

RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION, ECONOMIC VALUE ADDED, AND ACCOUNTING PERFORMANCE MEASURES: EVIDENCE FROM CANADIAN LISTED COMPANIES

Sekhar Amba, New York Institute Technology
Devinder Singh, New York Institute Technology

ABSTRACT

This research paper examines the relation between executive compensation and value-added performance measures Economic Value Added, Market Value Added and accounting performance measures Earnings Per Share, Return on Assets, Return on Equity and Tobin's Q. The results of this empirical analysis demonstrate that there is a significantly relation between executive compensation and Economic Value Added and Market Value Added but a weak and mild relationship with accounting return measures This empirical research is used data of 226 firms which are listed on the Toronto stock exchange for the years 2014-2018 using panel regression methodology.

JEL: G32, G34

KEYWORDS: Economic Value Added, Executive Compensation, Market Value Added, Return on Asset, Return on Equity, Earnings Per Share, Tobin's Q

INTRODUCTION

The foundation for compensating executives has been studied comprehensively in corporate finance as maximizing shareholders wealth is the paradigm of corporations. Under the empirical study of corporate governance literature; the relationship between key financial performance indicators of a firm and executive pay has been amongst one of the most broadly studied question (Frye, 2004; Jensen & Murphy, 1990; Murphy, 1999; Rosen, 2000). According to Johnson et.al (1985), Stewart(1991) and Ehrbar(1999), accounting measures such as earnings per share (EPS), return on assets (ROA) and return on equity (ROE) has been historically considered as leading indicators of shareholders wealth measurement. Most studies that explored managerial pay and firm's performance have used accounting performance measures ROE&ROA and these measures do not account for the risk taken by the firm's managers who search for growth and profitability (Shiely,1996). Managerial pay and remuneration linked to accounting measures are somewhat obscured by the traditional accounting measures as these measures are not accounted for firm's risk (Lehn & Makhija,1996; Stewart,1991). Firm's wealth is created when earnings are exceeded as compared to the cost of equity and debt capital employed. Value based measurements of firms business performance has its theoretical roots in economic profit, a measure accounted for the opportunity costs (Jakub et al , 2015). Economic Value Added (EVA®) is metric, an intrinsic value-added measure, a variant of residual income developed by Stern Stewart & Co. Stewart (1991) introduced another measure of shareholders value called "Market Value Added"(MVA). EVA has been preferred as performance measure and

as an instrument for evaluating executives (Coles et al., 2001). EVA is the internal risk adjusted measure of performance that considers the weighted average cost of capital of a firm; it yields positive result if the organization earns after-tax operating returns that exceed the cost of capital. MVA is associated with the EVA; theoretically, it is the present value of all the expected (or estimated) future EVA.

The linkages between EVA, MVA and Executive Remuneration has been majorly understudied and scrutinized in the Canadian listed companies at Toronto Stock Exchange. The study about executive compensation became possible in Canada only after 1993, where all the publicly traded enterprises were obligated to report the managerial remuneration under the Ontario Securities Regulation. Zhou (1997) acknowledged a positive relationship between executive pay and accounting performance measures of the firm for Canadian Enterprises. Several studies over the decades have already well-established the link between managerial pay and performance of the firm corroborating that managerial pay is tied to the accounting financial performance measures of the entity (Coughlan & Schmidt, 1985; Murphy, 1985; Jensen & Murphy, 1990). Although, a major chunk of the previous researches and studies from applied corporate finance are based on the findings of the pay-performance relationship; it becomes evident to divulge the incentive strength of executive compensation and value-added performance measuring indicators such as EVA and MVA. The purpose of the study in examining relationship between Executive compensation and shareholders wealth creation metrics EVA & MVA and accounting profitability metrics on S&PTSX listed companies, has become very significant with the controversy surrounding executive pay rise by Bombardier Inc. at a time when its stock price was taking downward spiral. The rest of the paper is organized as Literature review, Conceptual framework, Data and methodology, Results & Analysis and Conclusion and recommendations.

LITERATURE REVIEW

According to shareholders theory, maximizing shareholders value is the fundamental goal of the firm's management, overtaking the precedence of interest of stakeholders such as society, customers, suppliers and employees. Shareholders theory contends that corporation's asset owners are shareholders and thus managers should give high priority in protecting these assets and grow, yielding positive results to the shareholders (O'Connell, M., Ward, A.M., 2020). On the contrary stakeholder's theory, proclaims that business operates in societal settings and hence managers have to act responsibly to both shareholders and stakeholders who are either directly or indirectly bear the potential risks and rewards. Managers needs to ensure the broader interest of stakeholders in their decision making, thus not violating stakeholders' rights and simultaneously pursue maximizing shareholders wealth.

The primary objective of business operations is value creation. It aims to satisfy stakeholders' general interests. Value added is important to shareholders because it allows them to get back their money invested and make the expected profit. Certain salary incentives encourage managers and other employees to act in the direction of generating value. The fact that this indicator is the primary condition for raising the standard of living and quality of life is what drives the general interest of the national economy in increasing the value created. As a result, the process of substantiating managerial decisions and investment options necessitates the identification of factors that can affect economic value added and the analysis of economic value added created by businesses. There are a variety of approaches that can be taken to evaluate a company's performance during the process of creating value; however, these approaches may occasionally provide information that is contradictory or only partially accurate. The indicator Economic Value Added is presented in the paper and can be utilized to evaluate the outcomes of implementation as well as support strategic and operational decisions.

Executive remuneration has been a confounded and dubious topic to be studied in the corporate finance. Over the years' policymakers, and academics have expressed their concerns towards high-end compensation packages being offered to the executives and whether they align with the interests of the

shareholders or investors. The objective of a well unbiased remuneration package to managers is to motivate, appeal, and maintain the interests of the shareholders. The standard economic principle to contemplate the executive compensation packages is the principal-agent concept. The model helps the organizations to design an efficient compensation package. Shareholders circuitously decide the pay through the compensation committee in the agency model. The offer is made to the agent by principal (shareholders) in the form of a contract. The efficacious contract is one which aims at maximizing the net expected economic value to the principal (shareholders) following the transaction costs, and other administrative costs (Core et al., 2003). The principal-agent theory also mentions about the perchance of conflicting interest between the principal and agent due the asymmetric information available which might lead to moral hazard. To avoid the conflicting interest of the agent and the principal, incentives (cash bonus, stock options, no-equity compensation, or pension plans) are attached as part of the contract which are paid off in accordance to the shareholders' wealth maximization. Jensen and Meckling (1978) determined that in a hypothetical case if a manager owns all the shares of respective firm; the manager is unlikely to maximize the worth of the organization. Travlos et al.,(2005) itemized that effective and efficient corporate governance is the key to minimizing the agency costs. Fama (1980) concurs that the efficient form of firm can be achieved if the ownership and control are segregated with clear distinct boundaries. Basu et al. (2007) concluded that as the strength of corporate governance grows strong the executive pay plummets. However, as indispensable the agency theory is; several academicians are skeptical about its validity. Bruce et al. (2005) criticized that the theory fails to articulate the sensitivity of pay-performance and which can be attributable to existence of various other problems presiding within the research itself.

Institutional Shareholder Services (ISS) primary pay-for-performance (P4P) tests, advocated for a single measure "Total Shareholders Return (TSR)" as a performance metric in executive pay (Stewart,2014). Subsequently in response to the criticism of this TSR metric, ISS proposed EVA as secondary quantitative test for P4P tests (Ira Kay, Marizu Madu and Phil Johnson,2020) Stewart (1991) in his seminal research, analyzed EVA and MVA linkages using US firms found strong influence of EVA on stock returns and a strong correlation between EVA and MVA. Later Lehn and Makhija (1997) analyzed correlations among financial performance measures using data from US firms found significant positive correlations between EVA and stock returns. Biddle et al (1997,1999) researched on comparison of stock returns and EVA, residual Income and operating cash flow from US companies for the period 1985-93, concluded that EVA is no superior than traditional accounting measures in stock returns. Machuga et al. (2002) found an evidence of linkages between EVA and future earnings of the firms in US firms, EVA is found to be more correlated with stock returns than residual income, ROE and net Cash flows in Australian firms(Worthington and West,2004).Examining EVA linkage with stock returns in comparison with accounting measures using firms from United Kingdom, found EVA does not explain better the stock returns than net profit after taxes, net income concluding that accruals and operating cash flows have a higher information value than EVA(Ismail,2006).

Information content tests indicated EVA is less information content to stock returns in Greek firms than accounting performance measures (Kyriazis and Anatassis,2007), whereas Taufik et al (2008) concluded EVA is superior to accounting measures ROE, ROA in firms listed at Jakarta Stock Exchange. Cucari et al (2016), examining CEO pay and shareholders return relationship from Italian stock market using panel data regression methodology between 2008-2014, found no significant relationship between CEO pay and stockholders return. Moreover, Kevin J. Murphy (1985) found a statistically positive relation between compensation and firm performance. Murphy data was based on panel data for 73 US manufacturing firms over the tenure of 1964-81. Since the evolution of the financial world a lot of new footings emerged which can influence the empirical study of field area. Tosi, Gomez-Mejia, and Hinkin clinched that Chief Executive's pay is more responsive to firms' performance in proprietor-controlled organizations with predominant shareholders. In yet another study by Conyon et al. (2000) determined that the executive pay is positively linked to the shareholder's return; not to EPS in the sample study of UK listed companies from the period 1985-95.Morris C. Attaway (2000) research is based on specific industry type to define the

relationship between executive pay and ROE (return on equity); the sample is based on 42 firms in the computer electronics segment from 1992-96. Morris concurred with his findings that there is a significantly positive relationship but with low sensitivity levels in the respective sector. Dan Eric Gabay (2005) also concludes the positive correlation between the chief executive remuneration and firm's performance. He articulates that the accounting performance indicator such as EPS is significantly correlated to long term as well as short term financial compensation offered to the chief executives. Fatemi, Katz, and Desai (2003) determine the relation between the market measures such as MVA, and EVA have a positive relation with executive compensation. Although, the MVA demonstrates statistically stronger correlation than EVA. Nevertheless, the links between the MVA and EVA were found to be better than the accounting performance indicators such as ROA. According to Kyriakou (2018) who opined "enlightened approach to shareholders' wealth maximization" in which shareholders are keen about welfare of society in addition to the financial gains and therefore shareholder's value creation is considered important coupled with shareholders wealth maximization. Doaei (2012) found a positive relationship between MVA and executive pay in his research using data from Tehran stock market. Yahyazadehfar et al (2010) examined relationship between accounting measures ROA, ROE, EPS and value added measures EVA and MVA, found that ROE, EVA are significantly influencing MVA. De Wet (2012) examined the relationship value added measures EVA, MVA and top management compensation in South African stock market found a significant relationship but found a stronger evidence of management compensation with ROE and ROA. However, few scholarly articles or journals address how strong and significant the correlation exists between the executive compensation and the value-added measuring metrics in Canadian publicly listed market which this paper will be addressing.

DATA AND METHODOLOGY

Managers, the sole agents of the firm, they are expected to take business decisions in the best interest of the shareholders and thus creating wealth to all stakeholders. Its possible that managers may create earning stream of cashflows from projects not covering their cost of capital raised from lenders and equity owners leading to destruction of wealth while adding net income streams. On the contrary management may shun the project that can earn cost of capital just to enhance return on equity to protect stock holders. Thus, Stern Stewart & Co., proposed value-based measures EVA and MVA Economic value-added is the measure of the financial performance of any respective firm which is calculated by the product of Invested Capital and Weighted average cost of capital (WACC) subtracted from Net operating profit after taxes (NOPAT). Market value added (MVA) is measure of the wealth created by the firm since the inception of the company. It can be calculated by deducting Total Common shareholder's equity from Market Capitalization. Tobin's Q (TQ) is often used in analyzing the stock valuation and is expressed by the ratio of Total Market Value of the firm to Total Asset Value of the firm. EPS is ratio of firms' Net Income to average outstanding shares and is useful indicator of firms' profitability.

Data for this research is collected using Bloomberg database for 228 publicly traded companies listed in Canadian stock market tracked by S&PTSX equity Index. Accounting for missing data a total 226 companies is included in this study. Panel data is collected for the variables: Total Salary and compensation paid to executives (SALCOMP), Total Bonus (BONUS) paid to executives are collected for the fiscal years 2014–2018 from Bloomberg database. Yearly data for firms accounting performance variables: Return on Equity (ROE), Return on Assets (ROA), Earnings Per Share (EPS), Tobin's Q(TQ) and Value measures: Economic Value- Added (EVA) and Market Value-Added (MVA) are collected for the years 2014-2018. The panel data regression models used in the study are pooled, fixed effect, and random effect model. The pooled OLS regression model is a fit for the balanced panel data which is efficient when the error terms are homoscedastic and are not auto-correlated but the model assumes uniform error variance.

The fixed effect model is a fit for the panel data which treats the unobserved individual heterogeneity which

may be correlated to dependent variable. The model assumes that the correlation between individual heterogeneity and explanatory variable is non-zero. The model is useful for the panel data as it eliminates the individual effect (α_i) and yields time demeaned variables. The Random effect estimation model assumes the correlation between the individual-specific effect and explanatory variable is zero. The Panel Hausman test is used to find the appropriate model fit for the regression between the Fixed effect and Random effect estimation models. Panel data regression models are used to test the hypothesis using econometric software EViews.

H₁: Executive Compensation is positively related to firms value addition metrics EVA & MVA.

H₂: Executive Compensation is positively related to firms accounting profitability measures.

EMPIRICAL RESULTS

Table 1 shows summary statistics of the data covering 203 companies for the years 2014-2018 of the Canadian publicly traded firms under study. For the sample companies the average(median) ROE was 7.95(9.40) whereas ROA was 2.49(2.62) indicates the firms are generating profits for its investors. The average(median) of EVA was -317.25(-10.04) whereas MVA was 31820.59(1091.20). It's possible that firms undertake risky projects, yielding negative EVA in the short run but positive EVA in the long run and MVA is positive as it indicates investors' expectations of firms' present value of future growth opportunities. Incidentally Tobin's Q and EPS have average(median) 1.63(1.25),1.07(0.64) respectively contributing to positive MVAs and hence positive BONUS and SALCOMP of the executives.

Table 1: Common Sample Descriptive Statistics

	EVA	BONUS	MVA	ROE	ROA	TQ	EPS	SALCOMP
Mean	-317.25	372,625.30	31,820.59	7.95	2.49	1.63	1.07	317,6215
Median	-10.04	0.00	1,091.20	9.40	2.62	1.25	0.64	2,807,618
Maximum	2,479.30	7,460,000.	824,940.40	142.21	31.59	11.77	9.56	10,610,000
Minimum	-15,841.71	0.00	-248,994.1	-89.77	-56.70	0.64	-11.18	584,218.1
Std. Dev.	1,847.43	1,095,659.	140,540.2	20.00	9.26	1.33	2.47	171,1049
Observations	226	226	226	226	226	226	226	226

This table shows summary statistics of variables used in this research.

To test the hypothesis H_1 Bonus of executives are regressed on EVA and MVA. Results are shown in the Table 2. As F score is 18.12 with probability of F statistic being significant at 1% level the Model 1 is found to be significant. MVA and EVA coefficient are also found to be significant at 1% level indicating variables EVA and MVA are positively associated with Bonuses of executive compensation.

Table 2: Impact of Economic Value-Addition Indicators on Total Bonus Paid to Executives

BONUS			
	MODEL 1	MODEL 2	MODEL 3
	Pooled	Fixed Effect	Random Effect
C	236,727.1	211,975.4	222,172.9
EVA	-100.12 (0.008)*	-148.62 (0.0029)*	-122.57 (0.003)*
MVA	2.92 (0.00)*	3.20 (0.07)***	3.00 (0.00)*
R- Squared	0.1490	0.5335	0.1128
F- Statistic	18.12	3.94	12.97
Prob. (F-statistic)	0.00*	0.00*	0.00*
No. of Firms	226	226	226

*This table shows regression model: Impact of Economic Value-Addition Indicators on Total Bonus Paid to Executives * represents the significance level at 1% , **represents the significance level at 5% , *** represents the significance level at 10%*

Fixed effect and Random effect regression model were used to test the hypothesis H_1 and the results are illustrated in the Model 2 & 3 respectively. To choose the model suitability Hausman test is used. Hausman test results shown in Table 3 suggest that Random effect regression model is appropriate.

Table 3: Test of Fitness for Significant Model

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi- Sq. d.f.	Probability
Cross-Section Random	0.9543	2	0.6206

This table shows Hausman test results represents the significance level at 1% , **represents the significance level at 5% , *** represents the significance level at 10%*

For Random effect regression Model 3, table 2, F statistic is significant at 1% level. Variable EVA and MVA are also significant at 1% level. The negative coefficient of EVA can be articulated in various scenario's where the executive is being rewarded for the introduction of innovative products to product line of the corporation or by merger and acquisition for market expansion and value addition to the shareholders. The introduction of product or acquisitions' both need to substantial financing often raised by external financing such as debts, and issuance of more equity. In this progression, the costs of capital employed will overweigh the Return on Invested Capital (ROIC) generated and dragging EVA of the respective firm down. A considerable amount of expenses is involved in post-merger, which includes but are not limited to restructuring costs, and regulatory approvals. In this progression the projects take significant amount of time to yield positive returns. Moreover, shareholders perceive these new investments as a positive signal indicating future growth investments and rewards the management with appreciation in the stock prices foreseeing the future growth and value addition to the shareholders. In such scenarios, the board of remuneration committee might find it deem worthy to compensate the executive's not for mere cost-cutting and producing the short-term earnings and yielding positive EVA at the end of financial year but in lieu of the future cash flows and the future growth opportunities for the firm which is statistically proved in the study by a positive relationship between MVA and Bonuses paid to the executives.

Thus, Pooled and Random effect regression models confirm hypothesis 1 suggesting Executive bonus is

positively related to firms Value added measures MVA and EVA it is significant at 1% level. Similar methods are used to test hypothesis H_1 using Total salary and compensation (SALCOMP) on value added measures (EVA, MVA). Results of Pooled regression model are shown in table 4 as Model 1. Fixed effect and Random effect regression model results are shown in Model 2 and 3 respectively; whereas, Hausman test results are shown in Table 5 which supports random effect regression model at 5% significance level. It's found that Pooled regression and Random regression models are statistically significant at 1% level. Coefficients of MVA and EVA are also significant at 1% level. Thus, there is strong evidence in support of H_1 : Executive compensation are positively associated with value-added measures EVA and MVA at 1% significance level.

Table 4: Impact of Economic Value-Addition Indicators on Total Salary Compensation Paid to Executives

	SALCOMP		
	MODEL 1 Pooled	MODEL 2 Fixed Effect	MODEL 3 Random Effect
C	2,929,151	3,078,442	2,990,357
EVA	-316.34 (0.00)*	172.17 (0.0029)*	-210.78 (0.0001)*
MVA	5.90 (0.00)*	2.61 (0.21)***	4.98 (0.00)*
R- Squared	0.2935	0.7510	0.1471
F- Statistic	42.99	10.40	17.85
Prob. (F-statistic)	0.00*	0.00*	0.00*
No. of Firms	226	226	226

This table shows regression model: Impact of Economic Value-Addition Indicators on Total salary compensation Paid to Executives * represents the significance level at 1% , **represents the significance level at 5% , *** represents the significance level at 10%

Table 5: Test of Fitness for Significant Model

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi- Sq. d.f.	Probability
Cross-Section Random	5.24	2	(0.0728)***

This table shows Hausman test results* represents the significance level at 1% , **represents the significance level at 5% , *** represents the significance level at 10%

H_2 : Executive Compensation is positively related to firms accounting profitability measures. To test the hypothesis H_2 , Bonus of executives are regressed on accounting measures of performance ROE, ROA, EPS and Tobin Q. Pooled regression (Model 1) shown in table 6 does not support hypothesis H_2 as the model is insignificant (prob. F score 0.4382) and the coefficients are also insignificant when data is pooled together ignoring heterogeneity of the firms. Hausman test results shown in table 7 supports Fixed effect regression model, results are shown in Model 2 in Table 6. As Prob. F test is found to be significant and coefficients of variables ROA is positive and significant at 5% level which suggests there is a minor evidence of ROA impact on BONUS. The ROA is an indispensable metric used in investigating the operations of any firm by market analysts. The positive relation between the ROA and BONUS can be enunciated when the corporations are involved in the expansion of operations through myriad approaches such as M&A's or introducing new products as well as entry into new market. In such circumstances, the historical trend of ROA plays a vital role as to how the debtors or market perceives this signal. In an inference where a respective firm's management has been able to sustain the ROA over the industry average will be rewarded by the shareholders and remuneration committee in case of expansion which is statistically proved at 5% level. However, only one accounting measure ROA has positive impact on BONUS.

Table 6: Impact of Accounting Indicators on Total Bonus to Executives

BONUS			
	MODEL 1	MODEL 2	MODEL 3
	Pooled	Fixed Effect	Random Effect
C	161,065.50	550,937.8	281,029
ROA	7,279.99 (0.3202)**	16,067.15 (0.0459)**	12,194.07 (0.0715)**
EPS	4,342.18 (0.6423)	-2,914.16 (0.7333)	315.5897 (0.9691)
ROE	-5,602.73 (0.1691)	-13,604.73 (0.0077)*	-9,680.263 (0.0148)*
TQ	65,975.21 (0.1524)	-153,990.1 (0.1424)	1,663.161 (0.9771)***
R- Squared	0.0038	0.4912	0.0064
F- Statistic	0.9429	3.35	1.60
Prob (F-statistic)	(0.4383)	(0.00)	(0.1747)
No. of Firms	226	226	226

This table shows the regression results: Impact of Accounting Indicators on Total bonus to Executives* represents the significance level at 1% , **represents the significance level at 5% , *** represents the significance level at 10%

Table 7: Test of Fitness for Significant Model

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi- Sq. d.f.	Probability
Cross-Section Random	9.93	4	(0.0415)**

This table shows Hausman test results* represents the significance level at 1% , **represents the significance level at 5% , ***represents the significance level at 10%

Further to test the hypothesis H_2 executive Total salary and compensation are regressed on accounting measures of financial performance ROE, ROA, EPS and Tobin's Q. Pooled regression model shown in Table 8 under Model 1 supports the hypothesis H_2 as the model is significant (prob F score 0.0275) and the coefficients EPS is only found to be positive and significant at 6% level. Hausman test results shown in Table 9 supports fixed effect regression model results are shown in Model 2 in Table 8. Fixed effect regression model is significant but coefficients of ROE and TQ are negative and found to be significant at 5% level indicating negative market reaction to undeserving compensation to those executives.

Table 8: Impact of Accounting Indicators on Total Salary and Compensation Paid to Executives

SALCOMP			
	MODEL 1	MODEL 2	MODEL 3
	Pooled	Fixed Effect	Random Effect
C	3,039,728	3,333,698	3,177,644
ROA	-5,757.06 (-0.5841)	12,584.37 (-0.1907)	6,855.295 (-0.4209)
EPS	26,229.26 (0.051)***	2,321.376 -0.8204	7,496.347 -0.4506
ROE	4,698.08 (0.4220)	-11,829.69 (0.0523)***	-6,186.14 (0.2271)
TQ	-15,3087 (0.0209)**	-27,9479.7 (0.0261)**	-213,469.3 (0.0109)**
R- Squared	0.0110	0.6501	0.0101
F- Statistic	2.74	6.45	2.52
Prob. (F-statistic)	0.027**	0.00*	0.039**
No. of Firms	226	226	226

This table shows the regression results: Impact of Accounting Indicators on total salary and compensation paid to executives * represents the significance level at 1 % , **represents the significance level at 5% , *** represents the significance level at 1 0%

Table 9: Test of Fitness for Significant Model

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi- Sq. d.f.	Probability
Cross-Section Random	12.77	4	(0.0125)**

This table shows the Hausman test result. * represents the significance level at 1 % , **represents the significance level at 5% , *** represents the significance level at 1 0%

CONCLUSION AND RECOMMENDATIONS

In view of the firm's boards declaring bonuses and compensation for the management when the firms are not generating profits measured by ROE and ROA, this research examines the basis for this executive compensation such as firms value vs accounting performance measures. This research studies the relationship between Executive compensation and Value-added performance measures & Accounting performance measures. Data of 228 firms traded in Canadian stock market which are tracked by S&PTSX equity Index for the period 2014-2018 is collected from Bloomberg database and the final sample of 226 companies considered for this research after accounting for missing data. Executive compensation data is collected as bonus, total salary and compensation paid to executives. Firm Value measures data, Economic Value Added , Market Value Added and accounting measures Return on Equity, Return on Assets, Earning Per Share, Tobin's Q are collected and used in this research. Panel data regression model is employed to test hypothesis. It's found that there is clear and strong evidence suggesting positive relationship between Value-added measures EVA, MVA. However, there is a weak relationship between Total salary and compensation and Bonus, Total salary and compensation and accounting variables EPS and ROA. There is

clear evidence that the firms are using value added measures when considering executive compensation rather than mere accounting measures which are likely subject to manipulation. As Canada, a country champion of sustainability it's befitting to note that corporations' executive compensation factoring Economic value measures rather than accounting performance measures. This research contributes richly to academic literature. Authors propose future research on executive compensation tied with firms sustainability initiatives as measured by Environmental, Social and Governance ESG score/risks along with Value added measures.

REFERENCES

- Attaway, M. C. (2000). A study of the relationship between company performance and CEO compensation. *American business review*, 18(1), 77.
- Basu, S., Hwang, L. S., Mitsudome, T., & Weintrop, J. (2007). Corporate governance, top executive compensation and firm performance in Japan. *Pacific-Basin Finance Journal*, 15(1), 56-79.
- Basu, S., Hwang, L., Mitsudome, T., & Weintrop, J. (2007). Corporate governance, top executive compensation and firm performance in Japan. *Pacific-Basin Finance Journal*, 15(1), 56-79. doi:10.1016/j.pacfin.2006.05.002
- Behera, S. Does the EVA valuation model explain the market value of equity better under changing required return than constant required return?. *Financ Innov* 6, 9 (2020). <https://doi.org/10.1186/s40854-019-0167-8>
- Biddle, G. C. , Bowen R. M, and. Wallac J. C.,1999. "Evidence on EVA," *Journal of Applied Corporate Finance* 12 (No. 2, Summer), 69-78.
- Biddle, R. M. Bowen and J. S. Wallace. 1997. Does EVA Beat Earnings? Evidence on Associations with Stock Returns and Firm Values. *Journal of Accounting & Economics* (24): 301-336.
- Bruce, A., Buck, T., & Main, B. G. (2005). Top executive remuneration: A view from Europe. *Journal of Management Studies*, 42(7), 1493-1506.
- Coles, J. W., McWilliams, V. B., & Sen, N. (2001). An examination of the relationship of governance mechanisms to performance. *Journal of Management*, 27(1), 23-50. doi:10.1177/014920630102700102
- Canyon, M. J., Peck, S. I., & Sadler, G. V. (2011). New perspectives on the governance of executive compensation: an examination of the role and effect of compensation consultants. *Journal of Management & Governance*, 15, 29-58.
- Core, J. E., Guay, W. R., & Verrecchia, R. E. (2003). Price versus non-price performance measures in optimal CEO compensation contracts. *The accounting review*, 78(4), 957-981.
- Coughlan, A. T., & Schmidt, R. M. (1985). Executive compensation, management turnover, and firm performance. *Journal of Accounting and Economics*, 7(1-3), 43-66. doi:10.1016/0165-4101(85)90027-8
- Cucari, N., Mazza, G., Costantini, M., & Sancetta, G. (2016). Relationship between CEO pay and total shareholder return: An empirical analysis in the Italian context. *Corporate Ownership & Control*, 13(4-1), 182-187. <https://doi.org/10.22495/cocv13i4c1p4>
- De Wet, J. V. (2012). Executive compensation and the EVA and MVA performance of South African

listed companies. *Southern African Business Review*, 16(3), 57-80.

De Wet, J.H.vH. (2012). Executive compensation and the EVA and MVA performance of South African listed companies. *Southern African Business Review*, 16(3). 57-80.

Doaei, M., Vadiiee, M. H., & Bari, H. (2012). The Relationship between Managers' Compensation and Market Value Added (MVA) in Iranian Listed Firms: Panel Data Technique. *Review of Economics & Finance*, 2, 37-42.

Ehrbar, A. (1999). Using EVA to measure performance and assess strategy. *Strategy & Leadership*, 27(3), 20- 24.

Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *Journal of Political Economy*, 88(2), 288-307. doi:10.1086/260866

Fatemi, A., Desai, A. S., & Katz, J. P. (2003). Wealth creation and managerial pay: MVA and EVA as determinants of executive compensation. *Global Finance Journal*, 14(2), 159-179. doi:10.1016/s1044-0283(03)00010-3

Frye, M. B. (2004). Equity-based compensation for employees: firm performance and determinants. *Journal of Financial Research*, 27(1), 31-54.

Gabay, D. E. (2005). Firms Performance and CEO Compensation in Canada. *Department of Economics Faculty of arts and sciences*.

Gabay, D. É. (2005). Firms performance and CEO compensation in Canada.

Ghani, W. I., Tezel, A., Ragan, J. M., & Stagliano, A. J. (2011). Disclosure Of EVA Use In Corporate Financial Reports: A Descriptive Analysis. *Journal of Applied Business Research (JABR)*, 21(1). doi:10.19030/jabr.v21i1.1502

Gomez-Mejia, L., Wiseman, R. M., & Dykes, B. J. (2005). Agency Problems in Diverse Contexts: A Global Perspective. *Journal of Management Studies*, 42(7), 1507-1517. doi:10.1111/j.1467-6486.2005.00554.x

Guay, W. R., Core, J. E., & Larcker, D. F. (2001). Executive Equity Compensation and Incentives: A Survey. *SSRN Electronic Journal*. doi:10.2139/ssrn.276425

Holmstrom, B. (1979). Moral Hazard and Observability. *The Bell Journal of Economics*, 10(1), 74. doi:10.2307/3003320

Ira Kay, Marizu Madu and Phil Johnson,(2020) (<https://corpgov.law.harvard.edu/020/03/08/assessment-of-iss-use-of-eva-in-ceo-pay-for-performance-model/>)

Ismail, A. (2006). Is economic value added more associated with stock return than accounting earnings? The UK evidence. *International Journal of Managerial Finance*, 2(4), 343-353.

Jakub, S., Viera, B., & Eva, K. (2015). Economic Value Added as a measurement tool of financial performance. *Procedia Economics and Finance*, 26, 484-489.

Jakub, S., Viera, B., & Eva, K. (2015). Economic Value Added as a measurement tool of financial

performance. *Procedia Economics and Finance*, 26, 484-489.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Economic Analysis of the Law*, 162-176. doi:10.1002/9780470752135.ch17

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. doi:10.1016/0304-405x(76)90026-x

Jensen, M. C., & Meckling, W. H. (1978). Can the corporation survive?. *Financial Analysts Journal*, 34(1), 31-37.

Jensen, M. C., & Murphy, K. J. (1990). Performance Pay and Top-Management Incentives. *Journal of Political Economy*, 98(2), 225-264. doi:10.1086/261677

Jensen, M. C., & Murphy, K. J. (2010). CEO Incentives-It's Not How Much You Pay, But How. *Journal of Applied Corporate Finance*, 22(1), 64-76. doi:10.1111/j.1745-6622.2010.00262.x

Jensen, M. C., Murphy, K., & Wruck, E. G. (2004). Remuneration: Where We've Been, How We Got to Here, What are the Problems, and How to Fix Them. *SSRN Electronic Journal*. doi:10.2139/ssrn.561305

Johnson, R. T., Johnson, D. W., & Stanne, M. B. (1985). Effects of cooperative, competitive, and individualistic goal structures on computer-assisted instruction. *Journal of educational psychology*, 77(6), 668.

Kyriakou, S. (2018, October 3). Advisors may lose clients if they ignore ethical investments. FTAdvisor, Financial Times Limited. <https://www.ftadviser.com/investments/2018/10/03/advisers-may-lose-clients-if-they-ignore-ethical-investments/>. Accessed 9 Mar 2019.

Kyriazis, D., & Anatasiss, C. (2007). The validity of the economic value added approach: An empirical application. *European Financial Management*, 13(1), 71-100

Lehn, K., & Makhija, A. K. (1996). EVA & MVA as performance measures and signals for strategic change. *Strategy & Leadership*, 24(3), 34-38.

Lehn, K., & Makhija, A. K. (1997). EVA, accounting profits, and CEO turnover: an empirical examination, 1985–1994. *Journal of applied corporate finance*, 10(2), 90-97.

Machuga, S. M., Pfeiffer, R. J., & Verma, K. (2002). Economic value added, future accounting earnings, and financial analysts' earnings per share forecasts. *Review of Quantitative Finance and Accounting*, 18, 59-73.

Main, B. G. (1991). Top executive pay and performance. *Managerial and Decision Economics*, 12(3), 219-229. doi:10.1002/mde.4090120304

Meiya G. Nthoesane. (2012). The development of a value creating competencies index: The economic value added (EVA) approach. *African Journal of Business Management*, 6(10). doi:10.5897/ajbm11.2654

Murphy, J. K. (1985). Corporate Performance and Management Remuneration, an empirical analysis.

Murphy, K. J. (1984). *Ability, Performance, and Compensation: A Theoretical and Empirical Investigation of Managerial Labor Contracts* (Doctoral dissertation, The University of Chicago).

- Murphy, K. J. (1999). Executive compensation. *Handbook of labor economics*, 3, 2485-2563.
- O'Connell, M., Ward, A.M. (2020). Shareholder Theory/Shareholder Value. In: Idowu, S., Schmidpeter, R., Capaldi, N., Zu, L., Del Baldo, M., Abreu, R. (eds) Encyclopedia of Sustainable Management. Springer, Cham. https://doi.org/10.1007/978-3-030-02006-4_49-1
- Ozkan, N. (2009). CEO Compensation and Firm Performance: an Empirical Investigation of UK Panel data. *European Financial Management*, 17(2), 260-285. doi:10.1111/j.1468-036x.2009.00511.x
- Rosen, S. (2000). Does the Composition of Pay Matter?. *Employee benefits and labor markets in Canada and the United States*, 13-30.
- Rosen, Sherwin, 1992, "Contracts and the Market for Executives," in Lars Werin and Hans Wijkander, eds., *Contract Economics*. Cambridge, MA and Oxford: Blackwell, 181-211.
- S. S., & L. Y. (2004). Corporate Performance and Directors' Remuneration: An Empirical Study in Malaysia. *Journal of Applied Sciences*, 4(4), 547-553. doi:10.3923/jas.2004.547.553
- Sharma, A. K., & Kumar, S. (2010). Economic Value Added (EVA) - Literature Review and Relevant Issues. *International Journal of Economics and Finance*, 2(2). doi:10.5539/ijef.v2n2p200
- Shiely, J. S. (1996). Is value management the answer?. *CHIEF EXECUTIVE-NEW YORK-*, 54-57.
- Stern, J. (1993). Value and people management. *Corporate Finance*, July. 35-37.
- Stewart, B. (2014). What Determines TSR. *Journal of Applied Corporate Finance*, 26(1), 47-55.
- Stewart, G.B. (1991). *The Quest for Value*, New York: HarperCollins Publishers.
- Stewart, G.B. (1991). *The Quest for Value*, New York: HarperCollins Publishers.
- Stewart, R. (1991). Chairmen and chief executives: An exploration of their relationship. *Journal of Management Studies*, 28(5), 511-528.
- Subekti, I., & Sumargo, D. K. (2015). Family Management, Executive Compensation and Financial Performance of Indonesian Listed Companies. *Procedia - Social and Behavioral Sciences*, 211, 578-584. doi:10.1016/j.sbspro.2015.11.076
- Sun, S. L., Zhao, X., & Yang, H. (2010). Executive compensation in Asia: A critical review and outlook. *Asia Pacific Journal of Management*, 27(4), 775-802. doi:10.1007/s10490-010-9207-7
- Taufik, H., Isnurhadi, H. and Widiyanti, M. (2008), "The influence of traditional accounting and economic value added approaches on stock returns of banks listed on Jakarta Stock Exchange (JSX)", Proceedings of The MFA Conference 2008, available at: digilib.unsri.ac.id/download/SESSIONIIB.pdf (accessed July 15, 2009).
- Travlos, N. G., Weir, C., Milonas, N. T., & McKnight, P. J. (2005). The Cadbury Code Reforms and Corporate Performance. *SSRN Electronic Journal*. doi:10.2139/ssrn.675627
- Worthington, A. C., & West, T. (2004). Australian evidence concerning the information content of economic value-added. *Australian Journal of Management*, 29(2), 201-223.
- Yahyazadehfar, M., S. Shams, and S.J. Larimi (2010), "Relationship among EVA, Profitability Ratios and Market value added of listed companies in Tehran Stock Exchange", *The Iranian*

Accounting and Auditing Review, 17(1): 113-128.

Zhou, X. (1997). *Essays on executive compensation and managerial incentives*. Graduate Department of Economics, University of Toronto.

AUTHORS BIOGRAPHY

Sekhar Amba is an Associate Professor at New York Institute of Technology.

Devinder Singh is MBA student at New York Institute of Technology.