

The impact of managerial competence on investor attention

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Abstract: *This paper empirically investigates the effect of managerial competence on investor attention, using A-share listed companies from 2007-2021 as the research object. The study finds that managerial competence has a positive enhancing effect on investor attention. The moderating mechanism suggests that the degree of corporate diversification has a dampening effect on the enhancing effect of managerial competence on investor attention. The above findings still hold after applying robustness tests in various ways. Heterogeneity analysis shows that the promotion of managerial competencies on investor attention is more pronounced in firms with a higher degree of digitalisation under non-state enterprises. The study has implications for attracting investor attention and enhancing corporate competitiveness in the new era.*

Keywords: *investor focus, managerial competence, corporate diversification*

1. Introduction

Investors are one of the important subjects of corporate finance and a key factor influencing the level of profitability and development of a company. An outstanding listed company often has a blue ocean of stock market prospects, a professional management team and impressive financial indicators, and is therefore able to attract the attention of more investors, triggering a new round of investment and continuously promoting the company's sustainable business development. According to the "limited attention theory of investors", due to time and energy constraints, investors will choose to pay attention to low-cost information and ignore high-cost information for a while when faced with a variety of market information. Therefore, how to enhance the limited attention of investors is a topic of concern for each company.

Managers are another important subject that influences the long-term development of a company and are also closely linked to investors. Managerial competence, as an individual characteristic of the manager, includes the manager's level of expertise and management experience, and is usually expressed externally in terms of the efficiency of information analysis and the ability to achieve the objectives set for the investment. According to the "higher echelon theory", managers can only selectively observe and process information within the scope of their business in the face of a complex internal and external environment. As a result, there are differences in the level of information processing and investment efficiency of managers due to their different attributes. It is due to the existence of such differences that higher managerial competence is a reliable guarantee for investors to achieve their investment objectives and will therefore increase their interest in the company. Increasing manager competence is also becoming an important tool for companies to improve their competitiveness and attract the attention of investors. For example, Ping An Group has launched the "T" programme to train middle and senior managers and empower them with new projects to help transform and sustain their businesses. At the same time, there has been an increase in research into the mechanisms underlying the role of managerial competencies in corporate performance, but there has been less research into the pathways by which managerial competencies affect investor attention, and there are no uniform findings. In view of this, this paper empirically investigates the impact of managerial competence on investor attention, and further explores the moderating role of corporate diversification in this context, using A-share listed companies from 2007 to 2021 as the research object.

2. Theoretical Analysis and Research Hypothesis

2.1 *Managerial competence and investor focus*

Managerial competencies are a combination of knowledge, skills, experience and other characteristics that managers possess to create value or excess returns for the firm, and their importance has been demonstrated in behavioural research [1]. Related literature has found that managerial competencies can have a significant impact on firms, mainly in terms of their innovative activities [2] and investment efficiency [3]. Investor focus reflects the degree to which various aspects of a company's attributes, such as its investment efficiency, appeal to investors, and differences in managerial capability inevitably affect the level of investor focus. Therefore, this paper proposes that managerial competence acts on investor attention in two main ways.

In terms of the dimension of resource integration, companies with competent managers are able to optimise or innovate the allocation of resources and realise the personalised needs of investors through high conversion efficiency and creative integration of resources. Competent management teams are able to keenly observe the market needs of investors, analyse and creatively reorganise the company's limited resources, maximise the marginal contribution of resources, launch personalised products to meet investors' needs and attract their attention. In addition, the core of corporate innovation is the integration of human and material resources [4]. Highly competent management teams have a more strategic vision and are able to seize opportunities for innovation, manage resources effectively, realise corporate innovation and attract investor investment through the creative potential of the company.

From the dimension of community of interest, the stronger the management is, the more it can mitigate the problem of conflict of interest and the easier it is to gain the trust and support of stakeholders such as investors. Firstly, agency theory proposes that management is risk averse and tends to favour less risky investments. According to the rational economic person hypothesis, investors are also risk averse and tend to prefer lower risk investment options for the same return. In this context, the two become a community of interest, hoping to achieve their investment objectives with lower risk. Competent managers are better able to perceive internal and external risks, analyse the risk factors precisely, and make mitigation, transfer or retention strategies in line with the investor's objectives and the company's situation, and are favoured by investors. Secondly, according to reputation theory, the more capable a manager is, the more he or she will care about and maintain his or her reputation, thus striving to meet the needs of investors and forming a common interest. In summary, this paper proposes hypothesis one.

Hypothesis 1: Managerial competence has a positive effect on investor attention.

2.2 *The moderating effect of corporate diversification*

Diversification is the practice of cross-product and cross-industry growth strategies and investment decisions by firms. Higher order theory suggests that corporate strategy is a function of management characteristics [5]. The implementation of a diversification strategy implies an increase in the complexity and riskiness of the external business environment and an increase in the difficulty of management for the firm, a situation in which investors will consider the direction of their attention more carefully. Therefore, the degree of diversification becomes an important link in the mechanism that influences the role of managerial competence and investor attention.

Scholars' research shows that the implementation of diversification strategies by enterprises will have a significant impact on corporate value and investment efficiency [6], etc. At present, the development of China's financial market is still immature, and there are still more risks and chaos in diversification. On the one hand, when a company diversifies too much, it will result in the fragmentation of resources and conflicting allocation between different business units. Diversification of resources is not conducive to maintaining the competitive advantage of a company's core business, making investors suspicious of the company and reducing the attractiveness to investors of advantages such as the competence of the company's managers. On the other hand, pursuing a diversification strategy increases the breadth of expertise required of managers and increases the complexity of market conditions, thereby increasing the risk of poor decisions [7] and reducing the firm's managerial competence advantage. Investors will pay less attention and invest less because of the reduced ability to integrate resources, increased investment risk and weakened managerial competence. Accordingly, this paper proposes hypothesis two.

Hypothesis 2: The degree of corporate diversification has a dampening effect on the effect of managerial competence on the enhancement of investor attention. The higher the degree of corporate

diversification, the more difficult it is to increase investor attention.

3. Results

3.1 Data sources and sample selection

This paper selects A-share listed companies from 2007-2021 as the research object, and all data are obtained from the Guotaian database and Wind database. In order to ensure the reasonableness of the sample data, the sample was screened as follows: exclude the sample data of financial industry; exclude the sample data of IPO and pre-listing in the year; exclude the sample data of listed companies that have been delisted. A total of 34,484 observations were obtained after processing. After determining the sample data, in order to reduce the influence of extreme values, this paper carries out 1% tail-shrinking treatment for all continuous variables.

3.2 Variable selection and definition

3.2.1 Dependent variable

Investor focus. In the stock market, this can be expressed as the average turnover rate over the 30 trading days prior to the surplus announcement.

$$IA_i = \sum_{t=-30}^{-1} turnover_{i,t} / 30 \quad (1)$$

Where IA_i denotes the level of investor interest in stock i , and $turnover_{i,t}$ denotes the turnover rate of stock i on day t .

3.2.2 Independent variable

Managerial capability. Managerial capability consists of factors such as the manager's level of expertise and management experience, which are not accurately quantified by a single indicator such as turnover rate. Therefore, this paper draws on the research literature of Demerjian [8] and other scholars to measure it using a two-stage model combining data envelopment analysis (DEA) and Tobit model. The main idea of the method is as follows: In the first step, the DEA model is applied to calculate the productivity value of the company by industry. The model is constructed using net fixed assets, net intangible assets, goodwill, R&D expenditure, operating costs, selling and administrative expenses as input variables and operating income as an output variable. The resulting productivity values are influenced by both company and managerial level factors. In the second step, the Tobit model was used to separate the two levels of effects and measure managerial competencies. To remove the firm-level effects on efficiency, Tobit regressions were conducted on firm size, market share, free cash flow, years of establishment and diversification, and the residuals obtained from the regressions were used to measure managerial capability.

3.2.3 Adjustment variables

The extent to which a company is diversified. There are several alternative indicators for diversification, including the number of operating units, operating dummy variables, and the income entropy index. Drawing on the research literature of scholars such as Zeng Chunhua, this paper uses the income entropy index to indicate the degree of diversification of a company's operations, calculated as follows.

$$Dyh_entro = \sum p_i \ln(1/p_i) \quad (2)$$

Where p_i is the share of the i th industry in total revenue.

3.2.4 Control variables

Firm size, gearing ratio, cash flow ratio, operating income growth rate, proportion of independent directors, proportion of shares held by the largest shareholder, Tobin's Q value and nature of ownership were selected. The specific definitions of each variable are shown in Table 1.

Table 1: Variable definition table

Variable type	Variable name	Variable symbols	Description of the metrics
Dependent variable	Investor Focus	IA	The larger the IA value, the higher the investor interest
Independent variable	Managerial competencies	MA Score	The higher the MA Score, the more competent the manager
Adjustment variables	Degree of corporate diversification	Dyh_entro	The higher the value of Dyh_entro, the higher the level of diversity
Control variables	Size of business	Size	Natural logarithm of total assets for the year
	Gearing ratio	Lev	Total liabilities at end of year / Total assets at end of year
	Cash flow ratio	Cashflow	Net cash flow from operating activities/total assets
	Operating income growth rate	Growth	Operating income for the year / Operating income for the previous year - 1
	Percentage of independent directors	Indep	Independent directors divided by the number of directors
	Percentage of shareholding of the largest shareholder	Top1	Number of shares held by the largest shareholder / Total number of shares
	Tobin's Q	TobinQ	(Market value of shares outstanding + number of non-marketable shares x net assets per share + book value of liabilities)/total assets
	Nature of ownership	SOE	State-controlled enterprises take the value 1, others 0

3.3 The establishment of simulation model

Combining the two hypotheses in the previous section, the model is constructed in this paper as follows.

Step 1: Validate the impact of manager MA competence on investor attention.

Model 1.

$$IA_{i,t} = \alpha_0 + \alpha_1^* MA_Score_{i,t} + \sum_k \gamma_k Control_{k,i,t} + Year, Industry fixed effects + \varepsilon_{i,t} \quad (3)$$

Where $Control_{k,i,t}$ is the control variable for the equation, and Year, Industry fixed effects is the year industry fixed effect. If hypothesis one holds, the regression coefficient α_1 is significantly positive.

Step 2: Verify the moderating effect of the degree of corporate diversification.

Model 2.

$$IA_{i,t} = \beta_0 + \beta_1^* MA_Score_{i,t} + \beta_2^* Dyh_entro_{i,t} + \beta_3^* MA_Score_{i,t} * Dyh_entro_{i,t} + \sum_k \gamma_k Control_{k,i,t} + Year, Industry fixed effects + \varepsilon_{i,t} \quad (4)$$

If hypothesis two holds, then the interaction term regression coefficient β_3 is significantly negative.

3.4 Analysis of experimental results

3.4.1 Descriptive statistics

Table 2 gives the descriptive statistics for the full sample of 34,484 observations. The mean value of investor concern for the dependent variable in this paper is 0.029 and the median value is 0.02, which is essentially close, indicating a relatively balanced distribution of investor concern for the observation sample. The independent variable managerial competence in this paper has a minimum value of -0.358, a median value of -0.024 and a maximum value of 0.413, indicating that the overall managerial competence of listed companies in China needs to be improved. The descriptive statistics for the other variables are largely controlled within reasonable data ranges.

Table 2: Descriptive statistics

Variables	Sample size	Average value	Standard deviation	Minimum value	Median	Maximum value
IA	34484	0.0290	0.0270	0.00200	0.0200	0.150
MA Score	34484	0	0.168	-0.358	-0.0240	0.413
Dyh entro	34484	0.369	0.441	0	0.158	2.300
Size	34484	22.10	1.315	17.64	21.90	28.64
Lev	34484	0.422	0.209	0.00700	0.415	1.957
Cashflow	34484	0.0470	0.0760	-1.938	0.0460	0.771
Growth	34484	4.720	729.4	-0.985	0.120	134607
Indep	34484	0.375	0.0560	0	0.333	0.800
Top1	34484	0.345	0.150	0.00300	0.322	0.900
TobinQ	34484	2.098	1.988	0.641	1.633	122.2
SOE	34484	0.347	0.476	0	0	1

3.4.2 Relevance analysis

Pearson correlation analysis was conducted on the sample variables to test the relationship between the variables in a preliminary analysis. Without controlling for other variables, investor concern showed a significant positive relationship with managerial competence at the 1% level, which was consistent with hypothesis one. The degree of corporate diversification showed a significant negative relationship with investor concern at the 1% level, which was consistent with hypothesis two. The results of the correlation coefficients tentatively support the theoretical hypothesis and are not presented in the correlation table due to space constraints.

3.4.3 Analysis of regression results

Table 3: Baseline regression test results

Variables	(1)	(2)	(3)	(4)
MA_Score	0.009*** (8.515)	0.008*** (6.581)	0.005*** (4.105)	0.008*** (5.249)
Dyh_entro				-0.002*** (-3.766)
MA_Score* Dyh_entro				-0.009*** (-3.836)
Size			-0.008*** (-28.759)	-0.008*** (-28.519)
Lev			0.002 (1.601)	0.002* (1.749)
Cashflow			-0.002 (-0.984)	-0.002 (-1.186)
Growth			-0.000*** (-31.627)	-0.000*** (-30.699)
Indep			0.002 (0.477)	0.002 (0.536)
Top1			0.007*** (4.364)	0.006*** (4.123)
TobinQ			-0.002*** (-5.544)	-0.002*** (-5.567)
SOE			-0.004*** (-8.014)	-0.004*** (-7.713)
Industries	NO	YES	YES	YES
Year	NO	YES	YES	YES
Intercept term	0.032*** (100.173)	0.034*** (14.605)	0.197*** (31.728)	0.196*** (31.651)
OBS	34483	34483	34480	34480
R ²	0.002	0.116	0.133	0.138

Note: *, ** and *** denote significance levels of 10%, 5% and 1% respectively; robust standard errors for clustering are in brackets, as below.

(1) The impact of managerial competence on investor attention

Columns (1)-(3) of Table 3 report the results of the regression between managerial capability and investor concern using Model 1. Column (1) shows the regression results without the inclusion of control variables and without controlling for year and industry fixed effects, column (2) controls for year and industry fixed effects, and column (3) adds control variables to column (2) for the regression. The regression results indicate that the coefficients on MA_Score are all positive, indicating that manager competence has a significant elevating effect on investor attention at the 1% significance level and hypothesis one holds. The control variables were mostly significant and the regression fit continued to improve with the refinement of the regression elements and the inclusion of fixed effects.

(2) The moderating effect of diversification

Column (4) of Table 3 reports the moderating effect of corporate diversification on the impact of managerial competence on investor attention. Regression (4) is empirically regressed using model 2 and the coefficient of the interaction term between the degree of corporate diversification and managerial competence is -0.009 at the 1% level of significance, with most of the control variables being significant. This indicates that there is an inverse inhibitory effect of corporate diversification on the positive correlation between investor attention and managerial competence, i.e. the higher the degree of corporate diversification, the less significant the effect of corporate managerial competence on the enhancement of investor attention, and hypothesis two holds.

3.4.4 Robustness tests*Table 4: Robustness test results*

Variables	(1)	(2)
MA_Score	0.003*** (2.720)	
MAL1		0.004*** (3.485)
C	0.152*** (22.275)	0.194*** (29.223)
Size	-0.006*** (-17.854)	-0.008*** (-25.900)
Lev	-0.002 (-1.274)	-0.001 (-0.569)
Cashflow	0.001 (0.554)	-0.004* (-1.756)
Growth	-0.000 (-1.322)	-0.000*** (-13.534)
Indep	0.001 (0.349)	0.002 (0.547)
Top1	0.008*** (3.751)	0.009*** (5.116)
TobinQ	-0.002*** (3.751)	-0.002*** (-4.216)
SOE	-0.001 (-1.125)	-0.005*** (-8.864)
Industries	NO	YES
Year	YES	YES
OBS	34480	29152
R ²	0.135	0.157

To enhance the reliability of the findings, this paper performs robustness tests in two aspects and the results are shown in Table. 4.

(1) Individual fixed effects tests

To overcome the omitted variable issue, industry and year fixed effects were controlled for in the previous section, and individual fixed effects were further utilised in this section to capture differences between individuals that did not vary over time. Table.4. regression results (1) report that the coefficient on managerial competence remains significantly positive under individual fixed effects, further supporting hypothesis one.

(2) Lagging test

Managerial competence is continuous over time and the increase in investor attention may be influenced not only by the current year's managerial competence but also by last year's managerial competence. The lagged managerial capability term is therefore regressed instead of managerial capability, and regression result (2) concludes in line with the above.

The combined analysis of this section shows that managerial competence has a more robust effect on raising investor concerns.

3.4.5 Heterogeneity analysis

Table 5: Heterogeneity test results

Variables	State-owned enterprises	Non-state enterprises	Highly digital companies	Low digitisation companies
MA_Score	0.000 (0.285)	0.008*** (4.860)	0.009*** (5.385)	0.001 (0.924)
C	0.137*** (18.228)	0.230*** (26.539)	0.230*** (29.425)	0.181*** (22.155)
Size	-0.005*** (-14.602)	-0.009*** (-26.076)	-0.009*** (5.385)	-0.007*** (-19.350)
Lev	0.005*** (3.224)	0.003* (1.812)	0.003* (1.943)	0.000 (0.201)
Cashflow	0.001 (0.195)	-0.003 (-1.238)	-0.003 (-0.842)	-0.002 (-0.789)
Growth	-0.000*** (-28.907)	-0.000*** (-2.104)	-0.000*** (-28.166)	-0.000 (-0.099)
Indep	0.001 (0.122)	-0.001 (-0.255)	0.002 (0.412)	0.005 (1.110)
Top1	-0.003 (-1.429)	0.009*** (4.758)	0.003 (1.205)	0.007*** (3.380)
TobinQ	-0.001*** (-3.622)	-0.002*** (-4.758)	-0.002*** (-7.040)	-0.001*** (-3.313)
Industries	YES	YES	YES	YES
Year	YES	YES	YES	YES
OBS	11976	22504	17238	17242
R ²	0.161	0.138	0.121	0.150

(1) Nature of property rights

By the nature of property rights, enterprises are divided into state-owned enterprises and non-state-owned enterprises. State-owned enterprises, due to their special attributes, tend to have government underwriting support, and managers' salaries comprise a relatively small percentage of performance-based commission and have fewer incentives. Non-state-owned enterprises have a larger share of performance commission for managers, more incentives and greater variation in managerial capability. Therefore, the contribution of manager competence to investor attention should be mainly reflected in the sample of non-SOEs.

The results of the regression analysis are shown in Table 5 for SOEs and non-SOEs respectively. The regression results show that the regression coefficient of managerial competency in non-SOEs is significantly positive at the 1% level, while the regression coefficient of managerial competency in SOEs is not significant. Therefore, it can be concluded that managerial competencies within non-SOEs have a more significant contribution to investor attention than SOEs.

(2) Digitalization of the enterprise

With the development of technology, enterprise digitalisation has become a new development stage of enterprise information technology. Enterprise digitisation is manifested in the development and application of digital science and technology, such as the Internet, big data and cloud computing, in the production and operation process of enterprises, and the continuous enhancement of the participation and contribution of digital technology. In enterprises with a high degree of digitisation, managerial capabilities will be further differentiated due to the increase in cutting-edge theories and equipment, with more capable managers being able to raise their level of information handling to new heights using digital equipment. At the same time, in the age of information and data, investors have easier and more

accurate access to corporate information. Therefore, the effect of managerial competence on investor attention will be more pronounced in companies with a high degree of digitalisation.

Referring to the research of scholars such as Qi Huaikin [9], the annual reports of enterprises can more fully reflect the business philosophy and strategic direction of enterprises. Therefore, the proportion of digital economy-related intangible assets in the year-end intangible assets breakdown disclosed in the notes of the enterprises' annual reports to the total intangible assets is used as an indicator of digitisation, expressed as Dig, with higher values indicating higher digitisation. In this paper, companies were divided into two groups, high and low digitisation companies, according to the median Dig, and the results of the regression analysis are shown in Table.5. The regression results show that the regression coefficients of managerial competencies of the high digitisation companies are significantly positive at the 1% level, while the regression coefficients of managerial competencies of the low digitisation companies are not significant. It is therefore concluded that the higher the degree of digitisation, the more significant the contribution of managerial competencies to investor attention.

4. Conclusions

This paper empirically analyses the impact of managerial capability on investor attention, taking A-share listed companies in China's capital market from 2007-2021 as the research object. The main findings are as follows: (1) Managerial competence has a positive contribution to investor attention, and the higher the managerial competence, the higher the investor attention. (2) Analysis based on the moderating effect mechanism shows that corporate diversification has an inhibiting effect on the promotion effect of managerial competence on investor attention. (3) Heterogeneity analysis shows that under non-state enterprises, the promotion effect of managerial competence on investor attention is more pronounced for enterprises with a higher degree of digitalisation. Based on the above findings, companies that want to attract investors' attention should focus on developing and improving managerial competencies, increase their digital contribution, and consider carefully the implementation of diversification strategies.

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