

INTEGRATED DESKTOP CASH ADMINISTRATION SYSTEM DESIGN FOR IMPROVING SINGLE-GATE WORKSHOP SERVICE OPERATIONS

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ABSTRACT

This study examines the design and implementation of an Integrated Desktop Cash Administration System for improving single-gate workshop service operations. The study focuses on how digital integration enhances operational efficiency, financial transparency, service coordination, and organizational sustainability within workshop management activities. This research employed a qualitative approach using a literature study method. Data were collected from international journals, books, conference proceedings, and scientific publications related to digital transformation, integrated information systems, workshop operations, and financial administration systems. The collected literature was analyzed using descriptive qualitative analysis through data reduction, thematic classification, conceptual interpretation, and synthesis of previous research findings. The analysis focused on identifying the relationship between digital integration, operational performance, and financial management effectiveness in workshop service environments. The findings indicate that the Integrated Desktop Cash Administration System significantly improves operational effectiveness by integrating customer registration, service administration, inventory management, transaction processing, and financial reporting into one centralized platform. The system reduces administrative redundancy, improves operational coordination, strengthens financial accuracy, and accelerates service processes. The implementation of integrated desktop systems also enhances managerial control, operational transparency, and organizational adaptability in responding to service demands and operational challenges. Furthermore, the system contributes to sustainable workshop management practices through standardized operational procedures and real-time financial monitoring. The study concludes that the Integrated Desktop Cash Administration System provides an effective digital solution for improving single-gate workshop service operations through operational integration, financial transparency, service efficiency, and sustainable organizational governance.

Keywords: Digital Transformation; Integrated Information System; Cash Administration System

1. INTRODUCTION

The rapid advancement of digital technology in the era of Industrial Revolution 4.0 has transformed organizational management systems across various sectors, including automotive workshop services and cash administration systems. Digital transformation is no longer limited to manufacturing industries but has also become an essential component in improving operational effectiveness, financial accountability, and customer service quality in service-based organizations (Suseno, 2022). The integration of information systems into administrative activities enables organizations to achieve higher efficiency, minimize human error, and strengthen data transparency in operational processes.

In workshop service operations, fragmented administrative processes often create inefficiencies, including duplicate data entry, delays in transaction recording, inaccurate cash reporting, and weak coordination between service units. These problems become more critical in organizations implementing a single-gate service model, where all operational activities are centralized into one integrated service flow. Therefore, the development of an integrated desktop cash administration system is essential to support real-time financial recording, improve service coordination, and optimize decision-making processes. According to Suseno and Yusuf (2024), organizational sustainability in the digital era strongly depends on governance adaptability and the ability to integrate digital systems into operational management. Digital governance enhances organizational responsiveness, accountability, and long-term competitiveness.

The implementation of integrated information systems also reflects the principles of adaptive governance and collaborative innovation. Organizations that successfully adopt digital administration systems tend to demonstrate stronger operational sustainability and institutional resilience (Suseno, Rochani, & Yusuf, 2021). In the context of workshop services, an integrated desktop-based system can facilitate synchronization between customer registration, spare-part management, service transactions, and cash administration into a unified operational platform. Such integration reduces administrative redundancy and improves transaction accuracy, which ultimately contributes to service effectiveness and customer satisfaction.

Furthermore, sustainability strategies in modern organizations increasingly emphasize the importance of technological adaptation and governance innovation. Adaptive governance enables organizations to respond effectively to environmental changes, customer demands, and operational complexity through digital system integration (Suseno, 2023). The integration of a desktop cash administration system into workshop operations supports transparency, accountability, and operational control, which are essential for maintaining sustainable organizational performance. In addition, digital administration systems provide accurate financial information that supports strategic planning and operational evaluation.

Previous studies have shown that digital transformation significantly contributes to organizational efficiency, governance quality, and service innovation. However, limited studies

specifically discuss the integration of desktop cash administration systems within single-gate workshop service operations. Most existing research focuses on general digital transformation without emphasizing operational cash administration and workshop service integration. Therefore, this study aims to design an Integrated Desktop Cash Administration System for improving single-gate workshop service operations. The proposed system is expected to enhance operational efficiency, improve financial accuracy, strengthen service coordination, and support sustainable workshop management practices in the digital era.

Table 1. State of the Art

No	Author(s)	Research Focus	Findings	Research Gap
1	Basrowi et al. (2024)	Digital literacy and sustainability education	Digital literacy improves institutional collaboration and sustainability performance	Does not discuss integrated financial administration systems in workshop operations
2	Bambang Dwi Suseno (2022)	Industrial Revolution 4.0 in higher education	Digital transformation becomes a strategic issue in organizational development	Limited discussion on desktop-based operational systems
3	Bambang Dwi Suseno (2023)	Adaptive governance and sustainability	Adaptive governance strengthens institutional sustainability	Does not focus on workshop service integration
4	Bambang Dwi Suseno & Yusuf (2024)	Digital transformation and governance adaptability	Digital governance improves operational effectiveness	No discussion regarding cash administration integration
5	Bambang Dwi Suseno et al. (2021)	Collaborative governance and innovation	Innovation strategy enhances institutional sustainability	Lacks practical application in workshop operational systems
6	Basrowi et al. (2025)	Digital health and nutritional innovation	Technological innovation supports sustainable health management	Not related to service transaction systems

No	Author(s)	Research Focus	Findings	Research Gap
7	Uli Wildan Nuryanto & Basrowi (2024)	Sustainability- oriented digital collaboration	Digital collaboration improves organizational adaptability	Limited focus on single-gate administration models
8	Basrowi et al. (2024)	Innovation and digital sustainability	Digital systems strengthen organizational resilience	Does not integrate workshop cash administration
9	Bambang Dwi Suseno (2023)	Governance innovation	Governance innovation supports operational transparency	Limited implementation in automotive service operations
10	Basrowi et al. (2024)	Sustainability and digital transformation	Integrated systems improve institutional efficiency	No specific desktop cash administration framework

Sources: seconder data 2026

The previous studies indicate that digital transformation, governance adaptability, and sustainability-oriented innovation significantly contribute to organizational effectiveness and operational resilience. However, limited research specifically discusses the design of an integrated desktop cash administration system within a single-gate workshop service environment. Most studies focus on governance, sustainability, and digital literacy without integrating operational cash administration, customer service flow, and workshop transaction management into a unified desktop-based platform. Therefore, this study offers novelty by developing an Integrated Desktop Cash Administration System Design that supports operational efficiency, financial transparency, and service integration in workshop service operations

This study offers a novel contribution by designing an Integrated Desktop Cash Administration System specifically developed to support single-gate workshop service operations. Previous studies have extensively discussed digital transformation, adaptive governance, and sustainability strategies in organizational contexts; however, limited research integrates operational cash administration, workshop service transactions, customer management, and financial reporting into a unified desktop-based platform. Existing studies generally emphasize governance adaptability and organizational sustainability without focusing on practical operational system integration in workshop service environments (Suseno, 2022; Suseno, 2023).

The novelty of this research also lies in the implementation of a single-gate operational mechanism that centralizes customer registration, service processing, spare-part recording, transaction management, and cash administration within one integrated desktop system. This integrated model is expected to minimize administrative redundancy, improve transaction accuracy, accelerate service processes, and strengthen financial transparency. Unlike previous studies that mainly focus on conceptual digital transformation frameworks, this study develops a practical and operationally oriented system design tailored for workshop service management (Suseno & Yusuf, 2024).

Furthermore, this study contributes to the literature on collaborative governance and innovation strategy by applying digital integration directly to workshop operational sustainability. The proposed system not only supports administrative efficiency but also enhances organizational responsiveness, operational control, and decision-making quality through real-time financial information processing. This approach extends previous innovation and governance studies into a more applied technological framework in service operations (Suseno, Rochani, & Yusuf, 2021).

Another important novelty is the use of a desktop-based architecture instead of web-based systems commonly discussed in previous digital transformation studies. Desktop systems remain highly relevant for small and medium workshop operations due to their lower infrastructure requirements, offline accessibility, faster local data processing, and operational stability. Therefore, this research fills an important gap by providing a practical digital administration model suitable for operational workshop environments that require integrated financial and service management systems

Based on the background and research novelty described above, this study seeks to examine the integration of digital administration systems in improving workshop operational effectiveness and financial management sustainability within a single-gate service model. The formulation of the research problems is described as follows:

How can an Integrated Desktop Cash Administration System be designed to support single-gate workshop service operations effectively and efficiently?

How does the implementation of an integrated desktop-based cash administration system contribute to improving operational performance, financial accuracy, and service coordination in workshop management?

2. LITERATURE REVIEW

Digital Transformation Theory

Digital transformation theory explains how organizations utilize digital technologies to redesign operational processes, improve service efficiency, and strengthen organizational competitiveness. Digital transformation is not merely the adoption of technological tools but

involves comprehensive organizational change that integrates information systems, operational workflows, governance mechanisms, and human resource adaptability into a unified strategic framework. In service organizations, digital transformation enables faster transaction processing, improved communication, real-time monitoring, and accurate decision-making through integrated information systems (Vial, 2019).

The implementation of digital systems in administrative and financial operations has become increasingly important in modern organizations due to growing demands for transparency, efficiency, and operational sustainability. Digital transformation supports organizational agility by allowing institutions to adapt rapidly to environmental changes and customer expectations. According to Verhoef et al. (2021), digital transformation reshapes business models and operational structures through data-driven integration and technological innovation. In workshop service operations, integrated desktop systems facilitate coordination between service units, financial administration, inventory control, and customer transaction management.

Furthermore, digital transformation theory emphasizes the importance of technological integration in reducing operational complexity and administrative redundancy. Traditional manual systems often create delays, data inconsistencies, and financial recording errors, particularly in service organizations with high transaction volumes. Through integrated administration systems, organizations can automate financial recording, synchronize operational activities, and improve service responsiveness. This transformation contributes to operational efficiency and strengthens organizational control mechanisms.

Digital transformation also contributes to organizational sustainability through improved operational governance and information accuracy. Organizations adopting integrated information systems generally experience better resource management, stronger accountability, and enhanced customer satisfaction. The use of desktop-based administration systems remains relevant, especially for small and medium enterprises that require stable operational systems with lower infrastructure costs and offline accessibility. Therefore, digital transformation supports not only technological modernization but also sustainable operational management.

In this study, digital transformation theory serves as the foundation for designing an Integrated Desktop Cash Administration System within single-gate workshop service operations. The theory explains how digital integration can improve financial management, accelerate transaction processing, minimize administrative errors, and strengthen operational coordination. The integration of cash administration, service transactions, and workshop operational activities into one desktop platform reflects the practical application of digital transformation in organizational service systems.

Information System Integration Theory

Information system integration theory explains the process of combining various organizational subsystems into a unified information framework that supports operational coordination, data consistency, and efficient decision-making. Integration enables

organizations to eliminate fragmented processes and create seamless communication between operational units. In service organizations, integrated information systems improve workflow synchronization, reduce duplication of activities, and ensure accurate information exchange across departments (Laudon & Laudon, 2020).

Integrated systems play a crucial role in organizational efficiency because they centralize operational activities into a single platform. In workshop operations, multiple administrative activities such as customer registration, spare-part management, service transactions, and financial recording often operate independently, causing delays and inconsistencies. Through system integration, all operational data can be connected in real time, enabling faster reporting, improved coordination, and stronger operational control. This integration supports organizational responsiveness and service effectiveness.

The theory also emphasizes that information integration improves organizational decision-making quality by providing accurate and timely information. Managers require integrated financial and operational data to evaluate service performance, monitor cash flow, and manage resources effectively. According to Stair and Reynolds (2021), integrated information systems improve managerial effectiveness because organizational decisions are based on synchronized and reliable information sources. In the context of workshop management, integrated cash administration systems support transparency and operational accountability.

Another important aspect of information system integration theory is operational standardization. Integrated systems encourage organizations to establish consistent workflows, standardized transaction procedures, and unified reporting mechanisms. Standardization reduces human error, strengthens financial control, and improves organizational governance. For single-gate workshop services, integrated administration systems simplify customer service flows while ensuring all operational activities follow standardized procedures.

In this research, information system integration theory provides the conceptual foundation for developing a desktop-based administration platform that integrates workshop operational activities and cash management processes. The proposed system combines service administration, customer transaction management, and financial reporting into one centralized operational system. This integration is expected to improve service coordination, operational efficiency, and financial transparency within workshop service environments.

Service Operations Management Theory

Service operations management theory focuses on the planning, coordination, and control of organizational processes that deliver services efficiently and effectively. The theory emphasizes operational efficiency, customer satisfaction, process standardization, and resource optimization in service organizations. Effective service operations management enables organizations to maintain service quality while minimizing operational costs and improving productivity (Heizer, Render, & Munson, 2020).

In workshop service organizations, operational management involves coordinating customer registration, vehicle service activities, inventory management, employee assignments, transaction processing, and financial administration. Operational inefficiencies often occur when these activities are managed separately using manual systems. As service demand increases, organizations require integrated operational systems that can coordinate all activities simultaneously and reduce service delays. Therefore, operational management theory supports the development of integrated administration systems to optimize service workflows.

Service operations management theory also highlights the importance of process integration and service speed in achieving customer satisfaction. Customers expect fast service, accurate transaction processing, transparent financial administration, and reliable operational performance. Integrated desktop administration systems contribute significantly to improving service quality by accelerating transaction recording, reducing administrative errors, and simplifying operational coordination. Efficient service processes increase customer trust and organizational competitiveness.

Moreover, operational management emphasizes continuous performance monitoring and operational control. Organizations require accurate operational and financial information to evaluate service productivity, monitor cash transactions, and identify operational bottlenecks. According to Slack and Brandon-Jones (2019), operational effectiveness depends on the organization's ability to coordinate resources, manage information flows, and standardize operational procedures. Integrated systems strengthen organizational monitoring capabilities through real-time operational reporting and centralized data management.

In this study, service operations management theory explains how an Integrated Desktop Cash Administration System can improve workshop operational performance through process synchronization, transaction efficiency, and financial control. The integration of service activities and cash administration into a single-gate operational system supports operational effectiveness, improves customer service quality, and enhances organizational sustainability within workshop management practices.

3. METHODS

Research Approach

This study employs a qualitative approach using a literature study method. The literature study approach is used to explore, analyze, and synthesize various scientific references related to digital transformation, integrated information systems, cash administration systems, and workshop service operations. According to Snyder (2019), literature studies are effective in developing conceptual understanding, identifying research gaps, and constructing theoretical frameworks based on previous empirical findings. Through this approach, the study aims to formulate an integrated desktop cash administration system design that supports single-gate workshop operational services.

The qualitative literature approach allows researchers to critically evaluate previous studies, organizational practices, and technological developments relevant to the proposed system design. Literature-based research emphasizes interpretative analysis and theoretical integration rather than numerical measurement. This approach is appropriate because the study focuses on conceptual system design and operational integration rather than experimental testing or statistical analysis (Creswell & Creswell, 2018).

Data Sources

The data used in this study are secondary data obtained from scientific journals, conference proceedings, books, and international publications discussing digital administration systems, information system integration, governance adaptability, operational management, and digital transformation. The selected references mainly originate from reputable international journals indexed in Scopus and Elsevier databases to ensure scientific validity and reliability.

The literature selection process considers publication relevance, research novelty, theoretical contribution, and methodological suitability. Priority is given to publications from the last five years to capture current technological developments and recent organizational management trends. According to Xiao and Watson (2019), systematic literature selection improves research credibility because the collected references are directly aligned with the study objectives and conceptual framework.

Data Collection Technique

The data collection technique in this study was conducted through documentation and literature identification procedures. Researchers systematically searched academic databases such as Scopus, ScienceDirect, Google Scholar, and SpringerLink using keywords including “digital transformation,” “cash administration system,” “integrated information system,” “workshop service operation,” and “desktop-based administration system.” Relevant articles were then categorized based on research themes, methodologies, and findings.

The collected literature was organized and analyzed using thematic classification to identify conceptual relationships among digital governance, system integration, operational efficiency, and service management. According to Booth, Sutton, and Papaioannou (2021), thematic literature analysis enables researchers to synthesize diverse findings into coherent conceptual conclusions and identify unresolved research issues.

Data Analysis Technique

The data analysis technique used in this study is descriptive qualitative analysis. The analysis process includes data reduction, data categorization, conceptual interpretation, and synthesis of previous research findings. The researcher evaluates similarities, differences, strengths, and limitations of previous studies to formulate a conceptual framework for the integrated desktop cash administration system design.

The analysis emphasizes the integration of operational service activities and financial administration processes within a single-gate workshop service model. Through interpretative analysis, the study identifies how digital integration contributes to operational efficiency, service effectiveness, financial transparency, and organizational sustainability. According to Miles, Huberman, and Saldaña (2020), qualitative data analysis aims to construct meaningful interpretations and develop conceptual understanding from systematically organized information.

4. RESULTS AND DISCUSSION

Design of an Integrated Desktop Cash Administration System for Single-Gate Workshop Service Operations

The results of this study indicate that the design of an Integrated Desktop Cash Administration System plays a significant role in improving the effectiveness of single-gate workshop service operations. The proposed system integrates customer registration, vehicle service administration, spare-part inventory management, transaction processing, and financial recording into a centralized desktop-based operational platform. This integration minimizes fragmented administrative activities that commonly occur in conventional workshop operations. According to Alter (2020), integrated information systems improve organizational workflow efficiency by synchronizing operational data and reducing process redundancy.

The designed system applies a single-gate operational concept in which all service activities are processed through one integrated administrative channel. This mechanism simplifies service coordination because customer data, transaction information, and financial records are directly connected within the same system database. The integration enables workshop administrators to monitor service progress, transaction status, and cash flow in real time. Real-time operational visibility is important for improving service responsiveness and operational control in service organizations (O'Brien & Marakas, 2021).

The desktop-based architecture used in this study provides operational advantages, particularly for small and medium workshop businesses. Desktop systems offer faster local data processing, stable offline operations, and lower internet dependency compared to fully web-based systems. This operational model is highly suitable for workshop environments where service continuity and transaction speed are essential. Furthermore, desktop integration reduces operational delays caused by unstable network connections and improves data accessibility within local organizational infrastructures.

The integrated administration system also supports financial transparency and reporting accuracy. Cash transaction data are automatically recorded and categorized according to service types, spare-part sales, and operational expenditures. Automated recording mechanisms reduce manual calculation errors and improve financial accountability. According to Turban et al. (2021), automation in financial administration significantly enhances organizational accuracy, operational efficiency, and managerial decision-making quality.

In addition, the system design strengthens operational standardization within workshop services. Each operational process follows predefined workflows, including customer registration, work order creation, service completion, payment processing, and financial reporting. Standardized procedures improve service consistency and simplify employee coordination. Therefore, the integrated desktop administration system contributes not only to operational efficiency but also to organizational sustainability and customer satisfaction.

Table 2. Qualitative Analysis of Integrated Desktop Cash Administration System Design

Main Component	Operational Function	Problems in Conventional System	Integrated Desktop System Solution	Expected Impact
Customer Registration	Customer identity and service recording	Repeated manual input and data inconsistency	Centralized customer database	Faster registration process
Service Administration	Service order management	Uncoordinated service workflow	Integrated work-order system	Improved operational coordination
Spare-Part Management	Inventory monitoring	Manual stock calculation errors	Real-time inventory synchronization	Better inventory accuracy
Cash Administration	Financial transaction recording	Delayed cash reporting	Automated cash transaction recording	Improved financial transparency
Reporting System	Operational and financial reporting	Incomplete and delayed reports	Integrated reporting dashboard	Faster managerial decision-making

Table 2 demonstrates that the proposed integrated desktop system combines several operational components into one centralized administration platform. The integration simplifies operational workflows and reduces fragmentation between workshop service activities and financial administration. The customer registration module enables faster service initiation because all customer information is stored within one integrated database system. This finding supports the argument that integrated digital systems improve operational efficiency and reduce administrative duplication in service organizations (Basrowi et al., 2024).

The service administration and spare-part management modules also contribute significantly to operational coordination. Through synchronized operational data, workshop employees can access real-time service progress and inventory availability. The integration minimizes communication gaps among operational units and improves service responsiveness. Previous studies explain that digital operational integration strengthens organizational sustainability through better information accessibility and coordinated workflow management (Basrowi & Nuryanto, 2024).

Furthermore, automated cash administration improves financial transparency and transaction accuracy. Conventional workshop systems often rely on manual financial recording, which increases the risk of reporting errors and delayed financial monitoring. The integrated desktop system automatically records transaction activities and categorizes financial data

according to operational needs. This mechanism strengthens accountability and supports managerial decision-making through real-time reporting availability.

The reporting dashboard integrated into the system provides operational and financial information simultaneously. Managers can monitor transaction volume, service activities, and operational cash flow efficiently. The centralized reporting system improves organizational control and operational evaluation processes. Therefore, the integrated desktop cash administration system not only enhances operational efficiency but also strengthens workshop governance and sustainability.

Contribution of the Integrated Desktop Cash Administration System to Operational Performance and Financial Management

The findings reveal that the implementation of an integrated desktop cash administration system significantly contributes to improving operational performance and financial management within workshop services. The integration of operational activities and cash administration creates more efficient transaction flows and reduces administrative complexity. Service processing time becomes shorter because customer information, payment data, and operational records are managed within one interconnected platform.

The integrated system also improves financial accuracy through automated transaction recording and centralized financial monitoring. Manual cash recording systems frequently cause calculation errors, delayed reporting, and inconsistencies in transaction documentation. Through desktop integration, financial information can be processed and updated automatically in real time. This capability strengthens financial transparency and improves management control over workshop cash flow. According to Baltzan and Phillips (2020), integrated financial information systems improve organizational accountability and support more accurate operational decision-making.

Another important contribution identified in this study is improved service coordination among workshop operational units. The system connects service administrators, technicians, inventory managers, and financial officers through one operational database. This coordination reduces communication gaps and improves operational synchronization. Employees can access service information, spare-part availability, and transaction records simultaneously, enabling faster service completion and improved customer satisfaction.

The implementation of the integrated desktop system also enhances organizational adaptability in responding to operational challenges and service demand fluctuations. Digital integration enables workshop management to monitor operational performance indicators such as transaction volume, service completion rates, and financial performance continuously. Such monitoring supports strategic evaluation and operational planning processes. Laudon and Traver (2022) state that integrated digital systems strengthen organizational adaptability by providing accurate operational information and improving managerial responsiveness.

Furthermore, the findings demonstrate that integrated desktop administration systems contribute to sustainable workshop management practices. Efficient financial recording, operational transparency, standardized service procedures, and integrated reporting mechanisms strengthen organizational sustainability and competitiveness. The system provides a practical digital transformation model suitable for workshop service organizations seeking to modernize operational management while maintaining cost efficiency and operational stability.

Table 3 Qualitative Findings on System Contribution to Workshop Operations

Operational Aspect	Before System Integration	After System Integration	Qualitative Impact
Transaction Recording	Manual and fragmented	Automated and centralized	Reduced administrative errors
Service Coordination	Limited communication	Real-time operational synchronization	Faster service completion
Financial Reporting	Delayed reporting process	Instant financial monitoring	Improved transparency
Customer Service	Long service waiting time	Faster service processing	Increased customer satisfaction
Operational Control	Difficult monitoring	Centralized operational dashboard	Better managerial supervision

Source: Secondary data processed, 2025

Table 3 indicates that the implementation of the integrated desktop cash administration system significantly improves workshop operational performance and financial management. Prior to integration, transaction recording activities were performed manually, resulting in delayed reporting and inconsistent financial documentation. Following system implementation, transaction processes become automated and centralized, improving operational efficiency and financial accuracy. Studies on digital organizational systems show that automation significantly improves organizational productivity and operational accountability (Basrowi et al., 2025).

The findings also reveal improvements in service coordination and customer service quality. Integrated operational synchronization allows administrators, technicians, and financial staff to access the same operational information simultaneously. This capability accelerates service completion and minimizes workflow disruptions. Integrated systems also improve organizational responsiveness to customer demands because service information can be monitored in real time.

Financial reporting processes become more transparent and efficient after system implementation. Managers can directly monitor cash inflows, operational expenditures, and transaction histories through the integrated dashboard system. This real-time financial visibility supports faster managerial decisions and strengthens operational governance. According to Basrowi and colleagues (2024), integrated digital governance systems improve organizational resilience by enhancing operational transparency and information accessibility.

Moreover, the integrated desktop system strengthens operational supervision through centralized monitoring mechanisms. Workshop managers can evaluate service performance,

identify operational bottlenecks, and monitor employee productivity more effectively. The integration of operational and financial information into one desktop platform contributes to sustainable workshop management practices and improves organizational competitiveness in service operations

Discussion

Digital Integration and the Effectiveness of Single-Gate Workshop Service Operations

The findings of this study demonstrate that the implementation of an Integrated Desktop Cash Administration System significantly improves operational effectiveness within single-gate workshop service operations. The integration of customer registration, service transactions, inventory management, and financial administration into one centralized desktop platform reduces operational fragmentation and improves service coordination. This finding is consistent with previous studies emphasizing that digital transformation strengthens organizational efficiency through integrated operational systems and data synchronization (Vial, 2019; Verhoef et al., 2021). Digital integration allows organizations to improve service speed, minimize administrative redundancy, and strengthen operational transparency.

The integrated desktop system developed in this study also supports organizational adaptability in responding to operational complexity and increasing service demands. Organizations implementing integrated digital systems generally experience improvements in workflow standardization, information accessibility, and managerial responsiveness. Research by Suseno and Yusuf (2024) explains that digital governance adaptability strengthens organizational sustainability because integrated systems improve coordination and operational flexibility. In workshop service operations, centralized digital administration simplifies communication among operational units and accelerates service completion processes.

Another important finding relates to the role of system integration in strengthening financial accountability and operational governance. Automated cash administration minimizes manual recording errors and enables real-time financial monitoring. Similar findings were reported by Basrowi et al. (2024), who argued that integrated digital systems improve organizational resilience through transparency and operational control mechanisms. Financial transparency is particularly important in workshop service organizations because operational sustainability depends heavily on transaction accuracy and effective cash-flow management.

The implementation of desktop-based systems also provides practical advantages for operational environments requiring stable local data processing and low internet dependency. Unlike web-based systems that rely heavily on network infrastructure, desktop systems offer operational continuity and faster local transaction processing. This finding supports previous research indicating that technological suitability significantly influences digital transformation success within small and medium organizations (Laudon & Laudon, 2020). Therefore, the integrated desktop administration system represents an effective operational solution for workshop service environments.

Furthermore, the findings indicate that digital operational integration contributes to sustainable organizational management by improving service quality and operational consistency. Integrated systems enable workshop managers to monitor operational performance continuously and identify inefficiencies more effectively. According to Suseno et al. (2021), collaborative governance and innovation strategies support institutional sustainability through operational coordination and information integration. Thus, the integrated desktop cash administration system not only modernizes administrative processes but also strengthens organizational sustainability and competitiveness.

The findings of this study indicate that the implementation of an Integrated Desktop Cash Administration System significantly improves operational effectiveness within single-gate workshop service operations. The integration of customer registration, service administration, spare-part management, transaction processing, and financial recording into one centralized desktop platform reduces operational fragmentation and improves workflow synchronization. Similar findings were reported by Cenamor, Parida, and Wincent (2019), who emphasized that digital service integration enhances operational flexibility and improves organizational responsiveness in service-based industries. Digital integration enables organizations to create faster service processes and reduce operational inefficiencies caused by disconnected administrative systems.

The findings also demonstrate that integrated desktop systems improve operational transparency and coordination among organizational units. Through centralized information processing, workshop managers and employees can monitor service progress, inventory conditions, and financial transactions in real time. Research by Nambisan, Lyytinen, Majchrzak, and Song (2017) explains that digital integration strengthens organizational collaboration and operational adaptability because all organizational actors have access to synchronized information systems. In workshop service environments, operational synchronization is essential to ensuring service continuity and minimizing customer waiting time.

Another important aspect identified in this study is the contribution of integrated systems to operational standardization and service quality improvement. Standardized operational workflows reduce administrative redundancy and improve process consistency across service activities. According to Kane et al. (2019), organizations adopting digital operational systems generally experience improvements in customer satisfaction, process accuracy, and organizational agility. The integrated desktop system developed in this study supports operational consistency by connecting all administrative activities within one coordinated platform.

The implementation of desktop-based operational systems also provides strategic advantages for small and medium workshop businesses. Unlike cloud-based systems that rely heavily on internet infrastructure, desktop systems offer operational stability, faster local data processing, and offline accessibility. Research by Bharadwaj, El Sawy, Pavlou, and Venkatraman (2013) confirms that technological alignment with organizational operational

needs significantly influences digital transformation success. Therefore, the desktop-based administration model proposed in this study represents a practical and sustainable digital solution for workshop operational management.

Furthermore, digital integration contributes to organizational sustainability by strengthening governance quality and managerial control. Real-time operational monitoring enables organizations to identify inefficiencies, evaluate service performance, and improve resource allocation more effectively. Verhoef et al. (2021) explain that integrated digital systems support long-term organizational sustainability because they improve operational adaptability, information transparency, and strategic responsiveness. Thus, the implementation of integrated desktop cash administration systems not only modernizes workshop operations but also strengthens organizational competitiveness in the digital era.

The results of this study are also supported by research from Basrowi and colleagues, who emphasize that digital collaboration and integrated organizational systems improve sustainability-oriented governance and operational resilience. Basrowi et al. (2024) found that integrated digital systems contribute significantly to organizational adaptability, service innovation, and institutional sustainability through coordinated information management and operational transparency. These findings strengthen the argument that integrated administration systems are essential components of sustainable organizational transformation.

Contribution of the Integrated Desktop Cash Administration System to Financial Management and Organizational Sustainability

The findings reveal that the integrated desktop cash administration system significantly improves financial management and operational sustainability within workshop organizations. Automated financial recording and centralized transaction monitoring enhance financial accuracy and reduce administrative delays. These findings align with studies emphasizing that digital financial systems strengthen organizational accountability and managerial decision-making quality through real-time information accessibility (Turban et al., 2021).

The system also improves managerial control because operational and financial data are integrated within one centralized dashboard. Managers can evaluate transaction performance, monitor service productivity, and analyze operational cash flow more efficiently. Research by Basrowi and Nuryanto (2024) explains that digital governance integration improves organizational responsiveness and strengthens sustainability-oriented operational management. The centralized monitoring mechanism developed in this study enables workshop managers to conduct more accurate operational evaluations and strategic planning.

Another important contribution of the system lies in improving customer service quality and operational responsiveness. Integrated operational coordination accelerates transaction processing and reduces service waiting times. This operational efficiency contributes directly to customer satisfaction and organizational competitiveness. Previous studies indicate that digital service integration positively influences organizational performance because customers receive faster, more accurate, and more transparent services (O'Brien & Marakas, 2021).

The findings further demonstrate that digital administration systems strengthen organizational resilience in facing operational challenges and market competition. Integrated financial information enables organizations to monitor operational performance continuously and respond more effectively to changing customer demands. According to Verhoef et al. (2021), digital transformation improves organizational sustainability because integrated systems support strategic flexibility and operational adaptability. In workshop service environments, these capabilities are essential for maintaining operational continuity and long-term competitiveness.

Moreover, the integrated desktop system contributes to sustainable governance practices by supporting standardized operational procedures and transparent financial reporting. Standardization reduces operational inconsistencies and strengthens organizational accountability. Studies by Suseno (2023) highlight that adaptive governance strategies are essential for achieving organizational sustainability in the digital era. Therefore, the implementation of integrated desktop administration systems not only improves operational efficiency but also contributes to long-term organizational sustainability through improved governance, operational control, and service quality.

The findings reveal that the implementation of the Integrated Desktop Cash Administration System significantly improves financial management effectiveness and organizational sustainability within workshop service operations. Automated transaction recording and centralized financial monitoring reduce administrative errors and improve financial transparency. Similar findings were reported by Yoo, Henfridsson, and Lyytinen (2010), who argued that digitalized financial systems improve organizational control and decision-making quality by providing accurate real-time information. Integrated cash administration systems enable organizations to monitor operational cash flow more effectively and strengthen financial accountability.

The study also demonstrates that centralized financial dashboards improve managerial supervision and operational evaluation processes. Managers can access operational reports, service transaction histories, and financial performance indicators through one integrated system interface. According to Mithas, Tafti, Bardhan, and Goh (2012), digital information systems positively influence organizational performance because they support data-driven managerial decisions and operational efficiency. In workshop organizations, real-time financial visibility enhances operational responsiveness and strengthens financial governance practices.

Another important contribution identified in this study is the improvement of customer service quality through faster transaction processing and integrated operational coordination. The synchronization between operational administration and financial management reduces service delays and improves transaction accuracy. Research by Rai, Pavlou, Im, and Du (2012) indicates that integrated operational systems strengthen service innovation and customer satisfaction because organizations can respond more quickly and accurately to customer demands. The desktop-based integration developed in this study contributes directly to operational effectiveness and customer trust.

The implementation of integrated administration systems also supports organizational resilience and sustainability in facing operational challenges and market competition. Continuous operational monitoring enables organizations to evaluate productivity, optimize resource allocation, and improve service strategies more effectively. Studies by Warner and Wäger (2019) emphasize that digital transformation strengthens organizational resilience by improving strategic adaptability and operational flexibility. Therefore, integrated desktop systems provide sustainable operational benefits for workshop management organizations.

Furthermore, the findings indicate that operational digitalization contributes to sustainable governance through standardized operational procedures and transparent financial management. Organizations adopting integrated systems generally experience improvements in accountability, operational consistency, and managerial coordination. Research by Sebastian et al. (2017) explains that successful digital transformation requires integrated operational systems capable of supporting governance quality and organizational sustainability simultaneously. The findings of this study support this perspective by demonstrating how integrated desktop administration systems strengthen workshop operational governance.

The findings are further reinforced by previous studies conducted by Basrowi and Bambang Dwi Suseno, which highlight the importance of digital governance, collaborative innovation, and integrated information systems in strengthening organizational sustainability. Basrowi et al. (2024) explain that integrated digital systems improve organizational resilience, governance adaptability, and operational efficiency through centralized information coordination and collaborative digital transformation. Likewise, Suseno and Yusuf (2024) argue that governance adaptability supported by digital integration contributes significantly to long-term organizational sustainability and operational competitiveness.

5. CONCLUSION AND LIMITATION

Based on the findings and discussion of this study, it can be concluded that the design of an Integrated Desktop Cash Administration System successfully supports the implementation of single-gate workshop service operations through the integration of customer registration, service administration, inventory management, transaction processing, and financial reporting into one centralized operational platform. The integrated system improves operational efficiency, minimizes administrative redundancy, strengthens service coordination, and enhances financial transparency within workshop management activities.

Furthermore, the implementation of the integrated desktop cash administration system contributes significantly to improving operational performance, financial accuracy, managerial control, and organizational sustainability. Automated transaction recording, real-time financial monitoring, and centralized operational coordination enable workshop organizations to

improve service responsiveness, strengthen governance practices, and maintain sustainable operational performance in the era of digital transformation.

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