Muhammad Jam e Kausar Ali Asghar*, Zeshan Anwar**,
Muhammad Usman***, Hamad Khan****

BETTER CORPORATE GOVERNANCE LEADS TO BETTER PERFORMANCE: EVIDENCE FROM ASIAN COUNTRIES

The most contentious element in debate regarding corporate governance is the association of corporate governance (CG) with firm performance. This research employed the 2SLS regression model on a panel data, collected from 24 Asian multinationals from 2006 to 2015. The firm performance was measured in two ways; accounting measure (ROA and sales growth) and market measure (Tobin's Q). The outcomes demonstrate that quality of corporate governance (QCG) index has a significant association in enhancing the performance of firms in Asian economies. Furthermore, these results also indicate that explicit corporate governance variables such as board independence, audit committee independence, ownership concentration and CEO duality, also have significant association with the performance of companies in Asian countries which is in accordance with the agency theory.

Keywords: corporate governance, accounting performance, market performance, Asian countries.
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1. INTRODUCTION

The current study aims to analyse the connection between governance systems and business performance in a sample of giant Asian multinationals. There are various theories which indicate association governance mechanisms and shareholders' wealth, whereas company performance is a critical element in wealth creation (Rad, 2014). However, the relationship of governance systems with firm performance has not been adequately analysed for Asian countries, therefore this gap allows to conduct research in this context.

   * Department of Management Sciences, The University of Lahore, Sargodha, Pakistan.
  ** Department of Business Administration, University of Sialkot, Sialkot, Pakistan.
 *** Faculty of Management Studies, University of Central Punjab, Lahore, Pakistan.
**** UNHCR Sub Office Kadugli, Sudan.

This study empirically analysed this issue through the utilization of data for top Asian multinationals (e.g. PetroChina, Toyota Motor, Gazprom, Samsung Electronics, China Mobile etc.), building on former research in many ways. First of all, the corporate governance analyses mostly concentrated on larger economies or on developed countries like the US, the UK and selected European countries. The situation of emerging economies like Asian countries with substantial agricultural based industries may vary from that of the developed economies. Therefore, the research on Asian countries may enhance the generalization and understanding of the governance systems relationship with company performance. Secondly, since Asian countries are extremely different with respect to corporate legislation, capital structure and performance, this research provides several insights related to governance activities and company performance.

Corporate governance practices concentrate on the characteristics of boards in organizations which is also described by Castellano (2000); the board of directors takes a critical role in controlling and monitoring the performance of management, as highlighted in several empirical studies (Teti et al., 2016; Bradley and Chen, 2014; Hajiha et al., 2013). The matter of policy-making related to company performance for Asian companies has not been highlighted in previous discussions.

Better corporate governance mechanisms will help in several ways. Firstly, it will strengthen the confidence of local investors, secondly it will improve firm performance, and thirdly, it will reinforce the better performance of financial markets which will eventually result in encouraging more stable financing sources (OECD, 2009). The businesses which depend on international financing have access to a larger group of investors. Hence, if they desire to benefit from bigger capital markets and want to enhance their profitability, their governance mechanisms must be reliable, well understood world-wide, and above all, must have internationally agreed principles (Stulz, 2007).

Examining governance practices for enhancing company performance has a significant importance. Various features of corporate governance are dicussed in different studies (Teti et al., 2016; Bradley and Chen, 2014; Hajiha et al., 2013). In addition, there are also many theories which assist academicians and practitioners in understanding the CG mechanisms and their association with business performance; all of them emphasize the significance of company performance and stockholder wealth, and also the similarities and variations in these theories make the analyses more interesting. The stakeholder theory, agency theory, managerial hegemony theory, resource dependency theory and stewardship theory have all emphasized the significance of company performance and stockholder wealth. The agency theory recommends that

stockholder wealth should be secured though the management. The company's profitability and shareholder wealth are key concerns in the stewardship theory because both imply the same interests of shareholders and managers, which results in higher company profitability and value. The stakeholder theory argues that the board of directors concentrates on enhancing shareholder wealth rather than the wealth of the company. Hence, based on this theory, the board of directors need a greater level of control. The managerial hegemony theory and the resource dependence theory suggest that boards of directors need higher control for better performance, profitability and the protection of the wealth of shareholders. This research attempts to address the problems highlighted by these theories by utilizing different variables associated with governance practices, and measures their impact on company profitability.

The literature used an extensive range of variables related to corporate governance. In general, the selection of variables appears to have been based on data accessibility instead of association with an underlying theory. Subsequently, a gulf emerges between positivists and normative research in the area of governance mechanisms. The agency theory has obvious financial implications and presents an effective umbrella for filtering and understanding the variables. The board's size, independence and diversity, managerial and block ownership, CEO duality and tenure are some extremely significant factors considered in the agency theory, within which the characteristics of managers and stockholders should support shareholder wealth.

The literature specifies that a better governance system enhances the financial performance of businesses (MacAvoy and Millstein, 2003; Klapper and Love, 2004; Chahine, 2004; Brown, 2006a; Brown, 2006b). Sound corporate governance practices assist shareholders and managers to anticipate their firm's future in two ways. Firstly, improved governance mechanisms result in more cash flows for stockholders instead of the expropriation of stockholder wealth by the management of the organization (La Porta et. al., 2002; Jensen, 1986); secondly, an upgraded governance system reduces auditing and monitoring costs and facilitates organizations to effectively decrease costs (Beiner et al., 2004). Burton (2000) considers that monitoring the behaviour of management for the purposes of limiting managerial discretion will result in decreasing the agency costs.

Many countries have implemented new regulations and rules in order to improve the corporate governance mechanisms. The US introduced new rules and regulations in the Sarbanes-Oxley Act (2002) concerning the special characteristics of corporate governance activities. Other economies, e.g. the UK, New Zealand, Australia, Canada and Asian countries, have also applied the same system of rules and regulations related to corporate governance

(Rad, 2014). These countries expect that firms which follow these rules and regulations have a certain governance mechanism which assists them in enhancing their efficiency. Nowadays, the corporate governance practices and codes which highlight conformity and accountability have spread all over the world (Edwards and Clough, 2005).

Various organizations and institutions have introduced several principles and codes related to governance practices. These organizations attempt to direct businesses regarding the implementation of the most up-to-date corporate governance principles and codes for improving company performance (Edwards and Clough, 2005). These principles and codes are comparable in a few areas and the general focus of these principles and codes are the CEO and chairman separation, independent board directors and independent sub-committees, e.g. the audit, nomination and remuneration committees.

The weaker governance systems and bad performance of businesses have made domestic and foreign investors believe that the lack of better corporate governance practices led firms to face recent financial crises. Other studies also have a similar opinion about the functions of governance activities. Johnson et al. (2000) indicated that the behaviour of businesses in emerging economies in the financial crisis of 1997-98 was more reasonable when issues of corporate governance practices were used in place of macroeconomic factors and the behaviour of organizations could be anticipated through the assessment of governance factors.

The financial crunch in Asian countries and the failure of larger companies acted as a signal for Asian economies to support market efficiency through employing better governance mechanisms. The matter of governance systems received significant attention internationally, specifically from institutions like OECD (established in 1999), which published its corporate governance principles in 1999, revised in 2004. The OECD-Asian Roundtable on Corporate Governance operates as a regional forum regarding the exchange of experiences, developing corporate governance reforms while promoting the level of awareness and the use of governance principles. This forum welcomes experts, practitioners and policy-makers on corporate governance from Asian countries, OECD member countries and related international organizations. During 2003, the participants of the Roundtable approved a proposal for the improvement of governance systems in Asian regions, called the White Paper on Corporate Governance in Asian countries. The White Paper has continuously encouraged a series of initiatives such as a revision of the current legislation, adopting international accounting standards, establishing institutes of directors, introducing best practices codes and developing investors' associations.

The previous studies examined the association of governance procedures with company financial performance, and the majority of them showed the positive impact of better governance systems with company value. However, a gap exists in the empirical literature regarding the impact of governance mechanisms on business performance for multinational firms. Various studies have analysed the influence of governance practices on business performance by focusing on profitability measures, but most of them used just a few characteristics of corporate governance practices, and there are not many significant studies which addressed the corporate governance matter. Moreover, most of the researchers concentrated on developed economies, whereas analyses of Asian economies with a significant data set were ignored. Therefore there is no important study which determined the association of governance mechanisms with the performance of Asian multinationals in general, since structural differences exist when compared to western multinational firms. This gap provides a strong motivation to conduct this study, helping to bridge these literature gaps by collecting data for the top 24 Asian multinationals from 2006 to 2015.

Governance systems are extremely significant for all businesses because they enhance the trust of all stakeholders for business operations, even more significant for larger multinationals due to their larger stakeholders. Thus, it is crucial to examine the relationship of governance systems with profitability for Asian multinationals. This study aimed at determining whether better governance systems results in improving company performance measured through accounting and market performance. The outcomes of this study are considerably important for policy-makers due to the greater size, capitalization and resources of the sampled multinationals.

The rest of the study was structured as follows: Section 2 comprises the literature review; Section 3 presents the research methodology; the outcomes of this study are presented in Section 4, and finally, conclusion is provided in Section 5.

2. LITERATURE REVIEW

The literature on governance systems offered mixed outcomes regarding the impact of governance systems on organizational performance (Coskun and Sayilir, 2012). Numerous analyses have investigated the association of governance systems with organizational performance, but usually the results are inconclusive.

Most of the analyses reported the positive impact of governance activities on company performance, such as Martani and Saputra (2009), who examined the

influence of governance systems on organizational performance and stated that they significantly affect Economic Value Added (EVA). Rashid et al. (2010) determined the effect of independent boards on organizational performance for Bangladesh and concluded that a board's independence enhances organizational performance. Ivashkovskaya and Stepanova (2011) examined the impact of board activities, ownership and capital structure with organizational performance. The authors argued that the board's structure and more voting power for stockholders positively affect organizational performance.

Nuryanah and Islam (2011) determined the association of governance mechanisms with organizational performance in Indonesia and discovered that governance mechanisms (except for board size, audit committees and managerial ownership), positively affect organizational performance. Ongore and Kobonyo (2011) inspected the relations between the ownership, manager attributes, board and company performance by utilizing data of 54 listed companies in Nairobi through employing logistic regression, PPMC and stepwise regression models. The study found a positive and significant association of company performance with insider, institutional, diverse and foreign ownership, whereas company performance has a significant negative association with ownership concentration.

Moradi, Aldin, Hevrani and Iranmahd (2012) considered the effect of governance systems and financing decisions on business performance for 84 businesses in Tehran from 2007 to 2011, and showed that financing decisions, capital structure and governance mechanisms influence business performance. Furthermore, Shah, Kouser, Aamir and Hussain (2012) evaluated the connections between governance mechanisms, organizational performance, risk attitudes and ownership structure for businesses. The findings showed that better governance systems have a positive influence on risk level and business performance, whereas it was negatively associated with concentrated ownership. Ergin (2012) studied the impact of governance ranking on stock price assessment by investors from 2006 to 2010 and found that financial and accounting performance positively influence governance ranking. The governance factors including stakeholders, public disclosure and transparency, have a positive influence on financial performance.

A few studies have also found negative impact of governance systems on organizational performance. For instance, Doğan, Elitaş, Ağca and Ögel (2013) tested the association of CEO duality with business performance for 204 organizations in Istanbul between 2009-2010 and highlighted the negative impact of CEO duality on performance. Vintila and Gherghina (2012) detected the correlation of governance rating with organizational performance and showed the negative connection of business performance and global

governance rating. The authors further found the negative association of performance with governance sub-indices.

A few authors also indicated insignificant or weak relationship of governance practices with company performance, such as Ghazali (2010), who assessed the impact of the enforcement of new rules on organizational performance in Malaysia for 87 listed companies in 2001, and established that governance systems were insignificant in their influence. Hassan (2012) investigated the association of governance mechanisms with performance and financial distress for UAE banks, and showed the positive impact of governance systems on financial distress, but the insignificant impact of governance systems on performance level.

Coskun and Sayilir (2012) examined the association of corporate governance with company value in Turkey by employing the regression model and showed the insignificant impact of governance systems on company value. Hamdan, Sarea and Reyad (2013) studied the association of audit committee's independence with company performance in Amman for 106 businesses in 2008-2009, and found an insignificant connection between the audit committee's independence and company performance.

Detthamrong, Chancharat and Vithessonthi (2017) determined the influence of governance systems on company performance for businesses in Thailand during 2001-2014. The authors discovered some influence of governance systems on performance in business by splitting the companies into small and large samples. Pillai and Al-Malkawi (2017) also determined the relation of governance systems with business performance for the GCC economies in 2005-2012, and found that governance mechanisms positively affect performance in most of the GCC economies. Paniagua, Rivelles and Sapena (2018) explored the association of governance systems and ownership structure with performance in 59 countries from 2013 to 2015, and suggested that governance variables significantly influence company performance. Iqbal, Nawaz and Ehsan (2018) examined the impact of governance mechanisms with performance for MFIs in 18 Asian economies during 2007-2011, and concluded that the MFIs' performance and sustainability is positively correlated with governance mechanisms.

Alanazi (2019) analysed the association of governance score with company performance for the Saudi market by comparing the operating performance of companies with lower governance levels with those with higher governance. The author found no association of governance level with financial performance. Iftikhar et al. (2019) determined the impact of governance systems on banks' efficiency in Pakistan from 2005 to 2014 through DEA and the Tobit regression models. The authors reported the positive influence of

governance systems on the efficiency of banks. Ciftci et al. (2019) studied the relation of governance systems and company performance for Turkish firms and reported a positive connection between them.

It was shown by the review of literature that some of the authors found a positive association, whereas others identified a negative or insignificant association of governance systems with company performance. Thus this study primarily aimed at filling this research gap through investigating this association regarding Asian multinationals from 2006 to 2015, since the regulatory bodies have encouraged improved governance systems. This research expects the positive impact of governance systems on company performance through the accounting measure of company performance, return on assets (ROA) and sales growth (SG), the and market measure of performance, Tobin's Q.

3. RESEARCH METHODOLOGY AND DATA

The literature and regulators have specified the following significant governance variables in Asian economies: quality of corporate governance (QCG), board independence (BI), ownership concentration (OWN), audit committee independence (AI) and CEO duality (DUAL). The controlled variables are: firm's leverage (LEV), firm's size (SIZE) and firm's volatility (VOLA).

3.1. Data collection and sample selection

This study used quantitative technique; the sample was selected from large Asian multinationals listed in "Forbes Global 2000" from 2006 to 2015. This study omitted financial companies (as they are highly monitored), and the businesses which did not have complete dataset. The total sample comprised 762 Asian multinationals included in "Forbes Global 2000", namely 486 non-financial firms and 276 financial firms. The relevant data were gathered from their annual reports, relevant stock exchanges and the company websites. The study excluded 123 companies because of the unavailability of data, and utilized the panel data of 363 multinationals (75% of the total sample) to represent the largest Asian multinationals.

This study was based on Asian countries and "The OECD-Asian Roundtable on Corporate Governance" which operates as a regional forum regarding the exchange of experiences in developing corporate governance reforms. Moreover, it also publishes the "White Paper on Corporate Governance in Asian countries". Therefore, as far as the authors understand, these countries have mostly shared the same governance mechanisms, which is comparable.

3.2. Variables

This study estimated the performance of the firm with both accounting measures which includes ROA and sale growth (SG) and market measure, Tobin's Q, by following Bhagat and Bolton (2008); Farag et al. (2014). ROA was estimated by dividing the net income after taxes by total assets, whereas sales growth (SG) was measured as the growth rate in sales (Bradley and Chen, 2014). The Tobin's Q was measured as annual Tobin's Q following Bhagat and Bolton (2008); Farag et al. (2014).

The governance factors employed in this research were selected in line with research concerning quality of corporate governance (QCG), board independence (BI), audit committee independence (AI), ownership concentration (OWN) and CEO duality (DUAL) (Pham et al., 2012; Bozec and Bozec, 2010; Blom and Schauten, 2008; Ashbaugh et al., 2004; Bradley and Chen, 2014).

This study developed an index for determining quality of corporate governance practices of Asian multinational firms following the work of Klapper and Love (2004); Shah and Butt (2009). This variable is called QCG and was calculated through the following equation:

$$QCG = f\left(BI, AI, OWN, DUAL\right).$$ (1)

Equation 1 describes the framework for measuring of quality of the corporate governance variable. These factors were used collectively for calculating corporate governance levels and forming the governance index (QCG) for each organization, and also to check robustness of results independently.

Board independence (BI) is measured as outside board directors to total number of board directors (Singhal, 2014; Shah and Butt, 2009). These independent directors are not the company's employees and they have no affiliation with the business. Ownership concentration (OWN) is measured as shares owned by the top five stockholders to total shares outstanding in the firm (Singhal, 2014; Shah and Butt, 2009). Large stockholders hold monitoring a role of management and can reduce agency issues.

The audit committee's independence is an important factor for improved governance mechanisms as it is crucial for ensuring the correctness and quality of audit activities. The variable of audit committee independence (AI) is calculated as the number of independent directors to total audit committee directors (Shah and Butt, 2009).

The separation of CEO and chairman of the board in the company is another important governance component, and it affects performance

significantly (Singhal, 2014). This study presents the board's chairman and CEO separation as CEO duality (DUAL) and assigns value of "1" when the CEO and chairman is same person, and the value of "0" otherwise.

The study also includes some important control variables like firm's size (SIZE), volatility (VOLA) and leverage (LEV) (Bradley and Chen, 2014). Table 1 explains measurement of all the variables.

Table 1

Explanation of variables

Variable name		Measurement
Dependent variables		
Company Performance	ROA	The earnings after taxes to total assets
	SG	Sales growth measured as the rate of growth in sales
	Tobin's Q	(assets book value + common stocks market value − (common stocks book value + deferred taxes)) /total assets book value
Independent variables		
QCG		Quality of corporate governance calculated as: QCG = f (BI, OWN, AI and DUAL)
BI		Ratio of independent directors to total number of board directors
OWN		Ratio of shares held by the five largest shareholders to total outstanding shares
AI		Ratio of independent directors to total directors in audit committee
DUAL		If one person holds both positions of CEO and Board Chairman, DUAL is equal to one; and zero otherwise
Control variables		
SIZE		Natural logarithm of firm's total assets
VOLA		One year volatility of firm's share prices
LEV		Ratio of total debt to firm's total assets

Source: own study.

Panel data regression was estimated. First of all, the regression diagnostics were measured to identify autocorrelation/serial correlation and heteroskedasticity. Secondly, heteroskedasticity or serial correlation issues were identified from regression diagnostics which suggests that the Fixed or Random Effects techniques gave spurious results. Therefore, the Panels Corrected Standard Errors (PCSE) Regression was used to overcome these issues and for estimating the regression models.

Thirdly, the Two Stage Least Squares (2SLS) Regression Model was used for checking the endogeneity issue in independent variables. Based on the literature (Firth and Rui, 2012); the board's independence was taken as the

endogenous variable and the board's size was considered as the instrumental variable for applying the 2SLS regression model. The instrumental variable of board size (BSIZE) was calculated as total number of directors on the board.

The regression equation for estimating this relationship is as follows:

$$Performance_{it} = \beta_0 + \beta_1 QCG_{it} + \beta_2\ LEV_{it} + \beta_3 SIZE_{it} + \beta_4 VOL_{it} +\ U_{it}\ . \quad (2)$$

4. EMPIRICAL RESULTS

Table 2 presents the descriptive statistics of this research. Table 2 shows that dependent variables ROA, SG and Tobin's Q had mean values of 7.66, 5.14 and 1.17 respectively, whereas the minimum and maximum values for these variables were -61.95 and 89.23; 8420.01 and -3.26; -3.46 and 5.93, respectively. The values of standard deviation for ROA, SG and Tobin's Q were 12.95, 147.86 and 0.78, respectively which means that standard deviation for sales growth was high.

Table 2

Descriptive statistics

	Mean	Median	Maximum	Minimum	Std. Dev.
ROA	7.66	4.71	89.23	-61.95	12.95
SG	5.14	0.06	8420.01	-3.26	147.86
Tobin's Q	1.17	1.15	5.93	-3.46	0.78
QCG	0.45	0.43	0.97	0.04	0.65
BI	0.35	0.33	0.90	0.00	0.18
OWN	0.59	0.63	0.99	0.02	0.29
AI	0.71	0.67	1.00	0.00	0.27
DUAL	0.22	0.00	1.00	0.00	0.41
LEV	0.53	0.54	0.95	0.00	0.24
SIZE	12.83	13.18	23.98	3.26	2.58
VOLA	0.85	0.83	7.60	-4.56	0.81

Source: own study.

The variables of corporate governance QCG, BI, OWN, AI and DUAL had mean values of 0.45, 0.35, 0.59, 0.71 and 0.22 respectively, whereas the minimum and maximum values for these variables were 0.04 and 0.97; 0.00 and 0.90; 0.02 and 0.99; 0.00 and 1; 0.00 and 1, respectively. The values of standard deviation for QCG, BI, OWN, AI and DUAL were 0.65, 0.18, 0.29,

0.27 and 0.41, respectively. The control variables of LEV, SIZE and VOLA had mean values of 0.53, 12.83 and 0.85, whereas the minimum and maximum values for these variables were 0.00 and 0.95; 3.26 and 23.98; -4.56 and 7.60, respectively. The values of standard deviation for LEV, SIZE and VOLA were 0.24, 2.58 and 0.81, respectively.

The correlation analyses presented in Table 3 demonstrate that no higher correlation exists between the variables. As the highest value was 0.59, a low likelihood of multicollinearity was anticipated in the regression models.

Table 3

Pearson correlation matrix

	ROA	Tobin's Q	SG	QCG	OWN	AI	BI	DUAL	LEV	SIZE	VOL
ROA	1										
Sign											
Tobin's Q	.110**	1									
Sign	.000										
SG	.210*	.260**	1								
Sign	.000	.000									
QCG	.139**	.030*	.020*	1							
Sign	.000	.034	.024								
OWN	.148**	.089**	.078**	.214**	1						
Sign	.000	.000	.000	.000							
AI	.112**	.037*	.026*	.313**	.204**	1					
Sign	.000	.013	.003	.000	.000						
BI	.021	.020	.030	.159**	.091**	.161**	1				
Sign	.107	.119	.109	.000	.000	.000					
DUAL	-.06**	.052**	.042**	-.12**	.044**	-.03*	.097**	1			
Sign	.000	.001	.011	.000	.004	.012	.000				
LEV	-.04**	.018	.008	.020	-.03*	.002	.016	-.019	1		
Sign	.004	.136	.126	.113	.018	.443	.164	.122			
SIZE	-.23**	-.08**	-.07**	-.002	-.23**	-.10**	-.08**	.003	.022	1	
Sign	.000	.000	.000	.463	.000	.000	.000	.431	.090		
VOL	.014	.026	.016	.145**	.110**	.146**	.138**	.022	.094**	.031*	1
Sign	.195	.056	.046	.000	.000	.000	.000	.090	.000	.032	

Source: own study.

The summary of the unit root tests for all the dependent and independent variables is presented in Table 4 which shows that all the variables are stationary at that level, which means that the problem of non-stationarity does not exist in the dataset.

Table 4

Summary of unit root tests and stationarity results for variables

Variable	Levin, Lin and Chu t*	Im, Pesaran and Shin W-stat	ADF-Fisher Chi-square	PP-Fisher Chi-square	Decision about stationarity
ROA	0.000	0.000	0.000	0.000	Level
SG	0.000	0.000	0.000	0.000	Level
Tobin's Q	0.000	0.000	0.000	0.000	Level
QCG	0.000	0.000	0.000	0.000	Level
BI	0.000	0.000	0.091	0.000	Level
OWN	0.000	0.000	0.000	0.000	Level
AI	0.000	0.000	0.000	0.000	Level
Dual	0.000	0.000	0.000	0.000	Level
LEV	0.000	0.000	0.000	0.000	Level
SIZE	0.000	0.000	0.000	0.000	Level
VOLA	0.000	0.000	0.000	0.000	Level

Source: own study.

4.1. Company profitability and corporate governance

Panel regression was estimated on model 2 by taking both accounting methods of business performance (ROA and sales growth) and market measure of business performance (Tobin's Q). The Wooldridge test was employed for verifying the existence of autocorrelation / serial correlation in the dataset and the results show that the probability value of F statistics was less than 0.01 for all models, hence this study accepted the alternative hypothesis of existence of first order autocorrelation. To verify the heteroskedasticity problem, the modified Wald test for groupwise heteroskedasticity was employed. The results demonstrate that the probability value of chi2 was less than 0.01 for all models, therefore this study accepts the alternative hypothesis that the heteroskedasticity issue does exist in the dataset. Thus the PCSE regression model was used to investigate the association of QCG with company performance, assessed by three proxies, namely ROA, sales growth and Tobin's Q. Table 5 reports the findings.

Table 5 indicates that QCG significantly and positively affects ROA, sales growth and Tobin's Q which means that improvements in governance systems result in more profitability for Asian multinationals, improving their per-formance. Therefore it is highly beneficial for Asian businesses to develop their governance mechanisms as this results in higher profitability for these firms. These outcomes are comparable to the conclusions of other studies (e.g. Ullah et al. 2017; Malik and Makhdaoom, 2016). The control variable of

leverage has a positive impact on ROA which means that businesses with greater leverage have more profitability, while company size has a significantly negative influence on ROA and sales growth; this means that larger size companies also show decreased ROA and sales growth. The variable of volatility has a significantly positive influence on Tobin's Q and sales growth, which means that companies experiencing higher volatility also have higher Tobin's Q and sales growth.

Table 5

Panel corrected standard errors (PCSE) regression

	Accounting measures				Market measures	
	Return on assets (ROA)		Sales growth (SG)		Tobin's Q	
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
PANEL I						
QCG	.526***	.187	.201*	.028	.211*	.016
LEV	1.890*	1.502	.054	.046	.072	.055
SIZE	-1.221***	.147	-.025**	.023	-.013	.012
VOLA	-.043	.51	.026*	.039	.014*	.018
_cons	25.120	3.310	1.249	.250	1.467	.145
rho	.502		.206		.312	
R-squared	0.466		0.4723		0.385	
Wald chi2(10)	55.81		62.13		85.04	
Prob > chi2	0.000		0.0000		0.000	
PANEL II						
BI	4.338*	2.227	.232*	.315	.322*	.104
OWN	2.528*	1.361	.248	.157	.149***	.046
AI	1.050**	1.136	.030**	.174	.031**	.063
DUAL	-1.106	.777	-.097**	.146	-.098***	.035
LEV	2.990*	1.602	.095	.177	.074	.066
SIZE	-1.331***	.257	-.242**	.123	-.015	.013
VOLA	-.053	.681	.125*	.138	.016*	.029
_cons	20.161	3.370	1.175	.251	1.179	.140
rho	.613		.327		.423	
R-squared	0.576		0.512		0.495	
Wald chi2(10)	66.91		82.13		96.14	
Prob > chi2	0.000		0.0000		0.000	

Notes: *** significant at p-value <1%, ** significant at p-value <5%, * significant at p-value <10%

Source: own study.

The relationship of the individual governance variables, namely BI, AI, OWN and DUAL with ROA, sales growth and Tobin's Q, was also examined and the results presented in panel II of Table 5 which shows that the variables of BI, AI and OWN have a significant positive impact on ROA and Tobin's Q. Hence more independent board directors, independent audit committee and higher ownership concentration result in increasing company profitability. The results concur with the conclusions of Singhal (2014). The variable of CEO duality has a significant negative correlation with sales growth and Tobin's Q, therefore a company with CEO duality shows decreased profitability in Asian multinationals. These outcomes are comparable with those of Singhal (2014). Moreover, the variables of board independence and audit committee's independence, has a significantly positive influence on the accounting measure of performance, sales growth. This means that companies with independent board directors and audit committee demonstrate higher profitability. These findings are similar to the results of Shleifer and Vishny (1986); Burkart (1995); Chahine (2004). Based on these findings, the authors accept the hypothesis of this research that better corporate governance practices result in improved profitability for Asian multinationals.

The 2SLS model was employed to test the endogeneity issue in board independence. The results are presented in panel I of Table 6, where quality of corporate governance (QCG) index along with the control variables were taken as the independent variables, and ROA, sales growth and Tobin's Q as the dependent variables in three different regression models. The results demonstrate that the QCG variable positively and significantly influenced ROA, sales growth and Tobin's Q, which means that improved governance systems result in higher profitability in Asian multinational firms. Thus the hypothesis of this research was accepted which indicates that if Asian firms improve their corporate governance practices, this will result in their improved performance. Company size has a significantly negative relation with ROA and Tobin's Q, which means that larger Asian firms show lesser profitability. The variable of leverage has a significantly negative connection with sales growth and ROA, therefore companies with higher leverage show lesser profitability in Asian firms, whereas the variable of volatility has a significantly positive correlation with sales growth and Tobin's Q, which means that companies with higher volatility also have higher level of profitability in the case of Asian firms.

The association of individual governance variables, namely BI, AI, OWN and DUAL with ROA, sales growth and Tobin's Q, was also examined and the findings are presented in panel II of Table 6. The findings demonstrate that the variable of ownership concentration significantly and positively affects ROA

Table 6

Instrumental variables two stage least squares (2SLS) regression model

| | Accounting measures | | | | Market measures | |
| | Return on assets (ROA) | | Sales growth (SG) | | Tobin's Q | |
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
PANEL I						
QCG	.826***	.305	.019*	.022	.229*	.021
LEV	-2.033***	.780	-.078**	.054	.079	.053
SIZE	-1.016***	.076	-.023	.006	-.014**	.005
VOLA	-.352	.309	.034*	.022	.035*	.021
_cons	23.289	8.807	1.648	.267	1.449	.266
Wald chi2(10)	339.03		88.34		80.44	
Prob > chi2	0.000		0.000		0.000	
R-squared	0.580		0.612		0.519	
Root MSE	11.145		.766		.768	
Instrumented	QCG					
Instruments	LEV, SIZE, VOLA, BSIZE					
PANEL II						
BI	20.007***	3.569	.225**	.359	.123	.348
OWN	1.072 *	.774	.188	.094	.166**	.073
AI	.304**	.956	-.035*	.077	-.006	.086
DUAL	-1.161	.663	-.071*	.065	-.080*	.044
LEV	-2.033***	.780	.084**	.085	.062	.064
SIZE	-1.016***	.076	-.040	.017	-.031***	.007
VOLA	-.352	.309	.057**	.042	.035	.021
_cons	13.562	1.346	1.567	.145	1.384	.124
Wald chi2(10)	339.03		89.34		80.44	
Prob > chi2	0.000		0.000		0.000	
R-squared	0.580		0.619		0.519	
Instrumented	BI					
Instruments	OWN, AI, DUAL, LEV, SIZE, VOLA, BSIZE					

Notes: number of observations = 3618; * significant at p-value <1%, ** significant at p-value <5%, *** significant at p-value <10%

Source: own study.

and Tobin's Q, which shows that companies with more concentrated ownership also have higher profitability in Asian countries. These findings are similar to those of Shleifer and Vishny (1986); Burkart (1995); Holderness et al. (2003) and Chahine (2004). The variables of BI and AI have a significant positive association with ROA and sales growth, which means that companies with

more independent board directors and audit committees also have a higher level of profitability in Asian countries. These findings are similar to those of Chahine (2004); Singhal (2014) and Cohen et al. (2014). The results also show that the variable of CEO duality has a significant negative correlation with sales growth and Tobin's Q, which means that companies with CEO duality face lesser profitability in Asian countries. These findings are similar to those of Abor (2007) and Singhal (2014). Based on these findings, the hypothesis of this study that better corporate governance practices result in improving company profitability, was accepted.

The p-values for Durbin and Wu-Hausman test statistics were less than 0.05 for all the models, therefore this study accepts the alternative hypothesis that the variables are not exogenous. This research concluded that the endogeneity issue exists in regression model 2 and board's independence is an endogenous variable, thus the 2SLS is the right estimation model. The results indicate that the minimum eigenvalue statistic is 197.176 for all the models, greater than critical values at 10%, 15%, and 20%, hence this study accepts the alternative hypothesis that the instrumental variable is not weak. The p-value statistics for the Sargan test and Basmann test are greater than 0.10 for all the models, hence this study cannot reject the null hypothesis that the instrument set is valid and the model is correctly specified. Thus it was concluded that board size is a valid instrumental variable and the 2SLS model is correctly specified.

These outcomes indicate that an improvement in governance practices was highly beneficial for Asian businesses as it resulted in higher ROA, sales growth and Tobin's Q, which ultimately increased their profitability. These findings are also extremely significant for policy-makers of Asian companies as the empirical evidence showed that better governance practices result in higher profitability, while investors and creditors around the world would be more willing to invest in these firms due to their higher profitability. Therefore it is important for Asian businesses to strengthen their governance systems because it will lead to obtaining higher levels of profitability.

CONCLUSION

Governance mechanisms are crucial for all businesses as they support confidence of creditors and all stakeholders in business actions. These activities are highly significant for giant multinationals due to the involvement of larger stakeholders. The research concluded that improved governance

mechanisms result in improved performance levels for Asian multinationals. The findings support the past research results and governance theories in general, and agency theory in particular, concerning the role of governance activities in decreasing the agency cost and increasing business performance. These outcomes are significant as the sample of this research comprises large Asian multinationals, therefore it is particularly important for policy-makers to further develop their governance systems as this would result in higher profitability and in higher growth, due to the increased interest of creditors and investors in making investment in businesses with better governance systems. Furthermore, as these companies are larger in size and in share capital, the outcomes of this research are also extremely significant for creditors and investors globally as they can anticipate the business performance on the basis of their governance mechanisms.

The recommendations of this study have implications for managers, policy makers, investors, regulators and researchers in Asian regions. The comprehensive evidence of this research regarding the effect of governance activities on company profitability should assist regulators and policy-makers in Asian countries in making relevant policies and in assessing the usefulness of these policies. Hence, they will be able to set competitive regulatory and legal infrastructures to attract foreign capital in an efficient and effective manner. Furthermore, these results also have implications for management of Asian multinationals regarding the significance of corporate governance in striving for the improvement of company profitability and performance. Therefore, boards of directors and management of multinationals should implement higher levels of governance systems. This will also help investors to learn how company profitability is being affected by governance mechanisms, which regards specific risks, so they can make better investment decisions. This study suggests that businesses with improved governance systems have improved performance, therefore focusing on governance practices and avoiding investment in businesses with weaker governance systems could aid investors in improving their portfolio performance.

Some of the guidelines for future research are as follows: firstly the analyses of the relation of governance systems with company profitability in Asian countries should be compared with analyses of this relationship in countries outside Asia; secondly a comparison of country specific analyses among different Asian regions should be conducted; thirdly, financial multinationals were excluded from this analysis, therefore the future studies should also include them in their analyses. Lastly, the data covers the period of the financial crisis, future researchers could also conduct a separate research on this period.

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