

**EXECUTIVE STOCK OPTION, CORPORATE GOVERNANCE AND VALUE OF THE FIRM: FACTS AND FICTION OF MALYSIAN NON-FINANCIAL LISTED COMPANIES****Ahmad Ibn Ibrahimy\* & Rubi Ahmad**Department of Finance and Banking,  
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*mister\_ahmad@yahoo.com***ABSTRACT**

*Ownership structure is important in determining a company's objective, increasing shareholders' wealth and discipline of managers. In other words, ownership structure and the separation of ownership and control is the heart of corporate governance area. This paper looks into Executive Stock Option (ESO) granting of Malaysian non-financial companies as a corporate governance mechanism designed to reduce agency problem, thereby increasing firm value. The period of study covers from 2002 until 2008 to test the effects of ESO granting on firm performance while considering both market and accounting based performance measurements. Both univariate and multivariate panel data fixed effect regression models revealed a significant positive relationship between ESO granted and value of the firm for the years next to the years of ESO granting occurrences.*

**Keywords:** *Agency problem, Executive stock option granting, Ownership structure, Panel data analysis, Return on assets, Tobin's q*

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**1. INTRODUCTION**

The problem of providing incentives impact on firm performance has been well established in the literature for managers who make decisions to maximize shareholders wealth. However, there are very few empirical evidences of corporate governance mechanisms based on South East Asian countries. The main objective of this study, thereby, is to examine the effects of ESO granting as governance mechanism that affect firm value. With the view of classic agency problem (Type I) and the conflicts of interests between majority and minority shareholders (Type II), this paper examines the relationship between executive stock option granting and firm performance while considering firm specific variables. Agency theory expanded in two streams but they follow a common unit of analysis of contract between principal and the agent (M. C. Jensen, 1983): a) Positivist; b) Principal-agent. They also follow the common assumptions of people, organizations and information but differ in their mathematical strictness and technique. Positivist research mainly focuses on the relationships where principals and agents have conflicting interests and relates the governance mechanisms that limit the agent's self-

interested activities. Positivist researchers almost exclusively limelight on the owners-managers relationships of large complex corporations (Berle & Means, 1932) that focusing less mathematical rigor than principal-agent research. In this context, three articles are particularly influential, e.g. Jensen & Meckling (1976); Fama (1980); and Fama & Jensen (1983). Accordingly, two propositions confine the governance mechanisms:

- a) Outcome-oriented contracts are useful in limiting agent opportunism where these contracts co-align the interests of agents with those of principals by rewarding both parties on same actions.
- b) Information systems also limiting agent opportunism where the information systems inform the principal about agent's activities by the agents' realization that they cannot trick the principal.

On the other hand, principal-agent research focuses on identifying the general relationship between employer and employee, lawyer and client, buyer and supplier etc (Harris & Raviv, 1978). Principal-agent researchers engage with careful specification of assumptions which are abstract and mathematical, therefore, less accessible to organizational researchers. Despite of different characteristics of positivist and principal-agent research of agency theory, two theories are complementary and they are not crucial.

Modern corporations are subject to the separation of ownership and control from the management (Berle & Means, 1932). Conflict of interests arises from the open nature of residual claims of the corporations. When the managers (who initiate and implement the key decisions in a firm) are not the major residual claimants, incentive issue then arise (Fama & Jensen, 1983). Again, a successful decision control is the ratification and monitoring of the decision that is separate from the decision management. Particularly, the "separation of ownership and control" notion is the separation of residual risk bearing from the decision functions. In most organizations, the contract arrangement figures the risks that undertaken by agents with fix salary or by the incentives that tied to specific performance. The remarkable difficulty is to conclude when separation of management, control and residual risk bearing is well-organized. To explain the survival of organizations characterized by separation of ownership and control, Fama & Jensen (1983) emphasized on benefits of specialized management, risk bearing and also the contract structure that separate the decision process. In the decision process, contract structure is an effective approach to control the agency problems arise from the separating the ratification and monitoring of decision from initiation and implementation of the decisions. Agency problem arise because contracts involve spending capital and to be imposed. There are structuring costs, monitoring costs and bonding costs of a set of contracts among agents with differing interests. In addition, residual loss may incur if the costs of imposing the contracts exceeds the benefits of doing it. These issues are particularly important in the contest of East Asian countries which has not been investigated adequately.

As managerial ownership fall, their fractional equity claims on profit falls and hence they tend to expropriate corporate resources that reduce the value of the firm. An increased insider shareholding helps to align the incentive of management with those of outside shareholders is known as incentive alignment hypothesis or convergence of interest hypothesis. In this alignment, as managers bear direct wealth effects from their decisions, thereby increasing the firm value (Burkart et al., 1997; Zeckhauser & Pound, 1990). With the same background, Demsetz (1983) argued that managerial interests are aligned with those of outside shareholders up to some extent due to market forces. Once managers hold a substantial level of ownership, they entrench themselves that reduces the value of the firm. This is

known as entrenchment hypothesis (Morck et al., 1988) which is contrast to the convergence of interest hypothesis. This hypothesis suggests that increased managerial ownership interest may not converge with those of shareholders to solve the agency problems. In spite of the opposite consequences, both hypotheses require for control mechanisms to line up the interests between managers and outside shareholders in order to solve the agency problems.

## 2. LITERATURE REVIEW

This study especially relies on other published works around the world. Overall, there are contradictory findings of ESO offering, some impacts are positive and some are negative to the market value of the firm. Research on the compensation of stock provides practical insights and hence, ambiguous results. With the emergence and acceptance of agency theory, the concern on executive compensation becomes popular among academicians after “Management Compensation and Managerial Labor Market” conference that was held at University of Rochester in 1984. Duffhues et al. (2002) study looks at employee stock options grants of 168 industrial firms in the Netherlands. Using 113 employee stock options granted firms, they found a positive relationship between employee stock option grants and firm performance in the subsequent year of the grant implementation and firms with high returns grant relatively more employee stock options. Equally, Kato et al. (2005) examined the post adoption effect of stock option grants of Japanese firms and found align incentives between managers and shareholders in the improvement of operating income. On the other hand, Oyer & Schaefer (2005) gathered US data from three sources of ESO grants and conduct a cross-sectional study on middle managers. They reject an incentive based justification for broad based incentive plans. Yermack (1995) studied stock option awards to CEOs of large US corporations based on the comprehensive agency and financial contracting theory. Using a Black-Scholes approach, study found weak support for optimal compensation practices or the theories of optimal compensation contract is incomplete that reduce agency costs.

There is also scarcity of ESOs adoption knowledge except very few studies (2) based on Malaysian economy focused on this issue in different angles: (i) Granting Employee Stock Options (ESO), Market Reaction and Financial Performance (Bacha et al., 2009); and (ii) An Effective Interests Alignment Mechanism or a Tool to Expropriate: A Review of Malaysian ESOS adoption, conference proceedings, (Ghazali & Taib, 2011). The earlier paper used event study to determine the announcement effect of ESOs adoption based on firm’s size. They also employed comparative study of ESO granting and non-granting years to examine the timing of ESO issuance. Conversely, the later used logistic regression to observe the impact of ESOs adoption, rather than ESOs granting, on firm performance for the observations before the approval of governing ESOs by-law by Security Commission (SC) in 2004. Unlike these studies, our study substantially fills up the literature gap of Executive Stock Options Scheme (ESOs) and firm performance relationship of Malaysian economy. To the best of our knowledge, this is the first study employs the panel data approach examining ESO granting effects on firm performance as governance mechanism.

### 3. HYPOTHESIS DEVELOPMENT, METHODOLOGY AND DATA

In the presence of the scarcity of Malaysian literatures, hypotheses are developed based on the reputed literatures worldwide. In order to provide better clarification of being the interest alignment tool, ESO granting is considered. The following questions are raised to examine the firm's specific characteristics of ESO granted firms to conclude the motives for granting this scheme: (i) Is there any significant relationship between Employee Stock Option (ESO) granting and firm performance? (ii) Is there any significant effect of firm specific variables on firm's performance?

#### 3.1 Hypothesis Development

The effectiveness under the compensation packages awarded to employees first raised by Jensen & Murphy (1990) by their seminal work who examined the agency theoretic prediction that top management are only motivated to act in their shareholders' best interests if they are offered incentives contracts. An insider who is granted an executive stock option (ESO) is one possible solution for reducing agency problems caused by the separation of ownership and control, therefore, to higher firm value (Denis & McConnell, 2003). The relation between firm value and insider ownership depends on the dominance of two opposing forces based on the concentration of insider ownership (Morck et al., 1988). According to Stulz (1988), since managers have the incentives by holding their position, they defy any takeover challenge by outsiders. Therefore, the bidder has to pay higher premium as managerial ownership increases. Because the expected payoff to share options increases with share price variance, options provide the managers with the incentives to invest in risky projects that eventually increase the firm value and help to control the managerial incentives to take little risk (C. W. Smith & Watts, 1982). Matsunaga (1995) suggests that managerial ownership also may have harmful effect on the adoption of ESOs. The incumbent managers do not prefer to dilute their control over firm, therefore entrench themselves from the hand of shareholders' managers. However, given the Malaysian scenarios where owners are also in the management (Claessens et al., 2002), ESOs would increase owner's control in the firm. Therefore, it is expected to have a positive relation between Executive Stock Option granting and the firm performance.

With the sample of the study comprising all ESOs adopted firms, the study also investigates the relationship between the firm specific variables and firm performance. As ESO granting is an internal decision, therefore, firm specific variables may produce rational explanations to its granting. The firm specific risk variables, leverage, growth, size, date of listing (age) also include different shareholding characteristics of the firm. Typically, large firms are more likely to adopt ESOs to mitigate the agency problems (Ding & Sun, 2001). In growing firms, there is better alignment of interests compare to stagnant firms where the impact of managerial actions regarding growth is difficult to observe (Kole, 1997). Stock option may provide high leverage as high leverage increase the variability of the equity, therefore the value of option. Thomsen & Pedersen (2000) argued that study of ownership structure should control the leverage and industry effects. According to Mehran & Tracy (2001), younger firms may be more cash-flow controlled which leads them to rely more on stock option issuance.

### 3.2 Methodology of the Study

The study employed panel data fixed effect analysis (Conte et al., 1996; Hall & Liebman, 1998; Hillegeist & Penalva, 2003) to explore the relationship between executive stock option (ESO) granting and firm performance. Both OLS and GLS estimators are used to compare the results. The sample companies are selected purposively (judgmental sampling) as the eligibility requirement of a sample company is ESOs adoption for the entire study period from 2002 to 2008. The empirical relationship for firm *i* in period *t* are given below while considering both market as well as accounting based measures of performance:

$$TQ_{it} = \alpha + \sum \beta_1 ESO_{it} + \beta_2 RV_{it} + \beta_3 DR_{it} + \beta_4 G_{it} + \beta_5 S_{it} + \beta_6 DT_{it} + u_{it} \quad (i)$$

$$ROA_{it} = \alpha + \sum \beta_1 ESO_{it} + \beta_2 RV_{it} + \beta_3 DR_{it} + \beta_4 G_{it} + \beta_5 S_{it} + \beta_6 DT_{it} + u_{it} \quad (ii)$$

Where, TQ = Tobin's *q*; it is a ratio of the market value of a company to the replacement costs of the company's assets (Villalonga & Amit 2006). ROA = Return on Assets; it is the ratio of a company's annual income divided by its total assets (Duffhues et al., 2002). ESO = ESO Granting; a dummy variable taking a value of 1 if company grant ESO for a particular year, otherwise 0 (Lam & Chng, 2006). RV = Return Volatility; it is the standard deviation of yearly stock return, one-year lag (Mehran & Tracy 2001). DR = Debt Ratio; it is measured as the book value of interest bearing long term and short term debt divided by the book value of companies total assets multiply 100 (Wei & Zhang 2008). G = Growth of the Company; it is measured as five years average of sales growth (La Porta et al., 2002). S = Size of the Company; it is measured as natural log of total assets (Gugler et al., 2008). DT = Date of Listing (Age) (Mehran & Tracy, 2001).

### 3.3 Data Description

Secondary data of Malaysian listed companies are used using annual reports of respective companies to observe the relationship between firm performance and ESO granting yearly basis. Data for firm specific variables are collected through Bloomberg and Databases. Financial companies are excluded as they are having distinctive accounting standards (Lemmon & Lins, 2003). Seven years data from 2002 to 2008 is considered to capture post Asian financial crisis (1997-98) picture. Purposive or judgmental sampling under non-probability sampling is used to gather information since there is a criteria to select the companies to include into the sample. Companies must have completed a full accounting year of 12 months business operations and follow the same year-end throughout the seven years. The sample comprises of all non-financial companies listed in Bursa Malaysia (formerly known as Kuala Lumpur Stock Exchange).

## 4. RESULTS AND ANALYSES

There are inconsistent findings regarding the relation between governance mechanism and firm performance. This inconsistency may be due to different selectivity of samples, measurement errors or the missing variables problem (Borsch-Supan & Koke, 2002). Given that ESO is categorical variable (1 or 0), this study employs dummy variable approach to realize the fact using both univariate and

multivariate regression equations. Additionally, Pearson correlation test, unit root tests and Hausman's specification test are conducted to verify the relationship.

#### 4.1 Correlation Matrix

The purpose of this section is to ensure that all explanatory variables are independent to each other regardless their relation. If the explanatory variables are correlated, it violates one of the Classical Linear Regression Model (CLRM) assumptions which is very serious for regression estimation (Stevens, 2002). The problem arises from the high correlation between independent variables which is known as multicollinearity problem. A simple Pearson correlation test (Table 1) is performed to see this relation between independent variables. It is found that firm's size is positively related with debt ratio and growth and negatively related with return volatility at 1% significant level. These variables are correlated by 23%, 16% and 22% respectively which is much lower than the benchmark of allowing the relation of 80% (Gujarati, 2003). Other significant correlations among variables are even smaller which doesn't cause the multicollinearity problem. By combining cross sectional and time-series data, the extra variations set up by panel data also help to alleviate multicollinearity problem (Brooks, 2008).

**Table 1:** Simple Correlation of Firm Specific Variables

	RV	DR	G	S	DT
RV	1.00				
DR	0.08***	1.00			
G	-0.06**	0.009	1.00		
S	-0.22***	0.23***	0.16***	1.00	
DT	-0.06**	-0.04*	0.05*	-0.10***	1.00

\*\*\* 1% level    \*\* 5% level    \* 10% level

#### 4.2 Unit Root Tests

Before running regression to test the effect of executive stock option granting on firm performance, it is necessary to perform a unit root or non-stationarity test that confirms the stationarity of the variables. Table 2 shows the results of unit root for panel data. Unit root tests are performed at the level to detect the stationarity of the series with intercept model; and none. Results show that all variables are significant at 1% level, thereby reject the null hypothesis. Since there is no unit root problem, series are said to be integrated of order zero indicating that all variables are stationary. In other words, all variables have zero mean and constant variance for the entire period.

**Table 2:** Unit Root Tests of Variables

Variables	Levin, Lin & Chu t*	
	With Intercept	None
Tobin's Q (TQ)	-24.71***	-30.98***
Return Volatility (RV)	-51.36***	-7.29***
Debt Ratio (DR)	-33.74***	-3.83***
Growth (G)	-33.86***	-11.12***
Size (S)	-34.86***	10.90

\*\*\* 1% level

The next sections are investigating the effects of ESO granting on performance yearly basis while considering both univariate (TQ) and multivariate (TQ, ROA) regression analysis.

#### 4.3 Univariate Analysis

Table 3 shows the results of one-way fixed effect univariate regression of ESO granting yearly with other firm specific variables considered. It is observed that ESO granted in year 2003, year 2006 and year 2007 are significant at 1% level with increasing magnitudes of regression coefficients. Therefore, it could be concluded that ESO granting works as governance mechanism to align the interests between the executives and the shareholders that eventually increase shareholders' wealth. One way fixed effect univariate results of Debt ratio and firm's size are significant and negatively related, explaining 68.5% and 68.7% variation in firm performance alone respectively. The negative relationship of debt ratio indicates that the lower the debt ratio, a company will have higher firm performance. On the other hand, the negative relationship of size implies that the smaller size firms perform well than the larger firms. Between debt ratio and the size of the firm, debt ratio is highly significant (t-statistics -2.348).

**Table 3:** Univariate Analysis (TQ)

Panel	2002	2003	2004	2005	2006	2007	RV	DR	G	S	DT
Coeff	0.007	0.166***	0.009	-0.048	0.160***	0.177***	-0.634	-0.003**	0.00002	-0.141*	-0.099
t-ratio	0.148	3.907	0.178	-0.959	4.842	3.076	-1.446	-2.348	0.029	-1.785	-0.741
R <sup>2</sup>	0.684	0.688	0.684	0.684	0.686	0.686	0.686	0.685	0.684	0.687	0.686
D-W	1.33	1.33	1.33	1.33	1.33	1.33	1.32	1.33	1.33	1.33	1.34

Here, 2002 = 2002 Granting; 2003 = 2003 Granting; 2004 = 2004 Granting; 2005 = 2005 Granting; 2006 = 2006 Granting; 2007 = 2007 Granting.

#### 4.4 Multivariate Analysis

The main purpose of this study is to observe the performance of ESOs adopted firms over time. Before running the models, Hausman test is performed. One way of model selection to fit the data properly could be done using Hausman's specification test (Dougherty, 2006). According to Baltagi (2005), if the assumption of random effect model of there is no correlation between independent variables and the error term is not fulfilled, the coefficients estimated by the random effect model will be biased and inconsistent. As Chi-square test statistics are significant, we reject the null hypotheses. Therefore, fixed



effect model is employed as the fixed effect estimator of the coefficients is considered unbiased and consistent. Following Lam & Chng (2006), Conte et al. (1996); we attempt to identify whether ESO granting contributing to the firm value.

**Table 4:** ESO Granted and Firm Performance (TQ)

Variables	OLS		GLS	
	Pooled	Fixed	Pooled	Fixed
Intercept ©	0.33	3.05***	0.07	2.16***
ESO Granted (2002)	0.03	-0.02	0.06**	-0.04*
ESO Granted (2003)	0.21***	0.13***	0.18***	0.08***
ESO Granted (2004)	0.06*	0.02	0.07***	0.02**
ESO Granted (2005)	0.01	-0.002	0.03	-0.02*
ESO Granted (2006)	0.24***	0.20***	0.16***	0.08***
ESO Granted (2007)	0.32***	0.25***	0.17***	0.17***
Return Volatility (RV)	0.11	-0.54	0.04	-0.16
Debt Ratio (DR)	-0.004***	-0.002	-0.002***	-0.0002
Growth (G)	0.002***	0.0002	0.001***	0.0002
Size (S)	0.04***	-0.09***	0.05***	-0.04***
Age (DT)	-0.007***	0.01	-0.005***	-0.02***
<b>R<sup>2</sup></b>	<b>0.06</b>	<b>0.70</b>	<b>0.26</b>	<b>0.83</b>
Adjusted R <sup>2</sup>	0.05	0.65	0.25	0.80
F-statistic	7.68***	13.19***	44.14***	28.28***
D-W statistic	0.45	1.33	0.87	1.71

**Hausman's Specification Test: Chi-square static: 16.99\***

\*\*\* 1% Significant level \*\* 5% Significant level \* 10% Significant level

Table 4 shows the results of both OLS and GLS estimators reported in order to compare the estimations while relying on the fixed effects estimations to conclude. For pooled and fixed effects estimations, ESO granted in year 2003, year 2006, year 2007 are positively significant at 1% level which is consistent with both estimators. ESO granted in year 2004 also significant by both estimators (except OLS fixed effect) with diminishing rates. This could be due to the economic slowdown in Malaysia during these periods. Overall, it is found that these variables are highly significant and positively related with firm value at increasing rates over time. Therefore we can conclude that the ESO granters' firm performances are enhanced by adoption of the scheme which supports the convergence of interest hypothesis. In the previous section, we also found that ESO granted in year 2003, year 2006 and year 2007 to be highly significant and positively related with firm value when regressed individually (Table 3). These results indicate that firm value is a monotonic increasing function of ESO granting. Finding is similar with Duffhues et al. (2002); Kato et al. (2005) of supporting incentive compensation but contrasts with Oyer & Schaefer (2005); Yermack (1995).

In this study, risk level is assessed by return volatility (RV) for executive stock option scheme model. The inverse relationship of both fixed effect models may indicates that increased volatility can lower the



magnitude of a firm's option grants, therefore, firm performance. This scenario is appropriate for risk-averse employees. Among other control variables, debt ratio and growth are significant at 1% significant level for both pooled effect estimators. Leverage (Debt ratio) is negatively but firm's growth is positively correlated with firm performance. The inverse relation of debt ratio shows that lower leverage firms have high market value. Moreover, the low coefficients of debt ratio stipulate that ESOs adopted firms are less reliance on outside funds. On the other hand, positive relation of growth referring to the increased managerial discretion of ESOs adopted firms that enhance the value. In addition, firms with systematic growth are granting more options that perform well (Sesil et al., 2007; C. W. Smith & Watts, 1992). This finding strongly supports the usefulness of ESOs that do improve firm performance. Firm's size is negatively related to firm performance with fixed effect of both OLS and GLS estimators but positively related with pooled effects of them. The negative relations do indicate the small firms to have better performance compared to large firms. As large firms may have higher monitoring costs, it requires more option grants for better performance. Finally, Age is inversely related at 1% significant level with pooled and fixed effect GLS estimator. These inverse relations of firm's age and debt ratio reflect the old firms and the firms with heavy leverage to have decline performances. In terms of goodness of fit of the models, pooled estimators exhibit quite low R2 compare to fixed effect regression estimators.

Firm performance also measured through profitability measurement: Return on Assets (ROA). As a traditional financial accounting measure, ROA is an indicator of how the management is using each dollar of assets they controlled. In terms of wealth maximization, higher levels of ROA will result in greater levels of utility for the shareholders. Table 5 shows the results of both OLS and GLS regressions of a dummy variable of ESO granted through the years to test the effect of executive stock option granting on firm performance (ROA). Results of two estimators are reported in order to compare the estimations. For OLS (except year 2003) and GLS estimations, ESO granted in all years are significant at 1% level with both effects indicating the increased variability of profitability of accounting based measure compare to market based measure of performance (Lambert & Larcker, 1987). The findings are similar with both pooled and fixed effects OLS estimator of ESO granted in year 2003 which is significant at 10% level.

**Table 5: ESO Granted and Firm Performance (ROA)**

Variables	OLS		GLS	
	Pooled	Fixed	Pooled	Fixed
Intercept ©	-19.95***	12.64	-10.35***	15.54**
ESO Granted (2002)	1.24***	1.87***	1.03***	0.86***
ESO Granted (2003)	0.40*	0.74*	0.81***	0.69***
ESO Granted (2004)	1.75***	2.20***	1.21***	0.92***
ESO Granted (2005)	1.25***	1.53***	1.16***	0.61***
ESO Granted (2006)	1.25***	1.43***	1.00***	1.14***
ESO Granted (2007)	3.13***	2.79***	2.63***	2.27***
Return Volatility (RV)	-23.74***	-2.76	-14.49***	0.97
Debt Ratio (DR)	-0.15***	-0.14***	-0.13***	-0.12***
Growth (G)	0.05***	0.06***	0.06***	0.06***

Size (S)	1.42***	-0.56	0.87***	-0.66**
Age (DT)	-0.005	0.31***	-0.01	0.18***
<b>R<sup>2</sup></b>	<b>0.21</b>	<b>0.61</b>	<b>0.37</b>	<b>0.81</b>
Adjusted R <sup>2</sup>	0.21	0.54	0.36	0.78
F-statistic	34.70***	8.73***	73.75***	24.05***
D-W statistic	0.92	1.77	1.03	1.72
<b>Hausman's Specification Test: Chi-square static: 42.87***</b>				

\*\*\* 1% Significant level \*\* 5% Significant level \* 10% Significant level

Return volatility is negatively related with both estimators by pooled effect at 1% level as earlier findings. Among other control variables, growth is positively significant and debt ratio is negatively significant with firm performance (ROA) at 1% level for both pooled and fixed effect estimators. Firm's size is positively significant at 1% level for pooled effect estimators but negatively related with fixed effect GLS estimator. Finally, age of the company is positively significant at 1% level with both fixed effect estimators indicating old firms to have better performance which contrast previous results. In terms of goodness of fit of the models, pooled regression exhibits quite low R2 compare to fixed effect regression estimators.

## 5. DISCUSSION AND CONCLUSION

In the case of ESO granting effects on firm performance (TQ, ROA), we found a significant positive relationship between them after ESO is granted with an increasing rate of beta coefficients over time. ESO granting in Year 2004 and 2005 are insignificant on firm performance (TQ) may be due to economic contraction during the periods. Therefore we can conclude that granting of the Executive Stock Option (ESO) enhance the firm performance which support the convergence of interest hypothesis. It is observed that firm level risk variables return volatility is negatively insignificant with market based performance measure but negatively significant (pooled effect) with accounting based performance measures. This significant inverse relationship of high magnitude of coefficients is indicating higher value of the firm with lower stock return fluctuations. In other words, more inconsistency of stock return will decrease the level of option grants that align the interests between shareholders and the managers. Leverage and Growth are found to be highly significant by both pooled and fixed effects estimators of market and accounting based performance measures. Findings comply with the notion that accounting based returns exhibit stronger effects of variables compare to market based returns. The inverse relation of debt ratio is indicating that higher leverage a firm accumulates; lower the firm performance due to its inherent risk. This idea may consistent with notion that low levered firms issue more stock options to have better performance by reducing cost of debt. On the other hand, low positive beta coefficients of growth variable especially against market based performance can be interpreted as having a few investment opportunities of ESOs adopted firms in Malaysia. Firm's size is positively significant at 5% level by both fixed effect estimators of market based performance (TQ); and it is at 1% level with higher magnitude of coefficients against the accounting returns (ROA). This rapid growth in firm's assets (size) may be the result of proactive measures by the shareholders to ensure executives future actions that enhance firm value through adopting ESOs. Age is found to be negatively

significant at 1% level against market based performance measure. The low inverse coefficient of age with firm performance implies the older firms to have inferior access to capital markets, resulting in lower performance. Overall, an inconsistent relationship is found with this variable and performance when regress against market based as well as accounting based performance measurements.

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