



DIGITALIZATION OF THE FINANCIAL ADMINISTRATION SYSTEM TO IMPROVE THE EFFECTIVENESS OF THE FINANCE DEPARTMENT

By

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Article Info

Article history:

Received Dec 19, 2025

Revised Jan 04, 2026

Accepted Jan 22, 2026

Keywords:

Financial Administration System, Automation, Digitalization, Optimization, Efficiency, Human Error, Business Process Analysis.

ABSTRACT

This study aims to analyze and determine how the implementation of digitalization of the financial administration system can affect the effectiveness of the finance and asset treasury sections of the finance department. It also aims to identify specific areas that indicate inefficiency, potential errors, and bottlenecks in the workflow. It also aims to formulate recommendations for improvements that can be implemented to improve performance. The research method used is a qualitative descriptive method with a case study approach. Data collection was conducted through employee interviews, direct observation of operational workflows, and document analysis related to procedures and financial reports. Based on the research results, it can be concluded that digitalization has had a very positive and significant impact on improving the effectiveness of the finance department. By implementing this digital system, the company not only automates routine and manual tasks but also fundamentally transforms its work methods and control mechanisms. Key findings supporting this conclusion include the existence of work processes that can be combined with previous processes, there are work processes that can be eliminated to increase effectiveness in terms of time and costs, the implementation of an automation-based financial administration system has great potential to improve operational performance and data accuracy. Adopting a designed automation solution can create a more efficient, accurate, and responsive financial administration system to business needs.

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1. INTRODUCTION

As companies grow rapidly, their operational activities become increasingly complex, especially in the face of increasingly fierce business challenges and competition. As the central authority for managing and accounting for company finances, the effectiveness and efficiency of this department's performance directly impact and influence management decision-making. Therefore, in carrying out its functions, the finance department is obliged to optimize an effective and efficient digital-based financial administration system to increase its effectiveness and support its performance. This is crucial in ensuring optimal administrative processes, both in terms of speed and accuracy, and in compliance with internal company policies.

From a Management Control Systems perspective, digitizing financial administration systems can strengthen managerial control functions. This digital-based system enables financial managers to monitor unit performance more

objectively, set more measurable targets, and detect deviations early. Furthermore, this digitalization can create informational control, which is crucial for strategic decision-making.

The ever-evolving changes in information technology require adjustments in organizational structures, work cultures, and human resource competencies. Under these conditions, the role of management control systems becomes crucial as a system that balances formal and informal controls and serves as a tool for adapting to changes in the business environment.

There are several phenomena that exist and that the author feels in the finance department, namely:

1. High administrative workload and work pressure on employees, this is indicated by employees complaining about high administrative workloads, as well as a lot of repetitive and manual work.
2. There is an inefficient transaction verification and approval or authorization process, this is indicated by the document verification process, payment authorization, and expenditure approval taking a very long time because it involves many people.
3. Many transaction processes are carried out manually and there is a lack of digitalization. This is indicated by the existence of transactions that still depend on manual work papers, physical recording, and the use of paper.
4. There were internal audit findings related to weaknesses in the financial administration process, this was indicated by the existence of an internal audit report regarding weaknesses in the administrative control system in the finance department.

In addition, several media outlets have reported on the importance of digitalization. The government is currently accelerating the national digital transformation by targeting the National Data Center's operational start date of June 2025. This step marks a significant milestone in realizing secure, efficient, and transparent data-driven public services (Kementrian komunikasi dan digital, 2025). Other information includes the government continuing to accelerate digital transformation to support economic independence, technological mastery, and the development of superior human resources. In accordance with President Prabowo Subianto's Asta Cita program, digitalization is stated to be a key factor in strengthening economic resilience and improving public welfare. (Kompas, 2025).

2. LITERATURE

Management Control System

Management Control Systems is the process by which managers influence other members of the organization to implement the organization's strategies. Management control activities involves a variety of activities, including planning what the organization should do, coordinating the activities of several parts of the organization, communicating information, evaluating information, deciding what, if any, action should be taken, influencing people to change their behavior. Management control does not necessarily require that all actions correspond to a previously determined plan, such as a budget. Such plans are based on circumstances believed to exist at the time they were formulated. (Anthony & Govindrajana, 2007).

The terms management accounting (MA), management accounting systems (MAS), management control systems (MCS), and organizational controls (OC) are sometimes used interchangeably. MA refers to a collection of practices such as budgeting or product costing, while MAS refers to the systematic use of MA to achieve some goal. MCS is a broader term that encompasses MAS and also includes other controls such as personal or clan controls. OC is sometimes used to refer to controls built into activities and processes such as statistical quality control, just-in-time management. The term MCS is used, in the main, throughout this paper. (Chenhall, 2003)

Management Control Systems is a set of interrelated communication structures that facilitates the processing of information for the purpose of assisting managers in co-coordinating the parts and attaining the purpose of an organization on a continuous basis. All organizations use control system both formal and informal. A system is an aggregate of machines and people that work toward a common objective. Management control system is designed to assist managers in planning and controlling the activities of the organization. A management control system is the means by which senior managers ensure that subordinate managers, efficiently and effectively, strive to attain the company's objectives. (Lovely Professional University, 2012)

Responsibility Centers

a responsibility center is an organization unit that is headed by a manager who is responsible for its activities. In a sense, a company is a collection of responsibility centers, each of which is represented by a box on the organization chart. These responsibility centers form a hierarchy. At the lowest level are the centers for sections, work shifts, and other small organization units. Departments or business units comprising several of these smaller units are higher in the hierarchy. From the standpoint of senior management and the board of directors, the entire company is a responsibility center, though the term is usually used to refer to units within the company (Anthony & Govindrajana, 2007).



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a responsibility center is a segment of the business whose manager is accountable for specified sets of activities. The results of each responsibility center can be measured according to the information managers need to operate their centers. The four major types of responsibility centers are as follows: Cost center (the manager is responsible only for costs), Revenues center (the manager is responsible only for sales), Profit center (the manager is responsible for both sales and costs), Investment center (the manager is responsible for sales, costs, and capital investment) (Hansen & Mowen, 2007)''.

Type of financial responsibility centers

In a **revenue center**, output (i.e., revenue) is measured in monetary terms, but no formal attempt is made to relate input (i.e., expense or cost) to output. (If expense was matched with revenue, the unit would be a profit center). Typically revenue centers are marketing/sales units that do not have authority to set selling prices and are not charged for the cost of the goods they market. Actual sales or orders booked are measured against budgets or quotas, and the manager is held accountable for the expenses incurred directly within the unit, but the primary measurement is revenue (Anthony & Govindrajana, 2007)''.

Cost (or expense) centers are responsibility centers whose managers are held accountable for some elements of cost. Costs are a financial measure of the inputs to, or resources consumed by, the responsibility center. In standard cost centers (sometimes called engineered cost centers), such as manufacturing departments, the causal relationship between inputs and outputs is direct, and both inputs and outputs are easy to quantify. Thus, control can be exercised by comparing a standard cost (the cost of the inputs that should have been consumed in producing the output) with the costs that were actually incurred. In *discretionary cost centers* (sometimes called *managed cost centers*), such as research and development departments and administrative departments (e.g. personnel, purchasing, accounting, estates), the outputs produced are difficult to value in monetary terms. In addition, the relationship between inputs and outputs is not well known. (Merchant & Stede, 2017)

Profit centers are responsibility centers whose managers are held accountable for some measure of profits, which is the difference between the revenues generated and the costs of generating those revenues. Business terminology often is not precise, and many firms refer to their investment centers as profit centers. But there is a conceptual distinction between profit and investment centers (which we discuss below): profit center managers are held accountable for profits but not for the investments made to generate them (Anthony & Govindrajana, 2007)

Investment centers are responsibility centers whose managers are held accountable for both some income statement and some balance sheet line items; that is, for both the accounting returns (profits) *and* the investments made to generate those returns. A corporation is an investment center, so top-level corporate managers, such as the chief executive, often are investment center managers. So are the managers of many subsidiaries, operating groups, and divisions in large, decentralized organizations. (Merchant & Stede, 2017)

Digitization

Digitization to refer to the transformation of information storage into digital formats (a series of binary numbers) for use by computers and digitalization to refer to the integration of digital technologies into everyday life, including government systems. Through digitalization, government can potentially conduct current fiscal policy more effectively doing what we do now, but better and perhaps before too long, design policy in new ways doing things, that is, that we do not, and cannot, do now. They can have better information, build better systems, and design and implement better policies. (Gupta et al., 2017)

Digitisation works as a catalyst for society and the organisations therein. A catalyst is something that increases the speed of a process without itself being consumed. It simply produces results faster. Digitisation, if used in the wrong way, can also make a bad situation worse. And it can make what functions well function even better. It is therefore absolutely crucial to start by making clear or finding out what one wishes to accomplish, and how well the way that the organisation is planned suits the realisation of that goal. By digitisation, we mean the use of modern IT to create, deliver and use products (goods, services, and combinations of the two). (Coster et al., 2023)

Digital transformation: the change associated with the application of digital technology in all aspects of human society. The transformation stage means that digital usages inherently enable new types of innovation and creativity in a particular domain, rather than simply enhance and support traditional methods''. (Taylor, 2019)

Behaviour Accounting

According to Siegel dan Marconi, (1989), there are three parts of the influence of accounting behavior. First, the influence of human behavior on the design, construction, and use of accounting systems. Behavi*oral accounting addresses management attitudes and philosophies that can influence the nature of accounting oversight and organizational functions. Second, the influence of accounting systems on human behavior. How accounting systems influence motivation, productivity, decision-making, job satisfaction, and cooperation. Prediction methods and

strategies for changing human behavior. Third, how accounting systems can be used to influence human behavior. For example, tightening or loosening the monitoring system, providing compensation patterns that can influence behavior.

The results of this study indicate that only the use of analytics is positively correlated with the effectiveness of the finance function, while there is no similar effect for the use of automation technology. Another explanation is that the outcome variable emphasizes the effectiveness of the finance function rather than its efficiency. The hypothesis that automation can also lead to indirect performance improvements, by freeing up resources that can then be used for effective business partnerships, was not supported. One reason may be that increased efficiency translates into cost savings through employee reductions or redeployment of employees elsewhere in the organization, rather than being used for other purposes within the finance function. (Bedford et al., 2023).

Conclusions from the conducted research. The development of information technology has a significant impact on all areas of our lives. We started to feel this effect more clearly over time. The innovation brought by new technological solutions is especially felt in the field of financial services. The global COVID-19 pandemic, which began in the first quarter of March 2020, has accelerated digitalization. Digitalization as a non-stop process can provide many advantages under the proper management and regulation. (Mykhailiuk et al., 2021)

Digital technologies in business have long been no know-how. Nevertheless, lots of companies continue to operate the old fashioned way, despite a number of obvious advantages that open up after the implementation of IT solutions. The need for a course towards digitalization of the economy was announced at the highest level, calls for the introduction of digital technologies in industry are increasingly heard from the sites of the largest forums. Digitization and technology disruption are changing the shape of our world, transforming society, industries and economies by reinventing traditional business models and creating new ones. The problem statement of transition to the new technologies of organizing the economy and, in particular, its industrial sector deserves unconditional support. The designated vector of innovation development and "digitalization" assumes strategic importance. (Bieliaieva et al., 2021)

The paper proposes a method for calculating the integrated index of digitalization of financial services (DFSI) using the weighted sum method for eight indicators based on three components (financial inclusion, digital inclusion, and digital financial services). To give the qualitative interpretation of the integrated index, four ranges of its values are set with critically low, low, medium, or high digitalization level of financial services. During 2016-2019, the digitalization level of financial services had increased in most European countries. In 2019 the high digitalization level of financial services had been reached by six countries, including Norway, Denmark, Finland, Sweden, the UK, and the Netherlands.. (Pakhnenko et al., 2021)

Conclusions from the conducted research the introduction of information and communication technologies has now acquired an avalanche-like character, which has led to the digitalization of the entire world economic system and the emergence of a new model of economic development – the digital economy, based on the use of the most advanced computer technologies. One of the leaders of the digital economy is the financial sector, which has become one of the sources of innovation: digital banks, electronic payment instruments, which include one of the latest innovative achievements of cryptocurrency, and much more. (Zhuk et al., 2022)

This study allowed us to analyse the evolution of scientific production on the digitalization of public financial management, identifying key trends, relevant publication sources and the institutions with the greatest contribution in this field. The results showed a significant increase in academic interest in the last decade, with an emphasis on emerging technologies such as artificial intelligence, blockchain and the automation of financial processes. In addition, fundamental topics were identified in the scientific literature, such as government data management and digital transformation, which have served as a basis for the development of research in this area. However, the analysis also revealed the existence of gaps in knowledge, particularly in the impact assessment and in the effective integration of these technologies in public administration. From a practical perspective, the findings of this study have important implications for policy formulation and the modernization of public financial management. (Bernales-Vásquez and Sánchez-Dávila, 2025)

The conclusion is introduction of digital technologies in finance includes many advantages, but requires attention to various financial and organisational constraints. These limitations include contradictions between digital technologies and traditional management models, the importance of financial literacy among users, data security and privacy issues, organisational factors, and the regulatory framework. To successfully implement digital innovation in the financial sector, organisations must adapt their management models and culture. Continuous development of users' financial literacy is key to maximising the benefits of digital tools. Ensuring data security and privacy is a must to maintain user trust and successfully implement digital financial services. (Yudina et al., 2024)

This study aims to categorize behavioral accounting research (BAR) conducted since Argyris's (1952) work into categories called "schools." Behavioral Accounting Research applies theories and methodologies from the behavioral sciences to examine the relationship between accounting information and processes and human behavior, including



organizational behavior. Behavioral Accounting Research differs from other accounting research streams such as Efficient Markets Research or Analytical Research because of its focus on behavioral science. Its systematic observational methods typically involve observing humans in the laboratory or field, rather than simply using archival data or computer simulations. The supporting disciplines of Behavioral Accounting Research are heavily influenced by various disciplines, particularly psychology through Bayesian theory, lens models, and expert judgment; organizational theory through the Human Relations School and Contingency Theory; economics through the behavioral theory of the firm and analytical economics; and sociology. (Jacob G Bimberg and Jeffrey F Shields, 1989).

3. RESEARCH METHOD

The research method used was qualitative. Data collection was conducted through interviews with finance staff in the finance department of PT Adi Sarana Armada Tbk (ASSA).

The data sources used were primary and secondary data. Primary data was obtained directly through interviews, observation, and documentation. Secondary data came from company websites, the internet, social media, official government publications, and so on.

Data collection technique

The data collection techniques used are. First interviews with finance employees who are directly involved in the financial administration system. Second direct observation of current financial administration processes, both those that are still manual and those that already use a system. Third, documentation study, namely collecting and analyzing documents relevant to the financial administration system.

Data analysis techniques

The data analysis technique used is sourced from (Kaizenpro Asia, 2011), which outlines eight stages in the Quality Control Circle (QCC) process, including: determine the theme, analysis of existing conditions, determine targets, root cause analysis, planning improvements, planning repairs, evaluation of result, standardization

4. DISCUSSION

In this research, the focus is on the financial administration system for two sections, namely: (A) finance section and (B) asset treasury section.

A. Finance Section

Determine the theme

“changes in work processes in the process of bank disbursement, bank receipt and bank reconciliation”

Analysis of existing conditions

There are three processes that will be discussed: The process of disbursing bank funds, receiving bank funds, bank reconciliation.

The process of disbursing bank funds

Receive payment request documents, verify documents, input into the bank's disbursement proof system, cashier inputs into internet banking, function head approves transactions, Head of finance releases transactions, Bank reconciliation process. The following processes are ineffective, particularly in terms of how they work : still printing internal documents, the cashier manually inputs transactions one by one, manually inputs the same journal entries into the system one by one.

The process of receiving bank funds

Cash received at the bank, input into the SAP bank fund receipt, print the bank receipt receipt, sign the bank receipt receipt according to authorization, filling. The following processes are ineffective, particularly in terms of their working methods: Cashiers input data into the system using the same journal, use of paper, manual authorization and signature processes, still retaining transaction documents

The process of bank reconciliation

Check daily bank statements, process bank reconciliation in the system, print bank receipts, sign bank receipts as authorized, filling. The following processes are less effective, especially in terms of the working method, namely: Inputting transactions into the system and journaling the same for all transactions, as well as printing proof of transactions, Still using wet signatures, Still relying on physical documents.

Determining Targets

Specific, namely reducing the manual input process one by one in the bank reconciliation process. Measurable, namely reducing/eliminating work processes during e bank reconciliation process and the bank fund disbursement process. Achievable, namely using Mandiri Bank facilities, namely Kopra Host to Host. Relevant, namely transactions can be input more quickly than the previous manual process. Timeline, namely 2026

Root cause analysis

There is no policy yet that regulates document storage, and there are no banking facilities that are directly integrated with the company's ERP system.

Planning repair

The improvement plan is to collaborate with Bank Mandiri, using the Kopra Host to Host product, where Kopra H2H can integrate the Bank Mandiri system directly into the company's enterprise application system (ERP) through Application Programming Interface (API) integration. (Bank Mandiri, 2022)

Implementation of improvements

We are currently unable to implement the improvements due to information from IT that there will be system changes this year. Therefore, discussions on this project will not begin until 2026.

Evaluation of result

The process of disbursing bank funds

The third process, inputting bank disbursement receipts, currently functions only as a disbursement receipt input. However, after improvements are made, this function will also function as an input maker for Bank Mandiri internet banking. This means that two processes can be run simultaneously.

The fourth process is the cashier inputting the payment in internet banking, later this function will disappear because it has been carried out previously by the finance officer function along with inputting proof of bank expenditure

The process of receiving bank funds

The second process, namely manual input one by one according to bank mutation data in the SAP system, will be replaced by using an application from the bank so that the account mutation data is first downloaded and then can be directly uploaded in the application and at the same time a journal will be formed in SAP as a whole.

The third process, printing bank receipts, will be eliminated due to changes to the SOP, whereby these receipts are not printed upon completion of input. However, bank receipts will be printed if the auditor requests the required data.

The fourth process, namely the signature of proof of receipt of the bank according to this authorization, will also be removed, because the process will be adjusted to the previous process.

The process of bank reconciliation.

The second process, namely bank reconciliation in the SAP system, which is manually input one by one, will be replaced by using the Kopra H2H application so that the data can simultaneously form a journal in SAP as a whole.

The third process, printing transaction receipts, will be eliminated due to changes in the SOP, whereby this receipt is not printed upon completion of input. However, this bank receipt will be printed if the auditor requests the required data.

The fourth process, namely the signature of proof of receipt of the bank according to this authorization, will also be removed, because the process will be adjusted to the previous process.

The fifth process is tidying up and filling in all the documents, but after this, only the disbursement of bank funds is filling..

Standardization

The standardization that we carry out is by creating detailed instructions and implementation of the use of the Copra Host to Host application and informing the relevant team regarding these implementation instructions

B. Asset Treasury Section

Determine the theme

“reduce the lead time for the BPKB acceptance process”.

Analysis of existing conditions

The process of BPKB acceptance

Receive the BPKB from the procurement department. Verify the physical BPKB with the web data. Enter the BPKB receipt on the BPKB website. Enter the storage index number registration in Excel. Attach the index label to the physical BPKB. Check the availability of the BPKB in the safe. Store the BPKB in the safe.

The following processes are ineffective, particularly in terms of how they work: Checking the availability of the safe is still manual, there is a double BPKB index, BPKB storage is not systematic

Determining Targets

Specific, which aims to reduce and shorten the lead time for receiving new BPKB. Measurable, which aims to reduce the time required to receive BPKB and store them in a safe. Achievable, which aims to coordinate with the ICT department to develop a BPKB web system. Relevant, which aims to align with employee KPI, namely receiving complete BPKB and storing them in a safe. Timeline, which aims to be from October to December 2024.

Root cause analysis



There is no information on safe deposit box storage locations is available. Multiple individuals use the master index file. There is no standardization for BPKB storage.

Planning repair

1. Develop the BPKB website, so that it can do the following things: The web can index BPKB automatically. The web can find out the BPKB in the safe using the barcode method on the safe, tray or row. The web can provide detailed information on the location of BPKB storage
2. Using RFID at a cost of Rp. 416,300,000,-,with the following equipment requirements: 1 Pcs Reader, 1 Pcs Portable Reader, 6 Antennas, 14,000 RFID Tag chips, 1 RFID Tag Handheld Reader, Application User Interfac

Based on the selection of solutions, we chose proposal number 1.

Implementation of improvements

Coordinate with the asset reasury team for system development and task allocation. Submit system development to the ICT department as needed. Review the specifications of the functions created by the ICT department. Test the printout of index labels and barcodes to ensure readability using a barcode scanner. Conduct a user acceptance test (UAT) on the ICT department's work. Create master data for safes, trays, rows, and labels on the BPKB website, which will be used as a database for BPKB locations. Print BPKB labels and barcodes, then attach them to the safes. Attach BPKB labels and scan barcodes on the physical safes using the BPKB web system. The BPKB web system development meets requirements.

Evaluation of result

The fourth process, namely inputting the storage index number registration in Excel, can be eliminated because with this system the process has changed, it is no longer manual with Excel but uses a web system that has been developed.

The sixth step involves manually checking the availability of BPKB in each safe individually. This process has also been eliminated because the new system will instantly inform you of the locations and positions of safes where new BPKB can be stored.

Standarization

The standardization that we carry out is by creating instructions and implementing the use of barcode scanning, by paying attention to the details of what steps must be taken and informing the relevant team regarding these implementation instructions.

5. CONCLUSION AND RECOMENDATIONS

Conclusion

Based on the research and analysis results that have been described, it can be concluded that the implementation of the digitalization of the financial administration system in the finance section and treasury section shows that this digitalization has a very positive and significant impact in increasing the effectiveness of the finance department. By implementing a digitalization system in the process of bank disbursement, bank receipt, bank reconciliation, and the BPKB receipt process. Companies not only automate routine and manual tasks, but can also combine several processes into one process and can even eliminate processes that are still done manually, even fundamentally transforming the way it works and its control mechanisms.

Recommendations

To the company

There is development of existing systems and so that they can adapt to the latest technological developments. Maximize functions and benefits by integrating the financial administration system with other departments. This integration will create increased efficiency across all departments. Conduct regular evaluations of digital workflows to identify areas that can still be optimized.

To Future Researchers

Currently, this research focuses on the effectiveness of the finance department. For further research, it is recommended to examine the impact of digitalization on other factors, such as organizational culture and employee motivation.

Conduct comparative case studies between companies implementing different digital systems or in different industries to gain a broader understanding of the impact of digitalization.

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