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Impact of Automation on Operational Efficiency in Fund Accounting Processes at State Street Corporation: Mediating Role of Process Integration and Moderating Role of Digital Transformation

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Abstract -Global custodian banks operate fund accounting functions that process trillions of dollars in daily net asset value calculations, reconciliations, and regulatory reporting, making operational efficiency in this function a direct driver of cost, risk, and client trust. State Street Corporation, which reported approximately $53.8 trillion in assets under custody and administration and around 52,000 employees across more than 100 markets at the end of 2025, exemplifies the scale at which fund accounting automation decisions play out. Industry surveys indicate that automation adoption in financial-services back offices remains uneven: while a majority of institutions have begun deploying robotic process automation and workflow tools, many finance leaders report that only a modest share of their processes are actually automated end-to-end, and technology-transformation programmes at asset managers and custodians have been associated with efficiency gains of roughly 30 percent when implemented as integrated, firm-wide initiatives rather than isolated tools. This proposed study develops and operationalises a research model in which Automation affects Operational Efficiency in fund accounting both directly and indirectly through Process Integration, with the strength of this relationship contingent on the organisation's Digital Transformation maturity. Grounded in the Resource-Based View, Dynamic Capabilities Theory, and the Technology-Organization-Environment framework, the paper develops five hypotheses, a four-construct measurement model, and a nine-step PLS-SEM based analysis plan for testing the proposed moderated-mediation model using primary survey data from fund accounting, operations, and technology professionals. The paper is intended as a replicable, publication-ready research design rather than a report of completed fieldwork, and it identifies the data-collection and measurement steps required before the model can be estimated.

Keywords: *automation, operational efficiency, fund accounting, process integration, digital transformation, robotic process automation, custodian banks, PLS-SEM.*

1. INTRODUCTION

1.1 Background

Fund accounting is the operational engine of the asset-servicing industry: it produces the net asset value (NAV) figures, reconciliations, corporate-action postings, and regulatory reports on which mutual funds, hedge funds, pension funds, and insurance portfolios rely daily. State Street Corporation is one of the largest participants in this industry. As of December 31, 2025, the firm reported approximately $53.8 trillion in assets under custody and/or administration and $5.67 trillion in assets under management, operating in more than 100 geographic markets with roughly 52,000 employees; by the second quarter of 2026 these figures had grown further, to approximately $57.9 trillion in assets under custody and administration and $6.28 trillion in assets under management (State Street Corporation, 2026a, 2026b). At this scale, even small percentage gains in fund accounting efficiency translate into substantial absolute savings and risk reduction.

Over the past several years, State Street has pursued automation and platform consolidation through its Alpha platform, including a strategic partnership with FundGuard, a cloud-native, AI-enabled fund accounting and NAV engine, to move accounting processing toward straight-through processing across portfolio management, trading, custody, and administration, functions that were previously handled by separate, in-house systems (State Street Corporation, 2022; Money-Media, 2023). Industry commentary on platform consolidation of this kind reports that automating fund accounting and reconciliation workflows can compress NAV production, in some cases from several hours of manual work to well under an hour, once systems are connected end-to-end rather than automated in isolated pockets (Hexaview Technologies, 2026).

1.2 Automation Trends in Financial-Services Back Offices

Survey evidence suggests automation adoption in finance functions is now widespread but still incomplete. In Deloitte's Q4 2025 CFO Signals survey, half of North American CFOs named digital transformation of finance their top priority for 2026, and 49 percent cited automating processes to free staff for higher-value work as their leading talent priority (Deloitte, 2026). Yet a McKinsey-based survey reported by CFO Dive found that the largest single group of finance chiefs, 41 percent, said only a quarter or less of their processes were automated, indicating that adoption intent and adoption depth remain far apart at many firms (CFO Dive, 2024). In robotic process automation specifically, industry surveys put financial-institution adoption in the 53-56 percent range, with a large share of adopters planning further investment (GTreasury, 2026; A3Logics, 2025). At the same time, McKinsey's 2024 Ignite research on asset-management technology transformation found that concurrent, firm-wide technology-transformation programmes, as opposed to point automation, were associated with run-the-bank efficiency gains of roughly 30 percent (McKinsey & Company, 2025). This gap between isolated automation and integrated transformation is the empirical starting point for the present study.

1.3 Problem Statement and Research Gap

Three gaps motivate this research. First, most available evidence on automation and efficiency in fund administration is either descriptive (industry surveys, vendor case studies) or

focused on IT spending and adoption rates rather than on the perceived quality and efficiency of the resulting decision and operating processes. Second, existing accounts of automation's benefits rarely distinguish between automation that remains a point solution and automation that is integrated end-to-end across the trade-to-report lifecycle, even though practitioner evidence (e.g., McKinsey & Company, 2025) suggests this distinction drives materially different efficiency outcomes. Third, the role of an organisation's broader digital transformation maturity, its data architecture, governance, and change capability, as a condition under which automation converts into efficiency has not been tested with primary survey data collected from fund accounting and operations professionals themselves.

1.4 Research Objectives

- To examine the direct effect of automation on operational efficiency in fund accounting processes.
- To assess the mediating role of process integration in the automation-efficiency relationship.
- To evaluate the moderating role of digital transformation maturity on this relationship.
- To develop and validate a survey instrument for measuring automation, process integration, digital transformation, and operational efficiency in fund accounting settings.
- To specify a nine-step PLS-SEM analysis plan suitable for testing the proposed moderated-mediation model.

1.5 Significance and Scope of the Study

The scope of the research covers fund accounting, fund operations, and technology functions at global custodian banks and fund administrators, with State Street Corporation used as the primary organisational context because of its scale and its publicly documented automation programme (State Street Alpha/FundGuard). The target respondents are fund accounting analysts and managers, operations and reconciliation staff, and technology/change professionals who interact directly with automated NAV, reconciliation, and reporting workflows. The study's significance is threefold: it extends operations-management and information-systems theory (Resource-Based View, Dynamic Capabilities, TOE) into the fund-administration context; it offers a replicable primary-data survey instrument in a setting where most existing evidence is secondary or descriptive; and it gives operations and technology leaders an evidence-based basis for prioritising integration-first automation investment over isolated point automation.

1.6 Structure of the Paper

Section 2 reviews the theoretical and empirical literature on automation, process integration, and digital transformation, and develops the conceptual model. Section 3 presents the research framework and five hypotheses. Section 4 details the research design, sample, questionnaire, and the nine-step PLS-SEM analysis plan. Section 5 discusses theoretical, methodological, and managerial implications. Section 6 outlines limitations and directions for future research, followed by the conclusion, acknowledgement, and references.

2. LITERATURE REVIEW

2.1 Theoretical Foundations

Three complementary theories underpin the research model. The Resource-Based View (RBV) holds that sustainable competitive advantage arises from resources that are valuable, rare, and difficult to imitate (Barney, 1991); applied here, automated fund-accounting infrastructure becomes a source of advantage to the extent that it is embedded in firm-specific data, workflows, and staff expertise rather than being an off-the-shelf tool any competitor could replicate. Dynamic Capabilities Theory extends this logic by arguing that firms must sense, seize, and reconfigure resources to benefit from technological change (Teece, 2007); this is the theoretical basis for treating process integration as a capability that converts raw automation into performance rather than assuming automation delivers value on its own. The Technology-Organization-Environment (TOE) framework explains why the same automation technology produces different outcomes across organisations, pointing to organisational readiness, of which digital transformation maturity is a central component, as a boundary condition (Tornatzky & Fleischer, 1990). Finally, Venkatraman's (1994) work on IT-enabled business transformation is used to justify distinguishing automation of individual tasks from redesigned, integrated processes, arguing that the largest gains from information technology come only at the higher levels of business-process redesign and integration, not from automating existing steps in place.

2.2 Automation and Operational Efficiency in Financial Services

Foundational process-reengineering scholarship argued that technology should be used to enable the radical redesign of processes rather than to automate existing inefficiencies (Hammer & Champy, 1993; Davenport, 1993). Contemporary evidence on robotic process automation (RPA) in banking and financial services is broadly consistent with this view: RPA delivers rapid gains on rule-based, high-volume, structured tasks such as cash reconciliation and NAV checks, but requires active governance to prevent brittle, poorly maintained automations from becoming a new source of operational risk (Lacity & Willcocks, 2016). This caution is echoed in adoption statistics: while more than half of financial institutions report having implemented RPA (GTreasury, 2026; A3Logics, 2025), Deloitte-based CFO surveys show that many finance organisations still automate only a minority of their processes (CFO Dive, 2024), suggesting that adoption alone is a weak predictor of realised efficiency.

2.3 The Mediating Role of Process Integration

Process integration refers to the seamless flow of data and control across previously siloed systems and functions (Venkatraman, 1994). In fund accounting, this means connecting trade capture, pricing, corporate actions, NAV calculation, and client reporting into a single low-friction workflow, rather than automating each step separately while leaving manual reconciliation between them. State Street's own platform strategy illustrates this logic directly: the integration of FundGuard's accounting engine into the Alpha platform was explicitly designed to connect portfolio management and trading through to custody and administration, rather than to automate accounting as a standalone function (State Street Corporation, 2022). Industry commentary on comparable integration programmes reports NAV-cycle compression from

several hours to well under an hour once systems are connected end-to-end via API-driven architecture (Hexaview Technologies, 2026), consistent with the theoretical claim that integration, not automation in isolation, is the proximate driver of efficiency gains.

2.4 The Moderating Role of Digital Transformation

Digital transformation refers to organisation-wide change in how value is created using digital technologies, encompassing leadership commitment, data governance, talent, and culture, not merely the presence of individual tools (Westerman, Bonnet, & McAfee, 2014; Vial, 2019). Survey evidence suggests digital maturity and automation outcomes are closely linked: in Deloitte's CFO survey, 87 percent of CFOs said artificial intelligence would be extremely or very important to finance operations in 2026, and over half named embedding AI agents a transformation priority (Deloitte, 2026), yet McKinsey-based data shows more than a third of finance leaders still rate their own process automation as shallow (CFO Dive, 2024) and industry analyses cite insufficient data infrastructure and legacy systems as the leading barrier to digital transformation for more than a third of financial-services firms (Hexaview Technologies, 2026). This pattern is consistent with the theoretical claim that automation's efficiency payoff depends on the organisation's broader digital maturity rather than being automatic.

2.5 Automation in Custodian Banking and Fund Administration

Within custody and fund administration specifically, McKinsey's 2024 Ignite research on asset-management technology transformation found that concurrent, firm-wide transformation programmes, spanning platform, data, and operating-model change, were associated with run-the-bank efficiency gains of roughly 30 percent, appreciably higher than gains typically reported from standalone automation projects (McKinsey & Company, 2025). State Street's public disclosures describe a similar integration logic for its Alpha platform, citing continued investment in automation, data insight, and platform modernisation as central to scaling its global operations, with the Alpha platform securing new mandates and growing front-office software and data revenue in its most recent annual reporting (State Street Corporation, 2026c). These practitioner-facing findings support modelling process integration as the mechanism, and digital transformation maturity as the boundary condition, through which automation investment becomes measurable operational efficiency.

2.6 Research Gap

Taken together, the literature strongly supports each individual link in the proposed model, automation improves rule-based task efficiency; integration is what converts automation into end-to-end efficiency; and digital maturity conditions how far this conversion goes, but these links have not been tested together, with primary data from fund accounting professionals, in a custodian-banking context. This is the gap the present study is designed to close.

Table 1: Summary of Key Reviewed Sources

Source	Context	Key Point Relevant to This Study
Barney (1991); Teece (2007)	Foundational theory	RBV and Dynamic Capabilities justify treating integration as a capability, not merely a by-product of automation.
Venkatraman (1994)	IT-enabled business transformation	Largest IT benefits come from process redesign/integration, not automation of existing steps.
Hammer & Champy (1993); Davenport (1993)	Process reengineering	Technology should enable process redesign; automating inefficiency in place yields limited gains.
Lacity & Willcocks (2016)	RPA in financial services	RPA is effective for rule-based tasks but needs governance to avoid new operational risk.
Westerman, Bonnet & McAfee (2014); Vial (2019)	Digital transformation	Digital maturity is an organisation-wide capability, not a technology purchase.
Deloitte Q4 2025 CFO Signals (2026)	North American CFO survey	50% rank digital transformation as top 2026 priority; 87% see AI as very important.
McKinsey, via CFO Dive (2024)	Finance-function automation survey	41% of CFOs report a quarter or less of processes automated despite adoption intent.
McKinsey Ignite Survey (2025)	Asset-management technology transformation	Integrated, firm-wide transformation linked to ~30% run-the-bank efficiency gains.
GTreasury (2026); A3Logics (2025)	RPA adoption statistics	53–56% of financial institutions report RPA implementation.
State Street Corporation (2022, 2026a-c)	State Street Alpha / FundGuard	Illustrates integration-first automation strategy at a global custodian bank.

3. RESEARCH FRAMEWORK AND HYPOTHESES

Building on the theoretical foundations above, the study proposes a moderated-mediation model in which Automation (AUT) affects Operational Efficiency (OE) in fund accounting both directly and indirectly through Process Integration (PI), with Digital Transformation (DT) moderating the automation-to-efficiency path.

H1: Automation has a positive and significant effect on Operational Efficiency in fund accounting processes.

H2: Automation has a positive and significant effect on Process Integration.

H3: Process Integration has a positive and significant effect on Operational Efficiency.

H4: Process Integration mediates the relationship between Automation and Operational Efficiency.

H5: Digital Transformation positively moderates the relationship between Automation and Operational Efficiency, such that the relationship is stronger at higher levels of digital transformation maturity.

A conceptual-model diagram (Automation → Process Integration → Operational Efficiency, with Digital Transformation moderating the direct Automation → Operational Efficiency path) should be inserted here as Fig. 1 in the final manuscript layout.

4. RESEARCH METHODOLOGY

4.1 Research Design

The study adopts a quantitative, descriptive, cross-sectional design using a structured, self-administered questionnaire, appropriate for testing the proposed structural relationships among the four constructs using established multi-item scales and Partial Least Squares Structural Equation Modelling (PLS-SEM).

4.2 Population and Sample

The target population is fund accounting, fund operations, and technology professionals at global custodian banks and fund administrators, with State Street Corporation, given its scale of roughly 52,000 employees across more than 100 markets (State Street Corporation, 2026a), used as the primary organisational context, supplemented by professionals at comparable custodian and fund-administration firms to achieve an adequate sample. A purposive sampling approach, targeting NAV production, reconciliation, and fund-accounting-technology roles, is recommended, supplemented by professional-network referrals, with a minimum target of 200-250 respondents to satisfy PLS-SEM minimum sample-size guidance for a model of this complexity (Hair, Risher, Sarstedt, & Ringle, 2019).

4.3 Questionnaire Development and Measures

Items should be adapted from validated prior scales for automation adoption, process integration, digital transformation maturity, and operational efficiency where available, refined through expert review, and piloted with a small sample ($n \approx 20$-30) before full deployment. All construct items are measured on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Construct	Definition	Illustrative Item
Automation (AUT)	Extent of use of RPA and rule-based tools in fund accounting tasks	"Routine reconciliation tasks in my process are automated."
Process Integration (PI)	Degree of seamless data/workflow connection across the fund accounting cycle	"Data flows automatically between our trade capture, pricing, and NAV systems without manual re-keying."
Digital Transformation (DT)	Organisation-wide digital maturity: governance, data, culture	"Our organisation has a clear digital transformation strategy for operations."
Operational Efficiency (OE)	Cycle time, error rate, cost per transaction, throughput	"NAV production timelines have improved due to current systems."

4.4 Nine-Step PLS-SEM Analysis Plan

Step 1 — Data screening: Check for missing data, straight-lining, and outliers; remove or impute as appropriate before analysis.

Step 2 — Common method bias assessment: Apply Harman's single-factor test and a full collinearity VIF test, since all constructs are measured from the same respondent (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Step 3 — Measurement model specification: Confirm reflective specification for all four constructs and load the model in SmartPLS or an equivalent tool.

Step 4 — Indicator reliability: Examine outer loadings; retain indicators above 0.70, review those between 0.40 and 0.70 for potential removal.

Step 5 — Internal consistency and convergent validity: Assess Cronbach's alpha and composite reliability (> 0.70) and average variance extracted, AVE (> 0.50) for each construct (Fornell & Larcker, 1981).

Step 6 — Discriminant validity: Apply the Heterotrait-Monotrait ratio (HTMT), with values below 0.85–0.90 supporting discriminant validity between constructs.

Step 7 — Structural model and hypothesis testing: Run bootstrapping (5,000 subsamples) to test path significance for H1–H3, and report R^2 and Q^2 for the endogenous constructs.

Step 8 — Mediation analysis: Test the indirect effect of Automation on Operational Efficiency through Process Integration using bootstrapped confidence intervals (Preacher & Hayes, 2008; Hayes, 2013), to evaluate H4.

Step 9 — Moderation analysis: Test the Automation × Digital Transformation interaction term on Operational Efficiency using the two-stage approach, and plot simple slopes at high and low digital-transformation maturity to evaluate H5.

5. IMPLICATIONS

5.1 Theoretical Implications

The study extends Resource-Based View and Dynamic Capabilities reasoning into fund administration by treating process integration as the capability that converts automation, a resource, into operational performance, and by testing digital transformation maturity as an explicit TOE-consistent boundary condition, rather than assuming automation's benefits are uniform across firms.

5.2 Methodological Implications

The study contributes a replicable, primary-data survey instrument for fund accounting and operations contexts, an area where most existing evidence (industry surveys, vendor case studies) is descriptive rather than hypothesis-tested, along with a fully specified nine-step PLS-SEM analysis plan that other researchers can apply to comparable custodian-banking or asset-servicing settings.

5.3 Managerial Implications

- Automation initiatives should be planned alongside process-integration roadmaps rather than deployed as standalone point solutions.
- Digital-transformation readiness, governance, data quality, and change capability, should be assessed before committing to large automation programmes.
- Efficiency metrics such as NAV cycle time, error rate, and cost per transaction should be tracked before and after automation to validate expected gains, consistent with the roughly 30 percent efficiency gains reported for integrated technology-transformation programmes in asset management (McKinsey & Company, 2025).

6. LIMITATIONS AND FUTURE RESEARCH

The proposed design relies on cross-sectional, self-reported perceptual data from a single primary organisational context, which limits causal inference and generalisability beyond custodian banking. Common method bias is a risk given single-respondent measurement of all constructs, which the analysis plan addresses through Harman's test and full collinearity VIF but cannot eliminate entirely. Future research could adopt a longitudinal design, incorporate objective system-log metrics such as NAV cycle time and reconciliation-break counts rather than perceptual measures, and extend the model to other asset-servicing functions such as transfer agency and custody operations.

7. CONCLUSION

This paper develops and operationalises a moderated-mediation research model linking automation to operational efficiency in fund accounting, with process integration as the mediating mechanism and digital transformation maturity as the moderating condition. Grounded in the Resource-Based View, Dynamic Capabilities Theory, and the Technology-Organization-Environment framework, and informed by publicly available operational data on State Street Corporation and industry-wide automation and digital-transformation survey evidence, the study proposes five testable hypotheses, a validated four-construct measurement approach, and a nine-step PLS-SEM analysis plan. Once fielded, the study is expected to show that automation's efficiency benefits in fund accounting are transmitted substantially through process integration and are stronger in organisations with higher digital transformation maturity, providing custodian banks with an evidence-based basis for prioritising integration-first automation investment over isolated point automation.

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REFERENCES

- A3Logics. (2025). Must-see robotic process automation (RPA) statistics in 2025. https://www.a3logics.com/blog/robotic-process-automation-statistics/
- Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120. https://doi.org/10.1177/014920639101700108
- CFO Dive. (2024). Many CFOs still in early phase of digital transformation: McKinsey. https://www.cfodive.com/news/many-cfos-still-early-phase-digital-transformation-mckinsey/722091/
- Davenport, T. H. (1993). Process Innovation: Reengineering Work through Information Technology. Harvard Business School Press.
- Deloitte. (2026). Technology transformation emerges as a top priority for CFOs in 2026: Deloitte Q4 2025 CFO Signals survey. https://www.deloitte.com/us/en/about/press-room/deloitte-q4-2025-cfo-signals-survey.html
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.2307/3151312
- GTreasury. (2026). Understanding robotic process automation. https://treasury.ripple.com/posts/understanding-robotic-process-automation

• Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.
• Hammer, M., & Champy, J. (1993). Reengineering the Corporation: A Manifesto for Business Revolution. Harper Business.
• Hayes, A. F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. Guilford Press.
• Hexaview Technologies. (2026). Platform implementation & API integration for wealth management & fund admins. https://feeds.hexaviewtech.com/blog/fintech-api-integration
• Lacity, M. C., & Willcocks, L. P. (2016). A new approach to automating services. MIT Sloan Management Review, 58(1), 41-49.
• McKinsey & Company. (2025). Reshaping asset management operations with technology transformation. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/tech-forward/reshaping-asset-management-operations-with-technology-transformation
• Money-Media Inc. (2023). State Street Alpha taps FundGuard for accounting. https://www.fundguard.com/state-street-alpha-taps-fundguard-for-accounting/
• Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research. Journal of Applied Psychology, 88(5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879
• Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879-891.
• State Street Corporation. (2022). State Street and FundGuard announce strategic partnership to deliver accounting solutions for State Street Alpha. https://www.nasdaq.com/press-release/state-street-and-fundguard-announce-strategic-partnership-to-deliver-accounting
• State Street Corporation. (2026a). Form DEF 14A, FY2026. U.S. Securities and Exchange Commission. https://www.sec.gov/Archives/edgar/data/93751/000114036126013817/ny20058931x1_def14a.htm
• State Street Corporation. (2026b). Reports second-quarter 2026 financial results [summarised via Minichart]. https://www.minichart.com.sg/2026/07/16/state-street-corporation-q2-2026-earnings-record-growth-in-assets-robust-fee-revenue-and-strong-capital-ratios/
• State Street Corporation. (2026c). 2025 Annual Report: Investment Services. https://www.statestreet.com/us/en/about/our-story/2025-annual-report/investment-services
• Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. Strategic Management Journal, 28(13), 1319-1350. https://doi.org/10.1002/smj.640
• Tornatzky, L. G., & Fleischer, M. (1990). The Processes of Technological Innovation. Lexington Books.
• Venkatraman, N. (1994). IT-enabled business transformation: From automation to business scope redefinition. Sloan Management Review, 35(2), 73-87.
• Vial, G. (2019). Understanding digital transformation: A review and a research agenda. Journal of Strategic Information Systems, 28(2), 118-144.
• Westerman, G., Bonnet, D., & McAfee, A. (2014). Leading Digital: Turning Technology into Business Transformation. Harvard Business Review Press.