

## **Corporate Governance and Market Valuation: A Study of PPCI Index**

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### **Abstract**

*The Asian financial crisis has rekindled worldwide interest on the issue of corporate governance. In recent years, pushing for higher governance standard has become a regular campaign, with the participation of an increasing number of parties: academics, media, regulatory authorities, corporations, institutional investors, international organization etc. newly initiatives has also been proposed by Asian countries their corporate governance practice, e.g., new listing/disclosure, mandatory training, for board of directors, enforced codes of governance etc. international organization are also very keen on governance issues. The International Monetary Fund, Private Companies are calling for sweeping reforms of Governance practice in emerging economies. To improve Corporate Governance the Singapore Stock Exchange obviously has an important role to play. It should strengthen laws share holder interest and beef up the enforcement of such laws and regulations. It is also important for the firms listed in Singapore Stock Exchange to take action on voluntary basis. The question, however, is: Do the firms listed in SSE have incentives to do so? This depends on the answer to the next question: Does the firm's listed in Singapore Stock Exchange Corporate Governance practice have a positive effect in its market value? If the answer is yes, then firms will have incentives improve their Governance, because by doing so, they increase their market value and reduced their future cost of investment. This study attempts to answer this question empirically.*

**Key Words:** Corporate governance, Valuation, Tobin's Q

### **INTRODUCTION**

Corporate governance as 'an internal system encompassing policies, processes and people, which serves the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity, accountability and integrity(from Wikipedia). Sound corporate governance is reliant on external marketplace commitment and legislation, plus a

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healthy board culture which safeguards policies and processes Perceived quality of a company's corporate governance can influence its share price as well as the cost of raising capital. Quality is determined by the financial markets, legislation and other external market forces plus how policies and processes are implemented and how people are led. External forces are, to a large extent, outside the circle of control of any board. The internal environment is quite a different matter, and offers companies the opportunity to differentiate from competitors through their board culture. To date, too much of corporate governance debate has centered on legislative policy, to deter fraudulent activities and transparency policy which misleads executives to treat the symptoms and not the cause. It is a system of structuring, operating and controlling a company with a view to achieve long term strategic goals to satisfy shareholders, creditors, employees, customers and suppliers, and complying with the legal and regulatory requirements, apart from meeting environmental and local community needs.

Corporate governance mechanisms and controls are designed to reduce the inefficiencies that arise from moral hazard and adverse selection. For example, to monitor managers' behavior, an independent third party (the auditor) attests the accuracy of information provided by management to investors. An ideal control system should regulate both motivation and ability.

Internal corporate governance controls monitor activities and then take corrective action to accomplish organizational goals. Examples include: Monitoring by the board of directors, Balance of power, Remuneration. External corporate governance controls encompass the controls external stakeholders exercise over the organization.

### **REVIEW OF LITERATURE**

Many studies are done in Asian context in Corporate Governance area studied the relationship between board composition and performance of property companies listed at Bursa Saham, Malaysia. For example Shakir (1997) examined preference for good corporate governance; empirical research examining governance mechanisms in relation to performance has revealed mixed and inconclusive findings. Lange, Sahu (2008) argued that the Indian corporate governance relationships have evolved over time as a result of both formal and informal stakeholder interactions, with changes to Clause 49 triggering a further evolutionary move in Indian corporate governance towards global benchmarks. Siriwardhane (2003) examined that there is a positive relationship between the board size and company performance in Sri Lankan companies but the contribution of an additional director decreases when there is an increment in the board size and the company performance. Their findings of the study indicate mixed results which are in consistent with empirical evidence of developed nations.

Corporate Governance studies in Chinese perspective have showed that corporate governance and firma value are interrelated. Like, Lo Fang, Sheu Jiun

(2007) found positive relation between corporate sustainability and its market value. They also found a strong interaction effect between corporate sustainability and sales growth on firm value. WeiHul, et.al, (2009) findings have suggested that ownership concentration has the most significant governance effect and has impacted negatively on firm performance. Jandik, Rennie (2008) showed that how legal, capital market, and accounting deficiencies hinder corporate governance evolution. Yuan, Ye (2008) studied a sample of 329 Chinese listed and found that firm value has a positive impact on managerial confidence while the latter's impact on the former turns from positive to negative at a certain point. Chahine (2007) examined the effect on market valuation of both corporate governance and the diversity of activities conducted by GCC commercial banks and results showed that biasness using ordinary least squares regressions. Cheung, et al. (2007) study provided supporting evidence for the notion that, in Hong Kong, good corporate governance practices are consistent with value maximization.

Ncube (2006) discussed the empirical evidence on how the quality of corporate governance practices impact on the valuation of a form and its general performance. Lin, Paananen (2006) examined valuation properties of Swiss and German companies' earnings and book value of equity and found that German and Swiss companies are more reluctant to revalue assets upwards, and thus, are less likely to violate the clean surplus requirement of the RI valuation model and hence make this model suitable as a valuation model of these companies.

Jiang, et al. (2006) showed that higher ownership concentration tends to be associated with higher firm value, and can be partially substituted by country institutional development. Li Qi (2008) examined the impact of corporate governance on voluntary disclosure in 100 non-financial Chinese listed firms for the period 2003-2005. There were two main findings. (1) Firms with high Managerial ownership have high level of voluntary disclosure. (2) The significant correlation is identified ownership concentration with the voluntary disclosure. Their empirical results further illustrated that big firms have inclination of voluntary disclosure through stock market and the exogenous mechanism between them is exposed. C.H. Lei M. Song (2004) found that firms with better rating in the CG model have higher firm value, which implies that firms can increase their valuations by restructuring their corporate governance standards according to our model. Kusnadi (2006) examined a sample of firms listed in Singapore and Malaysia and found that managers in firms with poor governance structure have more discretion over corporate cash policies, which leads to these firms holding larger cash reserves than firms with more effective governance. Pei Sai Fan (2004) attempted to review extensively the literature and empirical research addressing corporate governance and corporate performance, and the roles and effectiveness of various governance institutions and mechanisms, in particular the board of directors. Wha Lee Young Park (2008) examined that the unfolding of the US subprime-generated turmoil and its potential spillover on emerging Asia's financial systems. The subprime mortgage mess has revealed key structural weaknesses in the evolution of modern credit markets.

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The extensive review done in Asian perspective has acted as a base to search out whether the firm's listed in Singapore Stock Exchange Corporate Governance practice have a positive effect in its market value? To answer this question, objectives were set and research was carried out.

### **OBJECTIVES**

1. To study the corporate governance variables (both external and internal) of the companies listed in PPCI (Prime Partners China Index).
2. To calculate/find out market valuation of the companies listed in PPCI using Tobin'Q & Market to book value.
3. To establish relationship between corporate governance variables and Tobin'Q & Market to book value.

### **RESEARCH METHODOLOGY**

The study was empirical in nature. The research was containing all the companies listed in PPCI. The sampling frame was consisting of 25 companies involved in the information of PPCI index during the study period of 2007-08. Sample size was of 25 companies used in the formation of PPCI during 2007-08. Individual companies listed in PPCI during 2007-08 acted as a sampling element (A total of 13 companies were considered for the study time period because of availability of Data for the study period). Judgment sampling technique was used (Non-probability sampling. Secondary sources was used to collect the data i.e., PPCI and other companies' website. Normality of the data was checked through SPSS software. Accounting formulas used to calculate market Valuation of the companies listed in PPCI and Tobin's Q 9(An indicator of market valuation) were:

$$\text{Tobin's Q} = \frac{\text{Equity Market Value} + \text{Liabilities Book Value}}{\text{Equity Book Value} + \text{Liabilities Book Value}}$$

Formula for market to book value (An indicator of market valuation)

$$\text{Book to Market} = \frac{\text{Book Value of Firm}}{\text{Market Value of Firm}}$$

Linear regression analysis was used to find out the effect of external & internal variables of corporate governance on Tobin's Q. Linear Regression analysis was used to find out the effect of corporate governance on Market to book value ratio. Wilcoxon test was applied to know the relationship between internal variables.

### **RESULTS AND DISCUSSION**

Summary statistics of the corporate governance variables used in the study are

given in the Table A and B. The summary statistics of the valuation variables is given in Table C. To establish the cause and Effect relationship between corporate governance variables and Tobin's Q & Market to book value respectively, linear regression was applied. As regression test can be applied only on normally distributed data. So Normality of the data checked through KS test using SPSS Software. The results of the test show that data was distributed normally (external as well as internal variables of corporate governance).

**Regression Analysis**

Further to find out the cause and effect relationship between Tobin's Q and external variables of corporate governance, linear regression was applied and the results are summarized in the table 2.

**Table 2: Regression between Tobin's Q and Corporate Governance (ANOVA Summary)**

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	668268.332	5	133653.666	1.209	.394a
	Residual	773589.752	7	110512.822		
	Total	1441858.083	12			
a. Predictors: (Constant), VAR00007, VAR00004, VAR00003, VAR00005, VAR00002						
b. Dependent Variable: VAR00001						

ANOVA summary indicated the value of F. The value was found to be insignificant at 5% level of significance, which indicated that there are some other factors which also affected Tobin's Q signifying that Tobin's Q has a less impact on External variables of corporate governance.

**Table 2: Regression between Tobin's Q and Corporate Governance (Coefficient)**

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co-linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1229.718	1250.421		.983	.358		
	VAR00002	41.742	376.556	.045	.111	.915	.461	2.171
	VAR00003	-818.225	408.504	-.614	-2.003	.085	.814	1.228
	VAR00004	-55.660	74.372	-.362	-.748	.479	.327	3.057
	VAR00005	192.540	146.759	.532	1.312	.231	.467	2.142
	VAR00007	-529.383	645.316	-.247	-.820	.439	.843	1.186
a. Dependent Variable: VAR00001								

Here Variable1 represents Tobin's Q.

Beta values have indicated insignificant relationship between Tobin's Q and three external variables of corporate governance namely. More than 60% impact in Tobin's Q is shown by variable3 but in opposite direction. This means if the ...variable change by 61.4% then Tobin's Q will change with this much amount in opposite direction. Variable 5 came out to be a significant contributor in Tobin's Q. If var 5 change then 53.2% chance in Tobin's Q is contributed by it.

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CEO\_IS\_TOP, OUT\_DIRECTORS, TOP\_5, PARENT CO. % OF SHAREHOLDING FROM 2nd TO 10th LARGEST, CO. SHARES TRADED ON A PARTICULAR EXCHANGE, IF GOVT. IS CONTROLLING SHAREHOLDING are respectively external variable 2,3,4,5,6,7 for the SPSS test

2) Cause and effect relationship between Tobin's Q and internal variables of Corporate Governance

**Table 3: Regression between Tobin's Q as Independent Variable and Internal Corporate Governance as Dependent Variable – ANOVA Summary**

ANOVA						
Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	187050.797	4	46762.699	.298	.871
	Residual	1254807.286	8	156850.911		
	Total	1441858.083	12			
a. Predictors: (Constant), VAR00005, VAR00004, VAR00002, VAR00003						
b. Dependent Variable: VAR00001						

To know the cause and effect relationship between Tobin's Q and internal variables of corporate governance again linear regression was applied and the results are summarized in the table 3

ANOVA table summary indicated that the values of F are insignificant at 5% level of significance, which indicates that there are some other factors which also affected Tobin's Q. Beta values have indicated insignificant relationship between Tobin's Q and internal variables of corporate governance.

**Table 3b: Regression between Tobin's Q as Independent Variable and Internal Corporate Governance as Dependent Variable – Coefficient Table**

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co-linearity Statistics	
		B	Std. Error				Beta	Tolerance
1	(Constant)	236.48	178.305		1.326	.221		
	VAR02	.109	.236	.191	.463	.655	.643	1.554
	VAR03	-.017	.057	-.123	-.293	.777	.611	1.637
	VAR04	.337	.463	.253	.728	.487	.900	1.112
	VAR05	-.011	.022	-.168	-.494	.635	.936	1.068
a. Dependent Variable: VAR00001								

Here Variable1 represents Tobin's Q and Variable 2, 3, 4, 5 respectively represents internal CG Variables namely, Issued Capital, Sales, Operational income, and Leverage.

3) Cause and effect relationship between Market to book value and external variables of corporate governance

**Table 4a: Regression between Market to Book Value as Independent and External Corporate Governance as Dependent Variable – ANOVA Summary**

ANOVA					
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Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	217089.786	5	43417.957	.417	.824a
	Residual	728980.017	7	104140.002		
	Total	946069.803	12			
a. Predictors: (Constant), VAR00007, VAR00004, VAR00003, VAR00005, VAR00002						
b. Dependent Variable: VAR00001						

Continuing further, to know the cause and effect relationship between Market to book value and external variables of corporate governance, linear Regression was applied and the results are summarized in the table 4. ANOVA summary indicated that the value of F is insignificant at 5% level of significance, which indicates that there are some other factors which also affected Market to Book Value. Beta values have indicated insignificant relationship between market value and external variables of corporate governance.

CEO\_IS\_TOP, OUT\_DIRECTORS, TOP\_5, PARENT CO. % OF SHAREHOLDING FROM 2nd TO 10th LARGEST, CO. SHARES TRADED ON A PARTICULAR EXCHANGE, IF GOVT. IS CONTROLLING SHAREHOLDING are respectively external variable 2,3,4,5,6,7 for the SPSS test

**Table 4b: Regression between Market to Book Value as internal and External Corporate Governance as Dependent Variable – Coefficient Table**

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co-linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1070.7	1213.833		-.882	.407		
	VAR00002	78.021	365.538	.104	.213	.837	.461	2.171
	VAR00003	78.504	396.551	.073	.198	.849	.814	1.228
	VAR00004	-14.782	72.196	-.119	-.205	.844	.327	3.057
	VAR00005	115.280	142.465	.393	.809	.445	.467	2.142
	VAR00007	644.854	626.433	.372	1.029	.338	.843	1.186
a. Dependent Variable: VAR00001								

Here Variable1 represents Market to Book Value.

4) Cause and effect relationship between Market to book value and internal variables of corporate governance

To know the cause and effect relationship between Market to book value and internal variables of corporate governance, linear Regression was carried out and the results are summarized in table 5

**Table 5a: Regression between Market to Book Value as Internal and Internal Corporate Governance as Dependent Variable – ANOVA Summary**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100558.075	4	25139.519	.238	.909a
	Residual	845511.728	8	105688.966		
	Total	946069.803	12			
a. Predictors: (Constant), VAR00006, VAR00005, VAR00003, VAR00004						

b. Dependent Variable: VAR00001

ANOVA summary indicates that the values of F is insignificant at 5% level of significance, which indicates that there are some other factors which also affected Market to Book Value. Beta values have indicated insignificant relationship between market value and internal variables of corporate governance.

**Table 5b: Regression between Market to Book Value as internal and External Corporate Governance as Dependent Variable – Coefficient Table**

Model		Coefficients						
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co-linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	54.067	146.365		.369	.721		
	VAR00003	-.046	.194	-.098	-.236	.820	.643	1.554
	VAR00004	.039	.047	.355	.829	.431	.611	1.637
	VAR00005	-.012	.380	-.011	-.032	.975	.900	1.112
	VAR00006	-.002	.018	-.037	-.108	.917	.936	1.068

a. Dependent Variable: VAR00001

Here Variable1 represents Market to book value.

**Wilcoxon Signed Ranks Test**

The Wilcoxon signed-ranks a method test was used to test the null hypothesis that two related variables are the same. This test allows comparing a single median against a known value or paired medians from the same (or matched) sample. Wilcoxon tests whether the distribution of two paired variables in two related samples is the same. So, Wilcoxon signed rank test was used to check the dominance of internal variables of corporate governance over each other. The results of the same are discussed below.

1) WILCOXON Signed Ranks Test Applied to test the hypothesis (H01) that there is no difference between Issued capital and sales.

**Table 6: Wilcoxon Signed Ranks Test**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00002 - VAR00001	Negative Ranks	1a	1.00	1.00
	Positive Ranks	12b	7.50	90.00
	Ties	0c		
	Total	13		
a. VAR00002 < VAR00001				
b. VAR00002 > VAR00001				
c. VAR00002 = VAR00001				
Test Statistics				
	VAR00002 - VAR00001 (Issued capital and sales)			
Z	-3.110a			
Asymp. Sig. (2-tailed)	.002			
a. Based on negative ranks.				
b. Wilcoxon Signed Ranks Test				

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -3.110 with significance equal to .002 Thus it can be concluded that there is a significant relationship between Issued Capital and sales. From the ranking it was found that positive ranks for var2 > var1. This means that a variable sale dominates issued capital. The null hypothesis is rejected.

2) WILCOXON Signed Ranks Test Applied to test the null hypothesis (H02) that there is no difference between ISSUED Capital and Operational Income.

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -.157 with significance equal to .875 Thus it can be concluded that there is a significant relationship between Issued Capital and Operational Income. From the ranking table 7 it can be seen that positive ranks for var3 < var1. This means that issued capital dominates operational income. The null hypothesis is rejected.

**Table 7: Wilcoxon Signed Ranks Test**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00003 - VAR00001	Negative Ranks	7a	5.86	41.00
	Positive Ranks	5b	7.40	37.00
	Ties	1c		
	Total	13		
a. VAR00003 < VAR00001				
b. VAR00003 > VAR00001				
c. VAR00003 = VAR00001				
Test Statistics				
VAR00003 - VAR00001 (Issued Capital And Operational Income)				
Z	-.157a			
Asymp. Sig. (2-tailed)	.875			
a. Based on positive ranks.				
b. Wilcoxon Signed Ranks Test				

3) WILCOXON Signed Ranks Test Applied to test the null hypothesis (H03) that there is no difference between Issued capital and Leverage.

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -.356 with significance equal to .722 Thus it can be concluded that there is a significant relationship between Issued Capital and Leverage From the ranking table 8 it can be seen that positive ranks for var4 < var1. This means that an issued capital dominates leverage. The null hypothesis is rejected.

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H04) that there is no difference between Sales & Operational income.

**Table 8: Wilcoxon Signed Ranks Test**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00004 – VAR00001	Negative Ranks	7a	4.14	29.00
	Positive Ranks	4b	9.25	37.00
	Ties	2c		
	Total	13		

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a. VAR00004 < VAR00001			
b. VAR00004 > VAR00001			
c. VAR00004 = VAR00001			
Test Statistics			
VAR00004 - VAR00001 (Issued capital and Leverage)			
Z	-.356a		
Asymp. Sig. (2-tailed)	.722		
a. Based on negative ranks.			
b. Wilcoxon Signed Ranks Test			

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -2.201 with significance equal to .028 Thus it can be concluded that there is a significant relationship between Sales and Operational Income From the ranking table 9 it can seen that positive ranks for var3 < var2 This means that an sales dominates operational income. The null hypothesis is rejected.

**Table 9: Wilcoxon Signed Rank Test**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00003 – VAR00002	Negative Ranks	10a	7.70	77.00
	Positive Ranks	3b	4.67	14.00
	Ties	0c		
	Total	13		
a. VAR00003 < VAR00002				
b. VAR00003 > VAR00002				
c. VAR00003 = VAR00002				
Test Statistics				
VAR00003 - VAR00002 (Sales & Operational income)				
Z	-2.201a			
Asymp. Sig. (2-tailed)	.028			
a. Based on positive ranks.				
b. Wilcoxon Signed Ranks Test				

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H05) that there is no difference between Sales & leverage

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -1.782 with significance equal to .075 Thus it can be concluded that there is a significant relationship between Sales and Leverage. From the ranking table 10 it can seen that positive ranks for var4< var2 this means that sales dominates leverage. The null hypothesis is rejected.

**Table 10: Wilcoxon Signed Rank Test**

!Unexpected End of Formula				
		N	Mean Rank	Sum of Ranks
VAR00004 - VAR00002	Negative Ranks	10a	7.10	71.00
	Positive Ranks	3b	6.67	20.00
	Ties	0c		
	Total	13		
a. VAR00004 < VAR00002				
b. VAR00004 > VAR00002				

c. VAR00004 = VAR00002				
Test Statistics				
VAR00004 - VAR00002 (Sales & leverage)				
Z		-1.782a		
Asymp. Sig. (2-tailed)		.075		
a. Based on positive ranks.				
b. Wilcoxon Signed Ranks Test				

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H06) that there is no difference between leverage & operational income

**Table 11:** Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00004 - VAR00003	Negative Ranks	5a	7.40	37.00
	Positive Ranks	8b	6.75	54.00
	Ties	0c		
	Total	13		
a. VAR00004 < VAR00003				
b. VAR00004 > VAR00003				
c. VAR00004 = VAR00003				
Test Statistics				
VAR00004 - VAR00003 (leverage & operational income)				
Z		-.594a		
Asymp. Sig. (2-tailed)		.552		
a. Based on negative ranks.				

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -.594 with significance equal to .552. Thus it can be concluded that there is a significant relationship between Operational income and Leverage. From the ranking table 11 it can be seen that positive ranks for var4 > var3, this means that a leverage dominates operational income.

Note: Sales being emerged out as the dominant factor among the remaining three internal variables of corporate governance. The null hypothesis is rejected.

As the internal variables of corporate governance are those which companies can improve. Therefore Wilcoxon Signed Ranks Test applied to know the cause and effect relationship Tobin'Q & internal variables.

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H07) that there is no difference between Tobin'Q and Issued Capital. (Table 12)

**Table 12**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00001 - VAR00005	Negative Ranks	9a	7.44	67.00
	Positive Ranks	4b	6.00	24.00
	Ties	0c		
	Total	13		
a. VAR00001 < VAR00005				

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b. VAR00001 > VAR00005			
c. VAR00001 = VAR00005			
Test Statistics			
VAR00001 - VAR00005			
Z		-1.503a	
Asymp. Sig. (2-tailed)		.133	
a. Based on positive ranks.			
b. Wilcoxon Signed Ranks Test			

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -1.503 with significance equal to .133. Thus it can be concluded that there is a significant relationship between Tobin's Q and Issued Capital. From the ranking it was found that positive ranks for var1 > var2. This means that a variable Tobin's Q dominates Issued Capital. The null hypothesis is rejected.

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H08) that there is no difference between Tobin'Q & Sales. (Table 13)

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -2.712 with significance equal to .023. Thus it can be concluded that there is a significant relationship between Tobin's Q and Sales. From the ranking it was found that positive ranks for var2 > var1. This means that a variable Sales dominates Tobin's Q. The null hypothesis is not rejected.

**Table 13**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00002 - VAR00005 (Tobin's Q & Sales)	Negative Ranks	3a	4.33	13.00
	Positive Ranks	10b	7.80	78.00
	Ties	0c		
	Total	13		
a. VAR00002 < VAR00005				
b. VAR00002 > VAR00005				
c. VAR00002 = VAR00005				
Test Statistics				
VAR00002 - VAR00005				
Z			-2.271a	
Asymp. Sig. (2-tailed)			.023	
a. Based on negative ranks.				
b. Wilcoxon Signed Ranks Test				

WILCOXON Signed Ranks Test Applied to test the null hypothesis (H09) that there is no difference between Tobin's Q & Operational income. (Table 14)

**Table 14**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00003 - VAR00005 (Tobin's Q & Operational income)	Negative Ranks	10a	6.70	67.00
	Positive Ranks	3b	8.00	24.00
	Ties	0c		
	Total	13		
a. VAR00003 < VAR00005				

b. VAR00003 > VAR00005			
c. VAR00003 = VAR00005			
Test Statistics			
VAR00003 - VAR00005			
Z	-1.503a		
Asymp. Sig. (2-tailed)	.133		
a. Based on positive ranks.			
b. Wilcoxon Signed Ranks Test			

The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -1.503 with significance equal to .133 Thus it can be concluded that there is a significant relationship between Tobin’s Q and Operational Income. From the ranking it was found that positive ranks for var1> var2. This means that a variable Tobin’s Q dominates Operational Income. The null hypothesis is not rejected.

Wilcoxon Signed Ranks Test applied to test the null hypothesis (H010) the cause and effect relationship Tobin’s Q & Leverage (Table 15). The Wilcoxon Signed Ranks statistic, converted to a Z-score, is equal to -1.153 with significance equal to .249 Thus it can be concluded that there is a significant relationship between Tobin’s Q and Leverage. From the ranking it was found that positive ranks for var1> var2. This means that a variable Tobin’s Q dominates Leverage. The null hypothesis is not rejected.

**Table 15**

Ranks				
		N	Mean Rank	Sum of Ranks
VAR00004 - VAR00005 (Tobin’s Q & Leverage)	Negative Ranks	10a	6.20	62.00
	Positive Ranks	3b	9.67	29.00
	Ties	0c		
	Total	13		
a. VAR00004 < VAR00005				
b. VAR00004 > VAR00005				
c. VAR00004 = VAR00005				
Test Statistics				
		VAR00004 - VAR00005		
Z	-1.153a			
Asymp. Sig. (2-tailed)	.249			
a. Based on positive ranks.				
b. Wilcoxon Signed Ranks Test				

**CONCLUSION**

This paper empirically studied the impacts of various corporate governance mechanisms on the market valuation of firms. In study has used internal as well as external variables to quantify various corporate governance mechanisms. The external variables included the largest shareholding, whether the largest shareholder is the government, the concentration of shareholding among the second to the tenth largest shareholders, whether the firm has a parent company, the ratio of outside directors on the board, whether the CEO is the head of the board. Internal Variable was Issued Capital, Sales, Operational

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Income and Leverage. Tobin's  $q$  and the market-to-book ratio are used as measures of market valuation. Through this study, it can be concluded that there is significant relationship exist between Tobin's  $Q$  and internal variables of corporate governance. While applying wilcoxon signed rank test, it came out that sales is the dominating internal variable which affects CG most and Issued capital, operational income, leverage are having a least impact. By applying regression between Tobin's  $Q$  and External and internal variables of corporate governance variable, the former one indicates less impact of Tobin's  $Q$  and later one indicates equal level of impact on Tobin's  $Q$ . Likewise in case of Market to book value more impact is there in case of external variables and less impact is there in case of internal variables. By applying wilcoxon signed rank test between Tobin's  $Q$  and individual internal variables of corporate governance, it was found that only sales affects Tobin's  $Q$  and the other three variables don't have impact on Tobin's  $Q$ .

The findings have valuable implications for security regulators as well as listed companies in PPC in China Index. It is well known that security regulators in both the developed and developing countries now a day have recognized the importance of corporate governance practices in enhancing firms' investment values and have proposed the best practice codes, to improve a firm's internal and external governance standard. Our study has its results in line to earlier study of BAI Chong-En, LIU Qiao, LU Joe, SONG Frank M., ZHANG Junxi.; Research on An Empirical Study on Corporate Governance and Market Valuation in China. The study also sheds light on the importance of various corporate governance practices and provides useful information for Chinese regulatory authorities for designing corporate governance codes and also provides a useful guide for firms for designing their corporate governance mechanisms. This will enhance their market valuation to benefit their shareholders and reduce their future investment cost.

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