

Managerial Competence and Corporate Financialization

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Abstract: Along with the downward pressure of domestic and foreign economies, some real enterprises deviate from their main business to allocate financial assets, and the funds flowing to the real economy sector keep decreasing, which to some extent crowds out the enterprises' investment in their main business and may lead to the financialization of enterprises. This paper incorporates managerial competence under the rationality hypothesis into the analytical framework and examines the impact of managerial competence traits on corporate financialization using Shanghai and Shenzhen A-share listed companies from 2010 to 2020 as the research sample. It is found that managerial competence significantly promotes corporate financialization, mainly in terms of increasing short-term financial asset allocation, which provides some reference and reference for real enterprises to make reasonable investment decisions.

Keywords: Managerial competencies, Corporate financialization.

1. Introduction

In recent years, along with the increasing downward pressure of China's real economy and the rapid development of the virtual economy such as finance and real estate, the return on investment in the real sector is lower than that in the virtual sector such as finance and real estate. A large number of real enterprises are keen to invest in virtual industries such as finance and real estate for speculative arbitrage motives, resulting in a significant trend of financialization of enterprises.

Although the financialization of enterprises can, to a certain extent, transfer capital surplus and play a "reservoir" function [1]. However, more and more studies have found that the financialization of enterprises has an obvious profit-seeking tendency, and the "crowding out" effect is more prominent. It will not only reduce the investment in physical capital and innovation, but also increase the risk of business operation and inhibit the improvement of productivity [2], and even intensify the collapse of company share prices and induce systemic financial risks. "The 14th Five-Year Plan proposes that we should always "insist on focusing economic development on the real economy and guard the bottom line of no systemic financial risks". Therefore, it is important to explore the influencing factors and driving mechanisms of the financialization of enterprises, and then to guide enterprises to "shift from virtual to real", in order to achieve a balanced structure between the virtual economy and the real economy and promote the high-quality development of national economy and society.

According to the top echelon theory, managers are the main decision makers of corporate resource allocation, and their innate traits and acquired experiences can significantly influence the strategic choices and decision-making behaviors of the company [3]. The possible effects of strategic decisions on the financialization of the firm. Compared with industrial investments such as physical capital investments and innovation investments, investments in financial assets are characterized by short maturity, high returns and high reversibility, which are highly compatible with the personality traits of competent managers who pursue high profits in the short term, and therefore financial assets are ideal investment targets for competent managers to realize their ambitions and

may have some influence on corporate financialization behavior.

The marginal contributions of the full paper are mainly (1) expanding the research on the factors influencing corporate financialization. Although a large amount of literature has examined the influencing factors of corporate financialization from macroeconomic environment, meso-industrial characteristics and micro-firm perspectives, there is relatively little literature on what role managers, as corporate decision makers, play in corporate financialization decisions. This paper directly examines the influence of managers' competence traits on corporate financialization, which helps to enrich the research content and perspectives on the influencing factors of corporate financialization. (2) It complements the research on the economic consequences of managers' competence. The existing literature on the impact of managerial competency on corporate resource allocation decisions focuses on physical capital investment and R&D investment. This paper explores the impact of managerial capability on the allocation of financial assets from the perspective of "de-realization" and provides additional evidence to evaluate the economic consequences of managerial capability.

2. Theoretical Analysis and Research Hypothesis

Corporate financialization is an investment behavior in which companies favor investment activities such as financial management and fund securities, and industrial capital gradually flows to high-yield and high-risk financial and real estate industries. High-order echelon theory states that managers, as the key talent for business decisions, have personal traits that influence business operations and management, and thus some behaviors of the firm [4]. For firms, managerial competence is reflected in the ability to efficiently integrate corporate resources to enhance the efficiency of business operations [5]. Compared with low-level managers, high-level managers usually have rich knowledge and experience and can calmly control project risks and make correct decisions through internal control and system reform in a risky state [6], and at the same time, capable managers have more perfect social network

relationships and can provide a continuous and stable supply of resources for the enterprise [7], which enables managers to internal and external resources are integrated and optimized, enabling managers to use reliable transaction channels to invest in high-risk projects. Therefore, high competence managers show higher strategic risk-taking ability than mediocre managers in corporate decision making, which will increase the level of corporate risk-taking and thus ensure that risky decisions can be strongly secured and steadily promoted, resulting in more risky and aggressive management in financial investment activities and catalyzing the transformation of the company into a financial one.

From a psychological point of view, managers who are more capable tend to be more confident and believe that they can control risks well, preferring high-risk, high-return financialized investments [8]. Faced with the persistent downturn in the real economy and high profits in the financial sector, managers with high ability may depart from their original main business and tend to hold more financial assets in order to rely heavily on financial channels for profits, and their estimates of diversified investments deviate from the actual level [10]. On the other hand, in order to meet the requirements of their own performance appraisal, out of both corporate and personal interests, when the profit margin of the company's main business is compressed, managers will increase the allocation of financial assets in order to make short-term profits in the financial market to improve the overall business performance of the company. In addition, competent managers will influence the level of financialization of the entity by affecting the effectiveness of the company's internal controls and thus the level of financialization of the entity [9]. Because the more capable management will be more confident in their own management capabilities, they usually believe that they are better than their competitors in terms of knowledge and experience, and can better predict and avoid the risks that may be brought by the financial investment of the enterprise, which leads to the tendency of management to ignore the control ability and control effectiveness of the possible risks faced by the financial investment activities in the design and operation of internal controls, and reduce the management's financial investment. This leads to a tendency for management to neglect the ability and effectiveness of control over the risks that may be faced by financial investment activities in the design and operation of internal control, reducing the supervision and constraints faced by management in financial investment activities, increasing the probability that the level of corporate financial investment deviates from the internal control objectives and the optimal level of corporate financialization, and thus increasing the level of corporate financialization.

In summary, managerial competency can improve the financialization level by influencing the risk-taking level and management confidence. Based on the above analysis, this paper proposes the following research hypotheses:

Hypothesis H1: Other things being equal, managerial competence is positively related to firm financialization.

3. Research Design

3.1. Sample Selection

This paper takes the listed companies in Shanghai and

Shenzhen A-shares in China from 2011 to 2020 as the sample, and the data are mainly from CSMAR database. The initial data are processed as follows: excluding ST and *ST companies; excluding financial sample data; excluding samples with serious missing data. In order to reduce the possible impact of extreme values, all continuous variables of the statistical model are Winsorized at each upper and lower 1% quantile.

3.2. Variable definitions

3.2.1. Explained variables

Financialization of firms (Fin). Drawing on the research method of Du Yong [11] and others, this paper uses the ratio of financial assets to total assets to measure the level of corporate financialization. That is, the level of enterprise financialization = (trading financial assets + derivative financial assets + net loans and advances issued + net available-for-sale financial assets + net held-to-maturity investments + net investment properties)/total assets. The higher the ratio of financial assets to total assets, the higher the level of financialization of the enterprise.

3.2.2. Explanatory variables

Managerial competence (MA). This paper adopts the data envelopment analysis (DEA) method to measure the managerial ability of listed companies in China, based on the ideas of Dermerjian et al. The specific calculation process is as follows: ① In this paper, net fixed assets, net intangible assets, goodwill, R&D expenses, operating costs, selling and administrative expenses are used as input variables in DEA analysis, and operating income is used as the only output variable to calculate the enterprise efficiency value through data envelopment analysis. The efficiency values calculated from the data envelopment analysis are influenced by both firm and managerial factors, so the Tobit model is used to separate the effects of the two levels, and the firm-level factors controlled in the Tobit model include firm size, market share, free cash flow, years of establishment, internationalization and diversification. The higher the regression residuals, the stronger the managerial capability.

3.2.3. Control variables

In order to ensure the accuracy of the research results, the following indicators are selected as control variables in this paper: book value, gearing ratio, return on assets, return on net assets, and firm size. The definitions of specific variables are shown in Table 1.

3.3. Regression model construction

To examine the influence of managers' competence on the financialization of firms, the following benchmark model is constructed in this paper:

$$\begin{aligned}
 Fin_{i,t} = & \alpha_0 + \alpha_1 MA_{i,t} + \alpha_2 TOP10_{i,t} + \alpha_3 Lev_{i,t} \\
 & + \alpha_4 Size_{i,t} + \alpha_5 Board_{i,t} \\
 & + \alpha_6 Return_{i,t} + \alpha_7 Roe_{i,t} + \alpha_8 Mhold_{i,t} \\
 & + \alpha_9 Age_{i,t} + \alpha_{10} Bm_{i,t} \\
 & + \alpha_{11} State_{i,t} + \alpha_{12} Cf_{i,t} + \sum Ind + \\
 & \sum Year + \varepsilon \quad (1)
 \end{aligned}$$

Table 1. Definition of variables

Variable Name	Variable Symbols	Variable Definition
Level of corporate financialization	Fin	Financial assets/total assets
Managerial capacity	MA	Referring to Demerjian et al. (2012), using DEA phased calculation
Shareholding ratio of top ten shareholders	TOP10	Number of shares held by the top ten shareholders / issued and outstanding Number of common shares
Gearing ratio	Lev	Company liabilities divided by total assets
Enterprise size	Size	Natural logarithm of the total assets of the listed
Board size	Board	Natural logarithm of board size
Stock Yield	Return	Corporate secondary market stock return ratio
Return on Net Assets	Roe	Net profit/average balance of shareholders' equity
Management Shareholding Ratio	Mhold	Number of shares held by management/total equity
Number of years of establishment	Age	Number of years of company establishment: Natural logarithm of the total number of years from the year of IPO issuance to the end of the previous year
Book value	Bm	Total assets / market capitalization
Nature of Business	State	Ultimate controller of the listed company, 1 if the ultimate controller is the government, 0 otherwise
Cash Flow	Cf	Net cash flow from operating activities/total assets at the beginning of the period
Industry	Ind	Dummy variables
Year	Year	Dummy variables

4. Empirical tests

4.1. Descriptive Statistics

From the descriptive statistics in Table 2, we can see that the mean value of corporate financialization (Fin) is 0.0360 and the median value is 0.00700, the mean value is greater than the median indicating that the distribution of corporate financialization is right-skewed and the difference in the maximum value is large, indicating the existence of significant individual differences; the mean value of

managerial competence (MA) is -0.0120 and the median value is -0.0410, the mean value is higher than the median, indicating that the overall managerial competence is higher. The mean value of managerial competency (MA) is -0.0120 and the median value is -0.0410, the mean value is higher than the median, indicating that the overall managerial competency is higher, and the standard deviation is 0.165, indicating that there is a large difference in managerial competency between companies; the minimum value of gearing is 0.0540 and the maximum value is 0.930, indicating that there is a large difference in gearing between companies.

Table 2. Descriptive statistics of the variables

Variable	Observation	Mean	Median	Standard deviation	Minimum	Maximum
Fin	19116	0.0360	0.00700	0.0710	0	0.409
MA	19116	-0.0120	-0.0410	0.165	-0.398	0.412
TOP10	19116	58.75	59.67	14.96	23.20	90.32
Lev	19116	0.431	0.425	0.206	0.0540	0.930
Size	19116	22.25	22.06	1.284	19.76	26.15
Board	19116	2.133	2.197	0.195	1.609	2.708
Return	19116	0.200	0.0380	0.629	-0.669	2.832
Roe	19116	0.0610	0.0680	0.119	-0.630	0.331
Mhold	19116	12.79	0.347	19.43	0	68.68
Age	19116	10.71	9	7.598	0	27
Bm	19116	0.636	0.640	0.245	0.129	1.147
State	19116	0.378	0	0.485	0	1
Cf	19116	0.0560	0.0520	0.0830	-0.205	0.354

4.2. Table of correlation coefficients

Table 3 reports the correlation coefficients between the variables of the regression models. The results show that the Pearson and Spearman coefficients of managerial competency (MA) and corporate financialization (Fin) are

both significantly positive at the 1% statistical level. Since the correlation coefficient table is a univariate test and does not control for the effects of other constraining variables, the above test results may be biased and, therefore, need to be validated by multiple linearity tests.

Table 3. Correlation of variables

	Fin	MA	TOP10	Lev	Size	Board	Return	Roe	Age	State
Fin	1	0.08***	-0.10***	0.02***	0.16***	-0.02***	-0.01	0.03***	0.26***	0.06***
MA	0.09***	1	0.09***	0.08***	0.04***	-0.01*	-0.01	0.25***	0.05***	0.08***
TOP10	-0.05***	0.09***	1	-0.11***	0.07***	-0.01**	0.01	0.24***	-0.37***	-0.08***
Lev	-0.08***	0.08***	-0.10***	1	0.53***	0.14***	-0.03***	-0.08***	0.37***	0.29***
Size	0.01	0.01	0.14***	0.52***	1	0.24***	-0.00	0.12***	0.43***	0.34***
Board	-0.06***	-0.02***	0.00	0.15***	0.26***	1	-0.00	0.02***	0.15***	0.26***
Return	-0.01	-0.01	-0.01*	0.01	0.02**	0.00	1	0.05***	-0.03***	-0.02**
Roe	0.03***	0.20***	0.20***	-0.16***	0.10***	0.03***	0.02***	1	-0.10***	-0.07***
Age	0.16***	0.06***	-0.32***	0.35***	0.38***	0.15***	0.02***	-0.07***	1	0.49***
State	0.00	0.07***	-0.07***	0.30***	0.35***	0.26***	0.01	-0.05***	0.48***	1

Note: Divided by diagonal lines, the lower left corner is the result of Pearson's (Pearson) product moment correlation coefficient test, and the upper right corner is the result of Spearman's (Spearman) rank correlation coefficient test; *, **, *** indicate the statistical significance level of testing 10%, 5%, and 1%, in that order.

4.3. Analysis of basic regression results

Model (1) in Table 4 reports the results of the multiple regression for hypothesis H1, with a regression coefficient of 0.037 for managerial competency, which is significantly positive at the 1% statistical level, indicating that managerial competency can significantly contribute to corporate financialization. Managers, as the core of corporate human capital, have personal intentions and values that are reflected

in corporate decisions [12]. When making project decisions, managers make judgments based on previous experience and focus on weighing investment versus return from within their known knowledge. Competent managers prefer to take on projects with high uncertainty and expected returns based on their psychological strengths, and are strongly motivated to achieve their career goals, thus acting as a "catalyst" in the financial transformation of the company. Hypothesis H1 holds.

Table 4. Multiple regression results

	(1)
	Fin
MA	0.048***
	(6.30)
TOP10	-0.016**
	(-2.05)
Lev	-0.191***
	(-21.50)
Size	0.016
	(1.45)
Board	-0.037***
	(-5.16)
Return	-0.007
	(-1.07)
Roe	-0.002
	(-0.24)
Mhold	-0.004
	(-0.49)
Age	0.152***
	(15.74)
Bm	-0.013
	(-1.37)
State	-0.040***
	(-4.62)
Cf	-0.014*
	(-1.82)
Ind	Yes
Year	Yes
adj. R2	0.142
N	19116

Note: *, **, *** denote statistically significant at 10%, 5%, and 1% levels, respectively, as follows.

5. Robustness test

5.1. Exclusion of significant events

Due to the occurrence of the new crown pneumonia epidemic in 2020, changes in the external governance environment can cause some bias in the study findings, so the study sample in 2020 is excluded from this paper.

5.2. Noise reduction

Since the Tobit model cannot cover all the firm-level characteristics that affect the operational efficiency of the firm, it leads to noise interference in the regression residuals representing managerial competence. In order to reduce the noise of this indicator, the regression residuals are divided into four groups from smallest to largest, and managerial

ability (MA) is assigned as 1, 2, 3, and 4 accordingly, with higher values representing stronger managerial ability.

5.3. Lagging period

Because of the long period of managerial competency,

there may be a long lag effect of managerial competency on corporate financialization, so this paper uses one-period lagged managerial competency to check the robustness of the model.

Table 5. Robustness tests

	(1) Exclusion of significant events	(2) Noise reduction	(3) Lagging period
MA	0.038*** (4.69)	0.037*** (4.85)	0.047*** (5.37)
TOP10	-0.031*** (-3.73)	-0.015* (-1.91)	-0.015* (-1.73)
Lev	-0.176*** (-18.44)	-0.189*** (-21.31)	-0.196*** (-19.12)
Size	0.009 (0.74)	0.012 (1.14)	-0.001 (-0.07)
Board	-0.039*** (-5.06)	-0.038*** (-5.23)	-0.040*** (-4.86)
Return	-0.011 (-1.54)	-0.007 (-1.07)	-0.007 (-0.94)
Roe	-0.001 (-0.16)	0.001 (0.16)	0.008 (0.87)
Mhold	-0.011 (-1.13)	-0.004 (-0.50)	-0.007 (-0.68)
Age	0.184*** (17.75)	0.153*** (15.83)	0.145*** (13.28)
Bm	0.003 (0.31)	-0.013 (-1.32)	-0.007 (-0.60)
State	-0.043*** (-4.65)	-0.040*** (-4.64)	-0.046*** (-4.65)
Cf	-0.023*** (-2.88)	-0.013* (-1.68)	-0.010 (-1.16)
Ind	Yes	Yes	Yes
Year	Yes	Yes	Yes
adj. R2	0.153	0.141	0.141
N	16581	19116	14463

6. Research Findings and Recommendations

This paper analyzes the possible relationship between managerial competence and corporate financialization from a behavioral finance perspective, and the empirical results show that environmental investment can significantly promote corporate financialization. As the core of corporate human capital, managers' personal will and value orientation are reflected in corporate decisions. Highly competent management tends to show overconfidence to influence the financialization of real enterprises. The more overconfident the management is, the more it reinforces the "crowding out" effect of over-financialization on future R&D investment. Therefore, when hiring executives, real companies should focus on whether there are psychological characteristics such as overconfidence in executives with strong capabilities. Enterprises should rationally select executives who are particularly overconfident, in order to optimize the allocation of the executive team, thereby promoting the rational allocation of financial assets and reducing the level of over-financialization. Secondly, real enterprises can promote reasonable investment in financial assets and reduce the level of over-financialization by implementing equity incentives for management and improving the effectiveness of internal control. In addition, enterprises should also correctly understand that excessive financialization is a serious asset misallocation behavior, which will squeeze out future R&D

investment and is undesirable for long-term and high-quality development of enterprises.

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