

How financial shared services affect corporate operational efficiency: based on the mediating role of accounting information consistency

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Abstract. Driven by the rapid advancement of information technology and supportive policy environments, a growing number of Chinese enterprises are establishing financial shared service centers (FSSCs) to standardize and professionalize their internal processes. To evaluate whether the adoption of financial sharing influences operational efficiency and determine the underlying mechanisms through which it exerts its influence, this study tests the hypotheses with data from Chinese A-share listed companies from 2015 to 2023. The empirical results indicate that: (1) Financial shared services significantly enhance corporate operational efficiency; (2) Accounting information consistency serves as a mediating factor between FSSC implementation and operational efficiency, which is retained even after a robustness test. Mediation analysis reveals that financial sharing improves accounting information consistency, thereby boosting operational efficiency. This study contributes to both theory and reality. Theoretically, it enriches theoretical insights into the economic ramifications of financial shared services and the pivotal role of accounting information quality. In terms of practical significance, it provides valuable references for how enterprises utilize financial shared services to improve their operational management decisions.

Keywords: Financial shared service, operational efficiency, accounting information consistency.

1. Introduction

Financial shared services originated in the 1980s and were initially adopted on a large scale by Western manufacturing conglomerates. Its core principle involves integrating repetitive financial processes across various internal business units into a centralized shared service center, enabling unified management. This approach achieves operational integration and cost savings. By the 1990s, the scope of shared services expanded from single functional areas to encompass comprehensive back-office functions, including human resources, finance, procurement, and information technology [1], evolving into a mature and efficient operational model.

With the implementation of the Belt and Road Initiative, many Chinese enterprises have accelerated their globalization strategies. Under the backdrop of rapid IT advancement and policy convergence, financial shared services serve as an organizational management model that plays a vital role in standardizing and integrating financial management processes, enhancing operational efficiency, and mitigating risks. In 2021, China's Ministry of Finance issued the Accounting Informatization Development Plan 2021-2025, mandating the exploration of shared platforms and collaborative mechanisms to facilitate the mutual exchange of accounting regulatory information. This policy has further accelerated the adoption and establishment of financial shared service centers.

In recent years, financial shared services have progressively developed in China's practice and emerged as a popular topic in academia. Existing literature generally suggests that financial shared services exert a significant positive impact on corporate profitability and value creation [2-4]. However, other studies suggest that the anticipated benefits of financial shared services are not guaranteed. Maatman and Meijerink found that the value of shared services hinges on a dynamic equilibrium between excess returns and costs. The true value creation only takes place when service benefits exceed input costs [5]. These results show that value generation through financial shared services is influenced by multiple factors rather than being a simple linear process.

The intelligent finance center has become the revolutionary path for corporate financial shared service centers as a result of the advancement of emerging intelligent technologies such as big data, artificial intelligence, mobile technology, cloud computing, IoT, and blockchain. Li conducted a systematic study on the development trends of financial shared service centers, indicating that their future evolution will involve multidimensional transformation and upgrading in areas such as intelligent digitalization, human-machine interaction, and IT-driven process optimization [6]. Kaur highlighted data science applications in the financial sector, including machine learning and artificial intelligence. These involve data collection and analysis, strengthening the capabilities of financial institutions to prevent cyber fraud, cutting expenses by simplifying procedures, and raising the productivity and efficiency of financial operations [7]. Blockchain-based financial shared service models, as emphasized by Chen and Lai, use consensus mechanisms to eliminate conventional hierarchical approval mechanism, greatly cutting operational costs without sacrificing efficiency [8].

Although financial shared services have gained considerable attention, most existing researches primarily focus on case studies and theoretical analysis, and empirical investigations of their economic impact remain scarce [9]. To fill this gap, this paper adopts an empirical approach with panel data, using Chinese A-share listed companies from 2015 to 2023 as the research sample. Our analysis examines the impact of implementing financial shared services on corporate operational efficiency, with a particular focus on the mediating mechanisms and pathways of accounting information quality, thereby providing concrete, practical-oriented recommendations for implementation.

2. Hypotheses Development

Financial Shared Services, as a new organizational management paradigm, integrates IT and leverages ERP systems to optimize and reorganize repetitive financial transactions from different business units. This approach breaks down data silos between functional departments, promotes information sharing, and consolidates analytical abilities [6].

He and Zhou employed the Wilcoxon rank-sum test combined with panel data analysis to empirically verify that financial shared services enhance corporate performance, with greater improvement on operational efficiency than on business outcomes. The differential impact is attributed to the core functions of financial shared services, such as cash flow management, accounts receivable management, and cost management—directly influencing daily operations. In contrast, business outcomes require considerations of other synergistic effects, such as market environment and technological innovation [10]. Chen and Dai further confirmed that financial shared services not only directly boost corporate profitability but also mediate this effect through facilitating working capital efficiency [11]. The above evidence consistently indicates that when enterprises relocate dispersed accounting, reimbursement, and fund-settlement functions to a shared platform, the “speed economy” generated by process standardization and real-time information is converted into measurable gains in operational efficiency. Based on this, Hypothesis 1 is formulated:

Hypothesis 1: Financial shared services can significantly improve corporate operational efficiency.

Financial shared services are employed to standardize and automate processes, thereby optimizing both cash flow and information flow. The consistency of accounting information within an organization is considerably enhanced by this approach, constituting the principal pathway to improve operational efficiency.

Consistency of accounting information is a crucial quality attribute, referring to its comparability across both horizontal and vertical dimensions of a company's development. First, variations in accounting policies, data definitions, and processing procedures between parent and subsidiary companies are generated by differences in management systems, industries and regions [12]. This creates barriers in internal information transmission, reducing horizontal comparability of accounting

information. The financial shared services model lowers coordination and communication costs within the organization, which facilitates smoother collaboration between departments and between parent and subsidiary companies, and consequently enhances the consistency of accounting information.

As accounting information becomes more consistent, information asymmetry decreases. Internal and external stakeholders accurately assess the company's operational status, thereby improving the precision and scientific validity of management and investment decisions. When accounting information is inconsistent, information asymmetry with investors intensifies, heightening their investment risks and adversely affecting the company's debt financing capacity [13].

By ensuring accounting information consistency, financial shared services lower coordination costs, improve decision quality, and enhance operational efficiency, ultimately boosting overall operational effectiveness. In other words, financial shared services use accounting information consistency as a crucial intermediary bridge to enhance corporate operational efficiency. Based on this, Hypothesis 2 is proposed:

Hypothesis 2: Accounting information consistency mediates the relationship between financial shared services and corporate operational efficiency.

3. Data and Methodology

3.1. Data

This study analyzes A-share listed firms from 2015 to 2023, manually selecting those that established financial shared service centers during this period. Exclusion criteria applied during sample selection were: (1) Financial institutions; (2) Firms with missing financial data; (3) ST or *ST firms experiencing abnormal financial conditions. The resulting sample contains 2,407 firm-years. All required financial data were obtained from the RESSET and CSMAR databases. Accounting information consistency was assessed via the DIB Internal Control Index, which reflects the implementation status of internal control systems among domestic listed companies.

3.2. Variables

Dependent Variable: This study employs total asset turnover to measure corporate operational capability. This ratio evaluates the efficiency with which a firm utilizes its assets, reflecting the quality of management and deployment efficiency. Generally, a higher total asset turnover indicates stronger sales performance and superior asset utilization.

Independent Variable: A dummy variable, FSSC, is set based on whether a financial shared service center has been established during the observation period.

Mediating Variable: Consistent with Huang [14], accounting information consistency is measured using the DIB Internal Control Index.

Control Variables: This study incorporates a series of control variables that may influence operational efficiency, including firm size, leverage, return on assets, gross profit margin, administrative expense ratio, equity concentration, proportion of independent directors, industry, and year. Specific definitions for each variable are provided in Table 1.

Table 1. Variables

	Variables	Meaning	Measurement
Dependent variable	ATO	total asset turnover	Total Revenue/ Average Total Assets
Independent variable	FSSC	Financial shared service center	1 = FSSC established; 0 = no FSSC.
Mediating variables	DIB	Accounting information consistency	DIB Internal Control Index
Control variables	Size	Firm size	Total Assets
	Lev	Leverage	Total Liabilities/ Total Assets
	ROA	Return on assets	Net Profit/ Total Assets
	GP	Gross profit	(Revenue – Cost Of Goods Sold)/ Revenue
	MER	Management expense ratio	Management Expense/ Revenue
	top1	Ownership concentration	Proportion of shares owned by the largest shareholder
	Indep	Ratio of independent directors	Number of Independent Directors/ Total Number of Directors On The Board
	Industry	Industry	Industry sector coding by Guidance for Classification of Public Companies of 2012
	Year	Year	Year of the data point

3.3. Model specification

To assess how creating a financial shared service center affects corporate operational efficiency, this study constructs Model (1). Given the lag effect of establishing a financial shared service platform on operational efficiency, this paper introduces a one-period lag for the independent variable FSSC:

$$ATO = \alpha_0 + \alpha_1 FSSC_{i,t-1} + \alpha_2 Controls_{i,t} + Year + Indusrty + \varepsilon_{i,t} \quad (1)$$

To further investigate the mediating role of accounting information consistency between financial shared services and operational efficiency, Models (2) and (3) are constructed:

$$DIB_{i,t} = \beta_0 + \beta_1 FSSC_{i,t-1} + \beta_2 Controls_{i,t} + Year + Indusrty + \varepsilon_{i,t} \quad (2)$$

$$ATO = \gamma_0 + \gamma_1 FSSC_{i,t-1} + \gamma_2 DIB_{i,t} + \gamma_3 Controls_{i,t} + Year + Indusrty + \varepsilon_{i,t} \quad (3)$$

4. Empirical Results Analysis

4.1. Descriptive statistics

As shown in Table 2, the mean of FSSC implementation is 0.130, implying that approximately 13.0% of enterprises have established financial shared services. Consequently, the overall adoption rate of FSSC in China is comparatively low. The median value of ATO is 0.554, falling below its mean of 0.662. This indicates that more than half of the sampled enterprises operate below industry benchmarks, suggesting a need for improvement. The DIB ranges from 2.281 to 9.370, revealing substantial variation in internal quality across different firms.

Table 2. Descriptive statistics

Var	Obs	Mean	SD	Min	Median	Max
FSSC	2407	0.130	0.336	0.000	0.000	1.000
ATO	2407	0.662	0.504	0.008	0.554	6.935
DIB	2407	6.559	0.738	2.281	6.632	9.370
Size	2407	2.36e+10	8.04e+10	2.24e+08	6.30e+09	1.47e+12
Lev	2407	0.451	0.198	0.027	0.452	1.221
ROA	2407	0.049	0.074	-1.201	0.049	0.379
GP	2407	0.263	0.173	-0.550	0.232	0.946
MER	2407	0.073	0.125	0.001	0.053	4.820
top1	2407	0.380	0.161	0.029	0.357	0.855
Indep	2407	0.361	0.090	0.125	0.333	0.750

4.2. Correlation analysis

The results of the multivariate linear regression, including the mediation effect, are summarized in Table 3. In all three modules, the variance inflation factor (VIF) was less than 2, confirming that multicollinearity is negligible. Model (1) shows that the coefficient between FSSC and ATO is 0.097, a significant positive correlation at the 1% level. Thus, under equal conditions, establishing a financial shared service center significantly boosts corporate operational efficiency. Accordingly, Hypothesis 1 is supported by the evidence.

Table 3. Impact of FSSC on ATO via DIB

	Model (1)		Model (2)		Model (3)	
	ATO	VIF	DIB	VIF	ATO	VIF
FSSC	0.097*** (3.57)	1.15	0.098** (2.28)	1.15	0.092*** (3.38)	1.15
DIB					0.055*** (4.28)	1.27
Size	-0.000** (-1.89)	1.21	0.000*** (10.78)	1.21	-0.000*** (-2.77)	1.27
Lev	0.165*** (2.99)	1.66	0.143 (1.64)	1.66	0.157*** (2.85)	1.66
GP	-1.100*** (-18.78)	1.42	-0.349*** (-3.78)	1.42	-1.081*** (-18.46)	1.43
ROA	1.947*** (14.83)	1.31	3.497*** (16.89)	1.31	1.754*** (12.67)	1.47
MER	-0.567*** (-7.74)	1.15	-0.182 (-1.57)	1.15	-0.557*** (-7.63)	1.15
top1	-0.003 (-0.05)	1.18	0.102 (1.13)	1.18	-0.009 (-0.15)	1.18
Indep	-0.140 (-1.43)	1.07	-0.084 (-0.54)	1.07	-0.135 (-1.38)	1.07
_cons	0.784*** (6.91)		6.114*** (34.19)		0.445*** (3.22)	
Year/Industry	Yes		Yes		Yes	
N	2407		2407		2407	
R ²	0.321		0.212		0.326	
Adj. R ²	0.31		0.20		0.32	

Note: t-statistics in parentheses; *p < 0.10, **p < 0.05, ***p < 0.01, the same below.

4.3. Mediation effect test

This study adopts the sequential test and the Sobel test to determine the significance of the mediation effect. The testing procedure is as follows:

1. Test whether the α_1 coefficient of FSSC in Model (1) is significant. If it is, proceed to the next step; otherwise, terminate the test.
2. Test whether the β_1 coefficient of FSSC in Model (2) is significant.
3. Test whether the γ_1 coefficient of FSSC and γ_2 coefficient of DIB in Model (3) are significant. If the β_1 , γ_1 , and γ_2 coefficients are significant, it confirms a partial mediating effect. If β_1 and γ_2 coefficients are significant, while γ_1 is not, it indicates a full mediating effect. If either β_1 or γ_2 is insignificant, conduct a Sobel test. If the Sobel test is significant, the mediating effect is significant.

Multivariate linear regression was performed on Models (2) and (3), the results are presented in Table 3. Model (1) demonstrates the significant positive correlation between FSSC and ATO, with a coefficient of 0.097 ($p < 0.01$). Proceeding to the second step of testing, Model (2) shows that financial shared services relate to accounting information consistency with a coefficient of 0.098 ($p < 0.05$). Consequently, controlling for other variables, a one-unit rise in financial shared service adoption raises accounting information consistency by 0.098 units on average. The third step is then carried out. In Model (3), after introducing the mediating variable, accounting information consistency, the coefficient between ATO and FSSC is 0.092 with a 1% significance level. This coefficient is reduced relative to the 0.097 value obtained in Model (1). The regression coefficient between DIB and ATO is 0.055 ($p < 0.01$), confirming that the accounting information consistency partially mediates the path from FSSC to ATO. Accordingly, Hypothesis 2 is supported by the evidence.

This study also conducted a Sobel test, with results presented in Table 4. The Sobel test passed the 5% significance test, further supporting the acceptance of Hypothesis 2.

Table 4. Sobel test

	Coefficient	Std Err	Sobel Z	P
β_1	0.098	0.043	2.01	0.044<0.05
γ_2	0.056	0.013		

5. Robustness Tests

To strengthen the robustness of the empirical results, this paper adopts Jones 's methodology [15], and replace the mediating variable with earnings management (DA) as a new indicator. The variable DA is constructed based on the widely adopted accruals model proposed by Jones, which decomposes total accruals into discretionary and non-discretionary components. Replacing DIB with DA in the model generates the regression results shown in Table 5.

A higher DA reflects more severe earnings management and poorer accounting information consistency, indicating a negative correlation. FSSC and DA are significantly negatively correlated at the 5% level, showing that establishing a financial shared service center significantly suppresses earnings management behavior and improves accounting information consistency. This aligns with the significant positive impact of FSSC on DIB in Table 3 in economic terms, reinforcing that financial sharing improves accounting information consistency. The coefficient between DA and ATO is significantly negative at the 1% level, indicating that higher levels of earnings management, the lower accounting information consistency, which is associated with reduced operational efficiency. This finding further corroborates the results in Table 3. Overall, these results fully attest to the robustness of the model and the validity of its conclusions.

Table 5. Impact of FSSC on ATO via DA

	DA	ATO
FSSC	-0.011**	0.096***
	(-2.20)	(3.49)
DA		-0.332***
		(-3.04)
Controls	Yes	Yes
Year/Industry	Yes	Yes
N	2379	2379
Adj. R ²	0.16	0.31

6. Conclusion

This study investigates how financial shared services influence the operational efficiency and further explores the mediating effect of accounting information consistency. The principal findings are as follows:

First, financial shared services significantly improve corporate operational efficiency. By integrating resources, standardizing processes, and centralizing data, FSSC accelerates the bidirectional flow of funds and information, thereby optimizing overall resource utilization and improving operational efficiency.

Second, accounting information consistency mediates the relationship between FSSC and operational efficiency. FSSC significantly improves the consistency of accounting information. This consistency reduces decision-making uncertainty, lowers interdepartmental coordination costs, and ultimately drives gains in operational efficiency.

The significance of this study lies in two aspects: First, it enriches the existing research on the consequences of implementing financial shared services by extending the research perspective to operational efficiency, thereby providing a valuable supplement to the current literature. Second, it clarifies the mediating role of accounting information consistency in the relationship between the two and explores the specific mechanisms through which financial sharing influences operational efficiency.

Future research could include samples of non-listed companies and cross-border enterprises, and examine the heterogeneity of FSSC's impact on operational efficiency across different ownership structures, industries, and business scales. Simultaneously, studies could explore how the integration of FSSC with artificial intelligence and big data technologies can further enhance operational efficiency through improved accounting information consistency.

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