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Performance analysis of enterprise financial sharing model: Taking Mengniu Group as an example

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ABSTRACT

With the development of China's economy, the production technology of enterprises tends to be digital, and the production scale is expanding year by year. The traditional financial management mode gradually brings many disadvantages to the development of enterprises, such as low efficiency of financial management, untimely processing of financial data, tedious financial structure, etc. How to optimize the financial management mode and how to combine financial management with the digital development of enterprises has become an urgent problem for enterprises to solve. This paper mainly uses the literature analysis method, case study method, data analysis method to analyze the financial sharing model of Mengniu Group to take the lead in implementing. Through the analysis of its financial statements and main financial indicators of the three years before and after the implementation of the financial sharing mode of Mengniu Group, the performance of its implementation of financial sharing mode is evaluated, and the key factors suitable for ordinary enterprises to build financial sharing mode are summarized. Finally, the paper puts forward some suggestions for the subsequent development of the enterprise financial sharing model.

KEYWORDS

Mengniu Group; Financial sharing mode; Financial index analysis; Performance analysis

1 Introduction

With the popularization of cloud computing and Internet finance, the availability of data in the financial accounting industry has greatly improved. Based on this, the paper analyzes the problems existing in the financial accounting industry, and puts forward the corresponding solutions. In the increasingly fierce industry competition, some enterprises are also aware of the negative impact of traditional accounting mode on enterprise management and operation, and begin to explore the accounting mode that can improve their core competitiveness. In this context, the financial sharing model emerges at the historic moment. The financial sharing mode is the upgrading and transformation of the traditional accounting mode, attaches importance to the transformation of talent utilization and management mode, reduces the operating cost of enterprises, and improves the control of headquarters over the branches of enterprises.

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2 Literature review

In Financial Sharing, Internal Control and Performance Evaluation, Yang Yuguo (2022) analyzed the impact of internal control characteristics of the financial sharing model (FSSC) of Mengniu Group on performance, pointing out that the financial sharing model of Mengniu Group uses IT technology to establish a perfect information prevention system in internal control. He believes that the financial sharing system can improve the capital turnover and utilization rate of the enterprise[1]. In the Case Study on the Construction and Implementation of the Financial Sharing Center, Wang Ying and Shang Yue (2022) compared its performance (financial accounting rate, average return on equity, net interest rate, current asset turnover rate and total asset turnover rate from 2013 to 2015) with that before use. It concludes that the financial sharing center improves the business processing efficiency, profitability and fund management ability of enterprises[2]. Zhen Zhen (2022), in the Study on the Performance Evaluation System of the Financial Sharing Center of Mengniu Group, established the FSSC performance evaluation model based on the analytic Hierarchy process to analyze and test its operation situation. It is concluded that FSSC model can improve the work efficiency and economic benefits of enterprises, but enterprises should pay attention to improve the reward, punishment and appeal system of performance appraisal and build enterprise performance culture[3].

To sum up, it can be concluded from previous studies that in order to realize the digital transformation of enterprise accounting system, it is particularly important for the development of enterprises to build their own financial sharing system. Financial sharing system plays a role in improving enterprise business efficiency, increasing enterprise internal information transparency, protecting enterprise information security, saving operating costs, and improving enterprise economic benefits. It is the necessary way for enterprise financial accounting system transformation in the era of big data.

3 Basic structure of financial sharing model in Mengniu Group

Based on the development strategy of Mengniu Group, the financial sharing center is set up into three institutions: strategic financial institution, business financial institution and shared financial institution.

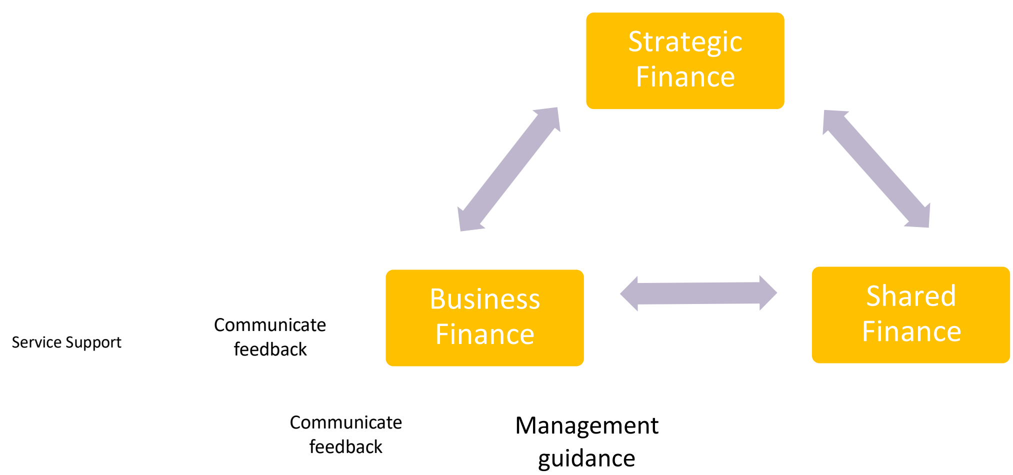

Figure 1 The basic structure of financial sharing mode of Mengniu Group

4 Case analysis

This study will use the event study method to conduct a short-term analysis on the economic results of Mengniu Group after the implementation of the financial sharing model based on the economic scale and stock price changes 150 days before the announcement of the implementation of the financial sharing model.

4.1 Analysis on the economic consequences of Mengniu's financial sharing model -- Market effect

4.1.1 Determine the event date, window period, and estimation period

In September 2015, Mengniu Group and Kingdie jointly adopted Kingdie EAS Fund sharing platform to build the project of "Financial Sharing Management Model of Mengniu Dairy Group (FSSC) -- EAS Fund Sharing Platform".

There is a trade-off between being comprehensive and being precise when choosing the event window period. In this paper, a moderate event window of [-5, 5] is chosen, that is, a period of 5 trading days before and after. This window period can not only consider the full impact of the event, but also reduce the interference of other factors.

In the event study method, the criteria for selecting the estimation period mainly include event correlation, interference factors and data availability.

Considering the above criteria, this paper chooses the 150 trading days [-160, -11] before the company establishes the financial sharing model as the estimation period, that is, the period from February 3, 2015 to September 11, 2015 is determined as the event estimation period.

4.1.2 Determine the normal return regression function

The market model assumes that a single asset is only related to the market portfolio, and its formula is as follows,

$$R_t = \alpha + \beta R_{mt} + \varepsilon_t$$

Among them, R_t represents the return rate of individual stocks of Mengniu group on t day, R_{mt} represents selected Hong Kong Hang Seng Index yield, α and β are the adjustment coefficients of expected rate of return, ε_t represents the regression residual.

By substituting the individual stock return rate and market return rate of Mengniu in the estimated period into Stata, the regression result can be obtained,

$$R_t = 0.7678{*}R_{mt} - 0.0008$$

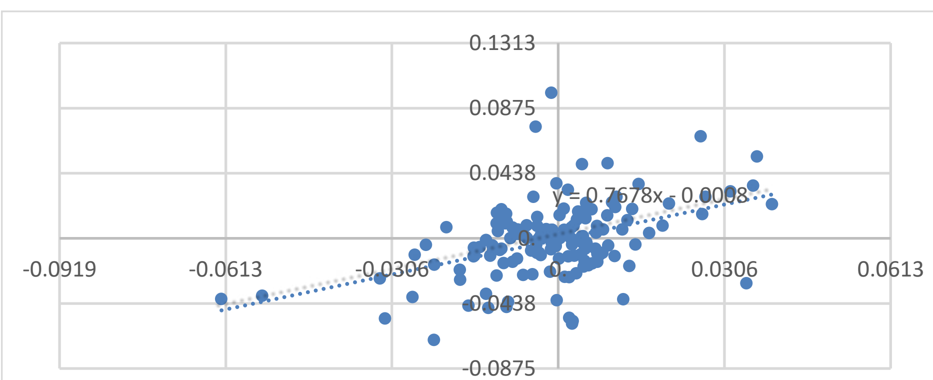

Figure 2 Mengniu Group normal return regression function graph

4.1.3 Excess return and cumulative excess return measurement

If the actual rate of return exceeds the expected rate of return, the difference between the two is the excess rate of return (AR). In an event study, the cumulative excess return (CAR) is the sum of all excess returns over the event period.

By summing the excess returns at each point in time, the cumulative excess return can be obtained, which reflects the overall performance of excess returns over the entire event period.

The formula is as follows,

$$AR_t = R_{it} - \alpha - \beta R_{mt}$$

$$CAR_t = \sum_{t=-5}^{5} AR_{it}$$

Where AR_t represents the abnormal return of Mengniu on day t, CAR_t represents the cumulative abnormal return of Mengniu on day t.

The cumulative excess return of Mengniu during the event period can be obtained, as shown in the following table.

Table 1 Mengniu event period excess return AR_t and cumulative excess return CAR_t

Unit: %

Day	R_t	R_{mt}	Expected return rate	AR_t	CAR_t
-5	-1.62	-0.75	-0.66	-0.96	-0.96
-4	0.00	0.18	0.06	-0.06	-1.02
-3	-3.84	-2.32	-1.86	-1.98	-3.00
-2	2.47	-0.98	-0.83	3.30	0.30
-1	1.30	0.43	0.25	1.05	1.35
0	-3.11	-3.06	-2.43	-0.68	0.66
1	2.84	1.39	0.99	1.85	2.51
2	6.62	3.07	2.28	4.34	6.85
3	2.07	1.59	1.15	0.92	7.78
4	2.87	-0.10	-0.16	3.03	10.81
5	3.12	3.04	2.25	0.87	11.67

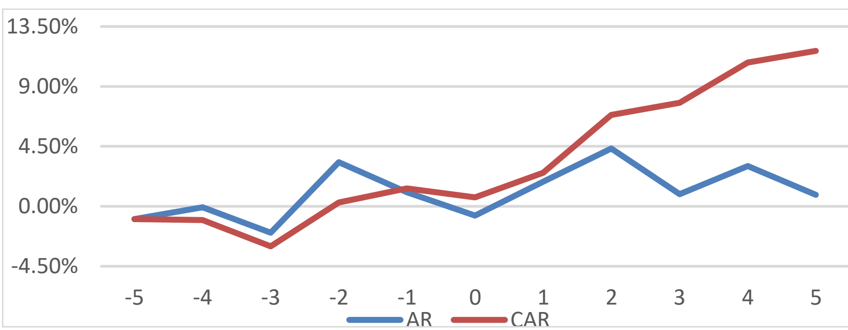

Figure 3 Mengniu event period excess return AR_t and cumulative excess return CAR_t

Table 2 Indicators of cumulative rate of return CAR_t

	Obs	Mean	St-Err	t-value	p-value
CAR_t	11	0.034	0.015	2.201	0.052

It can be seen from the figure above that the abnormal return of Mengniu fluctuates around the zero axis during the window period. These values represent the difference between the actual and expected return of the stock. When the excess return is positive, it means that the actual return rate of the stock exceeds the expected return rate. After the occurrence of the event day, the AR values of Mengniu are all greater than 0, so the actual rate of return of the stock is greater than the expected rate of return. On the second day after the event, the abnormal return of Mengniu is 4.34%, which is the maximum value in the whole window period.

From the perspective of cumulative excess returns, the trend of Mengniu's cumulative excess returns is relatively gentle in the window period [-5,0], and starts to show an upward trend on the day after the event. The CAR value of 11.67% is relatively high, indicating that during this event, the financial sharing model of Mengniu Construction has brought significant excess returns to investors.

To sum up, the construction of financial sharing model has a great positive impact on the company's stock price. The CAR value of Mengniu showed an increasing trend in the window period, and the average rate of return was in an increasing state. At the same time, the t-value is very significant, and the p-value is also small, indicating that the upward trend is significant, and there is little possibility of randomness.

4.2 Financial index analysis

This study will use Dupont analysis method to analyze the key financial indicators of Mengniu Group in the three years before and after the implementation of the financial sharing model (2012-2017).

4.2.1 Net interest rate on equity

It can be seen from the trend of data change in Table 3 that from 2012 to 2015, the turnover of total assets has been on a downward trend, and it started to increase from 2015. The equity multiplier fluctuated back and forth between rising and falling, and began to increase year by year in 2015. Through the analysis of the Dupont system indicators of Mengniu Group from 2012 to 2017, it can be concluded that the sales and asset utilization of Mengniu Group were not in a stable state under the traditional accounting system from 2012 to 2015. Since the implementation of the financial sharing model at the end of 2015, economic indicators have gradually improved. This paper will continue to carry out specific comprehensive analysis of net profit margin on sales, total asset turnover and equity multiplier respectively.

Table 3 Dupont System Indicators of Mengniu Group from 2012 to 2017

Unit: %

The Project	2012	2013	2014	2015	2016	2017
Net profit from equity	10.31	14.12	14.12	10.76	-3.46	10.10
Net profit on sales	3.99	4.29	5.38	5.14	-1.51	3.38
Total asset turnover	1.75	1.43	1.14	0.97	1.04	1.15
Equity multiplier	1.69	2.63	2.19	2.29	2.36	2.57

4.2.2 Net profit margin on sales

From the data in Table 4, it can be seen that from 2012 to 2015, under the background of the traditional accounting model, the operating income of Mengniu Group showed a fluctuating trend. Since 2015, the operating cost of the enterprise has gradually decreased, and the operating income has also shown an upward trend, indicating that compared with the traditional accounting mode, the financial sharing mode improves the operating level of enterprises, optimizes the operating efficiency of enterprises, and increase the total assets and monetary funds of enterprises.

According to the trend of data in Table 4, the net profit margin remained good in the six years from 2012 to 2017. At the beginning of the implementation of the financial sharing mode, the work alter country process between the traditional accounting mode and the financial sharing mode has an impact on the profit level, but the enterprise has a strong adaptability, and after gradually adapting to the operation of the financial sharing mode, the net profit rises rapidly.

Table 4 Month-on-month change ratio of Costs and Expenses of Mengniu Group from 2012 to 2017

Unit: %

The project	2012	2013	2014	2015	2016	2017
Total operating income	-3.50	20.17	15.43	-2.04	9.69	11.86
Operating costs	2.77	-17.15	-9.34	2.79	-7.41	-7.83
Cost of sales	2.77	-17.15	-9.34	-2.79	-7.41	-7.83
General and administrative expenses	-6.79	-44.27	-38.67	-1.2	-14.89	-2.84
Financial expenses	-31.49	284	112	-6.26	-7.83	36.15
Net interest rate	3.99	4.29	5.38	5.14	-1.51	3.38

4.2.3 Total asset turnover

Through the analysis of the data in Table 5, it can be seen that the total asset turnover of Mengniu Group continued to decline from 2012 to 2015, indicating that the asset management quality and utilization efficiency of the enterprise under the traditional accounting model are low. In the three years after the implementation of the financial sharing model, the total asset turnover shows an upward trend, although the increase is small, it also reflects that the financial sharing model improves the capital utilization rate of enterprises and accelerates the growth of enterprises.

Through the analysis of the data in Table 5, it can be seen that the accounts receivable turnover of Mengniu Group continued to decline from 2012 to 2015, indicating that the accounts receivable turnover of enterprises gradually deteriorated under the traditional accounting model, affecting the normal turnover of funds. After that, the turnover rate of accounts receivable of enterprises can slowly recover, and the capital turnover of enterprises can slowly improve.

Through the analysis of the data in Table 5, it can be seen that the change trend of the fixed asset turnover of Mengniu Group from 2012 to 2017 showed a downward fluctuation from 2012 to 2015, and then an upward fluctuation from 2015 to 2017. It shows that Mengniu Group has a low utilization efficiency of fixed assets under the traditional accounting model. After the implementation of financial sharing, it becomes better and the utilization efficiency is improved.

Table 5 Assets Turnover Table of Mengniu Group from 2012 to 2017

Unit: %

The project	2012	2013	2014	2015	2016	2017
Total asset turnover	1.75	1.43	1.14	0.97	1.04	1.15
Accounts receivable turnover	10.98	8.95	7.09	6.77	6.98	6.83
Turnover of fixed assets	4.91	5.13	5.28	4.48	4.28	4.89

4.2.4 Equity multiplier

According to the analysis of the data in Table 6, the equity multiplier of Mengniu Group showed a trend of fluctuation and decline from 2012 to 2014, and dropped to the lowest value of 2.19 in 2014. However, since the implementation of financial sharing mode in enterprises, the equity multiplier has maintained a growing trend and gradually stabilized at about 2.3. It shows that since the implementation of the financial sharing model, the scale of operation of Mengniu Group has been expanded, the amount of financing has been increased.

Table 6 Equity Multiplier of Mengniu Group from 2012 to 2017 (Unit: RMB 100 million)

The project	2012	2013	2014	2015	2016	2017
Average assets	205.60	306.50	437.10	488.65	498.85	536.30
Average liabilities	80.36	151.25	224.60	233.15	238.30	273.25
Average owners' equity	125.24	155.25	212.50	255.50	260.55	263.05
Equity multiplier	1.69	2.63	2.19	2.29	2.36	2.57

5 Discussion and Conclusion

From the above analysis on the operation mechanism of the financial sharing mode of Mengniu Group and the performance achieved in the short and long term, it can be seen that the financial sharing mode of Mengniu Group can indeed play a role in flattening the group's organization, improving the group's operation speed, saving the group's management costs and increasing the group's comprehensive income.

From the example of the financial sharing model of Mengniu Group, we can summarize the key factors that are applicable to other enterprises to implement this model and achieve success. First of all, it is necessary to determine a clear long-term development strategy, with internationalization and intelligence as the enterprise positioning. The second is talent training, we should pay attention to the establishment of high-quality team, pay attention to the change of talent concept and skill improvement, the staff in the financial sharing center should set up the technical requirements of the post. Finally, we should pay attention to avoiding the risk of business process reengineering.

About the author

Chuting Zeng is undergraduate of College of Economics and Management, South China Normal University, and her research field is financial engineering.

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