The Impact of Financial Shared Services on Corporate Performance —Based on the Intermediary Role of Working Capital Management Efficiency

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Abstract—Financial Shared Service (FSS) is an innovative means to realize enterprise process standardization and lean, and it is a brand-new institutional arrangement for enterprises to integrate financial operations and re-engineer financial processes. This article uses A-share listed companies that have established a Financial Shared Service Center (FSSC) before 2018 and their matching companies as samples, uses 2020 as the data collection period, and uses STATA15.0 software to conduct regression analysis and intermediary effect testing procedures to study the impact of the implementation of FSS on corporate performance and the intermediary effect of working capital management efficiency in this process. The research results show that the implementation of FSS can improve corporate performance and working capital management efficiency, and working capital management efficiency plays a partial intermediary effect in the process of FSS affecting corporate performance.

Keywords-Financial Shared Service; working capital management efficiency; corporate performance

1 INTRODUCTION

With the development of the times and economy, there are more and more large-scale enterprises. The bloated internal system of enterprises may lead to inefficiency and increased cost. The emergence of Financial Shared Service Centers can help companies solve these problems to a large extent. The FSS uses information technology to concentrate scattered financial work into a new financial center for unified processing, which not only reduces costs but also improves the efficiency of business processing, thereby improving corporate performance.

In addition to these obvious benefits, the establishment of FSSC has also strengthened the control of funds. When establishing an FSSC, many companies reintegrate and reengineer the two processes of purchase to payment and sale to the collection, trying to improve the

efficiency of working capital management and promote the rational allocation of working capital, which also leads to the improvement of corporate financial performance.

However, whether the establishment of an FSSC can really improve the efficiency of working capital management, and eventually improve the financial performance of enterprises, there are currently few domestic and foreign studies. This article attempts to explore the above issues through logical combing and empirical analysis.

The theoretical significance of this article is to enrich the research on the effectiveness of the FSS. The practical significance is that although the FSS model started late in China, it is an inevitable step in the development of corporate financial management models. I hope this article can provide some references for companies that have implemented or plan to implement Financial Shared Services.

2 HYPOTHESIS PROPOSAL & RESEARCH DESIGN

2.1 Hypothesis Proposal

2.1.1 Financial Shared Service and corporate performance

Shared Service is a management model that reengineers and standardizes management and operation businesses that are easy to standardize [1]. Financial Shared Service is the promotion and application of the Shared Service concept in the financial field.

The effectiveness of FSS has always been the focus of academic research and the focus of managers. Many previous studies have shown that Companies that implement FSS can more effectively reduce costs and enhance their performance and competitiveness. Wu Jie and Zhou Wei [2] (2015) discussed the performance evaluation of enterprises under the FSS model and believed that FSS can develop the enterprise's core business and increase economic benefits. Based on the above views, this article first proposes the research hypothesis H1:

H1: The implementation of Financial Shared Services can improve corporate performance.

2.1.2 Financial Shared Service and working capital management efficiency

The Financial Sharing model can not only improve corporate performance by improving the efficiency of financial processes but also accelerate the transmission speed of capital flow and information flow and straighten out the circulation channels of working capital through process standardization and resource integration, to improve the performance of working capital management. Some scholars have also studied the impact of the implementation of FSS on the efficiency of corporate working capital management. Li Wenyi and Liu Dongjin [3] (2015) believe that the establishment of an FSSC is conducive to the transformation of the overall control model and enhance the ability of capital risk management and control. Yu Min [4] (2016) believes that strengthening financial process management can enhance the effectiveness of the FSSC and improve the performance of corporate capital management.

For companies that implement FSS, through the optimization of processes and the improvement of information circulation, managers can have a clearer understanding of the capital operation within the company. The establishment of a fund management center based on the Financial Sharing model to uniformly manage the funds of all member units can improve the ability of fund risk management and control. Based on the above discussion, this paper proposes the research hypothesis H2:

H2: The implementation of Financial Sharing Services can improve the working capital management efficiency.

2.1.3 The intermediary role of working capital management efficiency

Although there is currently no literature on the intermediary role played by the working capital management efficiency in the process of FSS affecting corporate performance, existing studies have shown that the improvement of working capital management efficiency can improve corporate financial performance. Working capital management is very important to an enterprise, and its significance is to maintain the normal operation of an enterprise. Improving the efficiency of working capital management and the use efficiency of capital can enhance the solvency and profitability of the company, thereby enhancing corporate performance. Cielen et al. [5] (2004) pointed out that the management of working capital greatly affects the overall financial performance of any company, which in turn affects its survival.

Considering that the implementation of FSS can improve corporate performance and the implementation of FSS can improve the efficiency of working capital management which were discussed earlier in this article, this article believes that the efficiency of working capital management plays an intermediary role in the process of the implementation of Financial Shared Services on enterprise performance. Accordingly, this paper puts forward the research hypothesis H3:

H3: The working capital management efficiency plays an intermediary role in the process of Financial Shared Services affecting corporate performance.

2.2 Research Design

2.2.1 Data and samples

Taking into account the availability of data, the final samples selected in this article are all Ashare listed companies after excluding ST and *ST companies, including domestic companies that have implemented FSS and their matching companies. Since He Ying et al. [6] (2013) have researched the effectiveness of Chinese companies' implementation of FSS, the results show that the impact of FSS on corporate performance has a delayed effect, that is, the financial performance shows a general improvement only three years after the implementation of Shared Services. Therefore, this article only selects companies that implemented Financial Sharing Services before 2018 as the samples of the experimental group. According to the relevant data collected, finally, 45 companies that have implemented FSS are selected, and 45 companies that have not implemented FSS are selected as the matching samples by using the propensity score matching method. Therefore, the total samples are 90 listed companies, and their 2020 data are empirically studied. The financial data used in the article comes from the CSMAR database.

2.2.2 Definition and measurement of variables

a)Explained variable: Return On Total Assets. ROA index can reflect the profitability of an enterprise as well as its operational capacity.

b)Intermediary variable (also the explained variable in hypothesis H2): cash turnover period. The supply chain involves inventory, accounts receivable, and accounts payable. This indicator can reflect the flow of funds throughout the supply chain.

c)Explanatory variable: whether a Financial Shared Service Center has been established. If the listed company establishes an FSSC, the value is 1; otherwise, it is 0.

d)Control variables

Financial leverage, which measures the magnitude of financial risk. Financial leverage is positively correlated with financial risk.

The logarithm of the company's total assets, which is used to represent the company's scale. The company's organizational structure and business decisions are affected by its scale to a certain extent.

The growth rate of total assets. The growth of total assets is an important aspect of enterprise development.

The selection and measurement methods of specific variables are shown in Table 1.

Variable types	The variable name	Symbol	Instructions
Explained variable	Return On Total Assets	ROA	Net profit/total assets
Mediating variable	Cash turnover period	Cash Cycle	Inventory Turnover Period + Accounts Receivable Turnover Period - Accounts Payable Turnover Period
Explanatory variable	Whether the company establishes a Financial Shared Service Center	FSSC	If the listed company establishes a Financial Shared Service Center, the value is 1, otherwise, it is 0
	Financial leverage	FL	Earnings before interest and taxes/ (Earnings before interest and taxes – interest)
Control variables	Company Size	lnasset	The logarithm of the company's assets
	The growth rate of total assets	TAGR	Growth in total assets/total assets at the end of the previous period

Table 1 The definitions of variables

2.2.3 Model design

This article examines the relationship between the implementation of FSS and corporate financial performance, as well as the intermediary role of working capital management efficiency between the implementation of FSS and corporate financial performance. The empirical model is as follows:

 $ROA = \alpha_0 + \alpha_1 FSSC + \alpha_2 Controls + \varepsilon (1)$ Cash Cycle = $\alpha_0 + \alpha_1 FSSC + \alpha_2 Controls + \varepsilon (2)$

 $ROA = \alpha_0 + \alpha_1 FSSC + \alpha_2 Cash Cycle + \alpha_3 Controls + \varepsilon (3)$

In model (1), α_1 measures the impact of the implementation of FSS on the financial performance of the enterprise. In model (2), α_1 measures the impact of the implementation of FSS on the efficiency of working capital management. In model (3), α_1 measures the impact of the implementation of the FSS on the financial performance of the enterprise after considering the efficiency of working capital management, α_2 measures the impact of the efficiency of working capital management, α_2 measures the impact of the efficiency of working capital management after considering whether the FSS is implemented.

3 RESULTS & DISCUSSION

3.1 Descriptive statistics of main variables

Table 2 lists the descriptive statistical results of the main research variables in this article. It can be seen from Table 2 that the mean value of FSSC is 0.5, which is because the experimental group composed of companies that implement FSS and the control group composed of companies that do not implement FSS contain the same amount. The mean and standard deviation of ROA are 0.0274 and 0.0401. The mean and standard deviation of the Cash Cycle are 686.6 and 2718, respectively, with the maximum value of 18130 and the minimum value of -160.6. The descriptive statistical results show that there are large differences in the Cash Cycle among sample companies. In addition, the performance of other control variables is consistent with the results of previous studies, which will not be repeated here.

Variables	Mean	Std. Dev.	Min	Max
ROA	0.0274	0.0401	-0.0966	0.175
Cash Cycle	686.6	2718	-160.6	18130
FSSC	0.500	0.503	0	1
FL	1.508	1.199	0.412	9.911
lnasset	25.89	1.816	22.19	31.14
TAGR	0.103	0.149	-0.117	0.782

Table 2 Descriptive Statistics

3.2 Propensity score matching result

This paper uses related indicators such as company size, ownership concentration, and listing time to carry out a one-to-one nearest-neighbor matching between the listed companies that implement FSS and those that have not implemented FSS and then obtains the listed companies that do not implement FSS with similar scores. The matching result is shown in Table 3.

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
DOA	Unmatched	0.0434516	0.036012023	0.007439577	0.0131550 78	0.57
ROA	ATT	0.0434516	0.02358918	0.01986242	0.0086775 76	2.29

Table 3 Propensity Score Matching Result

As can be seen from Table 3, after matching, the ROA difference between the control group and the treatment group is 0.01986242, which is significantly greater than the difference before the matching. The matching result shows that the ROA of enterprises that implement FSS is higher, that is, the establishment of an FSSC can increase the ROA. The matching result preliminarily verifies hypothesis H1.

3.3 Analysis of regression results

3.3.1 Financial Shared Service and corporate performance

Column (1) of Table 4 shows the regression result of whether the Financial Sharing Service is implemented or not on the company's performance (ROA). It can be seen that the coefficient of FSSC is 0.019, and it is significant at the level of 1%. This significantly positive regression result strongly supports the research hypothesis H1, indicating that the realization of the construction of a Financial Shared Service Center can significantly improve the financial performance of the enterprise. In addition, the significance and signs of the coefficients of other control variables are consistent with the existing literature.

Variables	(1) ROA	(2) Cash Cycle	(3) ROA
Cash Cycle			-0.000** (-2.64)
FSSC	0.019***	-506.136***	0.014**
гээс	(2.88)	(-2.82)	(2.19)
FL	-0.007***	-103.494**	-0.008***
	(-2.99)	(-2.05)	(-3.09)
lnasset	-0.008***	-6.400	-0.008***
	(-2.85)	(-0.11)	(-2.96)
TAGR	0.056	547.640	0.061*
	(1.65)	(0.94)	(1.72)

Table 4 Regression Result	s
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Variables	(1) ROA	(2) Cash Cycle	(3) ROA
Constant	0.233***	814.945	0.240***
Constant	(3.21)	(0.51)	(3.42)
Observation s	90	90	90
R-squared	0.303	0.153	0.325

Note: t statistics in parentheses, * p<0.05, ** p<0.01, *** p<0.001

3.3.2 Financial Shared Service and working capital management efficiency

Column (2) of Table 4 shows the regression result of whether the Financial Sharing Service is implemented or not on the cash turnover period (Cash Cycle).

It can be seen that the coefficient of FSSC is -506.136, which is significant at the level of 1%. This significantly negative regression result strongly supports the research hypothesis H2, indicating that the realization of the construction of a Financial Shared Service Center can significantly reduce the cash turnover period and improve the efficiency of corporate working capital management.

3.3.3 The intermediary role of working capital management efficiency

Column (3) of Table 4 shows the result of regression on corporate performance after adding the dummy variable of Financial Shared Services and relevant variable of working capital management efficiency into the model at the same time. The coefficient of FSSC is 0.014, which is significant at the level of 5%; the coefficient of the Cash Cycle is negative and significant at the level of 5%, indicating that the longer the cash turnover period, the worse the performance of the company.

The coefficient of FSSC in column (2) and the coefficient of Cash Cycle in column (3) are both significantly negative, indicating that the mediating effect of the cash turnover period is significant. The coefficient of FSSC in column (3) is significantly positive, and the coefficient has decreased to some extent, thus it can be seen that the efficiency of working capital management has played a partial intermediary effect in the process of implementation of Financial Sharing Services affecting corporate performance. The research hypothesis H3 in this article is proved.

4 CONCLUSIONS

Using A-share listed companies in China that have established Financial Sharing Service Center before 2018 and their matching companies as samples, and taking 2020 as the data collection period, this paper studies the impact of the implementation of Financial Sharing Services on corporate performance and the efficiency of working capital management. And this paper further explores the intermediary effect of the working capital management efficiency in the process of Financial Sharing Services affecting corporate performance. The study found that, on the whole, there is a significant positive correlation between the implementation of Financial Shared Services and corporate performance; there is a significant negative correlation between the implementation of Financial Shared Services and the cash turnover period, that is, the implementation of Financial Sharing Services will shorten the cash turnover period, which represents the improvement of working capital management efficiency. Further research on the intermediary effect of working capital management efficiency can find that working capital management efficiency plays a partial intermediary effect in the process of implementation of Financial Shared Services affecting corporate performance, that is, the implementation of Financial Shared Services can improve corporate performance by improving working capital management efficiency.

Based on the discussion above, I believe that companies that have already established or plan to establish a Financial Shared Services platform in the future should be more aware of the importance of optimizing working capital management, or they should pay more attention to the construction of working capital management process when reengineering business processes, to make the most advantage of Financial Sharing Services.

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