ACCRUAL BASED AND REAL EARNING MANAGEMENT ASSOCIATION WITH DIVIDENDS POLICY "THE CASE OF JORDAN"

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Abstract. This study aims to examine the association between earning management and dividend policy. Industrial companies listed in Amman Stock Exchange (ASE) are used as a sample for the years from 2010 to 2016. The dividend policy (DP) measured by dividends (DPO) payout ratio while earnings management (EM) measured by discretionary accruals (DAER) and real earning management (REM). Variables such as Firm size (SIZE), return on equity (ROE), financial leverage (LIV) and market to book value (MB) were also utilized as control variables. Ordinary least square was used to estimate the model built for the study and modified Cross Sectional models of this paper adopts the two modified Models of Kothari et al. (2005) and Roychowdhury model (2006). Our results show that dividend policy of a firm has a positive significant association with earnings management for. On the other hand the association between dividends policy and real earning management it has not been supported statistically.

Keywords: earning management, real earning management, return on equity, firm size, financial leverage, dividend policy, market to book value.

1. Introduction

Firm's financial reports are aimed to provide an accurate, true and faithful picture about the firms' activities and financial situation. The accurateness of such reports are approved when it is prepared based on historical date but when it is dealt with future uncertainties it become complex and questionable. Therefore, accounting uncertainties such as provisions and accruals may be seen a questionable act by different users of financial reports. The issuance of International Accounting Standard (IAS, 37) worked as a mechanism to prohibit manager's discretion from preparing accounting information for their benefit. Even nowadays, this problem still existed between managers and external information users about the asymmetric information; management always seeks to present accounting results using the most favorable methods by making a great one-off provision in years with high levels of underlying earnings was generated. Such provisions are called big-bath provisions, which were in turn made available to shield expenditure in future years when the earnings are not so good. That is, provisions are being used for earnings smoothened and the stakeholders

are made to believe by relying on the financial statements produced, that the firm is performing well (Monsuru and Adetunji, 2014)

After several worldwide scandals such as Enron, WorldCom earning management practices gained more interest by external users of financial reports; auditors, analysts and tax authorities gave more attention to unusual results from earning management practices. This issue also promoted researchers and scholars to devote some of their efforts to bring more insight to the problem in terms of legitimacy and the side effects for reflecting earning management numbers in financial statements. Given the importance of historical dividend policy to firms dividends can has been used as a predictor of earnings whereas earnings can also be used as a predictor of dividends. Thus both of these concepts are interrelated as both determine each other's value. This mutual relationship helps to understand why managers of a firm are more interested in maximizing the firm's earnings. Earnings are considered the most important item that signals how much firm is involved in value adding services. With this much increased emphasis over importance of earnings for a firm, it is no wonder if company management takes vital interest in the manner their earnings are reported. An increase in earnings depicts the increase in overall value of a company and vice versa (Lev, 1989). Particularly to conceal the losses of a company, earnings are managed to show beneficial situation (Hayn, 1995). This presents the idea of earnings management that is use of accounting choices to amend reported earnings for the sake of managers' benefits.

Corporate managers in their daily course of action make a number of crucial decisions related to their entities financial status. From such decisions, Dividend payout decisions which is regarded as one of the most crucial financial decisions to the entity (Baker and Powell, 1999). The dividend payout ratio is regarded as a symbol for good financial health of entity; hence, managers work hardily to improve this ratio in the eyes of external users. According to efficient market theory value of firm cannot be enhanced by increasing the dividends payout ratio due to the fact that perfect efficient market unobtainable (Miller and Modigliani, 1961). Although prior literature provided evidence in favor for the use of earning management to effect the dividends payout ratio and thus increase up the market value (e.g. Clientele theory, bird-in-hand theory, agency theory, and signaling theory); many arguments were raised that such act might have been managed and cooked to suite dividends distributions. Therefore, this study is promoted by the need to bring more insight to this issue by investigating the role of earning management in effecting the dividends policy in emerged country Jordan as example. In Jordan, several authors have investigated the relationship between corporate governance and earnings management (e.g. Fayoumi et al., 2010; Abbadi et al., 2016), but the relationship between earnings management and dividend policy has not been ascertained. As a contribution to the existing literature, this present study intends to examine the association between earnings management on dividend policy using quoted financial data for industrial companies in Jordan.

The rest of the paper is sectioned as follows; literature review hypotheses development, methodology, discussion of results and discussion and the last section for conclusion.

2. Literature review and development of hypotheses

It is will know from literatures earnings management occurs when managers use judgment in financial reporting to alter financial reports and mislead some stakeholders about the underlying economic performance of the company. (Akers et al, 2007) indicates that earnings management is attempts by management to influence or manipulate reported earnings by using specific accounting methods, recognizing, deferring or accelerating expense or revenue transactions, or influencing short-term earnings, to achieve stable and predictable financial results.

According to the agency theory high level of information asymmetry leads to several agency conflicts e.g. moral hazard between managers (agent) and owners (principle). Information asymmetry is attributed to the lack of available public information about the firm when it was a private company (Aharony et al., 1993). Monsuru and Adetunji (2014) argued that asymmetric information opens the door for managers to manipulate the accounting information for their own benefits and achieve private gains by use their discretion to mislead stakeholders about the economic performance of the company or to influence contractual outcomes. Likewise, Bukit and Iskandar (2009) in their outcomes also found that misrepresentation and lake of disclosure in financial information are normal results for the behavior of earnings management through using bonus plans, implicit contract, need for external financing, political and regulatory process and earnings decreases or losses. Earnings management is regarded as one of the major indicators of earnings quality, since earnings management can be utilized to report more relevant information about earnings numbers that reflects true performance of the institutions (Dechow et al, 2010).

Many of previous literature on earning management suggests that Firms confirmed the use of some earnings management strategies, i.e., accrual-based and real earnings management, in order to manage their earnings (e.g. Cohen and Zarowin, 2010; Dechow et al., 2010; Badertscher, 2011; Kothari et al., 2012). Accrual-based earnings management is known as; choosing accounting policies from a set of accounting policies in order to hit earnings objectives whether upward or downward. Other strategies for earning management such as real earnings management is undertaken by managers by changing the time or restructuring of operations to deviate from normal business practices, like manipulating sales, reducing discretionary expenditures and overproducing inventory in order to decrease the costs of goods sold, (Roychowdhury, 2006). Literally real earnings management concept is regarded to be more expensive than that of accrual-based earnings management (Graham et al., 2005; Kim and Sohn, 2013). Darrough and Rangan (2005) and Mizik and Jacobson (2008) ar-

gued that greatest effect of accrual-based and real earnings management would be attained through a coordinated use of both tools.

Accrual-based or real earnings management is used by companies to manage their earnings (Badertscher, 2011). These strategies are basically constructed on selecting the accounting policies, estimates or changing accounting methods within the generally accepted proper accounting principles to achieve earnings desired level (Dechow and Skinner, 2000). Although of real earning management complexity it is a preferred option for managers since it is hard to detected, and applied with high secrecy (Manowan and Lin, 2013). On the other hand accruals earnings management is generally more constraint to specific times and period's while real earnings management can be applied throughout the year, (Zang, 2012).

A great deal of the extant literature has examined how earning management can affect dividend policy but the direction of this relationship still ambiguous and mixed. Monsuru and Adetunji (2014) when investigated the effect of earnings management on dividend policy in Nigeria, concluded that if managers increase discretionary accruals of company dividend percentage will not increase; the same conclusion was found by shah (2010) who showed that earnings management measured by discretionary accruals has no impact on dividend payout policy for Pakistani Listed Companies and Chinese listed Companies. Several other studies also found the same results and denied the existence of such relationship (Haider et al, 2012; Aurangzeb and Dilawe, 2012).

Despite of previous literature that denies the relationship between earning management and dividends policy, other studies results proved this relationship. Im et al, (2015) when examined discretionary accruals and real earnings management, found a pressure on firms to maintain consistency in the payout of dividends, this turn managers to become dependable on earnings management as a means to increase the income from which dividends are paid especially when facing decreased earnings or losses. In the same direction Chansarn and Chansarn (2016) when investigated the influence of earnings management on dividend policy in Thailand revealed that earnings management is positively correlated to dividends. Similarly, for a sample of German firms, Savov (2006) showed that firms having high investments tend to report more discretionary accrual in their earnings.

Several studies suggested that managers are likely conduct in earning management as an attempt to increase earnings when they realize that their firms are not likely to meet the earnings level required for dividend payouts thus manipulate earnings upward to maintain dividend levels (Morghri and Galogah, 2013; Chansarn and Chansarn, 2016). Some researchers argued that, high dividend payout ratios lead to more informative earnings and there is positive impact for dividend policy on informativeness of reported earnings in countries with relatively poor information environment (Farooq, 2018). The explanation of this is increased sensitivity of earnings management to permanent earnings and tendency to increase dividend payment to attract investors and thus leading

to an increase in stock prices. Greater earnings numbers and stock prices do not necessarily reflect the true performance and earnings of companies because earnings management reflects manager's intent to present the best financial picture of the company outcomes through discretionary accruals (Baatour et al, 2017).

Although prior studies have found evidence that Jordanian public firms utilize earnings management to meet several targets (Abed et al., 2012; Hamdan et al., 2013; Abu Jebril and Al.Thuneibat, 2016; Alzoubi, 2016; Alqatamin et al., 2017; Ibrahim and Al Awawdeh, 2017, Alhadab, 2018; Alkurdi et al., 2017), no studies to date have examined the relationship between dividends policy and earning management in Jordan. Based on our prior review and discussion of related letreture we assume the following two hypotheses for our study.

H1: There Is An Association Between Dividends Policy And Earning Management Engagement Using Discretionary Accruals.

H2: There Is An Association Between Dividends Policy And Earning Management Engagement Using Real Earning Management.

3. Methodology

3.1 Method and sample

Investigating the study hypothesis was based on applying multiple regression analysis using Ordinary Least square (OLS) in order to examine the relationship between dividend policy and earnings management. The population used in this study comprises the listed industrial companies in Amman stock exchange. The industrial sector in Jordan is very crucial sector to our Jordanian economy, and regarded as the biggest sector in Jordanian economy; and a source of employment and economic growth. The study sample consisted of all industrial companies that reported distributions of dividends from year 2010 to 2016. The sample consisted of 57 company; companies that do not show dividends were excluded. The final total sample consisted of 392 observations.

3.2 Model specification

Traditionally the distribution of dividends by firms is regarded as a strong signal about the firm's future cash flows. A considerable number of prior literature studies reported several important factors that are capable to influence firm dividends decisions; examples of such factors are: previous cash flows, investment returns, general earnings, the level of liquidity; the expected future returns, previously distributed dividend, inflation, interest rates, legal factors, future growth, ownership structure and the size of firms (Brigham, 1995; Foong et al., 2007; Uwuigbe et al., 2012). In order to capture the association between dividends policy and earnings management we followed the two popular real earning models of Kothari et al. (2005) and Roychowdhury (2006). The first model of Kothari et al. (2005) suggests that firm's earnings management behavior is a

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function of discretionary accruals; and according to this model discretionally accruals (DISACC) can be estimated by the following equation:

$$DISACC_{it} = \left(\frac{TA_{it}}{A_{it-1}}\right) - \beta_0 \left(\frac{1}{A_{it-1}}\right) + \beta_1 \left(\frac{\Delta RET_{it} - \Delta REC_{it}}{A_{it-1}}\right)$$

(1)
$$+ \beta_2 \left(\frac{PPE_{it}}{A_{it-1}}\right) + \beta_3 lagged(ROA_{it-1}) + E.$$

Where: TA_{it} = the total accruals in year t of the firm, measured by the difference between income before extraordinary items and discontinued operations and cash flows from operations (Collins and Hribrar, 2002); PPE_{it} = the net value of property, plant, and equipment at the end of year t-1 of the firm. A_{it-1} = Total assets in year t1 RET_{it} = Sale revenue in year t REC_{it} = Account receivable in year t PPE_{it} = properties, plant and equipment in year t; lagged ROA_{it} = Return on assets in year t.

Our methodology also employs Roychowdhury (2006) model, our second model this model suggests that earning management is a function of three elements: abnormal levels of cash flow from operations (CFO), abnormal levels of production costs (PROD) and abnormal levels of discretionary expenses ($DISCexp$). Given sales levels, firms that conduct in real earnings management essentially exhibit one or more of the following signs: abnormal low cash flows from operations, and/or abnormal high production costs, and/or abnormal low discretionary expenses. Based on this argument the estimation of firm's real earnings management behavior is captured through equations (2) to (4) as follows:

$$\left(\frac{\Delta CFO_{it}}{ASSETS_{it-1}}\right) = \gamma_1 \left(\frac{1}{ASSETS_{it-1}}\right) + \gamma_2 \left(\frac{\Delta SALES_{it}}{ASSETS_{it-1}}\right)$$

(2)
$$+ \gamma_3 \left(\frac{\Delta SALES_{it-1}}{ASSETS_{it-1}}\right) + E$$

Where: CFO_{it} = net cash from the operations of firm i in year t; $ASSETS_{it-1}$ = total assets at the end of year $t-1$ of the firm; $SALES_{it}$ = net sales in year t of the firm; $\Delta SALES_{it}$ = change in net sales from year $t-1$ to t of the firm. Abnormal CFO was measured by the estimated residual from Equation (2). Since price discounts and more lenient credit terms will decrease cash flows for the period. The low negative residuals imply unusual low levels of cash flows from operations suggesting more sales manipulation to manage reported upward earnings (Roychowdhury, 2006; Cohen and Zarowin, 2010; Dechow et al., 1995).

$$(\frac{PROD_{it}}{ASSETS_{it-1}}) = \gamma_1 \left(\frac{1}{ASSETS_{it-1}}\right) + \gamma_2 \left(\frac{\Delta SALES_{it}}{ASSETS_{it-1}}\right)$$

(3)
$$+ \gamma_3 \left(\frac{\Delta SALES_{it-1}}{ASSETS_{it-1}}\right) + E.$$

Where: $PROD_{it}$ = costs of goods sold of firm i in year t. The abnormal production cost ($PROD$) is the difference between actual and normal levels of production costs; this measure is calculated using the estimated coefficients from Equation (3). Overproduction will result in positive residuals in equation (3). High positive values of $PROD$ imply a real activity for manipulation through overproduction, which results in a reduction of cost of goods sold (Roychowdhury, 2006; Cohen and Zarowin, 2010; e.g. Dechow et al., 1995).

$$(4) \quad \left(\frac{DISC_{exp\ it}}{ASSETS_{it-1}}\right) = \gamma_1 \left(\frac{1}{ASSETS_{it-1}}\right) + \gamma_2 \left(\frac{\Delta SALES_{it-1}}{ASSETS_{it-1}}\right) + E.$$

Where: $DISC_{exp\ it}$ = the discretionary expenses, and calculated as the sum of selling, general, administrative expenses (S&GA) and (research & development) expenses. S&GA are those expenses do not directly attribute to production activities rather they related to selling, general and administrative functions and also includes advertising expenses and R&D expenses which consist of all direct and indirect costs that are related to the creation and development of new processes, techniques, applications and products with commercial possibilities. The abnormal expenses could be generated by cutting the discretionary expenses such as advertising, research and development and administrative (SG&A) expenses. The abnormal levels of discretionary expenses are ($DISCexp$) as a measure is estimated as the residual from Equation (4). Low negative residuals indicate that firms cut amounts of discretionary expenses to increase reported earnings. For interpretation purposes higher residuals imply high levels of real activities of manipulation (Roychowdhury, 2006; Cohen and Zarowin, 2010; e.g. Dechow et al., 1995).

3.3 Research model

Based on previous discussion we constructed the following two models to investigate the association between firm's dividends payout ratio and firm's earnings management:

$(5) \quad DAEM_{it} = \alpha_0 + \alpha_1 DPO + \alpha_2 SIZE + \alpha_3 MB + \alpha_4 ROE + \alpha_5 LEV + E,$

$(6) \quad REM_{it} = \alpha_0 + \alpha_1 DPO + \alpha_2 SIZE + \alpha_3 MB + \alpha_4 ROE + \alpha_5 LEV + E.$

The main variables that are included in the models are as follows: we used the discretionary accruals of earning management ($DAEM$) as the dependent variable for the first model as appears in Equation (5); this dependent variable is to show the relationship between earnings management and the dividend policy (DPO). In model 2 equation (6) we substitutes discretionary accruals with real earning management (REM); many of previous research regarded both of real and accrual based earnings management as substitutes in managing the earnings behavior (Cohen and Zarowin, 2010; Zang, 2012; Chang et al., 2015). As also appears in the two models dividends policy was twice measured by

the payout ratio (DPO). And in order to capture the real effect of dividends policy on earning management and isolate any other factors effects' the following control variable were added to the model; first, the study controls the firm size; prior literature revealed mixed results for the effect of $SIZE$ effect on discretionary accruals (Gu et al., 2005 and Aini et al., 2006). On one hand, Gu et al., 2005, found negative association between size and discretionary accruals. While on the other hand, Aini et al., 2006, claimed that the larger the firm size, the more likely it could select income decreasing policy to avoid political costs. The second control variable was market to book value (MB); this variable represents growth factor. Generally, growth firms are more likely to manage their performance; some results found a strong association between market to book value and earning management (Cohen and Zarowin, 2010; Chaney et al., 2011).

The third control variable was profitability of firm (ROE); previous literature suggests that low profitable firms have considerable incentives to conduct earning management; dividend payments will impact the net shareholder equity on the balance sheet and will therefore influence the ROE figure. When a business pays dividends, its retained earnings will decline. Since retained earnings is added to the paid-in capital to calculate the total shareholder equity, dividend payments will reduce the total shareholder equity on the balance sheet. A reduction in shareholder equity translates to a smaller denominator in the ROE equation. In other words, the analyst divides the net income figure by a smaller number, which results in a larger ROE. In sum, dividends reduce shareholder equity and boost ROE (Kothari et al., 2005; Jiraporn et al., 2007). And finally; we control the leverage (LEV); this factor represents the firm financial stability and risk, some studies found positive relationship between leverage and EM, in contrast to other studies that showed negative relationship between leverage and EM (Sweeney, 1994; Dichev and Skinner, 2002; Gu et al., 2005; Rashidah and Haneem, 2006).

3.4 Variable measurement

Table 1 shows the Variable measurements for the employed variable in the study models:

4. Results and discussion

4.1 Descriptive statistics

Table (2) show the results of descriptive statistics for the variables regarding 392 observations of 57 industrial companies listed on ASE during the period (2010-2016). The results in table 2 show that the dividends payout ratio varied from -0.714 to 1.255 with an average of 0.571 which indicates that profitable companies tend to report at least 50 percent distributions of their earnings; this policy of showing high percentages of dividends aimed to boost the market

Table 1: Variable measurement

Variable	Type of variable	Abbreviation	Description
DA. earning management	dependent	DAEM	Discretionary accruals computed using the Kothari et al. (2005)
Real earning management	dependent	REM	Real earning management using Roychowdhury model (2006)
Dividends policy	dependent	DPO	Payout ratio = Dividends per share/ earning per share
Firm size	control	SIZE	Log of total assets
Return on equity	control	ROE	Net income/ shareholders' equity
leverage	control	LIV	Total debt/ total assets
Market to book		MB	market capitalization/ common equity

value of company and share prices. The same table also show that discretionary accruals ranges from 0.000 to 0.491 with an average of 0.137; this proves that engage in earning management behavior, either by raising profit levels to denote higher profitability or, reducing profit levels to avoid taxes and distributions. The results of real earning management ranged from -0.529 to 0.277 with an average of 0.093; similarly this rate also indicates management manipulation in earnings through cash flow or sales or expenses. The values of both real and accrual earnings management were greater than the mean values this implies the existence of earning management behavior. The size effect of these companies varies from 11.150 to 25.916 with an average of 14.331, on average these assets are financed through debt rate of 0.000 to 0.438. Finally, return on assets varied from -41.255 to 28.019 with an average of 3.976, which implies how management is utilizing company's assets to make profits.

Table 2: Descriptive statistics for the study variable

Variables	Minimum	Mean	Maximum	Std. deviation
DAEM	0	0.137	0.491	0.161
REM	-0.529	0.093	0.277	0.319
DPO	-0.714	0.571	1.255	2.593
SIZE	11.15	14.331	25.916	0.832
ROE	-41.255	3.976	28.019	5.61
LIV	0	0.295	0.438	0.188
MB	0	0.627	2.791	3.477
* N= 392				

4.2 Empirical results

4.2.1 Correlation results

Table 3 depicts the correlation matrix for the coefficients of the study variables. As presented in table (3) there is a positive association between dividends policy and both of accrual and real earnings management. The results show that this association is significant at a level 5 percent with accrual earning management and at 10 percent level with real earning management. This result implies and provides preliminary evidence that Jordanian industrial companies manage upwards their reported earnings. Table 3 also reveals positive correlation between financial leverage (LEV), this indicate that companies with a higher debt ratio engage in a higher level of earnings management. The size effect was found negatively associated with earning management; this result suggests that large companies avoid earning management behavior. Market to book value variable was found negatively associated with earning management; this also suggests that high market value companies do not apply earning management management practices. Finally the profitability showed mixed results with both of accrual and real earning management.

Table 3: The correlation results for the study variables

Variables	DAEM	REM	DPO	SIZE	ROE	LIV	MB
DAEM	1						
REM	0.621**	1					
DPO	0.352**	0.247*	1				
SIZE	-0.318**	-0.293**	0.159*	1			
ROE	0.337**	-0.264*	0.215*	0.141*	1		
LIV	0.364**	0.311**	0.128*	0.112*	0.163*	1	
MB	-0.351**	-0.259*	0.266*	0.098	0.196*	0.170*	1
*** sig 1%, ** sig 5%, * sig 10%							

4.2.2 Regression results

Table 4 and 5 show the results of the regression analyses for the hypothesized association between accrual and real earnings management with dividends policy. Table 4 represents the results of discretionary accruals are estimated using the modified version of Jones (1991) model as suggested by Kothari et al. (2005); and table 5 show the results of real earning measures estimated using Roychowdhury (2006) model. ***, ** and *, represent significance at the one percent, five percent, and ten percent levels, respectively; all variables are defined earlier in variables measurement.

In table 4 the three models are the results for the association between earnings management measured by DAEM and dividends policy measured by payout ratio (DPO) while controlling the other variables (SIZE), (ROE), (LIV) and

(MB). If we review the three models it appears that the association between (DAEM) and (DPO) found positive and statically significant; this suggests that the effect of a firm's dividend policy on the firm's earnings management during the sample period to verify for our first hypothesis that asserts that there is an association between payout policy behavior drives earnings management behavior with discretionary accruals. From Column (1) to Column (3) in Table 3, a positive coefficient is observed on DPO (i > Coef: 0.083, t-value: 2.714, ii > Coef: 0.113, t-value: 3.017, iii > Coef: 0.097, t-value: 1.933).

Table 4: Regression results for dependent variable discretionary accruals (DAEM)

variable	Model 1		Model 2		Model 3	
	B	T- value	B	T-value	B	T-value
Constant	0.261	6.337**	0.186	2.580**	0.144	2.299**
DPO	0.083	2.714**	0.113	3.017**	0.097	1.933**
SIZE	-0.052	-1.481*	-0.039	-2.105**	-0.031	-1.866**
MB	-0.049	-1.277*	-0.043	-1.250*	-0.039	-1.199
ROE	0.063	1.511*	0.049	1.361*	0.017	0.979
LIV	0.071		0.055		0.03	
F-value	17.109		13.922		11.677	
Adj-R2	0.351		0.319		0.299	
N	392		392		392	
*** sig 1%, ** sig 5%, sig 10%						

Similarly, in table 5 the three models provide evidence for the positive association between earnings management measured by REM and dividends policy measured by payout ratio (DPO). The positive coefficient of DPO shows a positive association with REM (real earnings management); (i > Coef: 0.009, t-value: 0.551, ii > Coef: 0.007, t-value: 0.480, iii > Coef: 0.008, t-value: 0.611). Unfortunately, although these results show an association between a firm's dividend policy and real earnings management behavior but they are not significance at a level of 5 percent. Generally, the Overall results of DPO in tables 4 and 5 provided evidence that firm's dividend policy is likely to increase earnings management. This result supports our hypotheses for the existence of the relationship between dividend policy and both of accrual and real earnings management; this assures that Jordanian companies engage in earnings management, especially by using discretionary accruals to create retained earnings from which managers can pay dividends to shareholders.

Regarding the other variables, included as control variables, tables 4 and 5 showed that; the Size of company (SIZE) was negatively significant associated with both accrual and real earning management; this result assures the avoidance of large companies in earning management behavior, This is may possibly attributed to their benefits from economies of scale compared with

Table 5: Regression results for dependent variable real earning management
          (REM)

variable	Model 1		Model 2		Model 3	
	B	T- value	B	T-value	B	T-value
Constant	0.264	6.893**	0.173	2.105**	0.161	2.080**
DPO	0.009	0.551*	0.007	0.480*	0.008	0.611*
SIZE	-0.047	-1.399**	-0.044	-2.388**	-0.029	-1.155**
MB	-0.023	-1.019*	-0.022	-1.614*	-0.027	-2.366**
ROE	0.059	1.488*	0.071	2.233**	0.041	1.377*
LIV	0.051		0.034		0.021	
F-value	14.333		9.725		8.166	
Adj-R2	0.383		0.316		0.309	
N	392		392		392	
*** sig 1%, ** sig 5%, sig 10%						

small companies that tend to manipulate earning to cover their high marginal cost (Alhadab, 2018). we also found that leverage (LEV) is not been supported statistically in all models but proved to be positively associated with earning management this results assures that high financial leverage companies have no incentives to manage their income. Likewise, profitability (ROE) results were not significantly affecting earning management but positively related with the two types of earning management that means high profitable companies are rarely engaged in earnings management. The last control variable market to book value (MB); the results revealed that this variable is negatively associated with earning management in all models; however, it has not been supported statistically in all models.

In summary, the results reported in table 4& 5 provide evidence to literature that earing management in Jordanian industrial companies is associated with dividends policy using accrual earnings management; this evidence is consistent with the first main hypothesis of this study. Based on the above mentioned results, our first hypothesis is accepted and the second hypothesis is rejected.

5. Conclusion

This study was an attempt to contribute to accounting literature by investigating the association between dividend policy and both of accrual and real earnings management in emerged country context. This study examines whether Jordanian industrial companies engage in earning management both real and accrual-based in order to discrete earnings during the period that took place between 2010 and 2016. The findings of this study provide supportive evidence to the literature that dividends policy is associated with accrual-based earning management; This supports our assertion that managers are likely to conduct

earnings management and practice opportunistic behavior to increase retained earnings from which dividends are paid out, as the pressure on the firm is to maintain consistency in the payout of dividends, even when facing decreased earnings or losses. Regarding the association between dividend policy and real earning management the study results did not provide conclusive evidence for such relationship. Regarding control variables the results found the Size of company (SIZE) was negatively significant associated with both accrual and real earning management; leverage (LEV) has not proved to be positively associated with earning management; profitability (ROE) results were not also not found significantly affecting earning management but positively related with the two types of earning management; market to book value (MB) was found negatively associated with earning management.

This study contributes to the knowledge through several aspects. First, it provides new evidence on the use earnings management in Jordanian context. Hence, our findings can be generalized to for developing countries that have stock exchanges with similar characteristics to more developed countries. Second, this study provides more insight for earnings management behavior association with dividends policy. In particular, the findings revealed that accrual earnings management is applied by Jordanian companies to manipulate financial results. Third, higher levels of public monitoring and governance and increasing constraints over accounting discretion regarding the different forms of earnings management, positively or negatively affect for the efficient allocation of resources. Finally, this study suggests a new avenue for future research in Jordan to investigate earning management with other financial information factors.

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