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# The Influences of Independent and Female Directors on the Use Non-Financial Measures in the Evaluation of CEO Performance in Malaysia

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## Abstract

CEO compensation and performance evaluation has become a highly contention issue in the business world. Several factors appear to be behind the image problem but the uppermost is the dramatic increase in CEO reward in recent decade. Wage efficiency theory argues higher compensation would increase the performance but on the evaluation of CEO performance many issues are faced in selecting performance measurement indicators. The purpose of this paper is to extend discussions in evaluating the CEO performance in research domain. Based on agency theory, the model of this research is developed. The cross-sectional data was collected by questionnaires. By applying regression model, this study revealed that independent directors and female directors on the use of non-financial measures in CEO performance evaluation, are found to be positively associated with the use of non-financial measures which reinforce the findings of prior studies in regarding their influence on the use of non-financial measures in CEO and corporate performance evaluation. The ratio of female directors on the BOD is significantly and positively associated with the use of non-financial measures in the evaluation of CEO performance. This study contributes economically, socially and politically.

**Keywords:** CEO performance; Non-financial measures; Agency theory; Independent directors; Female directors.



## 1. Introduction

CEO compensation is under the spotlight more than ever before, particularly, after the recent financial crises (Albert and Valerie, 2018; Farid *et al.*, 2011). The main criticism of CEO compensation is that, CEOs receive high compensation, both in absolute terms and in comparison with compensation received by employees lower down the hierarchy (Ball *et al.*, 2018; Yatim, 2012). According to the wage efficiency theory, if the wage is higher than equilibrium, CEO's level the performance will increase, but at the same time, the matter of evaluation of performance arises. There are several methods to evaluate (Tahir *et al.*, 2018). According agency theory, Non-financial measures in CEO performance evaluation is considered as a good corporate governance practice. Therefore, former studies focused on the use of non-financial measures in CEO performance evaluation and how corporate governance variables influence the use of non-financial measures in CEO compensation plan.

Non-financial measures are credited with being long-term oriented, leading indicators of financial performance, reflecting performance related to different stakeholders, and harder to manipulate (Ibrahim S. and Lloyd, 2010; Itter *et al.*, 2003a); (Fitzgerald, 2007). Therefore, most studies attempted to investigate the determinants which increase the use of non-financial measures from corporate governance perspective.

Generally, the Board of Directors (BOD) is responsible to evaluate CEO's performance (Epstein and Roy, 2005a; Fee *et al.*, 2017);(Epstein and Roy, 2005b; Heineman, 2009; Kaufman, 2008; Rivero, 2004; Smith, 2010; Thomas, 2001). Through evaluating CEO's performance, BOD can extract clear signal on the company's potential ability to achieve the strategic goals of the company as set by BOD (Fee *et al.*, 2017);(Rivero, 2004).

In a conventional business setting, the performance evaluation of businesses is almost always about bottom-line and therefore performance is considered in terms of profits and shareholders' wealth (Schiehll and Bellavance, 2009; Zorn *et al.*, 2017); (Ahrens *et al.*, 2011). Therefore, executives may engage in management practices which are short-term oriented and unethical because they are profit driven (Ibrahim S. and Lloyd, 2010); (Lipton *et al.*, 2009). So, assessing businesses performance in terms of financial measures only has received many criticisms (Govindan *et al.*, 2012) (Assaf *et al.*, 2012; Lee *et al.*, 2012). Accounts manipulation are said to be promoted when financial measures that are short-term focused; historical; incongruent with strategic mission; and rely on cost information are linked to the reward systems (Azar *et al.*, 2018; Itter *et al.*, 2003a; Kaplan and Norton, 2004); (Chenhall and Smith, 2007; Jusoh *et al.*, 2008).

However, previous studies documented that generally BODs evaluate and compensate their CEOs mainly based on financial measures which are short-term oriented, not strategic and could be manipulated (Epstein and Roy, 2005a; Nyberg *et al.*, 2018; Siciliano, 2002); (Kaufman, 2008). Hence, most previous studies which examined the

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influences of corporate governance variables on the use non-financial measures in the evaluation of CEO performance assume that board characteristics such as independence and size would increase the use of non-financial measures (Balsam *et al.*, 2010; Bushman *et al.*, 1996; Ibrahim S. and Lloyd, 2010; Schiehll and Bellavance, 2009); (Eduardo and Paul, 2003; Itter *et al.*, 1997). Therefore, the intention of this study is to examine the impact of independent directors and female directors on the use of non-financial measures in CEO performance evaluation in the Malaysian context because the Malaysian Code of Corporate Governance put too much emphasis of them.

# 2. Literature Review

## 2.1. Financial and Non-Financial Performance Measures Debate

Albert and Valerie (2018) states that non-financial performance measures are often used for performance evaluation. They are especially relevant if the available financial performance measures not completely reflect the manager's contribution to the firm's total value. Then, non-financial performance measures serve as an indicator for the firm's long-term performance and may therefore be included in incentive contracts. Various scholars have debated the use of financial and non-financial measures in performance measurement and most scholars advocate using both (Jusoh *et al.*, 2008). Therefore, it is not possible to rely solely on financial measures and traditional methods of matching revenue to costs and consequent short-term measures of profits as measures of performance (Kaplan and Norton, 2004). Annual bonus plan that are linked only to financial measures will promote an over-emphasis on short-term accounting returns and discourage long-term investments (Bushman *et al.*, 1996; Ibrahim S. and Lloyd, 2010; Kaplan and Norton, 1992). While accounting returns may represent a reasonable measure of CEO's current management of assets in place, they do not reflect the benefits of CEO's current strategic planning, growth opportunities identified, business initiatives, or investment in the discovery and development of new products or technologies with differed returns (Bushman *et al.*, 1996; Schiehll and Bellavance, 2009); (Verbeeten and Boons, 2009). Financial measure are backward looking, over relying on cost information, short term in nature, and do not focus on long term value creation activities, which are intangible in nature and helpful in generating future growth of the company (Jusoh *et al.*, 2008). Non-financial measures increase measure diversity which in turn reduces the dysfunctional impact of accounting measures (Van der Stede *et al.*, 2006). They also may enhance the opportunity of contracting by including information on managerial actions which are not captured by accounting and financial measures (Datar *et al.*, 2001).

On the other hand, non-financial measures are expected to provide a wider picture of performance that go beyond financial aspects of performance to cover other aspects of organizational performance. For example, non-financial measures capture key strategic performance dimensions which are not captured by financial measures (Itter *et al.*, 2003a). These strategic performance dimensions are related to wide range of areas such as market share, customer satisfaction, acquisitions, employee training, stakeholders' satisfaction, corporate reputation, ethics, values and other dimensions. Other benefits of using non-financial measures are that they improve the alignment between corporate strategic objectives and the performance measurement system as a whole (Kaplan and Norton, 2000). This is because non-financial measures provide more information regarding the actions which have been taken in order to achieve the strategic objectives of the company (Firfiray *et al.*, 2018).

Therefore, the debate between financial and non-financial measures takes the form of critique on over reliance on financial measures and argues for the involvement of non-financial measures as well. In addition to that, the discussion indicated that non-financial measures are important measures to provide a more precise and bigger picture of organizational performance. Also, it was observed that non-financial measures could be used to capture information which is related to the management of corporate activities and regarding non-shareholder's stakeholders such as employees and customers among others.

# 3. Board of Directors Use of Performance Measures in CEO Performance Evaluation

Most studies which empirically examine the use of non-financial measures are executed in the Balanced Scorecard (BSC) framework. The BSC is a strategic tool which helps to communicate strategic intent and motivate performance towards strategic goals (Itter and Larcker, 1998a). Jusoh *et al.* (2008) found in the Malaysian manufacturing industry the use of non-financial measures in BSC especially internal business processes and innovation and learning measures enhances corporate financial performance. Generally the results confirmed that the use of multiple performance measures via BSC is positively related to financial performance (Crabtree and DeBusk, 2008). Hoque and James (2000) found a significant positive relationship between the overall usage of the BSC and organizational performance. Itter *et al.* (2003b) found that in the financial industry companies which use BSC earn higher stock prices than companies which does not use BSC. These findings reinforce the idea that non-financial measures are leading indicators of financial performance.

Itter *et al.* (2003a) explored the use financial and non-financial measures in a subjective BSC bonus plan, and the results indicated that the use of BSC to reward managers overcomes the short-comings of the use of traditional accounting based measures. Banker *et al.* (2004) in an experimental study of judgment influences of performance measures and strategy, found that managers use non-financial measures when those measures are linked to strategy more than the ones which are not linked to strategy (Kaplan and Norton, 2004); (Malina and Selto, 2001).

Various scholars have examined the use of non-financial in CEO compensation plans in order to find out whether non-financial measures are used with financial measures in CEO performance evaluation as a sign of effective performance evaluation practices. For instance, Schiehll and Bellavance (2009) using a sample of 184

Canadian companies, found that 55% of the CEO bonus plans use non-financial performance measures. Ibrahim S. and Lloyd (2010) in a sample of 329 companies found that 28% employ both financial and non-financial measures in executive compensation, while 72% percent employ only financial measures. Epstein and Roy (2005a) using a sample of 59 U.S. companies found that 43% of the companies use non-financial measures with financial measures in the evaluation of CEO performance in the compensation committee reports. Also, Itter *et al.* (1997) found evidence of the use of non-financial measures in CEO bonus plans in a sample of 317 companies in which 36% of the companies used non-financial measures in the evaluation process. Also, Hassab *et al.* (2005) in a longitudinal study found that 38% of the sample of 240 used non-financial measures in the evaluation of CEO performance.

Also, most of the above mentioned studies are carried out in advanced countries and therefore there is no information about the measures which are used in the performance evaluation of CEOs in Malaysia. This would be important because the new reforms in Malaysia such as the CG Blueprint of 2011 and the MCCG 2012 both of which focus on BOD practices in ensuring integrity, long-term performance and considering the interests of non-shareholder stakeholders which are all non-financial issues in nature, beside that the new reforms focus on independent directors and female directors in such context. Therefore, it is very timely to explore the effects of such reforms in the Malaysian context.

## 4. Determinants of the Use of Non-Financial Measures in CEO Performance Evaluation

Several studies have provided empirical evidence about the evaluation of CEO and executive performance in a compensation context using quantitative research methods (Balsam *et al.*, 2010; Bushman *et al.*, 1996; Davila and Venkatachalam, 2004; Eduardo and Paul, 2003; Hassab *et al.*, 2005; Ibrahim S. and Lloyd, 2010; Ittner *et al.*, 1997; Schiehll and Bellavance, 2009; Silva and Tosi, 2004; Veen-Dirks, 2010). Within these studies, there is a stream of research in corporate governance literature which attempts to examine the determinants of the use of non-financial measures in CEO compensation plans and these determinants are CEO tenure, stock price, growth, BOD independence, and CEO ownership among others (Balsam *et al.*, 2010; Bushman *et al.*, 1996; Caranikas-Walker *et al.*, 2007; Davila and Venkatachalam, 2004; Eduardo and Paul, 2003; Hassab *et al.*, 2005; Ibrahim S. and Lloyd, 2010; Ittner *et al.*, 1997; Schiehll and Bellavance, 2009). Other studies examine various other issues such as anonymity of CEO performance evaluation, earnings management, and the purpose of the evaluation such as reward and mid-year evaluation (Ibrahim S. and Lloyd, 2010; Veen-Dirks, 2010); (Silva and Tosi, 2004). Balsam *et al.* (2010), Schiell and Bellavance (2009), Caranikas-Walker *et al.* (2007), Hassab *et al.* (2005) and Eduardo and Paul (2003) using a sample of 67 companies identified that the use of non-financial measures in CEO compensation scheme is associated with BOD independence. Davila and Venkatachalam (2004) found that passenger load factor, an important non-financial measure which is used in cash compensation contracts, is positively related to cash compensation decision. This finding reinforces the idea that non-financial measures provide incremental information about CEO performance over financial measures and therefore, is positively significant in compensation contract.

Veen-Dirks (2010) investigated how the importance which is attributed to a variety of financial and non-financial performance measures depends on the type of use “evaluation versus reward”. Based on a survey in a sample of industrial companies they found that consistent evidence of a difference in the importance attached to performance measures for these two uses. More weight is attached to both financial and non-financial performance measures for the mid-year performance evaluation than for reward performance evaluation. They also provide evidence that production strategy and departmental interdependence influence the importance attached to performance measures differ for evaluation and reward uses. A production strategy focused on differentiation by product-performance has a negative effect on the importance attached to financial measures for variables rewards but no effect on their importance for the mid-year performance evaluation. Ayuso *et al.* (2007) introduced a BOD composition as an approach to stakeholder corporate governance which includes the representation of independent directors, and female directors on the BOD. Therefore, this study considers examining the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation.

Generally, from the literature it is clear there is a limited research on the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation. Additionally, most former studies are executed in advanced countries and there is limited research which addresses these issue in Malaysia where the institutional settings are totally different from developed countries. It would also be important to examine the influences of independent directors and female directors on the use of non-financial measures to see whether independent and female directors are in line with the MCCG 2012 which requires the representation of independent and female directors as means of improving BOD decision making whether they are starting consider different stakeholders in their decision making as well as sustainability issues. Therefore, this study attempts to fill these research gaps as well.

## 5. Conceptual Framework

Following previous studies (Bushman *et al.*, 1996; Itter *et al.*, 1997; Schiehll and Bellavance, 2009); (Caranikas-Walker *et al.*, 2007; Eduardo and Paul, 2003) the dependent variable is the use of non-financial measures in the evaluation of CEO performance. The independent variables are independent directors and female directors. The independent variables were identified from previous studies (Ayuso *et al.*, 2007; Ayuso and Argandona, 2007; Hillman *et al.*, 2002); Gazley *et al.* (2010) which proposed a BOD composition as an approach to stakeholder corporate governance model constitutes independent directors, female directors, ethnic minority directors and stakeholder directors. However, stakeholder directors and ethnic minority directors are excluded from this study because in the Malaysian context there is no attention given to ethnic minority directors and stakeholder directors either by the Malaysian government or professional bodies. Ethnic minority directors and stakeholder directors seems to be not an important issue in the Malaysian context and thus excluded from this study.

In this study, it is expected that independent directors and female directors would probably be associated with the use of non-financial measures in the evaluation of CEO performance owing to the importance of non-financial measures in the context. In addition to that, given the unique institutional characteristics of corporate governance in Malaysia and corporate governance literature, it is important to control for industry, company size, GLCs ownership, and family ownership which are considered as the control variables of the study. Stakeholder theory suggests BOD use non-financial measures to ensure fair distribution of value created to maintain the commitment of multiple stakeholders (Kochan and Rebinstein, 2000). Therefore, it is assumed that the existence of independent directors on BOD would increase BOD's attention to use more non-financial measures in CEO performance evaluation in order to monitor managerial decision making with regard to multiple stakeholders interests and as a result BOD independence is associated with the use of non-financial measures in the evaluation of CEO performance.

Past studies argued that independent directors are concerned with stakeholders. The role of independent directors beside the well-being of the company is to pursue the interests of multiple shareholders, stakeholders, and society at large (Ismail, 2005). Independent directors are expected to focus on a variety of stakeholders interests (Tirole, 2001). The role of independent directors is balancing the interests of multiple stakeholders (Kakabadse and Kakabadse, 2007). Independent directors might be more knowledgeable about the changing demands of different stakeholders and may feel free to advocate costly or unpopular initiatives such as those regarding compliance issues (Abdullah *et al.*, 2012); (Ibrahim N. A. *et al.*, 2003; Johnson and Greening, 1999; R. *et al.*, 2011). It is argued that independent directors on BOD could increase BOD attention to ensure that interests of multiple stakeholders are taken into account and therefore BOD focus on non-financial measures in CEO performance evaluation. Also, regardless of theory used, former research Schiehll and Bellavance (2009); (Eduardo and Paul, 2003) found a positive relationship between BOD independence and the use of non-financial measures in CEO performance evaluation. Based on the arguments and empirical findings of prior research, the study proposes the following hypothesis:

*H1: Other things being equal, the proportion of independent directors on the board is positively associated with the use of non-financial measures in CEO performance evaluation.*

There are several governance guidelines advocate increased representation by female on BOD to better reflect the gender diversity of their customers, employees, and other stakeholders (Ayuso and Argandona, 2007). Female directors are expected to be more interested in the welfare of various stakeholders (Ayuso and Argandona, 2007). Female directors have been shown to be more sensitive to company's social performance (Bear *et al.*, 2010); (R. *et al.*, 2011). Stakeholder theory suggests that companies have a responsibility to reflect gender diversity in their governing BODs. This allows them to establish improved relations with increasingly diverse stakeholders (Ibrahim N. A. *et al.*, 2011). Furthermore, greater gender diversity on BOD will place the company in better position to establish links with different stakeholder groups such as employees, suppliers and customers (Ayuso *et al.*, 2007). Therefore, it could be argued that female directors could be more concerned with stakeholders and as a result increase BOD's attention to the use of non-financial measures in CEO performance evaluation as they want to ensure a fair distribution of value created to multiple stakeholders.

Research suggests that different genders respond to different norms, attitudes, beliefs and perspectives (Palled *et al.*, 1999). The issue of the representation of different genders in BOD diversity has its own ethical and economic arguments (Brammer *et al.*, 2007). Hofstede (1984) described masculinity as associated with a performance society and feminity with a welfare society. Female directors tend to be more sensitive to CSR than their counterparts (Ibrahim N. A. and J, 1994). The presence of female on BOD may signal to stakeholders that the company pays attention to female and minorities and thus is socially responsible (Bear *et al.*, 2010). Female directors are found to be more sensitive to social issues compared to male directors who are more concerned about economic performance (Ibrahim N. A. *et al.*, 2011). Female directors are seen as members of underrepresented groups in companies and therefore are expected to be more interested in the welfare of various stakeholders (Ayuso and Argandona, 2007). BOD with more female directors tends to have better corporate governance than those with fewer female directors (Rosener, 2003). Female directors are tougher monitors than male directors (Adams and Ferreira, 2009). BOD with female directors tend to use more non-financial measures (such as innovation and social responsibility) to evaluate company performance than their all-male BOD (Stephenson, 2004). Therefore, it could be argued that the presence of female directors on BOD may increase BOD's attention to stakeholders' issues and as a result BOD places more importance to the use of non-financial measures in the evaluation of CEO performance. Based on the arguments and empirical findings of prior research, the study proposes the following hypothesis:

*H2: Other things being equal, the proportion of female directors on board is positively associated with the use of non-financial measures in CEO performance evaluation.*

## 6. Research Methodology

Cross sectional data was collected by questionnaire. Secondary data was gathered to obtain the independent variables and control variables in order to identify the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation. Frequency distribution is used to analyses the use of financial and non-financial measures in CEO's KPIs template. The use of financial measures is based on three items and the use of non-financial measures is based on four items. Then, the averages of the use of financial and non-financial measures were taken in order to see the importance of non-financial measures for BOD in CEO performance evaluation.

## 7. Measurement of Variables

This section discusses the definition of the dependent variable, independent variables and control variables of the hypothesis testing part of this study as follows:

The dependent Variable is the Use of Non-financial Measures in CEO Performance Evaluation: The dependent variable, NFMMEAN, is the use of non-financial measures in CEO's KPIs template, this variable has four values and the independent and control variables have only one value. To overcome this problem, the mean of the four values of the items of non-financial measures were taken, NFMMEAN, and considered as the dependent variable of the study for the regression analysis. Independent directors (INDBD) refer to the level of BOD independence and are measured by proportion of the independent non-executive directors to the total BOD. This information is disclosed in the director's report. The expected direction of this variable is positive. Female directors (FMBD) refer to the extent of female directors' representation on the BOD and are measured by proportion of female directors to the total BOD. This information is disclosed in the director's report. The expected direction of this variable is positive.

In addition, this study has included control variables in order to control for other affects. As long as there are other factors that could affect the use of non-financial measures in CEO performance evaluation these factors must therefore be controlled in order to avoid misleading regression results. The study controls for company size, type of industry and ownership structure. The definition and measurement of the considered control variables are as follows:

Company size. (Total Asset) refers to the size of the company and is measured as logarithm of 10 of total asset of a company. The expected direction of this variable is positive. Company type. (TYPE1) to indicate whether the company is in construction sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as construction company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE2) to indicate whether the company is in consumer products sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as consumer products company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE3) to indicate whether the company is in finance sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as finance company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE4) to indicate whether the company is in industrial products sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as industrial products company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE5) to indicate whether the company is in plantation sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as plantation company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE6) to indicate whether the company is in properties sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as properties company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE7) to indicate whether the company is in REITS sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as REITS company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE8) to indicate whether the company is in technology sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as technology company and 0 otherwise. The expected direction of this variable is positive.

Company type. (TYPE9) to indicate whether the company is in trading and service sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as trading and service company and 0 otherwise. The expected direction of this variable is positive. Company type. (TYPE10) to indicate whether the company is in SPAC sector or otherwise, and is measured as a dummy variable and coded as 1 if the company was classified as SPAC company and 0 otherwise. The expected direction of this variable is positive. Government Linked Company (GLCs) ownership. (GLCOWD) refers to whether the company is a government linked company or otherwise, is measured as a dummy variable if the government is a substantial shareholder and owes at least 5% and 0 otherwise (Johari *et al.*, 2008). The expected direction of this variable is positive. Family Owned Company. (FAMOWD) refers to whether a family or individual controls 20% or more of equity and is involved in the top management of the company or otherwise, and is measured as a dummy variable if the company is family owned and 0 otherwise (Al-Akra and Hutchinson, 2012). The expected direction of this variable is positive.

The following model is estimated to identify the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation in Malaysia.

$$NFMMEAN = \beta 0 + \beta 1INDBD + \beta 2FMBD + \beta 3TOTAL\ ASSET + \beta 4TYPE1 + \beta 5TYPE2 + \beta 6TYPE3 + \beta 7TYPE4 + \beta 8TYPE5 + \beta 9TYPE6 + \beta 10TYPE7 + \beta 11TYPE8 + \beta 12TYPE9 + \beta 13TYPE10 + \beta 14GLCOWD + \beta 15FAMOWD + \varepsilon i$$

Where , NFMMEAN Total of NFM1 which refers to customer measures + NFM2 which refers to strategy and leadership measures + NFM3 which refers to employees measures +NFM4 which refers to ethical measures and they are divided by 4 to obtain the average of NFMMEAN. INDBD refers to the percentage of independent directors on the board of directors , FMBD refers to the percentage of female directors on the board of directors, TOTAL ASSET Log10 of total assets All the 10 types, GLCOWD and FAMOWD are measured in dummy variables.

# 8. Results and Discussion

This section attempts to identify the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation based on regression analysis. However, before applying regression analysis, several conditions have to be met such as confirming the non-existence of multicollinearity problem among exploratory variables normal distribution of the dependent variable, and the heteroscedasticity problem. All relevant tests were conducted and it was confirmed that all the conditions of the regression model were fit and the regression can be applied.

The descriptive statistics of the use of financial and non-financial in CEO performance evaluation revealed that both components are used in the evaluation of CEO performance. However, it was found board members use more financial measures than non-financial measures in the evaluation of CEO performance. It was found that the mean of FMMEAN is 4.2 and the mean of NFMMEAN is 4 which confirmed that financial measures dominates the evaluation of CEO performance.

Table 1 presents the model summary. The R-squared of 0.55 implies that the independent and control variables explain about 55% of variance/variation in the use of non-financial measures in CEO performance evaluation which is an acceptable result for regression analysis. The ANOVA table revealed that the F-statistics ($F = 2.53$) and the corresponding ($p\text{-value} = 0.018 \leq 0.05$). This indicates that the slope of the estimated linear regression model line is not equal to zero confirming that research data fit the proposed conceptual framework of the study. Table 1 also represents the results of the regression analysis. The regression analysis regresses the variables of independent directors, and female directors as well as the control variable on the use of non-financial measures in CEO performance evaluation. The results in Table 1 are mixed. Some are significant and some are insignificant. However, regarding the independent variables, the regression analysis showed that the proportion of both independent directors and female directors on the BOD are significantly and positively associated with the use of non-financial measures in CEO performance evaluation supporting the conceptual framework of the study.

The regression results indicated that the proportion of the independent non-executive directors on the BOD (INDBD, Hypothesis H1) was significant and positive associated with the use of non-financial measures in CEO performance evaluation. The p-value of independent non-executive directors (INDBD) was ($P\text{-value} = -0.00 \leq 0.01$), which suggests that (INDBD) is the proportion of independent directors significantly and positively influence the use of non-financial measures in CEO performance evaluation. Hence, H1 was accepted. The proportion of the female directors on the BOD (FMBD, Hypothesis H2) was also significantly and positively associated with the use of non-financial measures in CEO performance evaluation. The p-value of female directors (FMBD) was ($p\text{-value} = 0.00 \leq 0.01$), which suggests that (FMBD) is statistically significant with positive influence, suggesting that the proportion of female directors on the BOD significantly and positively influence the use of non-financial measures in CEO performance evaluation. Hence, H2 was accepted.

The results pertaining to the control variables showed that none the control variables were significant. For instance, the results regarding firm size (Total Asset) were not significant which suggests that firm size is not related to the use of non-financial measures in CEO performance evaluation. As mentioned earlier, 10 types of industries were considered in the study as control variables. The variable (TYPE1) which was an indicator of the companies that are classified as construction industry was not significant according to the regression results. Furthermore, there is no evidence the variable, (TYPE2) which is an indicator of consumer products industry use more non-financial measures in CEO performance evaluation. Also, the variable (TYPE3) which is an indicator of finance industry was not significant In addition to that; the variable (TYPE4) which is an indicator of industrial products industry was not significant. Similarly, the variable of (TYPE5) which is an indicator of plantation industry and (TYPE6) which is an indicator of properties industry were insignificant in the estimation of the data. The variable (TYPE7) which is an indicator of REITS industry was also not significant. Also, (TYPE8) which is an indicator of technology industry was not significant. Furthermore, there is no evidence the variable, (TYPE9) which is an indicator of trading and service industry use more non-financial measures in CEO performance evaluation. The variable (TYPE10), which is an indicator of SPAC industry, was insignificant in the estimation of the data, suggesting no relation with the use of non-financial measures in CEO performance evaluation. Regarding ownership structure, two types of ownership were considered as control variables in this study which are government linked companies and family owned companies. The variable, (GLCOWD) which is an indicator of government linked company was not related to the use of non-financial measures in CEO performance evaluation. Finally, there is no evidence that the BODs of family owned companies would use more non-financial measures in CEO performance evaluation.

**Table-1.** Regression Results

| | | Unstandardized Coefficients | | Standardized Coefficients | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| IVs | (Constant) | 1.642 | 1.001 | | 1.641 | 0.112 | | |
| | INDBD | 2.492 | 0.573 | 0.674 | 4.346** | .000 | 0.656 | 1.525 |
| | FMBD | 2.103 | 0.526 | 0.635 | 3.997** | .000 | 0.624 | 1.603 |
| Control variables | GLCOWD | -0.165 | 0.178 | -0.146 | -0.927 | 0.362 | 0.64 | 1.563 |
| | FAMOWD | -0.139 | 0.153 | -0.143 | -0.909 | 0.371 | 0.639 | 1.564 |
| | Total Asset | 0.103 | 0.104 | 0.155 | 0.993 | 0.329 | 0.647 | 1.546 |
| | TYPE1 | -0.137 | 0.239 | -0.092 | -0.574 | 0.571 | 0.616 | 1.624 |
| | TYPE2 | 0.062 | 0.233 | 0.041 | 0.265 | 0.793 | 0.648 | 1.542 |
| | TYPE3 | -0.142 | 0.275 | -0.086 | -0.517 | 0.61 | 0.566 | 1.767 |
| | TYPE4 | -0.041 | 0.214 | -0.029 | -0.19 | 0.851 | 0.656 | 1.524 |
| | TYPE5 | 0.148 | 0.24 | 0.09 | 0.615 | 0.543 | 0.745 | 1.343 |
| | TYPE6 | 0.044 | 0.282 | 0.023 | 0.156 | 0.877 | 0.7 | 1.429 |
| | TYPE7 | -0.038 | 0.442 | -0.012 | -0.086 | 0.932 | 0.814 | 1.228 |
| | TYPE8 | 0.594 | 0.283 | 0.316 | 2.101 | 0.045 | 0.697 | 1.434 |
| | TYPE10 | 0.158 | 0.431 | 0.05 | 0.368 | 0.716 | 0.858 | 1.166 |
| R2 | 0.55 | | | | | | | |
| F | 2.53 | | | | | | | |
| P-value | 0.018* | | | | | | | |

* Significant at 0.05 level, ** Significant at 0.01 level

Variables Description:
NFMMEAN: The variable that represents the use of non-financial measures in CEO performance evaluation.
INDBD: The variable that represents the ratio of independent directors on the board of directors.
FMBD: The variable that represents the ratio of female directors on the board of directors.
Total Asset: The variable that represents the size of the company and is measured by log ten of total asset of the firm
TYPE1: The variable that shows the company is in construction or otherwise.
TYPE2: The variable that shows the company is in consumer product or otherwise.
TYPE3: The variable that shows the company is in finance or otherwise.
TYPE4: The variable that shows the company is in industrial product or otherwise.
TYPE5: The variable that shows the company is in plantation or otherwise.
TYPE6: The variable that shows the company is in properties or otherwise.
TYPE7: The variable that shows the company is in REITS or otherwise.
TYPE8: The variable that shows the company is in technology or otherwise.
TYPE9: The variable that shows the company is in trading and service or otherwise.
TYPE10: The variable that shows the company is in SPAC or otherwise.
GLCOWD: The variable shows whether the company is government linked company or otherwise.
FAMOWD: The variable shows whether the company is family owned company or otherwise.

## 9. Conclusion

The aim of this study was to explore the influence of independent directors and female directors on the use of non-financial measures in CEO performance evaluation. In sum, consistent with previous studies the results showed that BODs incorporate non-financial measures in CEO performance evaluation, however, financial measures still dominate CEO evaluation (Balsam *et al.*, 2010; Bushman *et al.*, 1996; Hassab *et al.*, 2005; Itter *et al.*, 1997; Schiehll and Bellavance, 2009); (Caranikas-Walker *et al.*, 2007; Eduardo and Paul, 2003). With respect to the influences of independent directors and female directors on the use of non-financial measures in CEO performance evaluation, are found to be positively associated with the use of non-financial measures which reinforce the findings of prior studies in regarding their influence on the use of non-financial measures in CEO and corporate performance evaluation. The findings are consistent with the studies of Schiehll and Bellavance (2009) and (Eduardo and Paul, 2003). The regression analysis also indicated the ratio of female directors on the BOD is significantly and positively associated with the use of non-financial measures in the evaluation of CEO performance. The findings are consistent with the done in western countries such as Stephenson (2004) which found that BOD with more female directors on the BOD are associated with use of non-financial measures in the evaluation of corporate performance.

## References


Abdullah, S. N., Mohamed, N. R. and Moktar, M. Z., 2012. "Board Independence, Ownership and CSR of Malaysian large firms." In *World Business Institute.*

Adams, R. B. and Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94: 291-309.

Ahrens, T., Filatotchev, I. and Thomsen, S. (2011). The research forienter of corporate governance. *Journal of Management and Governance*, 15: 311-25.

Al-Akra, M. and Hutchinson, P. (2012). Family firm disclosure and accounting regulation reform in the middle east: The case of Jordan. *Research in Accounting Regulation*: Available: http://dx.doi.org/10.1016/j.racreg

Albert, C. J. and Valerie, S. (2018). The two sides of CEO pay injustice: a commentary. *Management Research, Journal of the Iberoamerican Academy of Management,* 16: 90-96. Available: https://doi.org/10.1108/MRJIAM-10-2017-0785

Assaf, A. G., Josiassen, A. and Cvelbar, L. K. (2012). Does triple bottom line reporting improve hotel performance? *International Journal of Hospitality Management,* 31: 596-600.

Ayuso, S. and Argandona, A. (2007). Responsible corporate governance, Towards a stakeholders Board of directors. IESE Research Papers.

Ayuso, S., Rodriguez, M. A., Garcia, R. and Arino, M. A. (2007). *Maximizing stakeholders' interests, An empirical analysis of the stakeholder approach to corporate governance.* IESE Business School, University of Nazara.

Azar, J., Schmalz, M. C. and Tecu, I. (2018). Anticompetitive effects of common ownership. *The Journal of Finance,* 73(4): 1513-65.

Ball, R. T., Bonham, J. and Hemmer, T. (2018). Does it pay to'be like mike'? Aspirational peer firms and relative performance evaluation.

Balsam, S., Fernando, G. D. and Tripathy, A. (2010). The impact of firm strategy on performance measures used in executive compensation. *Journal of Business Research,* 64: 187-94.

Banker, R. D., Chang, H. and Pizzini, M. J. (2004). The balanced scorecard, Judgmental effects of performance measures linked to strategy. *Accounting Review,* 70: 1-23.

Bear, S., Rahman, N. and Post, C. (2010). The impact of board diversity and gender compensation on corporate social responsibility and firm reputation. *Journal of Business Ethics,* 97: 207-21.

Brammer, S., Millington, A. and Pavelin, S. (2007). Gender and ethnic diversity among UK corporate boards. Corporate Governance. *An International Review,* 15: 393-403.

Bushman, R. M., Indjejikian, R. J. and Smith, A. (1996). CEO compensation, The role of individual performance evaluation. *Journal of Accounting and Economics,* 21: 161-93.

Caranikas-Walker, F., Sanjay, G., L. R., Gomez-Mejia, Cardy, R. L. and Rundell, A. G. (2007). An empirical investigation of the role of subjective performance assessments versus objective performance indicators as determinants of the CEO compensation. *Management Reseach,* 6: 7-25.

Chenhall, R. H. and Smith, K. L. (2007). Multiple perspective of performance measurement. *European Management Journal,* 25: 266-82.

Crabtree, A. D. and DeBusk, G. K. (2008). The efforts of adopting the Balanced Scorecard on shareholder returns. *Advances in Accounting,* 24: 8-15.

Datar, S., Kulp, S. C. and Lambert, R. A. (2001). Balancing performance measures. *Journal of Accounting Research,* 39: 75-92.

Davila, A. and Venkatachalam, M. (2004). The relevance of non-financial performance measures for CEO compensation, Evidence from airline industry. *Review of Accounting Studies,* 9: 443-64.

Eduardo, S. and Paul, A. (2003). Corporate governance and the information gap, The use of financial and non-financial information in executive compensation. Ivey Business Journal April: Available: https://www.iveycases.com/ProductBrowse.aspx?q=9b03tb07&em=0

Epstein, M. J. and Roy, M. J. (2005a). Evaluating and monitoring CEO performance: evidence from US compensation committee reports. Corporate governance. *An International Review,* 5: 75-87.

Epstein, M. J. and Roy, M. J. (2005b). Evaluating and monitoring ceo performance, Evidence from us compensation committee reports. Corporate governance. 5: 75-87.

Farid, M., Conte, V. and Lazarus, H. (2011). Toward a general model for executive compensation. *Journal of Management Development* 30: 61-74.

Fee, C. E., Hadlock, C. J., Huang, J. and Pierce, J. R. (2017). Robust models of CEO turnover, New evidence on relative performance evaluation. *Review of Corporate Finance Studies,* 7(1): 70-100.

Firfiray, S., Cruz, C., Neacsu, I. and Gomez-Mejia, L. R. (2018). Is nepotism so bad for family firms? A socioemotional wealth approach. *Human Resource Management Review,* 28(1): 83-97.

Fitzgerald, L. (2007). *Performance measurement in hopper, T., Northcott, D and scapens, R . Issues in management accounting.* 3rd edn: Financial Times Prentice Hall: Dorchester. 98-175.

Gazley, B., Chang, W. K. and Bingham, L. B. (2010). Board diversity, stakeholder representation, and collaborative performance in community mediation centers. *Public Administration Review,* 70: 610-20.

Govindan, K., Khodaverdi, R. and Jafarian, A. (2012). A Fuzzy multi criteria approach for measuring sustainability performance of a Supplier based on triple bottom line approach. *Journal of Cleaner Production,* 47: 345-54.

Hassab, E., H. R., Said, A. A. and Wier, B. (2005). The retention of nonfinancial performance measures in compensation contracts. *Journal of Management Accounting Research,* 17: 23-42.

Heineman, J. B. W. (2009). Redefining the ceo role. Business week onlin. 19-19.

Hillman, A. J., Cannella, A. A. and Harris, I. C. (2002). Women and racial minorities in the boardroom, How do directors differ? *Journal of Management Accounting Research,* 28: 747-63.

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management,* 1: 81-99.

Hoque, Z. and James, W. (2000). Linking balanced scorecard measures to size and market forces: Impact on organizational performance. *Journal of Management Accounting Research,* 12: 1-17.

Ibrahim, N. A. and J, P. A. (1994). Effects of board members' gender on corporate social responsiveness orientation. *Journal of Applied Business Research,* 10: 35-40.

Ibrahim, N. A., Howard, D. P. and Angelidis, J. P. (2003). Board members in the service industry: an empirical examination of the relationship between corporate social responsibility orientation and directorial type. *Journal of Business Ethics*, 47: 393-401.

Ibrahim, N. A., John, P. and Angelidis (2011). Effect of board members' gender on corporate social responsiveness orientation. *Journal of Applied Business Research, JABR*, 10: 35-40.

Ibrahim, S. and Lloyd, C. (2010). The association between non-financial performance measures in executive compensation contracts and earnings management. *Journal of Accounting and Public Policy*, 30: 256-74.

Ismail, I. (2005). Independent directors, Getting the right candidate. Available: www.micg.net/presentationmaterials/sS.ppt

Itter, C. D. and Larcker, D. F. (1998a). Are nonfinancial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36: 1-35.

Itter, C. D., Larcker, D. F. and Rajan, M. V. (1997). The choice of performance measures in annual bonus contracts. *The Accounting Review*, 72: 231-55.

Itter, C. D., Larcker, D. F. and Meyer, M. W. (2003a). Subjectivety and weighting of performance measures, Evidence from a balanced scorecard. *Accounting Review*, 78: 725-58.

Itter, C. D., Larcker, D. F. and Randall, T. (2003b). Performance implications of strategic performance measurement in financial services firms. *Accounting, Organizations and Society*, 28: 715-41.

Ittner, C. D., Larcker, D. F. and Rajan, M. V. (1997). The choice of performance measures in annual bonus contracts. *The Accounting Review*, 72: 231-55.

Johari, N. H., Saleh, N. M., Jaffar, R. and Hassan, M. S. (2008). The influence of board independence, Competency and ownership on earnings management in Malaysia. *International Journal of Economics and Management*, 2: 281–306.

Johnson, R. A. and Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal*, 42: 564-76.

Jusoh, R., Ibrahim, D. N. and Zainuddin, Y. (2008). The performance consequence of multiple performance measures usage, Evidence from Malaysian manufactures. *International Journal of Productivity and Performance Management*, 57: 119-36.

Kakabadse, A. P. and Kakabadse, N. K. (2007). *CSR in the boardroom, Myth or mindfulness, In A. Kakabadse and N. Kakabadse, CSR in practice, delving deep.* Palgrave Macmillan: Hound Mills.

Kaplan, R. S. and Norton, D. P. (1992). The balances scorecard-measures that drive performance. *Harvard Business Review*, 70: 71-79.

Kaplan, R. S. and Norton, D. P. (2000). Having trouble with your strategy? Then map it. *Harvard Business Review*, 78: 167-76.

Kaplan, R. S. and Norton, D. P. (2004). *Strategy maps-covering Intangible assets into tangible outcomes.* Harvard Business Press: Boston, MA.

Kaufman, S. P. (2008). Evaluating the ceo. *Harvard Business Review*, 86: 53-57.

Kochan, T. A. and Rebinstein, S. A. (2000). Toward a stakeholder theory of the firm, The Saturn partnership. *Organization Science*, 11: 367-86.

Lee, S., Geum, Y., Lee, H. and Park, Y. (2012). Dynamic and multidimensional measurement of product-service system (pss) sustainability: A triple bottom line (tbl)-based system dynamics approach. *Journal of Cleaner Production*, 32: 173-82.

Lipton, M., Lorsch, J. and Mirvis, T. (2009). Schumer" s shareholder bill misses the mark. *Wall Street Journal*, 12:

Malina, M. and Selto, F. (2001). Communicating and controlling strategy, An empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research*, 13: 47-90.

Nyberg, A. J., Maltarich, M. A., Abdulsalam, D. D., Essman, S. M. and Cragun, O. (2018). Collective pay for performance, A cross-disciplinary review and meta-analysis. *Journal of Management Accounting Research*, 44(6): 2433-72.

Palled, L. H., Eisenhardt, K. M. and Xin, K. R. (1999). Exploring the black box: an analysis of work group diversity, Conflict and performance. *Administrative Science Quarterly*, 44: 1028.

R., M. N., N., A. S., Z., M. M. and N., K. F. (2011). The effects of board independence, board diversity and corporate social responsibility on earnings management. *Social Science Research Net Work*: Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1725925

Rivero, J. C. (2004). Ceo evaluation, Navigating a new relationship. *Corporate Board*, 25: 22-26.

Rosener, J. B. (2003). Women on corporate boards make good business sense. *Directorship*, 29: 2-11.

Schiehll, E. and Bellavance, F. (2009). Board of directors, CEO ownership, And the use of non-financial measures in CEO bonus plan. *Corporate Governance: An International Review*, 17: 90-106.

Schiell, E. and Bellavance, F. (2009). Board of directors, ceo ownership, and the use of non-financial measures in ceo bouns plan. *Corporate Governance An International Review*, 17: 90-106.

Siciliano, J. I. (2002). Governance and strategy implementation, Expanding board involvement. *Business Horizons*, 45: 33-38.

Silva, P. and Tosi, H. L. (2004). Determinants of the anonymity of the ceo evaluation process. *Journal of Managerial Issues*, 16: 87-102.

Smith, D. N. A. J. (2010). Managing performance at the top, A balanced scorecard for boards of directors. *Journal of Accounting & Organizational Change*, 7: 33-56.

Stephenson, C. (2004). Leveraging diversity to maximum advantage, The business case for appointing more women to boards. *Ivey Business Journal,* 69: 1-5.

Tahir, M., Ibrahim, S. and Nurullah, M. (2018). Getting compensation right-The choice of performance measures in CEO bonus contracts and earnings management. *The British Accounting Review*:

Thomas, T. (2001). The board constitution. *Corporate Board,* 22: 22-27.

Tirole, J. (2001). Corporate Governance. *Econometrica,* 69: 1-35.

Van der Stede, W. A., Chow, C. W. and Lin, T. W. (2006). Strategy, Choice of performance measures, And performance. *Behavioral Research in Accounting,* 18: 185-205.

Veen-Dirks, P. (2010). Different uses performance measures, The evaluation versus reward of production managers. *Accounting, Organizations and Society,* 35: 141-64.

Verbeeten, F. H. M. and Boons, A. N. A. M. (2009). Strategic priorities, Performance measures and performance, An empirical analysis in dutch firms. *European Management Journal,* 27: 113-28.

Yatim, P. (2012). Boardroom pay, Performance and corporate governance in Malaysia. *The Business & Management Review,* 2: 37-51.

Zorn, M. L., Shropshire, C., Martin, J. A., Combs, J. G. and Ketchen, J. D. J. (2017). Home alone, The effects of lone-insider boards on CEO pay, Financial misconduct, And firm performance. *Strategic Management Journal,* 38(13): 2623-46.