INSIGHTS FROM FUND MANAGEMENT COMPANIES IN VIETNAM: EVIDENCE FROM FINANCIAL REPORTS

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Abstract - This paper provides new evidence on fund industry in Vietnam, specifically the profitability and firm characteristics of a company which manages funds. Using hand-collected company information for fund management companies (FMCs), the study shows that FMCs generated a high growth in profitability and revenue from 2014 to 2020. The paper also contributes to the fund management literature by explaining cross-sectional variation in profitability. The research finds that size is the key determinant of FMCs' profitability, where larger FMCs generate significantly higher profitability. In addition, Vietnamese FMCs have a very high liquidity ratio, a low proportion of fixed assets and a small debt ratio.

Key words - Fund management companies; Firm profitability; Determinants of firm performance; Vietnam

1. Introduction

State Security Commission of Vietnam (SSC) reports that total asset under management (AUM) managed by all fund management companies accounts for 5.5% of GDP at the end of 2020. While Vietnam has faced many difficulties during the financial crisis and the Covid-19 pandemic, the fund management industry continues to play an increasingly important role as financial intermediaries in diverse areas such as activist-investing and non-bank financing. Despite the late appearance compared to other countries, fund management activities in Vietnam are expected to potentially achieve great development in the future. In fact, SSC has estimated that AUM will reach 6-10% GDP in 2030. Nevertheless, very little is known about the industrial organization of the companies of investment managers who manage funds, mainly due to data limitations. This paper seeks to fill that gap to add a new understanding of the Vietnamese fund industry by using a novel dataset of fund management companies' accounting data.

In order to raise more capital for the funds, funds voluntarily disclose their returns and fund characteristics to the public. However, there is no such motivation for FMCs to report the profitability of their own companies, so this data is difficult to find in database vendors. In Vietnam, there has been a growth in regulation and institutional requirements over time, which has increased the costs of operating a FMC. Recently, FMCs are required to periodically submit the financial reports to SSC and release these fillings to the public. This regulatory requirement allows the author to create and analyze the first database of financial accounting information of companies that manage funds. With the requirement for new periodic regulatory disclosures and the growth of regulation, fund management companies typically employ teams of compliance officers (Circular 99/2020/TT-BTC).

Regarding the academic aspect, there are a few studies that investigate the operation as well as the performance of FMCs [1, 2], specifically in the Vietnam market (e.g. [3]). Previous studies on fund performance generally concentrate on investment returns [4]. This study aims to extend the literature on funds by evaluating firm profitability which includes both revenues and expenses generated by firms' operations.

In order to provide more understanding of the fund management industry in Vietnam, this paper focuses on two key research questions: (i) What true financial performance of FMCs has been over time? and (ii) Why does it vary across firms who manage funds? To do so, firstly, using an accounting dataset of Vietnamese FMCs, this study demonstrates the characteristic differential of FMCs during the 20-year history of the industry, specifically focusing on their profitability over the 2014-2020 period. The research then develops a regression model to examine several typical firm-level factors that determine FMCs' profitability.

As a consequence, the paper provides new evidence on the characteristics of the fund management industry in Vietnam. Companies that manage funds in Vietnam have generated increasing profits although the profitability ratios have experienced some fluctuations over the 2014-2020 period. The research also shows several interesting firm characteristics of Vietnamese FMCs. Over time, the sample of firms has invested insignificantly in fixed assets, relied heavily on equity resources and had a very high liquidity ratio.

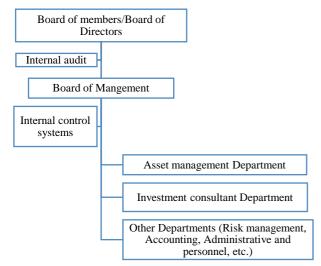
The second contribution is in relation to cross-sectional variation in profitability. This study contributes to the knowledge of firm characteristics of fund-backed companies. In general, several typical determinants (size, leverage, liquidity, growth, tangibility) influence differently on these firms' profits. Consistent with the economies of scale theory, the study finds that funds that are managed by larger companies tend to be more profitable. Furthermore, this paper shows the importance of firm size in determining firm profitability.

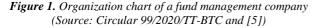
2. Vietnam fund management industry review

Over 20 years, growth in regulation and institutional requirements to create a legal background for the development of the fund management industry in Vietnam. The initial regulation is the Securities Act of 2006 and Decision 35/2007/QĐ-BTC, which set up the rule for launching and operating a fund management company. Until 2012, Circular 212/2012/TT-BTC and others provide clearer

guidelines for managing a variety of kinds of funds, including member funds, closed funds, open-ended funds, ETFs and REIT funds. Recently, regulation related to funds has been completed with a new Securities Act of 2019 and other requirements that are in effect from the year 2021. These regulation changes have contributed to the growth and development of the fund industry in Vietnam over time.

Currently, Circular 99/2020/TT-BTC valid on 01/01/2021 requires all FMCs to be organized with a proper structure. A model of the organization of a Vietnamese FMC is shown in Figure 1. In this structure, a FMC requires at least 9 compliance officers (excluding the board of members) and at least six of them (including the CEO) are required to have related degrees [5]. In the structure, the FMC has to include (i) an internal audit department with a minimum of one staff having an auditing certificate and (ii) an internal control system with a team of at least 2 staff (one member with a law degree and one with an accounting/auditing degree). Generally, a FMC is composed of the following sections or departments: Asset management/portfolio management department, investment consultant department and other departments (Project appraisal, Investment analysis, Accounting, Administrative and Personnel, IT, etc.).





Regarding industry achievements, the first FMC - VFM launched in 2003 highlights the birth of the fund management industry in Vietnam. Vietnamese FMCs begin by only focusing on closed funds and member funds in order to simplify their operations and management. During the period 2004-2010, six closed funds (i.e. VFMVF1, VFMVF2, VFMVF4, PruBF1, MAFPF1, ACBGF) were listed on the stock exchange attracted huge attention from investors.

For the next ten-year duration from 2011 to 2021, Vietnam has experienced great development in the fund management industry, both quantitatively and qualitatively. Specifically, the release of new types of funds (i.e. open-ended funds and ETFs) has marked a milestone in the asset management industry. Figure 2 shows that the number of funds in Vietnam increases by three times, from 23 funds in 2011 to 62 funds in 2021. Out of 62 active funds, there are 3 closed funds, 36 open-ended funds, 9 ETFs and 13 member funds [6]. These funds are currently managed by 44 active FMCs.

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Figure 2. The number of funds and fund management companies from 2011 to 2021 (Source: [5, 6])

In Vietnam, FMCs which belong to insurance firms manage a significant proportion of the total AUM of the industry (77%) whereas 65% of AUM is managed by foreign FMCs [5]. The total AUM managed by FMCs has experienced huge growth in the last decade (Figure 3). While all FMCs manage the AUM of 98,000 billion VND in 2011, the total AUM reaches approximately 430,000 billion VND in 2020 and increases to 450,000 billion VND at the end of the year 2021. Net asset value (NAV) reaches 57,692 billion VND, which makes up 15.3% of AUM. From 2011 to 2020, the AUM of the fund management industry grows at the average rate of 16% per year [6].



Figure 3. Total AUM and NAV managed by fund management companies from 2011 to 2020 (Source: [5, 6])

3. Data

In order to identify FMCs in Vietnam, this study uses the list of fund management companies that report to the State Securities Commission and are listed on the SSC website. This list includes 44 active FMCs and 3 FMCs which are in suspension. This leaves the study with a sample of 47 fund management companies. The next step is using a web search to manually collect the financial reports of these FMCs. As most companies only keep the most recent 7 years of accounting information in their database, having identified the FMCs in the SSC database, the author is only able to download the most recent seven years of accounting data for each FMC up to the 2020 accounting year. Firstly, the author downloads PDFs of company reports from the year 2014 to 2020 which provide comprehensive accounting information for each company. The author then collects all required accounting data for the calculation from these PDF reports, such as total assets, turnover, profit (loss) before/after tax, current assets, current liabilities, etc. Further, the author finds some obvious outliers in the sample. Such noise potentially biases the analysis and makes it difficult to measure firm performance accurately. To minimise the effect of outliers, all accounting data is constrained to be within the 1st and 99th percentile of the distribution.

Our final sample covers seven years, from 2014 to 2020 with a total of 320 firm-year observations. This sample covers a period of great change in the fund management industry in Vietnam and is ideal for the analysis of company profitability.

4. Empirical results and discussion

In order to assess the profitability and determinants of profitability of FMCs, the study takes two main approaches.

The author first calculates financial ratios and examines them by calendar year. Next, the study estimates a regression model of the determinants of profitability. To measure a company's performance, this paper specifies Return on Assets (ROA) and Return on Equity (ROE) as they are most commonly used in the company literature (see for example [7]). As well, this study examines other firm characteristics to explain profitability including firm size, firm liquidity, firm growth, asset tangibility and leverage.

4.1. FMCs financial ratios

Firstly, this study conducts an analysis of several financial areas of the fund management industry to initially examine their revenues and expenses, including turnover, costs of sales, net profit and staff costs over the 2014-2020 period. Table 1 shows these key figures and vertical analysis to express each individual figure as a percentage of turnover.

Table 1. Vertical analysis of firm revenue and expense-related key areas in the period 2014 - 2020

	2014		2015		2016		201	2017 2018		3 2019		2020		
Key areas	Bil. VND	%	Bil. VND	%	Bil. VND	%	Bil. VND	%	Bil. VND	%	Bil. VND	%	Bil. VND	%
Turnover	412.7	100	462.6	100	634.4	100	934.4	100	1,102.40	100	1,218.10	100	1,382.50	100
Cost of sales	59.7	14.5	79.0	17.1	138.3	21.8	291.7	31.2	333.2	30.2	322.2	26.5	368.6	26.7
Net profit	102.6	24.9	76.7	16.6	228.3	36.0	380.5	40.7	389.4	35.3	519.0	42.6	617.1	44.6
Staff costs	46.1	11.2	64.8	14.0	54.3	8.6	134.4	14.4	200.5	18.2	205.1	16.8	195.9	14.2
Managers' remuneration	156.2	37.9	204.6	44.2	221.6	34.9	251.3	26.9	273.0	24.8	266.5	21.9	300.0	21.7

Over time, turnover experiences the highest growth in 2016 and 2017, before growing more slowly until 2020. Over 7 years, the net profit of the FMCs increases 6 times, from 102 billion VND in 2014 to more than 617.1 billion VND in 2020. Specifically, net profit is doubling in 2016 due to the decline in staff costs and smaller growth in managers' remuneration. Table 1 shows that costs of sale fluctuate during the period but remain to account for an average of 24% of turnover per year. In the fund management industry, staff costs and remuneration of managers make up a large proportion of total expenses. The data suggest that salaries of staff only contribute 14% of turnover whereas payments for managers are much higher (i.e. approximately 30% of turnover). This result is due to the fund performance is relied on fund managers' talents and their investment strategy. Combined with the fact that the AUM is growing during the period, the fund manager is incentivized to increase the fund size.

Next, the author calculates financial ratios measuring profitability, size, leverage, liquidity, growth in turnover, and asset tangibility. All variable definitions are shown in Table 2.

Variable	Acronym	Description	Expected effect
(1)	(2)	(3)	(4)
Profitability			
Return on Assets	ROA	Profit before tax divided by total assets (%)	n.a.
Return on Equity	ROE	Profit after tax divided by	n.a.

		total equity (%)	
Explanatory Varia	able		
Size	SIZE	The natural logarithm of turnover	+
Control Variables			
Leverage	LEV	Total liabilities divided by total assets (%)	+/
Liquidity	LIQ	Current assets divided by current liabilities	+
Growth	GROW	The annualized growth rate of turnover (%)	+
Tangibility	TANG	Fixed assets divided by total assets (%)	—

The statistics of the financial ratios of FMCs over the period 2014 - 2020 are summarized in Table 3.

Table 3. Firm characteristics of fund management companies

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Variables	N	Mean	Standard deviation	Min	Max
ROA	319	4.39	17.86	-58.03	64.77
ROE	319	5.00	19.71	-59.73	71.82
SIZE	271	22.10	2.35	14.10	26.06
LEV	320	6.05	7.93	0.01	36.38
LIQ	316	120.91	248.96	2.30	1,841.76
TANG	320	0.74	1.69	0.00	9.93
GROW	231	194.38	866.96	-100.00	5,941.13

Over the period, FMCs generated around 4.39% return on assets and 5% return on equity profitability varies across FMCs. The size data is reported as the natural log of annual turnover, so this equates to a mean turnover of approximately 4 billion VND per annum. FMCs have low leverage with only 6% debts in their total capital but they have a very high liquidity ratio of 120 times. The companies in the fund management industry invest a small proportion of fixed assets, leading to a low asset tangibility ratio. This industry also has experienced an average growth of 194% over time.

The annual trends in the above ratios are shown for each accounting year in Table 4. Over the period, profitability fluctuated from 2014 to 2017, before declining markedly in 2018. Notably, profitability increased in 2019 and slightly decreased in 2020. Growth in turnover experienced the same trend as profitability during the 2014-2017 period. Growth was extremely high in 2016 (with mean turnover tripling this year) before declining to a growth rate of 16 percent in 2017. Subsequently, turnover has steadily grown until 2020. Using the logarithm of turnover as a proxy of size, the average size of the FMCs has steadily increased during the 7 years. Interestingly, both the leverage and tangibility of these firms are much lower than other companies in different industries. In fact, the total assets of FMCs rely heavily on equity financing (about 94%), rather than using debts. FMCs also invest a large proportion in current assets with a liquidity ratio being higher than 100% and the ratio of fixed assets to total assets is only around 1% between 2014 and 2020.

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Year	ROA (%)	ROE (%)	Size	Leverage (%)	Liquidity	Growth (%)	Tangibility (%)
2014	1.75	1.88	21.88	6.42	135.56	-	0.74
2015	-0.56	-0.70	21.64	5.44	135.95	28.49	0.60
2016	3.98	4.53	22.16	6.17	97.82	376.76	1.10
2017	6.75	8.23	21.95	6.97	127.48	16.44	0.65
2018	3.87	4.51	22.31	5.75	130.19	122.30	0.60
2019	7.68	8.61	22.34	5.52	102.96	260.68	0.66
2020	7.11	7.75	22.48	6.15	117.87	357.66	0.83

Table 4. Firm characteristics of FMCs in each accounting year

4.2. Determinants of firm profitability

The paper next estimates a regression model of the determinants of FMC profitability, where profits (ROA and ROE) are defined as a function of a number of firm-level variables specified in the prior literature: Size, Leverage, Liquidity, Growth in Turnover and Tangibility. This study employs a panel estimation method for the regression model including OLS and firm-year fixed effects, robust standard errors are clustered at the firm level.

$$\begin{aligned} Profitability_{it} &= \alpha + \beta_1 \text{SIZE}_{it-1} + \beta_2 \text{LEV}_{it-1} \\ &+ \beta_3 \text{GROW}_{it-1} + \beta_4 \text{LIQ}_{it-1} + \beta_5 \text{TANG}_{it-1} + \varepsilon_{it} \end{aligned} (1)$$

In this model, the research includes the lag of a number of common firm-level characteristics, including size (*SIZE*), leverage (*LEV*), liquidity (*LIQ*), growth opportunities (*GROW*) and tangibility (*TANG*). The empirical evidence from existing literature regarding determinants of firm profitability is still mixed [8, 9, 10, 11]. However, these studies often employ a sample of listed firms due to a lack of data accessibility [8, 11] or exclude the financial industry from their sample because of the specific nature of their activities [9, 12, 13]. Other studies that examine factors affecting firm profitability and efficiency only focus on the banking industry [14, 15, 16, 17].

The economies of scale theory state that larger firms which have more market power tend to have higher profit rates than their smaller counterparts [11, 18, 19]; therefore, a positive relationship between firm size and profitability is expected. Besides, the agency cost model developed by [20] and [21] in which debt is likely to mitigate the overinvestment problem but worsen the underinvestment problem. Highly geared firms have to face cash constraints which may require them to give up some profitable investment opportunities [8, 22, 23]; therefore, a negative correlation between leverage and profitability is expected. On the other hand, the trade-off theory supposes that although debts might increase the risk of bankruptcy undertaken by firms, debts still benefit shareholders if profit exceeds borrowing costs. Thus, a positive/negative relationship is expected between firm leverage and performance.

Firms with high liquidity might reduce the risk of being unable to repay short-term financial liabilities and flexibly react to sudden adverse changes in their environment, implying a beneficial effect on profitability [12]; therefore, the paper expects that firm liquidity is positively correlated with company performance. Employees in a company with higher investment and growth opportunities are likely to have more working motivation, increase their productivity, and therefore improve firm profitability [22, 24]. Firms that have higher tangibility are expected to have less profitability because high liquid firms are easier to access long-term investment opportunities [9, 25]; therefore, a negative relationship between tangibility and performance is expected. Expected relationships between firm profitability and characteristics are summarized in column (4) - Table 2.

The study next considers the correlation matrix amongst variables in order to point out the correlation among variables as well as to test whether multicollinearity does exist in the model, before estimating the regression model for the full sample period. Table 5 shows that there is no high correlation value between two independent variables, confirming that there is no multicollinearity in our model. *SIZE* and *LEV* variables have the largest correlation with *ROA* and *ROE*. Both are expected to be positively related to profitability. *LIQ* is expected to have a negative relationship with profitability while *GROW* and *TANG* positively affect *ROA* and *ROE*.

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Table 5. Correlation matrix										
Variables	ROA	ROE	SIZE	LEV	LIQ	GROW	TANG			
ROA	1									
ROE	0.99 ^c	1								
SIZE	0.50 ^c	0.48 ^c	1							
LEV	0.17°	0.14 ^b	0.48 ^c	1						
LIQ	-0.12 ^b	-0.11 ^a	-0.31 ^c	-0.32 ^c	1					
GROW	0.09	0.09	-0.07	-0.08	0.01	1				
TANG	0.08	0.07	0.24 ^c	0.11 ^a	-0.08	-0.03	1			

a, *b* and *c* denote significance at the 0.1, 0.05 and 0.01 level, respectively.

The results for regression estimates models are reported in Table 6.

Table 6. Determinants of fund management company profitability

Variables	R	AC	 R	OE
variables	OLS	FE	 OLS	FE
Constant	-104.12 ^c	-148.38 ^c	-100.57 ^c	-145.36 ^c
	(15.45)	(31.16)	(15.33)	(31.99)
SIZE	5.05 ^c	6.92 ^c	4.85 ^c	6.73 ^c
	(0.73)	(1.46)	(0.73)	(1.49)
LEV	-0.23	-0.33	-0.20	-0.32
	(0.22)	(0.37)	(0.25)	(0.44)
LIQ	-0.00	0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
GROW	0.00 ^a	-0.00	0.00 ^a	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
TANG	-0.61	-1.96°	-0.69	-2.10 ^c
	(0.52)	(0.71)	(0.49)	(0.73)
N	218	218	218	218

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R-squared	0.35	0.32	0.33	0.30
FE	No	Yes	No	Yes

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Robust standard errors clustered at the firm level are reported in parentheses. a, b and c denote significance at the 0.1, 0.05 and 0.01 level, respectively.

As expected, size is the key determinant of ROA and ROE, with larger firms generating higher profitability. This result is consistent with the findings of [13] and [22] which suggest that company growth increases firm productivity and the profitability, therefore, is higher. Similar to previous papers (e.g. [9, 23, 25, 26], the tangibility of assets is negatively related to profitability, confirming that more tangible firms are less profitable. Other characteristics have no significant effects on FMC profitability.

4.3. Robustness checks

In order to verify the findings presented in the previous section, this section presents two robustness tests: i) Using raw data, and ii) using an alternative proxy of the *Size* variable.

Firstly, a robustness test to examine the relationship between firm-level characteristics and the profitability of FMCs using raw data (without winsorized) is conducted in order to verify that all of the findings reported so far are not affected by the winsorisation process. Secondly, in order to further test the robustness of the findings, an alternative specification for *Size* is considered. This section uses the *Size_TA* instead of *Size* for Size variable. The *Size_TA* is measured by the natural logarithm of total assets of FMC¹.

Table 7 summarises the regression results of model (1) with adjustments for raw data and using *Size_TA* as an alternative *Size* measure.

Table 7. Robustness tests: Raw data and alternative size measure

		Raw	data		Alternative Size measure				
Variables	RC	DA	R	ЭE	RO	DA	ROE		
	OLS	FE	OLS	FE	OLS	FE	OLS	FE	
Constant	-103.30 ^c	-146.63°	-105.21°	-145.20 ^c	-136.99°	-433.02 ^c	-135.22 ^c	-426.47°	
	(18.20)	(29.54)	(21.59)	(29.78)	(28.10)	(141.63)	(27.71)	(134.40)	
SIZE/SIZE_TA	5.03 ^c	6.83 ^c	5.10 ^c	6.70 ^c	5.70 ^c	17.68 ^c	5.60 ^c	17.37 ^c	
	(0.86)	(1.36)	(1.03)	(1.37)	(1.15)	(5.73)	(1.13)	(5.45)	
LEV	-0.25	-0.36	-0.32	-0.43	0.19	-0.33	0.18	-0.34	
	(0.21)	(0.28)	(0.31)	(0.37)	(0.22)	(0.32)	(0.25)	(0.39)	
LIQ	0.00 ^c	0.00^{a}	0.00 ^c	0.00	-0.00	-0.00	-0.00	-0.00	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
GROW	0.00	-0.00	0.00	-0.00	0.00 ^b	0.00 ^a	0.00^{b}	0.00 ^a	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
TANG	-0.58	-1.86 ^b	-0.76	-2.16 ^b	0.49	-1.99 ^b	0.38	-2.13 ^b	
	(0.51)	(0.73)	(0.53)	(0.82)	(0.51)	(0.90)	(0.48)	(0.94)	
Ν	218	218	218	218	229	229	229	229	
R-squared	0.33	0.31	0.29	0.29	0.16	0.27	0.15	0.25	
FE	No	Yes	No	Yes	No	Yes	No	Yes	

Robust standard errors clustered at the firm level are reported in parentheses. a, b and c denote significance at the 0.1, 0.05 and 0.01 level, respectively.

¹ I am thankful to the anonymous reviewer for this suggestion.

Table 7 indicates that the results in two robustness tests are essentially the same such that the conclusions regarding the firm-level determinants of FMC profitability, i.e. firms with larger size and less tangibility are likely to be more profitable. As before, size is the key determinant of FMC profitability.

5. Conclusion

In this paper, the author has examined a novel database of fund management companies' accounting information over the period 2014-2020. New data on funds then provides the opportunity for additional contributions to the literature on funds. By reviewing firm characteristics of fund management companies, the research adds a new understanding of the fund industry in Vietnam. Besides, the results also provide new evidence on determinants of firm profitability in the industry.

The paper finds that total assets under management, turnover and annual income of a FMC grew at a steady rate per annum on average during the period. The profitability of these companies has experienced some fluctuations from 2014 to 2017 but since 2018, growth rates of annual income have fastened to 200 percent on average, with ROA and ROE increasing to 7-8 percent. The study also shows that Vietnamese FMCs posse a very high liquidity ratio, a low proportion of fixed asset investments and a small debt ratio. This result provides an additional understanding of fund management firms to the existing literature on the Vietnamese fund industry.

For the first time using data on actual FMC profitability, this paper shows that size is the key determinant of FMC profitability. The largest companies generate higher ROA and ROE than their smaller firms. This evidence is consistent with fund managers being incentivized to grow their AUM, irrespective of its effect on fund performance.

This paper provides an initial result on fund management company performance due to data limitations. In the future, when the data is available, the paper will be extended to examine the determinants of profitability of FMCs with a more appropriate regression model.

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