & Setiany (2022) states that an efficient billing system will help companies manage receivables and accelerate the cash-in process. These results support the theory of Kotler & Keller (2016), which states that the speed and effectiveness of the billing team directly contribute to accelerated cash flow and a company's financial health.

Findings on the mediation effect (indirect effect) indicate that biller performance can mediate the positive and significant effect of integrated online payment systems on accelerating cash-in. This may be because a stable ITO indicates a reduced risk of errors in bill calculation, late bill delivery, or other errors in the billing process, ultimately improving biller performance in achieving revenue targets. When the billing process runs smoothly and accurately, customer trust in PLN increases. This can encourage customers to pay their bills on time and accelerate cash-in.

These results align with research by Hitt, Ireland, and Hoskisson (2017), which shows that a workforce supported by a technology-based system has higher productivity levels, particularly in financial management and billing. According to Ross, Westerfield, and Jordan (2018), the implementation of a system that can provide Real-time analysis of customer payment status can also help billers identify accounts that are potentially late in payment. Thus, improving biller performance, particularly through the efficient use of technology, can accelerate a company's cash receipts.

#### 4. Conclusion

Based on the results of the research that has been carried out, it can be concluded that: 1. Integrated tusbung online (ITO) has a positive and significant effect on accelerating cash in, this means that ITO can accelerate cash in PT PLN (Persero) UID East Kalimantan and North

Kalimantan. 2. Integrated tusbung online (ITO) has a positive and significant effect on biller performance, this means that high ITO indicates efficiency in managing and processing electricity bill payment transactions, both postpaid and prepaid (tokens), which can have a positive impact on biller performance. 3. Biller performance has a positive and significant effect on cash in acceleration and biller performance can mediate the effect of integrated online tusbung on cash in acceleration, this means that the ITO application makes biller performance more effective where billers can more easily monitor payment status, manage outstanding receivables, so that billers can achieve revenue targets and ultimately accelerate the cash in process.

## 5. References

### Journals:

- Almagribi, M.K., Lukviarman, N., & Setiany, E. (2022). Financial Determinants of Corporate Cash Holding: Evidence from Property and Real Estate Companies in Indonesia. *Review of Integrative Business and Economics Research*, 12(3), 251-260.
- Amiman, A.M., Karamoy, H., & Walandouw, S.K. (2023). Efektivitas Penerapan Sistem Informasi Akuntansi Penerimaan dan Pengeluaran Kas Pada Dana Bantuan Operasional Sekolah di SMP Negeri 1 Essang. *Jurnal EMBA*, 11(3), 860-868.
- Barney, J.B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Belitski, M., Stettler, T., Wales, W., & Martin, J. (2023). Speed and Scaling: An Investigation of Accelerated Firm Growth. *Journal of Management Studies*, 60(3), doi:10.1111/joms.12869
- Cahen, F., & Borini, F. M. (2020). International Digital Competence. *Journal Of International Management*, 26(1), 100691
- Chin, W.W. (2018). The Partial Least Squares Approach to Structural Equation Modeling. *Modern Methods for Business Research*, 295, 336.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9-30.
- Denziana, A., Fiscal, Y., & Ningsih, S.U. (2014). Pengaruh Payment Point Online Bank (PPOB) dalam Percepatan Aliran Kas Pada PT PLN (Persero) Distribusi Lampung. *Jurnal Akuntansi & Keuangan*, 5(1), 49-70.62

- Hair, J.F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V.G. (2019). Partial Least Squares Struktural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*, 26(2), 106-121
- Herawati, H., Yundita, R., Vionita, A. (2024). Analisis Sumber dan Penggunaan Kas Pada Laporan Keuangan PT PLN Periode 2022-2023. *Jurnal Bisnis Mahasiswa*, 4(4), <https://doi.org/10.60036/jbm.v4i4.art17>
- Husain, B.A., & Santoso, A.B. (2022). Analisis Kepatuhan Karyawan Terhadap Pemberlakuan Prosedur Operasional Standar (SOP) Pada Perusahaan Baru (Studi Kasus Pada PT Prina Duta Rekayasa) Kota Tangerang Selatan. *Jurnal Tadbir Peradaban*, 2(2).
- Indrayani. (2019). Pengaruh Payment Point Online Bank (PPOB) terhadap Percepatan Aliran Kas (Studi Kasus di PT. PLN (Persero) Provinsi Aceh). *Jurnal Akuntansi dan Keuangan*, 7(2), 83-92.
- Maarop. N., Witarsyah, D., Hussein, S.S., Samy, G.N., Hassan, N.H., Ten, D.W.H., Mohammad, R., & Zainuddin, N.M.M. (2021). Information Security Management System Success Measurement Indicator. *International Journal Of Scientific & Technology Research*, 10(2).
- Mikhaylov, A., Dincer, H., Yuksel, S., Pinter, G., & Shaikh, Z.A. (2023). Bitcoin Mempool Growth and Trading Volumes: Integrated Approach Based on QROF Multi-SWARA and Aggregation Operators. *Journal of Innovation & Knowledge*, 8(3), DOI: 10.1016/j.jik.2023.100378

#### Books:

- Abdillah, W., & Jogiyanto. (2021). Partial Least Square (PLS) Alternatif SEM dalam Penelitian Bisnis. Yogyakarta: Andi Offset.
- Bodnar, G.H., & Hopwood, W.S. (2022). Sistem Informasi Akuntansi. Jakarta: Salemba Empat
- Brigham, E.E., & Ehrhardt, M.C. (2020). Financial Management Theory & Practice 16th Edition. Boston: Cengage Learning
- Fahmi, I. (2018). Manajemen Kinerja. Bandung: Alfabeta.
- Ferdinand, A. (2019). Metode Penelitian Manajemen: Pedoman Penelitian untuk Penulisan Skripsi Tesis dan Desertasi Ilmu Manajemen. Semarang: Badan Penerbit Universitas Diponegoro
- Ghozali, I., & Latan, H. (2020). Partial Least Square: Konsep, Teknik dan Aplikasi Smart PLS 4.0 M3. Semarang: Badan Penerbit Universitas Diponegoro.
- Gitman, L.J., & Zutter, C.J. (2015). Principles of Managerial Finance. New York: Pearson Education Limited

- Hitt, M.A., Ireland, D.R., & Hoskisson, R.E. (2017). *Strategic Management: Competitiveness & Globalization (Concept and Cases)*. Boston: Cengage Learning.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management*. New York: Pearson Education.
- Laudon, K. C., & Laudon, J. P. (2020). *Management Information Systems: Managing the Digital Firm*. New York: Pearson.
- Locke, E. A., & Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance*. Prentice Hall.
- Mangkunegara, A.A.A.P. (2017). *Evaluasi Kinerja SDM*. Bandung: Refika Aditama.
- McLeod, R., & Schell, G.P. (2022). *Management Information System*. New York: Pearson.
- O'Brien, J. A., & Marakas, G. M. (2010). *Introduction to Information Systems*. McGraw-Hill Education.
- Pearlson, K.E., Saunders, C.S., & Galletta, D.F. (2019). *Managing and Using Information Systems: A Strategic Approach (7th ed)*. New Jersey: Wiley.
- Rivai, V. (2018). *Manajemen Sumber Daya Manusia untuk Perusahaan dari Teori ke Praktek*. Jakarta: Murai Kencana.
- Rogers, E. M. (2003). *Diffusion of Innovations*. New York: Free Press. Robbins, P.S., & Judge, T.A. (2017). *Organizational Behaviour*. Jakarta: Salemba Empat
- Ross, S.A., Westerfield, R.W., & Jordan, B.D. (2018). *Fundamentals of Corporate Finance*. New York: McGraw-Hill Education
- Stair, R.M., & Reynolds, G.W. (2018). *Principles of Information Systems*. USA: Course Technology.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Turban, E., Pollard, C., & Wood, G. (2021). *Information Technology for Management: On-Demand Strategies for Performance, Growth, and Sustainability*. New Jersey: Wiley.