# Management Power, Free Cash Flow and Corporate Diversification

——From the Perspective of Property Right

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**Abstract**: Management power influences corporate diversification strategy choice and further corporate sustainable development. Based on a 2007-2013 sample from Shanghai and Shenzhen A share stock market, we test the relationships among management power, diversification and corporate sustainable development deviation from ownership perspective. Empirical results show that diversification strategy leads to sustainable development deviation, but for state owned companies only the combined action of management power and diversification strategy drives sustainable development deviation. Non state owned companies more likely tend to implement diversification strategy; material power management share percentage significantly influences diversification strategy implementation, while for the former it promotes, for the latter it refrains.

Keywords: Management Power, Diversification, Sustainable Development Deviation, Equity Property

# I. INTRODUCTION

Sustainable development is the hot spot in today's business management research. Corporate target has involved from stock holder value maximization to corporate value maximization, finally to corporate sustainable development, which happens to hold the same view as stakeholder theory and general corporate

governance. Corporate strategy, a cross point of industrial organizational theory, corporate competitiveness and corporate finance, plays a key role in terms of corporate development, directing corporate activities on the whole and partly. Generally, there are two kinds of viewpoints: diversification mitigates risks and further promote sustainable development; the other, focused strategy is the optimal choice for core competence development. Thus corporate governance and corporate strategy are the breakthrough point for sustainable development research.

Management holds the strategy decision power of corporations and further determines the real development speed of an organization. The deviation between real development speed and sustainable development, whether positive or negative, could both be considered a kind of "agency cost".

While specific institutional system in China leads to the fact that political connection and corporate diversification strategy closely related with each other, whose positive relationship might be impaired by state owned property and regional institutional system<sup>[1]</sup>. State and non state owned companies also have different debt financing constraints, free cash flow and corporate strategy which is strongly influenced by cash flow<sup>[2]</sup>. Currently literatures are mostly on board constitution and controlling holder feature's impact on diversification strategy<sup>[3]</sup>, management power perspective is less than sufficient. Our paper empirically test the different strategy choice of state and non state owned companies from management power theory, and provide suggestions on management power design for Chinese companies.

#### II. LITERATURE REVIEW

Diversification might bring about two kinds of effects: diversification premium and diversification discount. Matsusaka believes that diversification forms an efficient internal capital market within a corporation which lower the overall capital cost due to efficient resource allocation [4][5]; but Lang and Stulz<sup>[6]</sup> proposes that low Tobin Q indicates diversification discount. Diversification might lead to higher equity cost<sup>[7]</sup>, which could be a result of management compensation variable [8]. While mostly intensively researched problem is diversification's influence on corporate performance, positive or negative are both possible [6]. But empirical result generally finds that corporate diversification impairs Chinese corporate performance significantly [9], thus reducing corporate value. Many Chinese companies fall into trouble as a result of diversification; companies which successfully implement diversification strategy are relatively few. According to management power theory [10], agency problem exists not only between board of directors and shareholders, but also between board of directors and management. Jensen<sup>[11]</sup> proposed free cash flow hypothesis which indicates that management tend to investment abundant cash flow into inefficient and negative NPV projects instead of paying back to shareholders. Rajan etc <sup>[12]</sup> supports this theory by empirical data that diversification corporation usually spends money on the most inefficient department.

Previous literature has explored the relationship between corporate strategy and management age, tenure or educatione level <sup>[13]</sup> <sup>[14]</sup>; management experience, background and mobility also impacts performance after M&A <sup>[15]</sup>. In recent years there scholars specifically analyzing the mediation effect between diversification strategy and corporate performance from the perspective of high executive human capital <sup>[16]</sup> and entrepreneur background feature and the choice of corporate diversification strategy<sup>[17]</sup>. Bebchuk and Fried<sup>[10]</sup> specifically dig into management compensation from the perspective of management power theory. However, diversification operation could be viewed as a kind of agency relationship itself, thus we can explore the interaction between management power and diversification, thus unveiling the nature of management power and its effects.

In terms of sustainable development, Edith Penrose<sup>[18]</sup> holds that the corporate expansion upper limits is determined by operation efficiency; Marris<sup>[19]</sup> is viewpoint is similar: internal resource refrains corporate growth speed, over speeding doesn't equal effective growth, while optimal growth speed means efficiency

maximization. Higgins<sup>[20]</sup> defines sustainable growth rate as the maximum sales growth rate without exhausting all financial resources. Basing on residual yield, profit margin, turnover of total capital and debt to equity ratio, this model decides the maximum growth rate achievable by a company without external equity financing.

#### III. ANALYSIS AND METHODS

Management power means management influencing ability to corporate governance system (decision right, supervision right and executive right). The prevailing insider control and imperfect manager market in China provide us a good opportunity to explore this question. Diversification generally eases companies' varied revenues and allocates industry risks. But at the same time, diversification, involving many sorts of industries, raises the demand for mangers, requiring them respective knowledge background and skills; other than that, diversification strategy raises higher demands on people, finance and materials. So whether a company's diversification strategy will work is determined by a whole corporate system. Because Chinese diversification companies tend to have poor performance due to insufficient management skill, we suggest hypothesis 1: diversification strategy is positively related with sustainable development divergence.

Diversification strategy is corporate operation decision which should be implemented only after thorough discussion of management and audit by strategy committee. Corporation could be viewed as a contract whole, as long as hierarchy exists, agency cost exists. Gaming process among management, board of directors and strategy committee influences internal decision effectiveness. Duality of management and chairman of the board, as a form of insider control, weakens the supervision institution. Researches show that duality companies tend to implement diversification strategy<sup>[21]</sup>; it might be that management has less restrictions in terms of decision making, thus less optimal decision are more likely to emerge. So we suggest hypothesis 2: Duality is positively related with diversification and sustainable development divergence.

Independent directors are important external supervising force, while inside director is a contrast concept of independent directors who are closely related with the corporation itself. If the percentage of inside directors is too high, the independence of board might be impaired, which might lead to suboptimal decision. Management tends to pursue diversification strategy out of natural overconfidence or pursue of mass size after their power is extended [11]. Some research in China also indicates that non independent director percentage is positively related with diversification strategy [22]. Thus we construct hypothesis 3: inside board director percentage is positively related with diversification strategy and sustainable development deviation.

Management share holding is an effective measure to combine the identities of both management and shareholder, which aligns management decision with shareholder value maximization. Thus it should be viewed as a good agency mitigation mechanism. While share holders are more likely to believe "diversification discount", because they can distribute their risks by investing in different kinds of industries; thus they should prefer focused strategy. Thus we construct hypothesis 4: management shareholding percentage is negatively related with diversification strategy and sustainable development divergence.

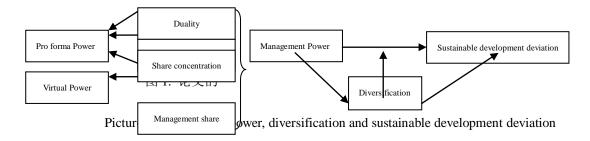
Shareholder structure also infuses a certain kind of restriction on management. The more centralized is the share centralization, the less the restrictions of all kinds of shareholders are. Block stock holder could influence management decision, thus guaranteeing that the managers act in line with shareholders' interests <sup>[23]</sup>, benefiting corporate sustainable development. If shareholding is very dispersed, shareholder "power vacuum" would lead to large management discrete power and further blind diversification tendency Thus we construct hypothesis 5: share concentration is negatively related with corporate performance, namely the more concentrated is the share, and corporations more likely to implement specialization strategy; share centralization is negatively related with sustainable development divergence.

Based on former analysis we set a management power index with duality, inside director percentage, share

centralization and management shareholding percentage. We consider duality, inside director percentage and share holder percentage pro forma measures of management power. For instance, duality, which indicates directors hold the managers at the same time, from outside perspective the manager is in bigger control of the company's operation. In a similar way, if inside director percentage is too high, then outside supervision of managers would be relatively feeble, while low share holder centralization and dispersed shareholder structure lead to larger management power. But management shareholding is a little special in a sense, which grants management a certain kind of shareholder power. According corporate law, shareholder power includes decision participating right, profit allocating right, preemptive right and remaining asset allocation right. Pure managers only have decision participating right initially, but when managers hold shares, they acquire the management and shareholder's rights at the same time. Actually, we believe the four aspects' combination into one brings substantial management power. But some of the indexes are positively related with sustainable development, some are negatively. Thus we conduct hypothesis 6: management power is positively or negatively related with diversification strategy and sustainable development divergence.

Jensen's free cash flow theory is based on agency theory, under which corporate suboptimal decisions due to excessive free cash flow is viewed as one kind of agency cost [11], leading to the conclusion that large free cash flow lays the foundation of corporate expansion.

Management power affects diversification strategy and development sustainability, while the strategy itself influences corporate development sustainability as well (picture 1).



We construct sustainable development by the definition of Higgins, and further calculate sustainable development deviation. We construct models as follows:

$$P(Div) = e^{z} / (1 + e^{z})$$
(1)

 $Z_1 = a_0 + a_1 Duality + a_2 Insidire + a_3 Mashare + a_4 Shacon + a_5 Frcaflow + a_6 Loanadd + a_7 Crosslist + a_8 Growth + a_9 Asset + a_{10} Debt \tag{1-1}$ 

 $Z_2 = a_0 + a_1 Mana Power + a_2 Mana Power^2 + a_3 Fr caflow + a_4 Loan add + a_5 Cross list + a_6 Growth + a_7 Asset + a_8 Debt$  (1-2)

 $SusDev = a_0 + a_1Duality + a_2Insidire + a_3Mashare + a_4Shacon + a_5rcaflow + a_6oanadd + a_7Crosslist + a_8rowth + a_9sset + a_{10}ebt \tag{2}$ 

 $SusDev = a_0 + a_1ManaPower + a_2ManaPower^2 + a_3Div + 4Div \times ManaPower + a_5iv \times ManaPower^2 + a_5rcaflow + a_7oanadd + a_8rosslist + a_9rowth + a_{10}set + a_{11}ebt$ (3)

 $SusDev = a_0 + a_1Div + a_2Frcaflow + a_3Loanadd + a_4Crosslist + a_5Growth + a_6Asset + a_7Debt$ (4)

Free cash flow, loan increased, cross list, revenue growth rate, size and debt ration etc are set

as control variable in our research. They are the key point in this paper and have been used widely in previous related research, thus we do not dig into these variable in detail here. Based on previous theory analysis framework, all the variables used are listed in table 1.

**Table1 Variables** 

Abbreviation	Meaning	Definition and Calculation
Div	Diversification	Identified according to "listed company industry classifying index" Issued by China Security supervision committee in 2001. When the company fall into the comprehensive group, Div =1; otherwise Div =0.
SusDev	Sustainable development deviation	= (real growth rate- sustainable development growth rate)/ sustainable development growth rate   Real growth rate =(total revenue this year -total revenue last year)*(1-equity financing growth rate)/ total revenue last year  Sustainable development growth rate =(total net equity this year - total net equity last year) *(1-equity financing growth rate)/ total net equity last year
SusDev'	Sustainable development deviation proxy Variable	= (real growth rate- sustainable development growth rate)/sustainable development growth rate  Real growth rate =(total asset this year -total asset last year)*(1-equity financing growth rate)/ total revenue last year Sustainable development growth rate =(total net equity this year - total net equity last year) *(1-equity financing growth rate)/ total net equity last year.
Duality	CEO Duality	When the chair of director also holds the manager position, Duality=1; otherwise Duality=0.
Insidire	Insider director percentage	(number of director committee- number of independent director)/ number of director committee
Mashare	Management share holding percentage	Management share holding /total capital.
Shacon	Shareholder concentration	The block shareholder's share holding percentage /( the top ten shareholder's share holding percentage -the block shareholder's share holding percentage)
ManaPower	Management power	Comprehensive index of Duality, Insidire, Mashare and Shacon.
Freaflow	Free cash flow	(net cash flow from operation activities –net capital –increased net operation capital), unit: 1 billion
Loanadd	Loan increase	(short term liability at the end of term+long term liability at the end of term - short term liability at the beginning of term - long term liability at the beginning of term), unit: 1 billion
Crosslist	listed in multiple stock market	if corporations are listed in more than one market Crosslist =1; otherwise Crosslist =0
Growth	Revenue growth rate	(Revenue at the end of year - revenue at the beginning of year)/ operational revenue at the beginning of year
Asset	Size	The natural log of total assets at the end of the term.

Debt	Debt ratio	Total liability at the end of the term/total asset at the end of the term
		If the company is state owned, then State=1; otherwise State=0. If one
State	Company property	company happens to have controlling shareholders of both state owned and
		non state owned parties, then this company is excluded from the sample.

Sample selection method: according to "listed company industry classifying index" issued by China Security Supervision committee in 2001; manufacture companies whose initials are C make up 4400 focused strategy sample, comprehensive companies whose initials are M make up 240 diversification strategy sample. Among which 1591 are state owned companies and 3049 are non state owned companies. All the required finance data from 2007 to 2013 come from CSMAR dataset. At the same time, companies whose sustainable development ability calculated as minus or some other variables are missing are excluded from the sample. Altogether 1976 companies' 4640 observations meet the requirement. Empirical analysis is conducted with Excel and SPSS software.

#### IV. RESULTS

Table 2 demonstrates that state owned and non state owned companies are significantly different in all variables except for Growth. State owned company's Insidire, Shacon, Frcaflow, Loanadd, Crosslist, Assetand Debt are extremely higher than non state owned ones while Div, SusDev, Duality and Masharel are lower. We can draw that state owned companies' inside director percentage is higher, share is more concentrated; but director and general manager duality is more popular in non state owned companies. In non states owned companies management shareholding percentage and sustainable development deviation are much higher. In regards to controlling variables, state owned companies' Frcaflow, Loanadd, Debt and Asset are generally higher, suggesting that state owned companies are less capital restricted in spite of higher debt. Simultaneously, state owned companies are more likely to go public in more than one stock market.

**Table2** Description statistic

	State	Mean	Median	Std. Deviation	Minimum	Maximum	Sig. (bilateral)
Div	1	0.000	0.000	0.368	0.000	1.000	.000***
DIV	0	0.560	1.000	0.497	0.000	1.000	.000
SusDev	1	7.142	1.427	32.920	0.000	762.925	.020**
SusDev	0	10.608	1.497	96.812	0.001	4453.757	.020***
Duality	1	0.094	0.000	0.292	0.000	1.000	.000***
Duanty	0	0.273	0.000	0.446	0.000	1.000	.000
Insidire	1	0.639	0.667	0.050	0.400	0.909	.000**
msidire	0	0.631	0.667	0.052	0.286	0.778	.000
Mashare	1	0.004	0.000	0.024	0.000	0.332	.000***
Wiashare	0	0.124	0.001	0.202	0.000	0.775	.000
Chacon	1	4.517	2.058	6.544	0.180	61.763	.000***
Shacon	0	3.621	1.608	5.981	0.150	100.271	.000
Freaflow	1	1.227	0.247	4.367	-7.801	61.373	.000***

Management Power, Free Cash Flow and Corporate Diversification

	0	0.655	0.198	2.198	-15.149	38.878	
Loanadd	1	0.283	0.028	1.350	-10.234	15.018	.000***
Loanadd	0	0.132	0.009	0.971	-14.506	16.734	.000****
Crosslist	1	0.091	0.000	0.287	0.000	1.000	.000***
Clossilst	0	0.031	0.000	0.175	0.000	1.000	.000
Growth	1	0.663	0.044	18.799	-1.029	746.641	.315
Growth	0	1.841	0.070	88.454	-0.959	4882.519	.313
Asset	1	22.093	21.936	1.197	17.663	26.487	.000***
Asset	0	21.657	21.516	1.079	18.485	26.647	.000****
Debt	1	0.500	0.510	0.183	0.012	1.163	.000***
Deot	0	0.422	0.426	0.199	0.007	1.867	.000

Note: \*\*\* means significance is less than 0.01, \*\* means significance is less than 0.05, \* means significance is less than 0.1.

Table 3 further shows the correlation analysis result. So we can see Div is positively related with SusDev, Duality, Mashare, Asset and Debt, negatively related with Insidire, Loanadd, Crosslist and State; SusDev is positively related with Asset; Duality is positively related with Mashare and negatively related with Insidire, Shacon, Frcaflow, Loanadd, Crosslist, Asset, Debt and State; Insidire is positively related with State and negatively related with Mashare and Crosslist; Manageshar is negatively related with Shacon, Frcaflow, Loanadd, Crosslist, Asset, Debt and State; Shacon and Crosslist, Debt and State are positively related; Frcaflow is positively releated with Loanadd, Crosslist, Asset, Debt and State; Loanadd is positively related with Crosslist, Asset, Debt and State; Crosslist is positively related with Asset, Debt and State, Asset is positively related with Debt and State, Debt and State are positively related with each other. This result shows that companies who are duality, higher management share holding or non state owned tend to implement diversification strategy. In contrast with Jensen's free cash flow theory, diversification strategy requires large amount of credit money, less capital restriction and large free cash flow, but it is the non state companies tend to implement diversification strategy more, thus we need further evidence to show how the management power theory works in companies' strategy decision making; Diversification strategy is negatively related with sustainable development deviation, namely, the more diversified a corporation is, real growth is more likely to draw away from sustainable development growth rate, which is consistent with our former hypotheses. We go on to do regression analysis and conduct a detailed analysis.

**Table3** Correlation analysis

Coeffient													
Signficance (bilateral)	Div	SusDev	Duality	Insidire	Mashare	Shacon	Freaflow	Loanadd	Crosslist	Growth	Asset	Debt	State
D:	1.000	0.037	0.038	-0.057	0.026	0.003	0.010	-0.033	-0.050	-0.015	0.077	0.029	-0.382
Div		0.013**	0.010***	0.000***	0.080*	0.858	0.482	0.024**	0.001***	0.319	0.000***	0.048**	0.000***
SugDov	0.037	1.000	-0.016	0.000	0.022	0.004	-0.008	-0.006	0.001	0.003	-0.024	-0.004	-0.020
SusDev	0.013**		0.265	0.992	0.136	0.805	0.583	0.678	0.925	0.828	0.098*	0.767	0.166
Duglity	0.038	-0.016	1.000	-0.067	0.203	-0.070	-0.068	-0.042	-0.035	-0.009	-0.166	-0.146	-0.208
Duality	0.010***	0.265		0.000***	0.000***	0.000***	0.000***	0.004***	0.016**	0.552	0.000***	0.000***	0.000***
Insidire	-0.057	0.000	-0.067	1.000	-0.067	-0.018	-0.012	0.005	-0.028	-0.006	-0.011	0.019	0.066
	0.000***	0.992	0.000***		0.000***	0.213	0.409	0.733	0.053**	0.676	0.448	0.196	0.000***
Mashare	0.026	0.022	0.203	-0.067	1.000	-0.137	-0.081	-0.046	-0.110	-0.008	-0.237	-0.274	-0.327
	0.080*	0.136	0.000***	0.000***		0.000***	0.000***	0.002*	0.000***	0.570	0.000***	0.000***	0.000***
Shacon	0.003	0.004	-0.070	-0.018	-0.137	1.000	0.022	0.007	0.033	-0.008	0.082	0.079	0.069
Snacon	0.858	0.805	0.000***	0.213	0.000***		0.127	0.614	0.025**	0.575	0.000***	0.000***	0.000***
Freaflow	0.010	-0.008	-0.068	-0.012	-0.081	0.022	1.000	0.285	0.096	0.011	0.491	0.168	0.087
	0.482	0.583	0.000***	0.409	0.000***	0.127		0.000***	0.000***	0.470	0.000***	0.000***	0.000***
Loanadd	-0.033	-0.006	-0.042	0.005	-0.046	0.007	0.285	1.000	0.048	0.026	0.264	0.177	0.064
Loanadu	0.024**	0.678	0.004***	0.733	0.002***	0.614	0.000***		0.001***	0.081*	0.000***	0.000***	0.000***
Crosslist	-0.050	0.001	-0.035	-0.028	-0.110	0.033	0.096	0.048	1.000	-0.004	0.174	0.051	0.127
Crossiist	0.001***	0.925	0.016**	0.053*	0.000***	0.025**	0.000***	0.001***		0.770	0.000***	0.000***	0.000***

# Management Power, Free Cash Flow and Corporate Diversification

Canarath	-0.015	0.003	-0.009	-0.006	-0.008	-0.008	0.011	0.026	-0.004	1.000	0.013	0.022	-0.008
Growth	0.319	0.828	0.552	0.676	0.570	0.575	0.470	0.081*	0.770		0.380	0.143	0.600
Agget	0.077	-0.024	-0.166	-0.011	-0.237	0.082	0.491	0.264	0.174	0.013	1.000	0.429	0.182
Asset	0.000***	0.098*	0.000***	0.448	0.000***	0.000***	0.000***	0.000***	0.000***	0.380		0.000***	0.000***
Debt	0.029	-0.004	-0.146	0.019	-0.274	0.079	0.168	0.177	0.051	0.022	0.429	1.000	0.188
Deot	0.048**	0.767	0.000***	0.196	0.000***	0.000***	0.000***	0.000***	0.000***	0.143	0.000***		0.000***
State	-0.382	-0.020	-0.208	0.066	-0.327	0.069	0.087	0.064	0.127	-0.008	0.182	0.188	1.000
State	0.000***	0.166	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.600	0.000***	0.000***	

Note: \*\*\* means significance is less than 0.01, \*\* means significance is less than 0.05, \* means significance is less than 0.1.

First we construct comprehensive index—ManaPower with factor analysis based on combination of Duality, Insidire, Mashare and Shacon. That KMO is 0.543 and Bartlett P is 0.000 indicate correlation coefficient matrix significantly differs from unit matrix, suggesting that factor analysis is worth a try. According to table 4- Explanation of the total variance, the two main factors have contributed around 60%, generally reflecting the data information, as indicated by table 5-common factor variance, all the common factors could explain generally 47%-73% of each variable. Then we classify 4 original variables based on the main factors. In order to avoid classification inconvenience resulting from original variables' drawing near from each other, we conduct varimax orthogonal rotation, thus pushing loading capacity on each variable to the extremes of 0 and 1( as shown in table 6 rotating component matrix). From table7-component score coefficient matrix we get  $F1=0.514\times Duality-0.203\times Insidire+0.567\times Mashare-0.378*$  Shacon and  $F2=-0.139\times Duality+0.794\times Insidire+0.035\times Mashare-0.574*Shacon.$  From table 5 Explanation of the total variance we can further get  $\lambda 1$ ,  $\lambda 2$ .  $\lambda 1=32.496\%/58.005\%=0.5602$ ;  $\lambda 2=25.510\%/58.005\%=0.4398$ . According to ManaPower= $\lambda 1\times F1+\lambda 2\times F2$ , we get management power comprehensive index.

**Table 4** Explanation of the total variance

Factor		Initial Eig	genvalues	Extra		sum of squares ded	Rotate the sum of	square	s loaded
	Sum	Variance %	Accumulation %		Sum	Variance %	Accumulation %		Sum
1	1.300	32.496	32.496	1.300	32.496	32.496	1.300	32.496	32.496
2	1.020	25.510	58.005	1.020	25.510	58.005	1.020	25.510	58.005
3	.898	22.438	80.444				.898	22.438	80.444
4	.782	19.556	100.000				.782	19.556	100.000

Table5 common factor variance

Table6 rotating component matrix

Table7 Component Score

Coefficient Matrix

	Initial	Extraction		Factor	F1	F2
Duality	1.000	.469	•	Duality	.669	145
Insidire	1.000	.730		Insidire	268	.811
Mashare	1.000	.544		Mashare	.737	.032
Shacon	1.000	.578		Shacon	488	584

Fac	ctor	F1	F2
Dua	ality	.514	139
Insi	dire	203	.794
Mas	hare	.567	.035
Sha	con	378	574

Then we conduct multiple variant regression analyses. In Table 8 The column 1-1 shows shows the result for all samples: Insidire and Mashare are negatively related with Div, inconsistent with hypothesis 3, but consistent with hypothesis 4, which means higher management power doesn't necessarily lead to diversification strategy. Thus evidence from public companies in China hasn't proved that managers crave for greatness and success from the aspect of diversification strategy. Maybe this is because duality phenomenon is so prevailing on a certain level, especially in non state owned companies, pulsing high inside director percentage, that these configurations all contribute to management decision makers' information preponderance exceeds agency cost disadvantage, which explains specialization strategy is most likely to be incurred. Column "model 1-2" demonstrates ManaPower is negatively related with Div, indicating that the higher management power is, corporations are less likely to implement diversification strategy. As for controlling variables, Frcaflow, Crosslist and Div are negatively related, Asset and Div are positively related; State and Div have significance negative relevance in "model 1-1" and "model 1-2", again demonstrates that non state companies are more

likely to implement diversification strategy. The former result might be due to correlation among variables, the latter might prove that state owned companies really tend to implement diversification strategy. "Model 2" shows that Duality and SusDev are negatively related, inconsistent with hypothesis 2, indicating that duality would lead to lower sustainable development deviation; this might be accounted as the fact duality is prevailing in the non state companies, combined with high inside directors, thus management could obtain more information for decision making. "Model 3" and "Model 4" doesn't prove significant relationships, we conduct further analysis by sub grouping the sample into state owned companies(State=1) and non state owned companies(State=0).

For state owned companies, we find that Mashare is hardly related with Div, implying that in state owned companies higher management share holding might lead to diversification strategy choice. ManaPower<sup>2</sup>\*Div is positively related with SusDev, indicating higher management power—leads to higher sustainable development deviation when a company implements diversification strategy.

For non state owned samples(State=0), Insidire and Mashare are negatively related with Div, the former is similar to the result based on total sample, while the latter higher management share holding might result in focused strategy, this might be contributed to the interest alignment mechanism of management share holding, which is totally the opposite to the state owned company sample. That ManaPower is positively related with Div might be due to the same reasoning above. That Div is positive coefficient with SusDev means non state owned companies deviate from sustainable development speed when they undertake focused strategy.

From the analysis above we can see substantial power Mashare are significantly related with any one of the three kinds of samples, but negative in state owned company sample while positive in non-state owned samples, which is an interesting result.

Lastly, we use total asset growth rate as proxy measurement for real growth rate to construct sustainable development deviation proxy variable SusDev', empirical results in table 9 shows similar outcomes as previous ones, which tests the robustness of this paper.

## v. CONCLUSION

We classify the sample to state owned companies and non state owned ones from the perspective of ownership right, then we test the relationship among management power, diversification strategy and sustainable development divergence in there samples, concluding:1, non state owned companies tend to implement diversification strategy and smaller sustainable development deviation, which means for non state owned companies, diversification strategy doesn't necessarily increase sustainable development deviation. 2, substantial management power Mashare significantly influences state owned companies positively and non state owned ones negatively, which could be explained the tradeoff between information superiority and agency cost. 3, in non state owned companies, ManaPower doesn't significantly relate with Div, but its sub index Insidire and Mashare are positively related with Div, demonstrating that inside director and management share holding both promotes focused strategy in non state owned companies.4, only diversification strategy or higher management power don't necessarily lead to sustainable development deviation, while only the two function together companies would deviate from optimal development speed.

All in all, state owned companies and non state owned ones should have different management power configurations. For the former ones, reducing management power and specially less management shareholding to promote focused strategy is key; while for the latter ones, enhancing management power allocation to facilitate focused strategy is the key.

# **Table8 Regression result**

		7	Γotal	sample	e (Stat	te=1	or Sta	ite=0)							State=	=1									State=	=0				
Sample	Mod	el 1-1	Mod	lel 1-2	Mod	el 2	Mod	del 3	Mod	del 4	Mod	el 1-1	Mod	lel 1-2	Mode	212	Mo	del 3	Mod	el 4	Mod	el 1-1	Mod	del 1-2	Mode	el 2	Mod	lel 3	Mod	lel 4
Variable	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig	В	Sig.	В	Sig	В	Sig.	В	Sig.	В	Sig	В	Sig.	В	Sig.
Duality	06 8	.401			-5.1 98	.086					.201	.383			-2.41 6	.39 8					10 2	.235			-5.9 95	.13 8				
Insidire	-1.6 88	.008*			.822	.972					-1.5 81	.237			21.13 9	.20 6					-1.9 57	.008*			-9.2 01	.78 5				
Mashare	84 0	.000*			9.17 3	.225					5.39 5	.026*			-26.8 62	.44 7					79 9	.000*			9.17 6	.32				
Shacon	.002	.660			.090	.642					.007	.478			.104	.41 3					00 1	.893			.096	.74 8				
ManaPower			21 0	.000* **			92 1	354					01 5	.933			.360	.879					21 4	.000* **			92 3	.809		
ManaPower <sup>2</sup>			01 8	.430			55 2	419					.02 8	.677			.024	.980					01 6	.537			85 6	.732		
Div							5.71 2	2.03	6.33 1	2.39							1.87 7	.443	3.01	.18 4							6.78 1	.092 *	7.53 0	.038
ManaPower* Div							1.32	.357									9.13 5	.157									1.05	.837		
ManaPower² *Div							1.01 9	.621									7.73 7	.006* **									1.04 7	.706		
Freaflow	01 8	.188	01 8	.194	.144	.746	.172	.386	.172	.387	05 1	.049* *	05 1	.049* *	.104	.64 0	.120	.588	.117	.59 8	.077	.013*	.07 5	.015*	.141	.88 3	.112	.907	.103	.914

# Management Power, Free Cash Flow and Corporate Diversification

Loanadd	111	.001* **	11 6	.001*	09 9	.930	.054	ጥጥ		*	9	.302	05 6	.330	459	.48 3	50 7	.437	45 5	.48 7	23 4	.000* **	23 3	.000* **	.222	.90 7	.521	.785	.530	.781
Crosslist	34 0	.037*	31 5	.053*	3.25 6	.553	3.08 1	.562	3.18 1	.581	95 7	.003*	94 5	.003*	.353	.90 6	.311	.917	.530	.85 9	.102	.658	8	.548	6.68	.51 0	5.38 2	.595	5.53 3	.584
Growth	01 3	.388	2					.264	.004	.270	00 2	.764	00 2	.790	.012	.78 9	.008		.009	0	00 2	.817	00 2	.815	.004	.85 8	.005	.819	.005	.815
Asset	.329	.000*	.332	.000*	-2.1 51	.110	-2.5 65	-1.89 5	-2.5 19	-1.8 75	.220	.004*	.22	.004*	991	1	-1.1 27		-1.1 31	.20 8	.356	.000*	.35 7	.000* **	-2.7 47	.18 9	-3.3 58	.111	-3.2 84	.114
Debt	.493	.009* **	.532	.005* **	4.87 3	.478	3.30 1	.481	3.44 4	.509	1.04	.015*	.82 9	.050* *	3.859	.44 9	5.88	.243	4.68 9	.34 8	.381	.073*	.42 2	.045*	4.81 2	.62 9	2.66	.788	2.96 9	.761
State	-2.1 94	.000*	-2.1 78	.000*	-3.0 76	.256	69 2	235	40 0	14 2																				

Note: \*\*\* means significance is less than 0.01, \*\* means significance is less than 0.05, \* means significance is less than 0.1.

**Table 9 Robustness test** 

	Table 9 Robustness test  Total sample																	
Sample				sample r State					State	e=1					Sta	te=0		
	Mo	del 2	Mod	del 3	Mod	del 4	Mod	lel 2	Mo	del 3	Mo	del 4	Mo	del 2	Mo	del 3	Mo	del 4
Variable	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.	В	Sig.
Duality	97 6	.424					.064	.959					-1.4 08	.465				
Insidire	-6.2 72	.497					-4.25 3	.552					-8.2 31	.641				
Mashare	45 3	.884					-12.9 26	.451					11 3	.979				
Shacon	02 0	.793					.028	.610					08 3	.585				
ManaPower			109	.892					14 7	.876					16 8	.897		
ManaPower <sup>2</sup>			176	.657					19 9	.590					13 0	.875		
Div			-1.91 4	.504	1.48 5	.553			-1.4 46	.426	2.7 05	.106			-3.6 17	.629	-2.3 87	.690
ManaPower *Div			-14.8 41	.016* *					9.46 0	.256					-4.0 00	.763		
ManaPower  2*Div			-2.37 9	.088*					21.3 46	.000*					68 0	.795		
Frcaflow	.092	.569	.110	.499	.101	.536	.068	.474	.079	.401	.08	.403	02 1	.982	01 5	.987	04 *5	.961
Loanadd	.380	.420	.377	.424	.372	.429	.230	.418		.409	.22 7	.423	1.29 2	.429	1.39 0	.397	1.37 9	.399
Crosslist	-1.0 09	.615	931	.642	91 2	.649	970	.440	70 3	.570	68 9	.582	-2.6 27	.658	-2.7 86	.638	-2.6 96	.648
Growth	00 1	.814	001	.829	00 1	.832	009	.621	00 9	.613	00 9	.631	00 1	.846	00 1	.855	00 1	.857
Asset	-1.3 72	.012*	-1.40 6	.010* **	-1.3 47	.013*	876	.028	92 4	.018*	91 6	.021	-1.9 78	.085*	-2.0 19	.080*	-1.9 41	.084*
Debt	10.2 07	.000* **	10.4 04	.000* **	10.3 63	.000* **	4.32 4	.056	5.28 1	.016* *	4.7 42	.032	15.8 93	.003*	16.2 20	.003*	16.2 69	.002*
State	-1.1 91	.271	-1.03 6	.322	-1.0 46	.289												

Note: \*\*\* means significance is less than 0.01, \*\* means significance is less than 0.05, \* means significance is less than 0.1.

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## Management Power, Free Cash Flow and Corporate Diversification

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