

IMPROVING ECONOMIC EFFICIENCY THROUGH ASSET MANAGEMENT OF INFORMATION TECHNOLOGY ASSET INVENTORY AT PT. CHANDRA ASRI

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ABSTRACT

Effective asset inventory is crucial for asset management, allowing organizations to optimize asset use, prevent loss, and ensure readiness. PT. Chandra Asri faces challenges in IT asset management, including incomplete and inconsistent data, hindering operational efficiency. This qualitative study examines the current state of IT asset management at PT. Chandra Asri and highlights the potential benefits and challenges of implementing advanced technologies like RFID, barcodes, and cloud-based systems. Case studies from various sectors demonstrate significant improvements in operational efficiency, cost reduction, and customer satisfaction with these technologies. This research offers valuable insights for practitioners, policymakers, and academics in developing better asset inventory strategies..

KEYWORDS *Asset Management, Inventory, RFID, Cloud-based Systems*



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INTRODUCTION

Asset inventory is a vital part of asset management that aims to manage and supervise assets effectively. Inventory is not just a record of assets owned by an organization, but also includes the identification, tracking, and management of assets thoroughly. Through a good inventory, organizations can know exactly the number and condition of the assets they own, as well as the location where they are located. According to (Taupik et al., 2017) This allows organizations to optimize the use of assets, prevent loss or misuse, and ensure that assets are always in a ready-to-use condition. A structured and systematic inventory also improves operational efficiency. With well-organized asset data, maintenance and maintenance processes can be carried out in a more planned and scheduled manner, reducing the risk of unexpected damage.

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In this digital era, technology plays a crucial role in the asset inventory process. The use of asset management software and identification technologies such as barcodes or RFID (Radio Frequency Identification) allows the inventory process to be carried out faster and more accurately. Asset data can be accessed in real-time, allowing asset managers to make faster and more informed decisions. Technology also makes it easier to integrate asset data with other systems in the organization, such as financial systems and maintenance management systems, thereby creating a more seamless and effective flow of information (Martini et al., 2018). However, the effective implementation of asset inventory also requires commitment and cooperation from all parts of the organization. Clear policies and procedures are needed regarding how the inventory process is carried out, who is responsible, and how asset data is managed and updated regularly. Training and education for employees is also important so that they understand the importance of inventory and how they can contribute to the process.

At PT Chandra Asri, there are still shortcomings in the management of IT assets where there is still a lack of inventory of the assets it owns so that it is difficult to identify whether the goods owned by this company are feasible and still correct to be used optimally, such as hardwards that do not have their asset numbers and are not identified what year of purchase and who owns them, This hinders the company's operations so that it can result in a decrease in employee productivity when the goods needed are not

PT. Chandra Asri, as one of the leading petrochemical companies in Indonesia, has a need to maximize the use of their information technology assets to support the company's operations and growth. Effective inventory management of information technology assets can reduce operational costs, avoid waste, and increase productivity. With proper management, companies can ensure that every technology asset is used optimally, from hardware to software. The use of a sophisticated inventory management system allows PT. Chandra Asri to monitor and control the asset life cycle, identify unused or damaged assets, and plan for more efficient procurement. In addition, the integration of asset data with the company's financial and operational systems allows for more in-depth analysis, so that decision-making can be made based on accurate and real-time data. Thus, through good information technology asset inventory management, PT. Chandra Asri can improve economic efficiency, reduce costs, and increase competitiveness in the global market.

Information technology asset inventory data at PT. Chandra Asri is still irregular and many are managed manually. From the existing tables, it can be seen that some columns are not filled in completely, such as the "Name" column which is often empty, as well as the presence of inconsistent data in the filling format. This irregularity shows that the asset management process is still carried out manually without using an automated integrated system. This can lead to difficulties in tracking and managing assets, increasing the risk of loss or inefficient use of assets, and adding to the administrative burden for regular data recording and updates. With the adoption of a structured and automated information technology asset management system, PT. Chandra Asri can improve accuracy and efficiency in

managing assets, ensure that each asset is properly recorded, and facilitate faster and more accurate monitoring and data-driven decision-making.

When there is a request from customers to buy certain goods, poorly organized data will hinder the process of searching for information about the availability of those goods. This not only reduces operational efficiency but also negatively impacts customer satisfaction. According to (Pinem & Please, 2020) Without neat and systematic data collection, organizations lose the ability to respond to requests quickly and appropriately. Many organizations face challenges in maintaining accurate and up-to-date records of assets. Assets that are constantly growing or changing are often not recorded immediately, making existing data obsolete and unreliable. This difficulty is compounded by the lack of an adequate system to manage data updates in real-time. When asset records are not updated correctly, organizations face the risk of making decisions based on inaccurate information, which can ultimately lead to financial and operational losses. Delays in data updates also reduce the organization's ability to proactively plan for asset replacement or maintenance needs.

Poor asset management has a broad and significant impact on an organization, covering a wide range of aspects from financial losses to legal risks. One of the most immediate and tangible impacts is financial loss. When assets are not managed properly, maintenance and replacement costs can increase significantly. According to (Chotibah, 2021) Assets that are not properly maintained tend to deteriorate more quickly, which means organizations have to spend more on repairs or new purchases. Additionally, a lack of proper oversight of the use of assets can result in misuse or theft, which adds to the financial burden. Inaccurate inventory can also lead to overpurchases or underpurchases of assets, disrupting cash flow and budgets.

Decreased productivity is another impact that is no less important than ineffective asset management. When assets that are essential to day-to-day operations are unavailable or not functioning properly, the time required to complete tasks increases. According to (Amah & Hidayat, 2020) If equipment in the factory is often damaged due to inadequate maintenance, then production will be disrupted, resulting in delays and increased labor costs. In worse situations, surgery can stop altogether until the problem is fixed. Lack of access to necessary assets can also interfere with employee performance, reducing efficiency and morale, which ultimately negatively affects overall productivity.

In addition to financial losses and decreased productivity, poor asset management also carries significant legal risks. Assets that are not properly recorded or not maintained to standards can violate industry rules and regulations. According to (Litasari et al., 2018) Failure to ensure that safety equipment meets standards can result in workplace accidents, which not only endangers employee safety but can also lead to lawsuits and large fines. In some industries, non-compliance with regulations related to asset tracking and management can result in the loss of operational licenses or other permits, which can hinder business continuity.

Lack of visibility into the status and location of assets is another issue that greatly affects strategic planning and decision-making. Without accurate and up-to-

date information about assets, management cannot make informed decisions regarding the use and allocation of resources. According to (Arifin et al., 2023) If management does not know that certain equipment needs immediate replacement, they may not allocate enough budget for the purchase of new equipment, which may result in future operational disruptions. Additionally, a lack of visibility can lead to non-optimal investment decisions, such as buying new assets when there are actually unused or underutilized assets that can be optimized.

In the long run, the impact of poor asset management can hinder the growth and sustainability of the organization. Without effective asset management, organizations cannot plan well for the future, whether in terms of product development, market expansion, or technological innovation. The inability to manage assets properly also reflects a lack of managerial capacity, which can lower the trust of stakeholders, including investors and business partners. Ultimately, this can damage an organization's reputation and reduce competitiveness in the market (Gaffar et al., 2017). By ensuring that all assets are properly recorded, monitored, and managed, organizations can reduce risk, save costs, increase productivity, and ensure regulatory compliance. This proactive approach will not only optimize the use of assets but also strengthen the foundation for long-term growth and sustainability.

Modern technology has presented innovative solutions that are able to overcome various challenges in asset inventory, such as those offered by RFID (Radio Frequency Identification), barcodes, and cloud-based asset management systems. This technological development allows organizations to conduct inventory in a more sophisticated, efficient, and accurate way than conventional methods. RFID, for example, uses radio waves to transmit data from tags attached to assets to RFID readers, allowing for automatic identification and tracking of assets without the need for physical contact or direct visibility. This is especially beneficial in large or complex environments, such as warehouses or factories, where thousands of assets need to be tracked simultaneously (Usnaini et al., 2021).

A case study from a leading manufacturing company shows how the application of RFID technology significantly improves operational efficiency and asset data accuracy. Prior to the implementation of RFID, the company faced a major challenge in tracking thousands of machine components and tools scattered across various production facilities. According to (Rafly et al., 2022) Manual record-keeping is often inaccurate and time-consuming, resulting in delays in production and increased operational costs. However, after implementing the RFID system, the company was able to track assets automatically and in real-time, reducing human error and speeding up the inventory process. As a result, the company saw a 20% increase in productivity and a significant reduction in maintenance costs.

Another case study comes from the healthcare sector, where a large hospital implemented a cloud-based asset management system to manage its medical equipment. With the adoption of cloud-based solutions, hospitals can monitor the status and location of each medical equipment in real-time, ensuring equipment availability and readiness at all times (Hartati et al., 2019). The system also allows staff to report problems or maintenance needs directly through the mobile app,

which will then be followed up by the maintenance team. The benefits of this implementation are very pronounced, with increased efficiency in equipment maintenance and reduced patient waiting times.

In the retail sector, a large company has successfully overcome the inventory challenge by adopting barcode technology. The company, which manages thousands of SKUs (Stock Keeping Units) across various stores, faces a major problem in maintaining accurate and up-to-date inventory data. According to (Antoh, 2017) Errors in inventory recording often result in understocking or overstocking, which negatively impacts sales and customer satisfaction. With the implementation of a barcode system integrated with inventory management software, companies can automate the stock recording process, improve data accuracy, and enable real-time stock tracking. As a result, the company experienced a significant improvement in operational efficiency and the ability to respond to market demand more quickly.

Another example of the successful application of technology in asset management comes from the transportation sector. A large logistics company implements GPS technology and fleet management systems to track their vehicles and shipments. Prior to implementation, the company faced difficulties in monitoring the location and condition of the vehicles, which often resulted in delivery delays and increased operational costs (Sangadji, 2018). With GPS technology and fleet management systems, companies can monitor each vehicle in real-time, optimize delivery routes, and reduce travel time. This not only improves operational efficiency but also increases customer satisfaction due to faster and more reliable delivery.

From these case studies, it is clear that the application of the latest technology solutions in asset inventory can have a significant positive impact in various sectors. A good inventory strategy, supported by the right technology, not only helps in managing assets more efficiently but also increases productivity, reduces costs, and increases customer satisfaction. According to (Kuntadi, Retnoningsih, & Finland, 2022) Organizations that are able to adopt and integrate these technologies into their day-to-day operations will have a strong competitive advantage, ready to face the challenges and opportunities of the future. These practical examples show that with the right approach, the benefits of asset inventory technology can be widely felt, driving long-term growth and sustainability for organizations.

This research is expected to provide useful insights for asset management practitioners, policymakers, and academics in developing better asset inventory strategies. By exploring the key challenges faced in asset inventory and potential solutions available, this study aims to provide comprehensive guidance that can be applied across various sectors. Asset management practitioners can leverage the findings of this research to identify weaknesses in their current systems and implement the latest technology solutions such as RFID, barcode, and cloud-based asset management systems. Policymakers can also use the results of this research to formulate policies and regulations that support the implementation of more efficient and accurate asset management technologies and practices.

RESEARCH METHOD

Research methods are one of the most important factors in conducting research, because basically research methods are a scientific way to obtain data with certain purposes and uses. Based on the approach and type of data used, this research is included in qualitative research so that it will produce descriptive data in the form of words.

The data analyzed in it is descriptive and not in the form of numbers as is the case in quantitative research. According to (Suharsimi Arikunto, 2006) Qualitative research is intended to collect information about the status of an existing symptom, namely the state of the symptom as it is at the time the research was conducted. Therefore, qualitative research is able to reveal phenomena in a subject that wants to be studied in depth.

RESULT AND DISCUSSION

Research Results

Information technology (IT) asset inventory management at PT Chandra Asri is a strategic step taken to improve the company's economic efficiency. In this digital era, IT plays an important role in business transformation, especially in reducing operational costs and optimizing the use of resources. PT Chandra Asri has implemented an IT asset inventory management system that aims to monitor and manage hardware, software, and IT infrastructure thoroughly. By leveraging advanced technology, companies can ensure that each IT asset is used optimally and in accordance with operational needs, ultimately contributing to cost savings and increased productivity.

This implementation also includes the use of monitoring and data analysis tools that help companies determine the economic life of assets, manage software updates, and plan IT infrastructure capacity. In addition, preventive measures such as regular monitoring of assets and the implementation of strict security systems are carried out to minimize the risk of loss or damage to assets. With good IT system integration, PT Chandra Asri is able to support more efficient and responsive operations, strengthening the company's competitiveness in an increasingly competitive market. Through effective IT asset inventory management, PT Chandra Asri not only optimizes operational performance but is also ready to face challenges and opportunities in the digital era

IT asset inventory management at PT Chandra Asri is crucial in reducing operational costs and improving company efficiency. By managing IT assets properly and carefully, companies can avoid unnecessary device purchases, ensure optimal use of existing devices, and significantly reduce operational costs. The implementation of an effective inventory system allows companies to maximize performance and use of resources more efficiently, reduce waste, and increase productivity. This directly contributes to the company's economic efficiency, as acknowledged by Anwar Affandi in his interview, who emphasized that this strategy has a great influence on reducing costs and improving operational performance.

The implementation of IT asset inventory management at PT Chandra Asri is a crucial strategic step in improving operational efficiency and reducing costs. Through careful and systematic management, companies can ensure that each IT device is used optimally, avoid unnecessary purchases, and effectively monitor the economic life of assets. This approach not only helps in saving operational costs, but also in maximizing the company's performance and productivity, thus supporting long-term goals and business sustainability in the digital age.

The effectiveness of the information system at PT Chandra Asri plays an important role in supporting the company's operations and increasing efficiency. With an integrated and reliable information system, companies can ensure a fast and accurate flow of information, facilitate data-driven decision-making, and improve coordination between departments. In addition, the system allows for the automation of various business processes, reduces reliance on manual work, and increases employee productivity. The implementation of a good information system also helps companies manage resources more efficiently, reduce operational costs, and increase competitiveness in an increasingly competitive market.

The level of technology use at PT Chandra Asri is very high and has a significant positive impact on the company's sustainability. Advanced technology enables better operational efficiency, reduced costs, and increased productivity. In addition, the adoption of the right technology helps companies to stay competitive in the market and be ready for future challenges.

The effectiveness of the information system at PT Chandra Asri is very high, which is evident from the increase in the company's economic efficiency. This system gets a high level of user satisfaction, as it is considered very effective in supporting the company's operations. The success of the application of information technology in IT asset inventory management is measured through the efficiency of asset management which contributes to increasing the company's profits and productivity. The level of technology use at PT Chandra Asri is very high and has a significant positive impact on the company's sustainability. Advanced technology enables better operational efficiency, reduced costs, and increased productivity. Additionally, the adoption of the right technology helps companies stay competitive in the market and ready to face future challenges. Good IT system integration at PT Chandra Asri supports more efficient and responsive company operations. A reliable data security system ensures that company information is well protected, supporting overall operational efficiency. The use of digitalization or paperless further increases efficiency, with high user satisfaction with the information system, demonstrating the effectiveness of the system in supporting the company's operations and economic efficiency.

Discussion

Information Technology Asset Inventory Management In Companies

The implementation of information technology (IT) asset inventory management at PT Chandra Asri has a significant impact on reducing operational costs and improving overall economic efficiency. Effective IT asset inventory management involves monitoring, managing, and optimizing the use of hardware, software, and other IT infrastructure. This step is not only an effort to keep up with

technological developments, but also an integral strategy to maintain the company's competitiveness and efficiency in an ever-evolving market. Good IT asset inventory management helps reduce operational costs by ensuring that IT assets are managed efficiently. One way to achieve this is to monitor asset usage in real-time and identify unused or underutilized assets. PT Chandra Asri can avoid purchasing unnecessary hardware or software, as well as maximize the use of existing assets. This directly impacts on cost reduction because companies do not need to spend additional funds on assets that are not actually needed.

By performing regular maintenance and ensuring that hardware and software are always in optimal condition, companies can reduce the frequency of costly asset replacements. This not only saves on purchase costs, but also reduces downtime that can occur due to asset damage or failure. In the long term, this strategy helps companies allocate financial resources to other areas that are more strategic and support business growth. Improved economic efficiency through IT asset inventory management is also seen in the company's ability to respond quickly to market changes. A good inventory management system, PT Chandra Asri can access asset data in real-time, allowing them to make faster and more informed decisions. For example, if there is an urgent need to increase production capacity or respond to increasing customer demand, companies can immediately know what IT assets are available and can be used to support those needs. This speed and accuracy in decision-making provides a competitive advantage for companies in a dynamic market.

In addition, the integration of information technology in inventory management allows PT Chandra Asri to implement an automation system that can reduce dependence on manual labor. Automation of business processes involving IT asset management, such as inventory tracking, maintenance, and reporting, not only saves time but also reduces the risk of human error. Companies can allocate human resources for more strategic and value-added tasks, such as the development of new products and services. This contributes to an increase in the overall productivity of the company. Another advantage of IT asset inventory management is improved data security and regulatory compliance. In an increasingly complex business environment, data security is a top priority. Good inventory management, PT Chandra Asri can ensure that all software used is in accordance with the company's licenses and security policies. Companies can proactively monitor and manage security risks, identify potential vulnerabilities, and take preventive measures to protect corporate data from cyber threats. Compliance with data security regulations also helps companies avoid fines and sanctions that can be financially and reputationally harmful.

Effective IT asset inventory management also supports the sustainability and environmental responsibility of the company. PT Chandra Asri can better manage the lifecycle of IT assets, ensuring that obsolete or unused devices are managed in an environmentally friendly manner. This includes recycling or disposing of hardware responsibly, as well as ensuring that software that is no longer in use is properly disabled. These measures not only help companies comply with environmental regulations, but also strengthen the company's image as a socially and environmentally responsible entity. Monitoring and managing IT assets

efficiently, PT Chandra Asri was able to reduce the need for storage space for unused or obsolete hardware. This means that companies can use existing space for other more productive purposes, such as the development of production facilities or workspaces for employees. This more efficient use of resources contributes to reduced operational costs and an increase in overall economic efficiency.

The implementation of good IT asset inventory management also supports employee development and training. Having an integrated and easy-to-use system, employees can more quickly understand and manage existing IT assets. This includes training on using inventory management software, hardware maintenance, and data security policy implementation. With more trained and knowledgeable employees, companies can improve operational efficiency and reduce the risk of errors that can occur due to a lack of understanding of IT asset management. From a strategic perspective, good IT asset inventory management also allows PT Chandra Asri to better plan future technology investments. By having accurate and real-time data on the status and usage of IT assets, companies can make more informed plans about when and how to make new technology investments. This includes budget planning for hardware updates, software licensing, and IT infrastructure development. This better planning helps companies avoid unexpected expenses and ensures that every technology investment provides maximum added value to the business.

Integrated systems, information about the status and availability of IT assets can be easily accessed by various departments and teams. This facilitates better coordination between the IT team and other departments, such as production, marketing, and finance. With transparent and easily accessible information, each department can make better and faster decisions, improving overall operational efficiency. The success of the implementation of IT asset inventory management at PT Chandra Asri is also reflected in user satisfaction with the existing system. A high level of satisfaction indicates that an IT asset inventory management system is effective in supporting operational needs and making employees' day-to-day work easier. This means that employees can focus more on their core tasks, without being distracted by technical issues or the need to manage IT assets manually. This high user satisfaction also reflects that the IT asset inventory management system is well-designed and in accordance with the needs of the company.

To ensure the successful implementation of IT asset inventory management, PT Chandra Asri also needs to continue to evaluate and adjust. This includes regularly monitoring the performance of the inventory management system, identifying areas that need improvement, and making adjustments as needed. With a proactive and adaptive approach, companies can ensure that their IT asset inventory management systems remain relevant and effective in the face of changing business needs and technological developments. Through good asset monitoring and management, companies can optimize resource usage, reduce waste, and increase productivity. In addition, with good information technology integration, companies can respond quickly to market changes, improve data security, and support environmental sustainability. With the right strategy and a commitment to continuous improvement, PT Chandra Asri can maintain competitiveness and achieve long-term success in an ever-evolving market.

Obstacles or challenges faced by companies in implementing information technology asset inventory management

The implementation of information technology (IT) asset inventory management in companies such as PT Chandra Asri is inseparable from various obstacles and challenges. While the benefits are significant in reducing operational costs and improving economic efficiency, the implementation process often faces a number of hurdles that require special attention and handling. These challenges include technical, human, policy, and infrastructure aspects that all play a critical role in the success of IT asset inventory management. One of the main challenges is resistance to change from employees and management. IT asset inventory management often requires significant changes in the day-to-day way of working and business processes. Employees who are already familiar with old work methods may feel uncomfortable or reluctant to adopt a new system. This could be due to a lack of understanding of the benefits of the new system or concerns that the new technology will make their job more difficult or even replace them. It is important to involve all parties in the implementation process from the outset, provide adequate training, and ensure that they understand the long-term benefits of IT asset inventory management.

In addition to resistance to change, companies also often face challenges in terms of financing. The implementation of an effective IT asset inventory management system requires a considerable initial investment. This includes the cost of purchasing hardware and software, developing or purchasing inventory management applications, as well as the cost of employee training. For some companies, especially those with limited budgets, these initial costs can be a significant obstacle. While the long-term benefits of IT asset inventory management can be enormous, the challenges of securing initial financing can hinder the progress of these projects. Technical challenges are also often a hindrance in the implementation of IT asset inventory management. Complex IT inventory management systems require good integration with the company's existing IT systems. This could involve integration with financial, production, and logistics systems. This integration process is often complex and requires in-depth technical expertise. Software and hardware compatibility can also be an issue. Companies may need to upgrade or replace some of their existing IT infrastructure to be compatible with the new inventory management system. These technical issues can lead to delays and increased implementation costs.

Data security is another very important challenge. An IT asset inventory management system involves collecting and storing sensitive data about a company's assets. If these systems do not have adequate security, the data can be vulnerable to leaks or cyberattacks. This can be very detrimental to the company, both financially and reputationally. Companies need to ensure that their IT inventory management systems are equipped with robust security measures, including data encryption, strict access controls, and continuous security monitoring. Regulatory compliance is also a challenge that needs to be considered. Different countries have strict regulations regarding the management of data and IT assets. Companies need to ensure that their IT asset inventory management systems comply with all relevant regulations, including personal data protection and

information security. Failure to comply with these regulations can result in hefty fines and reputational damage. Involve legal and compliance teams in the implementation process to ensure that all legal aspects are met.

In addition to these challenges, a lack of expertise and knowledge in the field of IT inventory management can also be an obstacle. Successful implementation requires skilled and knowledgeable staff in information technology and asset management. If companies don't have adequate human resources with these skills, they may need to invest time and money in training or recruiting new experts. This lack of expertise can slow down the implementation process and reduce the effectiveness of newly implemented systems. The challenges in managing change cannot be ignored either. The implementation of IT asset inventory management often requires significant changes in organizational structure and business processes. Poor change management can lead to confusion, employee dissatisfaction, and decreased productivity. Therefore, it is important to have an effective change management strategy that includes clear communication, adequate training, and ongoing support for employees during the transition period.

Companies may also face challenges in terms of ongoing maintenance and support. IT inventory management systems require constant maintenance to ensure that they stay running properly and can accommodate changing business needs. This includes software updates, system performance monitoring, and handling emerging technical issues. If a company does not have adequate resources or plans for ongoing maintenance, the system can become obsolete and ineffective in the long run. Dependence on vendors can also be a problem. Many companies rely on third-party vendors for IT inventory management software and services. This dependency can be a risk if the vendor experiences problems, such as business failures or changes in their services that do not match the company's needs. Therefore, it is important to have a contingency plan and strategy in place to manage relationships with vendors to ensure continuity and quality of service.

Effective IT asset inventory management requires accurate and timely data collection and analysis. However, many companies face difficulties in managing and analyzing large and complex data. This could be due to a lack of proper analytics tools or expertise in data analysis. Without accurate data, companies cannot make informed and strategic decisions regarding the management of their IT assets. PT Chandra Asri, like many other companies, needs to overcome these various obstacles with a well-thought-out strategy, adequate resources, and a strong commitment to change. Thus, they can maximize the benefits of an IT asset inventory management system and achieve higher efficiency in their business operations.

CONCLUSION

The implementation of information technology (IT) asset inventory management at PT Chandra Asri offers great potential to reduce operational costs and improve overall economic efficiency. With good management, companies can optimize the use of IT assets, avoid unnecessary purchases, and ensure that existing devices are used optimally. This results in a significant reduction in operational costs and increased efficiency in various aspects of the company's operations.

However, the IT asset inventory management implementation process also faces various challenges. The main challenges include resistance to change from employees and management, large initial financing, as well as technical issues related to the integration of new systems with existing IT infrastructure. Data security, regulatory compliance, and lack of expertise in these areas are also barriers that need to be overcome to ensure a successful implementation.

To address these challenges, companies need to adopt a strategic approach that includes adequate training for employees, appropriate investments in infrastructure and technology, and the development of effective policies and procedures. Good change management, ongoing support, and a strong contingency plan are also essential. With this comprehensive approach, PT Chandra Asri can minimize bottlenecks and maximize the benefits of IT asset inventory management. While there are various challenges in implementing IT asset inventory management, the benefits are far greater. The success of this implementation will not only improve the company's operational and economic efficiency but will also support PT Chandra Asri's sustainability and competitiveness in the future. Strong commitment from all parties within the company is indispensable to achieve this goal.

REFERENCES

- Amah, & Hidayat. (2020). The Effect of Asset Management on the Optimization of Other Fixed Assets (Reading Materials) at the Library and Archives Office of Rokan Hulu Regency. *Hierarchy : Scientific Journal of Management and Business*, 2(3).
- Ananda, Y. A., & Setyowati, T. (2022). Performance Evaluation of Asset Inventory Information System (Case Study of Misbahunnur Foundation's Asset Inventory Information System). *Dynamics*, 27(2). <https://doi.org/10.35315/dinamik.v27i2.8455>
- Antoh, A. E. (2017). The Influence of Asset Management in Optimizing Land Fixed Assets (Study in Paniai Regency). *Management & Business*, 1(2).
- Arifin, A., Perseveranda, M. E., Sia Niha, S., Manafe, H., Paulina Bibiana, R., & Man, S. (2023). The Effect of Asset Management on Optimizing Regional Asset Management with Supervision and Control as a Mediation Variable in the Regional Government of East Nusa Tenggara Province. *Journal of Educational Management and Social Sciences*, 4(1). <https://doi.org/10.38035/jmpis.v4i1.1438>
- Arisikam, D., Kuswanto, H., Arifudin, M., & Azwar, A. (2023). BIM as an Asset Management Tool: Proposed Lod Level from Digitization Work and Validation of Pt.Kai Asset Measurement. *Scientific Journal of Applied Information Technology*, 9(2). <https://doi.org/10.33197/jitter.vol9.iss2.2023.1078>
- Astuti, Y., & Nugroho, A. (2014). Fixed Asset Inventory System (Case Study of Sd N Sidomukti, Ambal, Kebumen). *Data Management and Information Technology (Dasi)*, 15(1).
- Azuwandri, A., & Putra, M. B. E. (2022). Analysis of Fixed Asset Management at the Regional Secretariat of Central Bengkulu Regency. *Journal of Nusantara*

- Business Administration*, 1(2). <https://doi.org/10.56135/Jabnus.V1i2.55>
- Burhan Bungin. (2012). *Qualitative Research Data Analysis*. Jakarta: Rajawali Press.
- Chotibah, A. (2021). The Influence of Asset Inventory, Legal Audit and Bureaucratic Structure on the Optimization of Regional Property (Study on the South Sumatra Provincial Youth and Sports Office). *Journal of Police*, 9.
- Christian, S. B., & Fajriah, R. (2020). Application of the company's inventory information system to support procurement management. *Just It : Journal of Information Systems, Information Technology and Computers*, 11(1). <https://doi.org/10.24853/Justit.11.1.62-71>
- Fauzan, M. (2020). Economic Efficiency of Dryland Rice Farming in South Lampung Regency. *Agrimor*, 5(3). <https://doi.org/10.32938/Ag.V5i3.1018>
- Fransisca, S., & Putri, R. N. (2019). The use of RFID technology for school inventory management by method (R&D). *Journal of Computer and Information Technology Application Students*, 1(1).
- Gaffar, I., Hasanuddin, B., & Kusumawati, A. (2017). The influence of asset investors, human resources on asset optimization with information systems as moderation variables. *Journal of Analysis*, 6(2).
- Hadari, N. (2006). *Effective leadership*. Yogyakarta : Gajah Mada University Press.
- Harahap, F. E., & Manullang, O. R. (2019). Prospects and Strategies for the Development of Mapping E-Learning in Village Land Asset Inventory (Case Study: Map of Asinan Village Land Assets, Bawen District, Semarang Regency). *Journal of Urban Development*, 7(1). <https://doi.org/10.14710/Jpk.7.1.1-14>
- Hartati, S., Martini, R., & Winarko, H. (2019). Asset Management for Optimizing Fixed Asset Management. *Journal of Applied Accounting Research*, Vol 3.
- Hasmia, Nirsal, & Jumardi, A. (2022). Design and build an inventory application at the Salulemo Village Office, Baebunta District, North Luwu Regency. *D'computare: Scientific Journal of Information Technology and Computer Science*, 12(1). <https://doi.org/10.30605/Dcomputare.V12i1.40>
- Hidayat, A. (2021). Design and Build an Asset Management Information System Using the Prototyping Method (Case Study: Pt Sinergi Informatika Semen Indonesia). *Sentinel*, 4(1). <https://doi.org/10.56622/Sentineljournal.V4i1.29>
- Huda, N., & Amalia, R. (2020). Implementation of the Goods Inventory Information System at Pt.Pln (Persero) Palembang. *Journal of Sisfokom (Information and Computer Systems)*, 9(1). <https://doi.org/10.32736/Sisfokom.V9i1.674>
- Indra, F. S., Widya Wati, S., & Saraswati, M. A. (2021). Eksyar Journal (Sharia Economics Journal). *Eksyar Journal (Sharia Economics Journal)*, 08(02).
- Ishari, Q. A., Wibowo, A. T., & Milad, M. K. (2020). Jurnal Sistem Informasi Aset Intelektual Berbasis Knowledge Management System. *Matics*, 12(1). <https://doi.org/10.18860/Mat.V12i1.8099>
- Istiqamah. (2021). The Influence of Professionalism in Village Asset Management, Optimization of Village Asset Utilization and Community Empowerment on Village Original Income (Empirical Study on Villages in Banda Aceh City). *Scientific Journal of Accounting Economics Students (Jimeka)*, 6(1).

- Izzalqurny, T. R. (2023). Assistance for Village Asset Inventory in the Duwet Krajan Village Government, Tumpang District, Malang Regency. *Jurnal Pengabdian*, 6(2). <https://doi.org/10.26418/Jplp2km.V6i2.51933>
- Kuntadi, C., Retnoningsih, A. I., & ... (2022). Literature Review: The Effect of Asset Inventory, Legal Audit of Assets and Asset Valuation on Asset Optimization. ... *Information Systems*.
- Kuntadi, C., Retnoningsih, A. I., & Finland, D. A. (2022). The Influence of Asset Inventory, Legal Audit of Assets and Asset Valuation on Asset Optimization. *Journal of Information Systems Management Economics*, 3(4).
- Litasari, Rostin, & Anto, L. (2018). The Effect of Asset Inventory, Legal Audit, and Asset Valuation on the Optimization of Fixed Asset Utilization in the Regional Government of East Kolaka Regency. *Journal of Economic Progress of Development (Jpep)*, 3(2).
- Maharani, A. D. (2019). Analysis of Economic Efficiency of the Use of Production Factors in Rice Farming in Sidomakmur I Farmer Group, Pati District, Pati Regency. *Agriscientifica: Journal of Agricultural Sciences*, 3(1). <https://doi.org/10.32585/AgS.V3i1.553>
- Mahpud, M. (2017). Design of a Web-Based IT Asset Data and Inventory Monitoring Application at Pt. Tms Logistics. *Journal of Engineering*, 4(1). <https://doi.org/10.31000/Jt.V4i1.369>
- Manurung, R., & Rizkina, M. (2021). Analysis of the Efficiency of the Implementation of the Regional Asset Inventory Management Information System in South Purwokerto District. *Proceedings of the National Seminar on Economics and Business*, 1. <https://doi.org/10.33479/Sneb.V1i.161>
- Martini, R., Fuadah, L., Sueb, M., Widarsono, A., Hidayat, N., A., M. A., & Winarno, W. W. (2018). The Effect of Online Game Addiction on the Consumptive Behavior of Students Using Online Games. *Journal of Applied Accounting Research*, 2(2).
- Maulidiah, S. (2020). Optimizing asset management as a form of bureaucratic reform in the regions. *Journal of Government, Politics and Bureaucracy*, 3(1).
- Muslem. (2015). Asset Management Strategy of Islamic Educational Institutions with Wealth Management. *Itqan : Journal of Educational Sciences*, 6(2).
- Novendri. (2019). Definition of the Web. *Dumai Lantern*, 10(2).
- Novriansa, A., Muthia, F., Aryanto, A., & Wahyudi, T. (2023). Village Asset Management: Training for Village Government Officials in Kerinjing Village, Ogan Ilir, South Sumatra. *Kumawula: Journal of Community Service*, 6(1). <https://doi.org/10.24198/Kumawula.V6i1.41565>
- Nurhadi, & Muhammad Ridwan. (2022). Web-Based Inventory Information System Using the Prototype Method. *Madani Multidisciplinary Journal*, 2(9). <https://doi.org/10.55927/Mudima.V2i9.1143>
- Nursikuwagus, A., & Juliana, T. (2016). Asset management system software in IT asset handling. *Symmetry : Journal of Mechanical Engineering, Electrical and Computer Science*, 7(1). <https://doi.org/10.24176/Simet.V7i1.494>
- Nurul Jannatul Putri, & Mimin Sundari Nst. (2023). Inventory of Regional Assets of Meranti Islands Regency by the Revenue Agency for Regional Asset Financial Management of Meranti Islands Regency. *Journal Of Research And*

- Development On Public Policy*, 1(3).
<https://doi.org/10.58684/Jarvic.V1i3.35>
- Pasaribu, J. S. (2021). Design of a Web-Based Information System for Office Asset Inventory Management at Pt. Mpm Finance Bandung. *Scientific Journal of Applied Information Technology*, 7(3).
<https://doi.org/10.33197/Jitter.Vol7.Iss3.2021.655>
- Pinem, S., & Pakpahan, V. M. (2020). Web-based asset inventory application with the waterfall method. *Journal of Informatics, University of Pamulang*, 5(2).
<https://doi.org/10.32493/Informatika.V5i2.5668>
- Pradana, A. D., & Sudarmilah, E. (2020). Inventory Management Information System (Case Study: Management of Wonogiri Kopendik Assets and Goods). *The 11th University Research Colloquium 2020*.
- Pramukawati, Y. A., Indarto, I., & Santoso, D. (2022). Analysis of the influence of asset sim and competency on asset management performance. *Sustainable Business Journal*, 1(2).
- Putra, F. D., Riyanto, J., & Zulfikar, A. F. (2020). Design and Build a Web-Based Asset Management Information System at Pamulang University. *Journal Of Engineering, Technology, And Applied Science*, 2(1).
<https://doi.org/10.36079/Lamintang.Jetas-0201.93>
- Rachmat Hidayat, & Irfan Nursetiawan. (2022). Village Asset Management Strategy Based on the "Sipades" Village Asset Management System Application in Karangjaladri Village, Parigi District, Pangandaran Regency. *Moderate : Scientific Journal of Government Science*, 8(2).
<https://doi.org/10.25157/Moderat.V8i2.2706>
- Rafly, M., Arifin, K. Z., & Mubarok, M. H. (2022). The Influence of Good Governance, Regulations and Asset Inventory on Asset Management in the Palembang City Government. *Journal of Scientific Scholars, Vol.1, No.(5)*.
- Raharja, M., Pratiwi, R. N., & Wachid, A. (2017). Regional Financial and Asset Management (Study on the Regional Financial and Asset Management Agency, Lamongan Regency). *Journal of Public Administration (Jap), Universitas Brawijaya, Malang*, 3(1).
- Rahmasari, N., Herlambang, A. D., & Soebroto, A. A. (2020). Preparation of Standard Operating Procedures for Incident Management and Digital Asset Problem Management at Xyz Berbased Company. *Page 1 Journal of Information Technology and Computer Science Development*, 4(5).
- Saed Novendri, M., Saputra, A., Firman, C. E., Informatics Management, J., Dumai, A., Informatics, J. T., Dumai, S., Informatics, J. M., Karya, J. U., Batrem, B., & Code, D.-. (2019). Goods Inventory Application at Mts Nurul Islam Dumai Using Php and Mysql. *Dumai Lantern*, 10(2).
- Salamah, U. (2015). The use of the word in the inventory of regional assets to support the implementation of e-government in the Lamongan Regency Regional Financial and Asset Management Agency. *State University of Surabaya, Faculty of Economics, Department of Economic Education, Office Administration Education Study Program*.
- Sangadji, S. M. (2018). The Effect of Asset Inventory on Legal Audit and Asset Valuation (Case Study on the Bandung City Government). *Journal of State*

- Financial Governance and Accountability.*
<https://doi.org/10.28986/jtaken.v4i1.140>
- Setyawan, A. (2022). The use of village information systems in public services in the Wonokerto Village Government, Lumajang Regency, East Java Province. *Journal of Public Administration Research*, 2(05).
- Siregar, V. M. M. (2018). Designing an Inventory Information System at SMA Negeri 4 Pematangsiantar. *It Journal Research And Development*, 3(1). [https://doi.org/10.25299/itjrd.2018.vol3\(1\).1899](https://doi.org/10.25299/itjrd.2018.vol3(1).1899)
- Siti Noor Mawaddah Rohmah, & Husnurrosyidah. (2023). Analysis of Regional Fixed Asset Management at the Regional Financial and Asset Management Agency (Bpkad) of Pati Regency. *Journal of Business Accounting Pelita Bangsa*, 7(02). <https://doi.org/10.37366/akubis.v7i02.555>
- Sugianto, F. S. (2014). Economic efficiency as a legal remedy. *Legal Reflections: Journal of Legal Sciences*, 8(1). <https://doi.org/10.24246/jrh.2014.v8.i1.p61-72>
- Sugiyono. (2018). *Quantitative, Qualitative and R&D Research Methods*. Alfabeta.
- Suharsimi Arikunto. (2006). *Research Procedure A Practical Approach*. Jakarta: Rineka Cipta.
- Suharsimi Arikunto. (2018). *Research Procedures A Practical Approach*. (Jakarta: Pt. Rineka Cipta.
- Sunaryo, A. S., Toatubun, N. T., Thane, S. T., & Ohorela, M. O. (2024). The Effect of Asset Inventory on the Optimization of Asset Utilization of the Papua Provincial Government. *Journal of Economics and Business*, 16(1). <https://doi.org/10.55049/jeb.v16i1.251>
- Supriatna, A. D., Rahayu, S., & Fakhru Rozi, A. (2022). The design of a web-based goods inventory information system uses the Rapid Application Development method. *Journal of Algorithms*, 19(1). <https://doi.org/10.33364/algoritma/v.19-1.1044>
- Supriyono, H., Noviadri, A. M., & Purnomo, Y. E. (2017). Application of Computer-Based Information System for Asset Management for Junior High School Muhammadiyah 1 Kartasura. *The 6th University Research Colloquium 2017*.
- Susandi, D., & Sukisno, S. (2018). Web-based Inventory Information System at the Bina Husada Midwifery Academy, Serang. *Jsii (Journal of Information Systems)*, 5(2). <https://doi.org/10.30656/jsii.v5i2.775>
- Taslim, Susi, & Wirdah Choiriyah. (2023). Designed to keep an organization's hardware, software, and information assets up-to-date and to monitor changes in numbers, locations, or. *Computer Science Community Service*, 3(1).
- Taupik, T., Wikusna, W., & Telnoni, P. A. (2017). Web-Based Application for Asset Inventory (Case Study: Sukapura Village). *Eproceedings Of Applied Science*, 3(3).
- Triandita, D. A., Priyatiningih, K., & Candranurani, H. (2022). Analysis of the Effectiveness of Asset Inventory Management of the Bandung City Public Works Office. *Industrial Research Workshop And National Seminar*, 13(01).
- Usnaini, M., Yasin, V., & Sianipar, A. Z. (2021). The design of a web-based asset

- inventory information system uses the waterfall method. *Jayakarta Journal of Informatics Management*, 1(1).
<https://doi.org/10.52362/Jmijayakarta.V1i1.415>
- Yaakub, S., & Devitra, J. (2017). Analysis of Web-Based Asset Management Information System Modeling at Jambi Polytechnic. *Journal of Information Systems Management*, 2(3).
- Yasir, Y., Frihatni, A. A., & Triani, N. (2020). Determinant of Optimizing the Utilization of Assets of the Ministry of Finance in the South Sulawesi Regional Work Unit. *Balanca : Journal of Islamic Economics and Business*, 2(1).
<https://doi.org/10.35905/Balanca.V2i1.1394>
- Zamroni, M. (2017). The development of communication technology and its impact on life. *Journal of Education*, X(2).