

The Moderating Role of Country-Specific Characteristics on Pay-Performance Relationship in Asian Markets: A Meta-Analysis Approach

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Abstract

The purpose of this study is to integrate the findings of the studies related to the relationship between CEO compensation and firm performance in Asian countries. The second concern of the paper is to explore the moderating role of country-specific characteristics on the pay-performance relationship in Asian markets. In order to achieve the study's objective, meta-analysis technique is utilized through CMA. Basically, the results are analyzed with both the fixed effect and random effect models. However, the assumption of the fixed effect model regarding same true effect size was not fulfilled. Moreover, a higher level of heterogeneity was detected. Therefore, this study ignores the results denoted by the fixed effect model and follows the results prescribed by the random effect model. After eliminating outliers, the findings from 22 studies revealed that CEO compensation in Asian markets is aligned with firm performance but with the small magnitude. Furthermore, the results from the method of moments suggested that there is a positive effect of country's development and literacy on the pay-performance link, however, the negative effect of gender inequality and Islamic practices are evaluated. Conversely, no significant effect of corruption on the pay-performance relationship is purported in the study. As the authors find the influence of country-specific characteristics on the pay-performance relationship in Asian markets, this study confirms the need for enhancing pay-performance sensitivity in Asian markets to mitigate potential agency conflicts.

Keywords

CEO compensation, firm performance, corruption, gender inequality, literacy.

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Introduction

The recent financial crises have raised several condemnation regarding the ineffective corporate governance and biased compensation plans (Bebchuk, Cohen, & Spamann, 2010). By outlining theoretical boundaries, this discussion calls for more aboriginal research support to the prevailing knowledge on this domain (Meyer, 2006). It is a well-known phenomenon proposed by the shareholder's view of the firm that the basic purpose of a firm and its managers should be to maximize shareholder's wealth and stock market value (Jerzemowska, 2006). However, shareholders are characteristically dispersed and they do not handle their business operations personally. Thus, they hire agents (executives or managers) to operate the business function on their behalf, but it is possible that these executives could engage themselves in rent extraction and despite maximizing shareholders' value, they seek personal benefits at the expense of shareholders' wealth (Jensen & Meckling, 1976).

Agency theorists have provided a rational explanation for the aforementioned issue that the interest of both the agent and principal should be aligned (Jensen & Meckling, 1976). Executive compensation is a viable mechanism to resolve this issue if it is aligned with the firm performance, and eventually agency conflicts will be mitigated. Equity theory also proposed similar arguments that executives should be rewarded according to their contribution to the firm (Rynes, Gerhart, & Parks, 2005). However, prior studies on pay-performance relationship have provided mixed evidences especially in the Asian context (see Cheng & Firth, 2006; Fallatah, 2015; Feng & Johansson, 2017; Gompers & Lerner, 1999; Hall & Liebman, 1998; Hamid, 2016; Jaiswall & Bhattacharyya, 2016; Kato & Long, 2006; Murphy, 2002; Rahman, 2017). Therefore, it is important to evaluate the effect size and direction of these studies in order to provide better theoretical enlightenment to this context.

The scholars from Asian countries have rarely published their work in renowned western journals (Leung, 2007), therefore, prior meta-

analyses and systematic reviews regarding pay-performance mechanisms have not considered any Asian studies (Devers, Cannella, Reilly, & Yoder, 2007; Tosi, Werner, Katz, & Gomez-Mejia, 2000; Van Essen, Otten, & Carberry, 2015). However, it is essential to investigate how Asian firms implement and design executive compensation mechanisms, because these firms are contributing effectively to recent economic recovery as well as global economic development (Peng, Bhagat, & Chang, 2010).

To date, according to the researchers' best knowledge, there is only one systematic review by Sun, Zhao and Yang (2010) who critically reviewed the executive compensation trends in the Asian market. Although Asian researchers have contributed in corporate governance, CEO compensation and pay-performance related studies (Cho, Huang, & Padmanabhan, 2014; Minhat & Abdullah, 2014; Peng, Sun, & Markóczy, 2015; Xiao, He, Lin, & Elkins, 2013), but this study is the first attempt to evaluate meta-analysis approach in the Asian perspective. In the presence of inconsistent results, meta-analysis studies provide more rigorous and systematic outcomes compared to a classical way of literature review (Hunter & Schmidt, 1990).

This paper has also introduced certain country characteristics to examine their moderating influence on the pay-performance link in Asian markets. The arguments are developed by incorporating country-level rather than firm-level characteristics as Doidge, Karolyi and Stulz (2007) revealed that the former explain more of the variance in corporate governance than the latter, especially in the less developed countries. Good governance practices reduce the firm's cost of funds as investors believe that the firm is well governed. Nevertheless, despite the firm's effort to improve corporate governance mechanisms, if it is located in a country with poor economic development and poor investor protection, then the firm finds it expensive to grow additional funds. Therefore, country characteristics play a vital role in illustrating sustainable corporate governance practices. Consequently, prior literature tried to associate corporate governance mechanisms with political characteristics, financial system, religion, cultural heritage, economic development,

legal system and other country-level characteristics (Bushman & Smith, 2003; Hope, 2003; John & Kedia, 2004; PindadoQueiroz, & Torre, 2015; Stulz & Williamson, 2003).

The purpose of this study is to dig deep into the academic empirical literature to illuminate the apprehension of the CEO pay-performance link in Asian capital markets. It is expected that the current study will contribute to existing body of knowledge by resolving uncertainty, improving estimates of the effect size and enhancing power over individual CEO pay-performance related Asian studies. Moreover, the magnitude with which compensation of CEOs in Asian capital markets is linked to firm performance is also evaluated. The study provides more significant insights due to cross-country analysis that is not possible when investigating a single economy, sector or a specific state.

The second objective of the study is to assess how different country characteristics such as religion, development, corruption, gender inequality and literateness could influence the pay-performance relationship in an economy. For instance, Ellahie, Tahoun and Tuna (2017) argued that religious culture of economic incentives could shape individual's preference regarding compensation. Norris and Inglehart (2011) posited that Muslims prefer variable pay for their individual efforts relative to Catholics and Protestants as Islamic teachings favor profit-sharing contracts. Similarly, the cross-country analysis of Greckhamer (2016) asserted that level of country's development could influence CEO compensation, as more developed countries have a lower level of the worker-CEO pay gap. These countries culturally reject inequality and empower workers which eventually constrain excessive CEO pay. High adult literacy is also one of the important factors that could be associated with good governance practices in a country as Sudhir and Talukdar (2015) argued that educated nations are less likely to tolerate corruption and promote transparency in an economy.

On the other hand, researchers found that corrupt environment is associated with weak corporate governance, corporate social irresponsibly and bribery culture (dela Rama, 2012; Keig, Brouthers,

& Marshall, 2015; Wu, Chandramohan, & Bali, 2016). More corrupt countries also suffer from weak investor protection, less efficient compensation structures and political institutionalization (Cumming, Fleming, Johan, & Najar, 2013). In like manner, gender inequality is also associated with weak pay-performance sensitivity (Albanesi, Olivetti, & Prados, 2015). This study further examines the reliability of these claims in Asian countries through meta-regression technique. In the light of the study's evidence, policymakers could promote a strong legal environment through efficient compensation structures to foster economic growth.

Literature Review and Hypotheses Development

Similar to the studies in Western economies, the pay-performance association in Asian context also seems to be the most studied domain. Various prior studies supported the agency theory while investigating the link between executive compensation and firm performance. For instance, Mengistae and Xu (2004) revealed a positive relationship between accounting-based performance and executive compensation by employing state-owned enterprises operating in China. In the same line, Kato and Long (2006) evaluated that executive compensation is linked to sales growth and shareholder value. The study by Cheng and Firth (2006) found an association of executive compensation with the operating performance but discovered no alignment with market-based performance. On the other hand, Kato, Kim, and Lee (2007) found a significant relationship between stock market performance and executive compensation in Korean firms. Ghosh (2006) studied Indian firms and also found the association between firm's current performance and CEO's remuneration.

The recent academic literature on the pay-performance link in Asia is also mixed and inconclusive. For instance, Sheikh and Shah (2016) found a positive association of accounting performance with CEO compensation but no significant relationship of compensation with stock market performance in the non-financial sector of Pakistan. On the other hand, Yahya and Ghazali (2015) found the positive relationship of CEO compensation with all accounting and market

performance indicators in the financial sector of Pakistan. However, some other studies did not evaluate any significant pay-performance relationship in the capital market of Pakistan (see Anjam, 2010; Iqbal, Khan, & Ali, 2012; Usman, Akhter, & Akhtar, 2015).

In China, Conyon and He (2011) found a positive and significant link between firm performance and executive compensation. On the other hand, Paskelian, Bell and Omer (2012) found greater pay-performance sensitivity in foreign and private owned firms as compared to state-owned firms. However, Feng and Johansson (2017) found a positive relationship between CEO incentives and firm performance in Chinese state-controlled firms. Yan (2015) also revealed the positive relationship of executive compensation and accounting-based performance. Cordeiro, He, Conyon, and Shaw (2013) purported that CEO compensation in China is weighted more heavily in term of accounting returns as compared to market returns. However, Zhou, Georgakopoulos, Sotiropoulos, and Vasileiou (2011) did not provide any evidence on the association between firm performance and executive remuneration in Chinese banks. Similar results were posited by Luo (2015) in the banking sector of China. Researchers also tried to investigate the pay-performance link in Indian firms. For instance, Raithatha and Komera (2016) found the presence of pay-performance link in larger firms of India. Ghosh (2010) also found the relationship between CEO pay and firm performance with a smaller magnitude in the Indian capital market. Khanna (2016) also posited a positive association between firm performance and CEO compensation.

The study by Unite, Sullivan, Brookman, Majadillas, and Tangingco (2008) employed the firms of Philippines and purported a significant relationship between executive remuneration and firm performance. Ranging from weak positive to strong positive, Ismail, Yabai and Hahn (2014) found a significant relationship between CEO compensation and firm performance in Malaysian firms. Fallatah (2015) also noted a significant pay-performance relationship in Saudi Stock Market (Tadawul). Wahyuni (2014) found that CEO compensation was related to the past performance during global crises

in Indonesia. Along with many other determinants, Lee and Chen (2011) explored the positive association between CEO compensation and firm value in Taiwan stock market. Similarly, Rahman (2017) evaluated the positive relationship between firm performance and CEO compensation in Bangladesh. Owing to the fact that most of the Asian markets have improved their corporate governance mechanisms after financial crises, thus, this study is assuming the positive pay-performance association consistent with agency perspective. Consequently, the discussion from prior and current academic literature leads to the following hypothesis:

H₁: CEO compensation is positively aligned with firm performance in Asian countries.

Organizations operating in Muslim countries need to follow a certain code of conducts described by Islamic Sharia. According to Sharia laws, these firms should rely more on the internal source of financing (shareholder's equity) rather than debt financing (Fallatah & Dickens, 2012). For instance, Sharia laws in Saudi Arabia prohibit interest-based transactions but permit profit sharing and equity-based financing (Wood, 2007). Islamic principles prohibit Riba (interest), Gharar (hidden uncertainty) and Maysir (gambling) which distinguish Islamic finance from the classical financial system (Cattelan, 2009). Therefore, industrialists who believe in Islamic values may hesitate to obtain loans from conventional banks. Nonetheless, Ahn and Choi (2009) revealed that financial institutions are effective monitors and restrict the opportunistic behavior of managers. Thus, the role of board and strong corporate governance become more vigilant in case of equity-financing to protect the shareholders' wealth (Hill, Lunn, Morrison, Mueller, & Robertson, 2015). In order to protect shareholders' rights in these markets, CEO compensation should be aligned with the firm performance so that they will keep working in favor of shareholders' interest. This is one possible explanation for the proposition that Islamic countries could have a higher pay-performance relationship.

Another viable description for the pay-performance relationship in Islamic countries is the sustainability of social or distributive justice in

Sharia Laws. In Islam, the employee must receive a fair wage for his input to get satisfactory output. According to Islamic guidelines, the employer will face God's wrath if he do not compensate justly to the employee for his services. However, the employee should be paid according to the skills and the scope of work (Azman et al., 2014). Frumkin and Keating (2010) also argued that the compensation of religious CEOs differ substantively from the pay of their counterparts. As Islamic teachings indorse profit-sharing contractual arrangements, Norris and Inglehart (2011) revealed that Muslim employees prefer to receive variable compensation. Thus, it can be assumed that Islamic laws prefer equity compensation leading to stronger pay-performance link in Muslim countries. Therefore, this study formulated the hypothesis accordingly:

H₂: CEO pay-performance relationship is stronger in Asian Muslim countries as compared to Asian non-Muslim countries.

Developed countries employ pay-performance models for cost savings and quality improvements (Richard, 2010). Well-developed markets have better corporate governance practices and higher separation of ownership and control. On the other hand, there are certain barriers for the efficient corporate governance in less-developed or developing economies such as the lack of disclosure and transparency, weak monitoring systems, lack of adherence to the regulatory framework, lack of commitment on the part of board of directors, abuse of shareholders' rights and weak enforcement mechanisms (Okpara, 2011). Nonetheless, developed countries have passed certain laws to restrict managers from benefiting their own interest at the expense of shareholders' wealth. For instance, Correa and Lel (2016) argued that many developed economies have adopted say on pay (SoP) law which improves pay-performance sensitivity and reduces excessive CEO compensation. Similarly, using data of 54 countries, Greckhamer (2016) found a lower level of worker-CEO pay gap and inequality in economically developed countries. Thus, it is assumed that more developed countries in Asia have embraced better corporate governance and they have aligned their CEO's compensation with firm performance. Accordingly, following

hypothesis is formulated:

H₃: CEO pay-performance relationship is stronger in more developed Asian markets as compared to less developed Asian markets.

Corruption is usually associated with various kinds of exploitive regimes characterized by non-transparent political systems and weak institutions. An earlier study by Hao and Johnston (1995) argued that higher level of corruption “have created incentives for people to enrich themselves, decentralization has given much more people the means with which to do so, and privatization has legitimized personal wealth”. Researchers also discussed that output and societal corruption depend on the interaction among the distribution of power, the societal compensation structure and productivity distribution (Subramanian & Chakrabarti, 2011).

In order to reduce corruption, there should be an optimal level of compensation structure (a balance between over-compensation and underpayment). Over-compensation is also a type of organized crime and corruption (Ncube & Maunganidze, 2014). On the other hand, Feng and Johansson (2015) revealed that lower level of executive compensation could lead to higher level of corrupt practices. Therefore, the optimal level of compensation contract can be designed if CEO’s compensation is aligned with firm performance. In the presence of corrupt and fraudulent activities, there could be a lower level of pay-performance sensitivity (Feng & Johansson, 2015). In tandem to this argument, Cumming et al. (2013) purported that high level of corruption is associated with weak legal protection and less efficient compensation structures. Thus, it is supposed that there is a lower level of pay-performance relationship in the Asian countries with higher level of corruption. Consequently, following hypothesis is generated:

H₄: CEO pay-performance relationship is stronger in Asian countries with lower level of corruption as compared to the Asian countries with higher level of corruption.

Despite the overall economic and social development in Asia, there are still challenges regarding traditional patriarchal culture,

demographic change, and global economic restructuring. Asian women are still facing tenacious restraints in attaining empowerment and gender equality. Some prominent issues are the lack of social protection, lower level of representation in decision-making or political positions, the prevalence of women in vulnerable employment, pervasive violence and issues related to health (Heyzer, 2010). In the context of gender bias in executive pay, researchers demonstrate that female executives are compensated at lower levels than male executives (Muñoz-Bullón, 2010; Vieito & Khan, 2012).

There are various studies which ensured that women representation on top management or board could positively influence corporate performance (Sabattini, 2007; Christiansen, Lin, Pereira, Topalova, & Turk, 2016; Dezsö & Ross, 2012; Khan & Vieito, 2013; Terjesen, Aguilera, & Lorenz, 2015). Female executives in an organization are very important as they expend more efforts on firm's operations, they have higher attendance rates and they develop more exhaustive decision-making process as compared to male executives (Troiano, 2013). In developed countries, companies are required to have at least one-third representation of women on the board (Carter, D'Souza, Simkins, & Simpson, 2010; Randøy, Thomsen, & Oxelheim, 2006). Nonetheless, this policy is nonexistent in most of the Asian countries. Thus, in the presence of gender inequality, there could be a lower level of compensation for women and lower level of pay-performance sensitivity (Albanesi et al., 2015). Accordingly, following hypothesis is developed:

H₅: CEO pay-performance relationship is stronger in more gender-equal Asian countries as compared to less gender-equal Asian countries.

Literacy confers several benefits on nations, communities, families, and individuals. Especially, in the modern world, literacy is essential for participating actively or passively in global and local communities for enhancing personal empowerment, and fundamental to informed decision-making (Stromquist, 2005). Educated nations are better voters, they have the ability to complain effectively, these complaints put pressure on officials and eventually, the quality of government

could be enhanced (Botero, Ponce, & Shleifer, 2013). High literacy rate in a country can lead to superior corporate governance practices as an educated nation promotes transparency and restricts corruption in an economy (Sudhir & Talukdar, 2015). Thus, it can be assumed that high literacy could lead to high accountability. In case of CEO compensation, more educated shareholders could put pressure on the board of directors and CEOs to enhance transparency and accountability. Therefore, it is proposed that in the presence of more educated shareholders, the board of directors aligns their CEO's compensation with firm performance in order to reduce agency conflicts. Consequently, the following hypothesis is formulated:

H₆: CEO pay-performance relationship is stronger in more educated Asian countries as compared to less educated Asian countries.

Meta-Analysis Procedure

This study has followed the meta-analysis process defined by Borenstein, Hedges, Higgins and Rothstein (2009). According to Hunter and Schmidt (1990), narrative literature reviews could represent ambiguous results and concluding these studies are difficult because of variations in traits of individual studies such as time period, effect size or sample size. On the other hand, reaching a conclusion through meta-analysis technique is more viable, as it empirically incorporates the effect size of existing studies. The effect size (r) in meta-analysis indicates the magnitude between independent (e.g., firm performance) and the dependent variable (e.g., CEO compensation). This study has utilized correlation and sample size of the various studies in order to evaluate the effect size. However, in the absence of correlation, r statistics can be transformed from Mann-Whitney test, Z-test or t statistics. Nonetheless, the investigator needs to go through several steps in order to corroborate a precise meta-analysis.

Inclusion and Exclusion Criteria

The main purpose of the study is to evaluate the overall pay-

performance effect size in the Asian market, therefore, the studies relevant to this context were retained. There are certain assumptions of meta-analysis defined by Borenstein et al. (2009) that were verified before starting the process. This study has selected the researches in which the correlation between CEO pay and firm performance (ROA) relationship was mentioned, thereby the studies with quasi-experimental nature or experimental studies were excluded from the sample size. Any specific type of organizational units were ignored due to the limited number of studies in Asian context. The study tried to consider both published and unpublished studies, however, there is a possibility that some unpublished works or studies with different language may have been overlooked (Borenstein et al., 2009). The studies with incomplete information and with different measures of firm performance were also excluded. In addition, the studies from the year 2010 were considered in inclusion criteria because Asian markets improve their corporate governance practices after recent financial crises (O'Dwyer, 2014).

Literature Search

In order to broaden the literature search criteria for the study, several social sciences and multidisciplinary databases were searched namely WorldWideScience, WorldCat, Web of Science, Ulrich's Periodicals Directory, SpringerLink, SSRN, Scopus, RePEc, NBER, Microsoft Academic Search, JSTOR, JournalSeek, Index Copernicus, Google Scholar, EconLit, DOAJ, ProQuest and EBSCO. Moreover, the literature was searched using various keywords such as CEO compensation, CEO pay, CEO remuneration, executive compensation, firm performance, ROA, accounting-based performance etcetera. Initially, almost 60 studies were selected but only 26 were retained on the basis of inclusion and exclusion criteria.

Calculation of Effect Size

The correlation coefficient is a strong intuitive indicator that serves the purpose of an effect size index if the correlation between two variables is reported in the study. The variance depends directly on the correlation, therefore, many meta-analysts do not perform syntheses

on correlation value. However, it is recommended by Borenstein et al. (2009) that correlation should be transformed using Fisher's ztransformation and the summary value should be converted back to correlations. This study has not manually computed these syntheses as Comprehensive Meta-Analysis (CMA) software was used for this purpose. Nonetheless, after outlier analysis, the studies with extreme values were eliminated. In the presence of extreme values, within-group heterogeneity could be enhanced which could be an indicator of sample error (Brannick, Yang, & Cafri, 2011). The analysis indicated that 4 out of 26 studies were showing extreme values, thus, they were eliminated from the sample size.

Measurement of the Variables

CEO Compensation

CEO compensation is the dependent variable in this study. The studies who measured CEO compensation with total annual remuneration paid to the CEOs were selected. Owing to the strong disclosure policy in developed countries, researchers have examined pay-performance link with different compensation packages in these capital markets (Tricker & Tricker, 2015). However, most of the domestic firms in Asian capital markets have not disclosed all the components of CEO compensation including grants, bonuses, stock options, prerequisites, deferred compensation etcetera. Therefore, majority of Asian researchers are constrained to collect data of only total CEO's compensation to enhance their sample size.

Firm Performance

Firm performance is the independent variable of the study. Core, Guay and Rusticus (2006) argued that Return On Assets (ROA) is an effective measure of accounting-based performance. In Asian studies, most of the studies have also considered ROA to assess firm performance; very few studies have incorporated market-based performance measures. Therefore, the studies which assessed firm performance with ROA are taken under consideration.

Islamic Practices

The first moderator is estimated as the dichotomous variable in order to ensure the effect of Islam practices on the pay-performance relationship, that is, 1= if Muslim majority country, 0 = otherwise. Almost 62 percent of Muslims live in the Asia-Pacific (Lipka, 2017) and majority of these Muslims are in favor of implementing Sharia laws especially on people with Muslim faith (Bell et al., 2013). Thus, it is believed that people living in Muslim majority countries could also prefer pay-setting process according to Islamic principles.

Development

The second moderator is employed to assess the effect of country development on the pay-performance relationship. Human Development Index (HDI) was considered to accomplish this purpose. Higher HDI score indicates that people have a decent standard of living, are more knowledgeable, and have better health facilities. Economic growth alone cannot reflect the development of a country (Noorbakhsh, 1998). Human development index (HDI) is a more sophisticated measure to assess the overall development of a country (Baker, 2011).

Corruption

The third moderating variable is corruption which is calculated through Corruption Perception Index (CPI). The index defines corruption as the exploitation of public power for personal benefits. CPI captures the informed views of experts, businesspeople and analysts around the world and rank countries by their perceived level of corruption. Higher CPI score indicates lower level of corruption (Melgar, Rossi, & Smith, 2010).

Gender Inequality

The fourth moderating variable is gender inequality which is measured through Gender Inequality Index (GII). This inequality index measures gender disparities in three significant components including economic status, empowerment and reproductive health. Higher level of GII scores indicates more gender inequalities between males and females (Permanyer, 2013).

Literacy

The last moderating variable is literacy which is estimated by literacy rate. Literacy can be defined as the ability to read, write and use arithmetic.

Finding and Discussion

Initially, a basic meta-analysis is evaluated to assess the overall effect size on the relationship between firm performance and CEO compensation from 22 studies. The values were extracted from different Asian studies mainly conducted in Jordan, Pakistan, China, Saudi Arabia, Bangladesh, Malaysia, India, Taiwan, and Indonesia. This study has estimated both fixed and random effects, however, the researchers needed to choose between them while presenting the results. The effect size estimated by fixed effect is 0.24 in Table 1, however, the random effect estimated slightly smaller effect size ($r = 0.21$). In both cases, the effect size is small as Cohen (1962) purported that the effect size from 0.1 to 0.3 should be considered small. However, the p -value is significant ($p < 0.05$), therefore, it can be posited that despite of small magnitude, the CEO compensation is positively aligned with firm performance resulting in the acceptance of the first hypothesis.

The fixed effect model assumes that all studies included in the sample reflect one true effect size. This model assigns weights to the subjects according to information provided, thereby, the small size study could be ignored and large size study with greater information could be given higher weight. In addition, fixed effect model deals with only one type of error (within study errors). For instance, the error tends toward zero in case of a large sample size of the study. On the other hand, random effects assume that true effect could vary from study to study. Each study in this model estimates different effect size and the weights are more balanced in random effects. Therefore, small studies are less likely to be underestimated and large studies are less likely to dominate in the random effect model (Borenstein et al., 2009). Consequently, this study assumes that the random effect model

represents more precise estimates.

Table 1. Meta-Analysis Results for Pay-Performance Relationship in Asia

Model	Study Name	Country	Correlation	Lower limit	Upper limit	Z-value	p-value
	Abed et al. (2014)	Jordan	0.05	-0.08	0.17	0.73	0.46
	Athar et al. (2012)	Pakistan	0.02	-0.16	0.19	0.21	0.83
	Conyon & He (2011)	China	0.13	0.11	0.16	10.06	0.00
	Cordeiro et al. (2013)	China	0.27	0.22	0.32	10.27	0.00
	Fallatah (2015)	Saudi Arabia	-0.02	-0.11	0.07	-0.40	0.69
	Feng & Johansson (2017)	China	0.36	0.34	0.38	31.45	0.00
	Hamid (2016)	Bangladesh	0.31	0.20	0.41	5.41	0.00
	Iqbal et al. (2016)	Pakistan	-0.05	-0.15	0.05	-0.96	0.34
	Ismail et al. (2014)	Malaysia	0.34	0.26	0.42	8.00	0.00
	Jaiswall & Bhattacharyya (2016)	India	0.23	0.20	0.26	16.63	0.00
	Khanna (2016)	India	0.10	0.03	0.16	2.95	0.00
	Lee & Chen (2011)	Taiwan	0.22	0.18	0.26	10.26	0.00
	Lin et al. (2011)	Taiwan	0.46	0.41	0.50	16.94	0.00
	Luo (2015)	China	0.02	-0.11	0.15	0.29	0.77
	Rahman (2017)	Bangladesh	0.18	0.05	0.30	2.71	0.01
	Ramadan (2013)	Jordan	0.26	0.20	0.32	7.90	0.00
	Riani et al. (2014)	Indonesia	0.22	0.22	0.23	68.79	0.00
	Sheikh & Kareem (2015)	Pakistan	-0.32	-0.57	-0.02	-2.10	0.04
	Sheikh & Shah (2016)	Pakistan	0.31	0.26	0.35	12.38	0.00
	Sheikh et al. (2017)	Pakistan	0.31	0.26	0.35	12.44	0.00
	Wahyuni (2014)	Indonesia	0.24	0.07	0.39	2.73	0.01
	Yan (2015)	China	0.29	0.28	0.31	36.46	0.00
Fixed			0.24	0.23	0.24	89.01	0.00
Random			0.21	0.18	0.25	10.97	0.00

In a meta-analysis, the test of heterogeneity also helps in choosing between fixed or random effect models. In case of higher heterogeneity, the random effect model is preferred. Table 2

demonstrates the statistics for heterogeneity. The Q-value represents the observed dispersion. If Q-value is equal to the degree of freedom (df), then it can be posited that all subjects share a common effect size. However, in the case of this study, Q-value (497.86) is much higher than df (21). Thus, random effect model is preferable in this case. Moreover, the *p*-value is less than 0.05 which further confirms the utilization of the random effect estimation. I-squared statistics denote that almost 96 percent of the observed variance between studies is due to the real difference in the effect size and just 4 percent of the observed variance could be based on random error. Tau-squared is also an important estimate in the meta-analysis as it is between studies variance that can be utilized in estimating weights. Fixed effect model assumes that Tau-squared is zero (Borenstein et al., 2009). However, Table 2 shows that Tau-squared is not exactly zero, therefore, random effect is desirable to use in this scenario.

Table 2. Test of Heterogeneity

Heterogeneity			Tau-squared				
Q-value	df	P-value	I-squared	Tau Squared	Standard Error	Variance	Tau
497.86	21	0.000	95.782	0.007	0.005	0.000	0.081

In order to conduct moderator analysis, meta-regression technique is utilized. Both method of moments and fixed effect models are illustrated in Table 3 to provide comparative insight. The results estimated by fixed effect model are all significant. According to the model, there is a positive effect of development and literacy on the pay-performance relationship, however, Islamic system, corruption perception index and gender inequality have a negative influence on the pay-performance association in Asia. Based on the results of fixed effect model, H₂ and H₄ cannot be accepted, but rest of the results are consistent with the proposed hypotheses. Results show that Islamic Asian countries have weaker CEO pay-performance relationship. As the higher level of corruption perception index (CPI) scores indicate lower level of corruption, thus, the negative coefficient indicates that there is a stronger CEO pay-performance sensitivity in the Asian countries with the higher level of corruption. On the other hand, the

results from the method of moments are different. The aforementioned debate argued that fixed effect model is not preferable in the presence of heterogeneity. Furthermore, the true effect cannot be same for all studies in this case, because these studies are conducted in different countries which have different country-specific characteristics. Thus, method of moments is a more preferable technique in this context.

Table 3. Meta-Regression for Moderator Analysis

Variable	Fixed Effect			Method of Moments		
	Point estimate	S.E.	p-Value	Point estimate	S.E.	p-Value
Islamic Practices	-0.046	0.006	0.000	-0.067	0.047	0.083
Development	0.304	0.056	0.000	0.325	0.192	0.064
Corruption	-0.002	0.001	0.000	0.002	0.002	0.112
Gender Inequality	-0.174	0.019	0.000	-0.272	0.115	0.018
Literacy	0.001	0.000	0.000	0.002	0.001	0.045

Fixed effect model could yield false positive results as it ignores between-study error. On the other hand, random effect's method of moment considers both between-study and within-study variances (Chen, Manning, & Dupuis, 2012). Moreover, this study is not assuming that effect sizes are normally distributed, therefore, method of moment technique can be used (Borenstein et al., 2009). Owing to the smaller sample size, more strict assumptions may yield insignificant results. The findings of the study suggested that there is a borderline significant trend related to the effect of Islamic practices on pay-performance link ($p < 0.1$). Despite a little significant p -value, H_2 cannot be accepted as the point estimate shows negative statistic which means there is a lower level of pay-performance association in Muslim majority country. The study cannot confirm any effect of corruption on pay-performance relationship as we do not find

sufficient support to accept the H₄ ($p > 0.1$). However, H₃, H₅, and H₆ are accepted as the p -values show significant statistics ($p < 0.05$).

A strong pay-performance relationship was proposed in Muslim countries but the statistical evidence is vice versa. The results are contrary to the argument of Norris and Inglehart (2011) that Muslim employees prefer to receive variable compensation. There is a possibility that Islamic countries have not truly implemented Islamic laws in their industrial settings due to which the influence of religion on governmental decision and policy-making becomes ineffective (Lugo, Cooperman, Bell, O'Connell, & Stencel, 2013). Additionally, Majeed and Zainab (2017) also argued that Islamic financial institutions are not operating according to the true spirits of Sharia in Muslim majority countries. With respect to the country's development, the results describe that more developed Asian countries have a better pay-performance relationship. It is factual that more developed countries adopt better corporate governance mechanisms as compared to less developed countries (Claessens, 2006). This evidence is also consistent with the study of Greckhamer (2016), that developed countries reject inequality and constrain unjust compensation practices.

The results obtained from fixed effect model postulate that corruption perception index has a negative effect on the pay-performance relationship. However, as this study is pursuing method of moment, therefore, this study considers that corruption plays no role in influencing pay-performance relationship in Asian countries. It cannot be confirmed statistically that higher level of corruption is associated with less efficient compensation practices as proposed by Cumming et al. (2013).

The study also signifies that there is a weak pay-performance relationship in the presence of gender inequality. This result is consistent with the prior study conducted by Albanesi et al. (2015) that gender biasness reduces pay-performance sensitivity. Last but not the least, this study found a positive and significant effect of literacy on the pay-performance relationship. This result is consistent with the proposition of Sudhir and Talukdar (2015), that more education leads

to higher accountability, promotes transparency and restricts corrupt environment through which corporate governance practices in a country could be improved.

Conclusions

This study integrates the findings of prior studies pertaining to the relationship between CEO compensation and firm performance in Asian countries through meta-analysis technique. This study gives grounds for random effect rather than fixed effect model due to the detection of heterogeneity in the model. The general meta-analysis results demonstrate that CEO compensation in Asia is aligned with firm performance but the magnitude is small. Furthermore, the moderator analysis through method of moments revealed that there is a positive and significant effect of country's development and literacy while a negative effect of gender inequality and Islamic practices on the pay-performance relationship. On the other hand, results of meta-regression indicate that there is no significant influence of corruption on pay-performance link.

Although underexplored until now, this study could help Asian policymakers to foster economic growth by shaping superior corporate governance practices. It is confirmed that more developed countries have tighter CEO pay-performance link which reflects better corporate governance practices and high level of investor protection. Thus, investors may less likely face agency conflicts in more developed Asian countries. In order to attract foreign investments, Asian countries should strengthen their corporate governance structures especially through efficient compensation practices. Asian policymakers should also pay special attention to the adult and youth education to fight against corruption and improve transparency in the country. High level of literacy can be a source of regulating good corporate governance practices and mitigating the level of agency conflicts.

On the other hand, managerial entrenchment effect is detected under gender inequality and Muslim majority. Consistent with the findings of the prior theoretical and empirical evidence, it can be

purported that gender inequality leads to inefficient pay-setting process and weak corporate governance. Some unchallenged Asian cultures of male dominance restrict equity compensation structures to reward males more than their female counterparts (Huynh, 2016). However, Asian countries should understand that females are contributing effectively in developing Western economies due to their consistency and exhaustive decision-making capability. Thus, women empowerment in Asian countries could benefit overall economy of the firm.

It is very unfortunate that omnipresent corruption has corroded Muslim cultures and communities around the globe. Muslim majority countries are engaged in several corrupt practices and behaviors including breach of trust, stealing public property, exploiting rights of others through nepotism, selling fraudulent goods, laundering money, and ingesting bribery. In order to fortify this claim, Rehman and Askari (2010) self-declared Islamic countries are not truly practicing Islamic principles. The implementation of actual Islamic economic system could lead to a legitimate political authority, well-functioning markets, ethical business practices, absence of waste and hoarding, absence of corruption, equal opportunity and respect for human rights. It is suggested that Muslim majority countries should introduce flexible Sharia laws consistent with modern Western economic system to eradicate managerial entrenchment and corrupt practices from their country.

The heterogeneity in the model is very high despite the incorporation of several country-specific moderators in the model. Therefore, future studies should also consider additional information and other moderators to enhance the model's homogeneity. Although Valentine, Pigott and Rothstein (2010) argued that even two studies can be considered for meta-analysis, but it is believed that future studies should consider more published and unpublished studies to improve the reliability of effect size and to reduce any publication bias in this context. We have taken the values of moderators (macro-economic factors) for the same year as the publication year of the articles but some of the values were not publicly available for the

recent years due to which last available data are considered. This is one of the limitations of the study which should be overcome by future studies. Furthermore, this study is limited to only accounting-based performance measures, thus, effect size on the relationship between CEO compensation and market performance should also be investigated. According to Cochran and Wood (1984), accounting-based measured performance can be manipulated by managers, therefore, CEO compensation should also be aligned with market performance to encourage long-term goal orientation and to reduce managerial myopic behavior.

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