

The Role of Dividend Payout in the Determination of the Relationship Between Earnings Before Interest and Tax Cash Flow From Operations, Capital Expenditures and Firm Sustainable Cash Flows: A Case Of Non-Financial Firms

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Abstract

The prime objective of the current study is to determine the predictive ability to earnings before interest and tax, cash flow from operations, dividend payout, and capital expenditures for free cash flows. In addition to the current study is also intended to highlight the moderating role of dividend payout predictive ability to earnings before interest and tax, cash flow from operations, and capital expenditures for free cash flows. To achieve the objective of the study the data of 100 listed non-financial firms are collected from the annual report of the firms listed on the Iraq Stock Exchange. The data is collected over a period of six years from 2012-2017. To achieve the first set of objective regarding the direct results we have chosen OLS as a final statistical test after undergoing basic diagnostic analysis. To achieve the second set of objectives regarding the indirect effect of dividend payout, we have used the hierarchical multiple regression models. The statistical software, STATA is used for the analysis purpose. The findings of the study have shown a great deal of agreement with hypothesized results and also provided support to the pecking order theory and theory of free cash flow. The findings of the study will be helpful for policymakers, investors, scholars, and students in understanding the key factors which affect the free cash flow decisions and determine its predictability.

Keywords: Cash flow from operations; Dividend Payout; Earnings before interest and tax; Capital expenditures; Sustainable cash flows.



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1. Introduction

Dividend policy is one of the most important issues in modern financial literature. It is one of the topics that has created the most interest and thus has been extensively researched (Al-Gharaibeh *et al.*, 2013). Dividend policy is regarded as one of the most controversial subjects in finance among researchers. This situation has led to the emergence in a number of researchers who competed to write out the theoretical explanations about dividend policy. In previous studies, the majority of the empirical work did not have sufficient explanations regarding the dividend policy matters and corporate values in firms (Jabbouri, 2016).

Free cash flow is the excess funds that remain in the company's balance, after all the activities that keep the company running. These excess funds or free cash flow can be utilized for future investment or this amount can be paid to equity and debt holders of the company. However, managers or executives can misuse or manipulate these funds by increasing their remuneration. These managers can also invest these funds in negative NPV projects (Yahya and Ghazali, 2017). Jensen *et al.* (1986) has introduced free cash flow hypothesis in which he argued that the use of debts could decrease agency costs or free cash flow because funds for new projects can be acquired from other financial institution like banks that have a better position in the administrating of corporate activities (Ahmed and Jahangir Ali, 2013).

In addition, overinvestment problem or capital expenditures can also be caused by free cash flow. For Instance, Richardson (2006) found that when free cash flow is high there is the probability of overinvestment by managers as he revealed a high correlation between free cash flows and overinvestment. Moreover, a high amount of free cash flow means the company has high agency costs. Managers can use free cash flow for empire building or overinvestment, which further effect shareholder value negatively. Additionally, paying dividends to shareholders is also the solution for agency conflicts as it leads to lower free cash flows and lower agency costs. Easterbrook (1984) also purported that dividend can be utilized to avoid misusing funds by executives. To meet the needs of new investment opportunities, executives approach the capital market for funds. This effort would impose a discipline on the managers and thus reduce the cost of monitoring the managers or executives. Consistent with this hypothesis, dividends can reduce agency conflicts and could also be utilized as a substitute control device (Al-Kuwari, 2009).

Many studies examined cash flows from operations and earnings in some countries such as Australia, Nigeria, and Malaysia (Efezana, 2015). They found that CFO is better than earnings as a predictor for future cash flows. Moreover, they concluded that the data from different countries may provide different results such as those in the US. UK. and Australia were found that earnings are better than CFO. This is because different factors (country, market size, investors) will affect the information of earnings and cash flows from operations (Bartov *et al.*, 2001). Several previous studies have supported the results of cash flows from operations and earnings in forecasting future cash flows. This study focuses on free cash flow for Iraqi companies. Data were obtained from the DataStream, using a sample of 100 companies listed on the main board of the Iraq Stock Exchange between 2012 to 2017. This study expects that the positive relationship between dividend per share, operating cash flow, capital expenditures, earnings, and free cash flow.

2. Literature Review

2.1. The Predictive Ability Earnings in Forecasting Future Cash Flows

The primary activity in decision making is a financial prediction (Almeida *et al.*, 2004; Harford *et al.*, 2014). This is because decision-making reflects whatever will appear in the future. Each decision-making involves an expectation of receiving greater benefits in the future. Thus, the prediction is an important aspect of the decision-making process. The decision makers, such as investors and stakeholders, need to predict the effect of decision-making and choose it to obtain better benefits. Previous studies (McGowan *et al.*, 2015), presented that cash flows from operations and earnings were important information to investors and stakeholders because they had an explanatory ability to forecast future cash flows in Australian capital markets in order for investors and stakeholders to make investment decisions. This means cash flows from operations is a measure of a firm's performance and investors and stakeholders also recognize that cash flows from operations are a sustainable performance measure for a firm's valuation.

The result provided evidence that cash flows from operations are better than earnings in predicting future cash flows and traditional cash flows measures also. Consistent with the studies, documented that cash flows are more useful than earnings in the firm's valuation. They presented annual earnings had a lower relationship to future cash flows. They also found that earnings make cash flows forecast errors. Therefore, they proposed investors to show interest in cash flows forecast rather than earnings in security valuations. The findings are consistent with the prior findings of Al-Attar and Hussain (2004) on the sample of UK based firms. Some studies have shown that it could not be concluded whether earnings or cash flows are better as a predictor. In an effort of investigating the ability to earn in determining the cash flow, Atwood *et al.* (2011) found a positive and significant relationship between them. Givoly *et al.* studied the quality of analysis of the cash flow forecast. The results showed that the forecasts of cash flows were less accurate than earnings.

The following reasons indicate that earnings can be used as a predictor of future cash flows. First, earnings provide information for the dividend payment ability of the companies for future (Lipe, 1990). Second, earnings are the basic reported earnings measure and most common variable to be analyzed in the literature of accounting based on historical cost accounting reported that earnings could themselves suffer from timing and matching problem that may contribute to error in the measurement of firms' value.

Kim and Kross (2005) described the relationship between earnings and future cash flows one-year-ahead. Their data period from 1972 to 2001 was under the FASB. They demonstrated that current earnings-related positively to one-year ahead of future cash flow from operations, whether for large or small firms, dividend-paying or non-dividend-paying, firms with profit or losses. They suggested the accuracy of earnings to forecast future cash flows increased over time. In addition, earnings can predict future cash flows beyond one year into the future. They also proposed earnings-related increasingly to future cash flows with industries, which applied conservative accounting standards. In the same way, Liu and Wang (2009) examined the ability of earnings, cash flows, and accruals to predict future cash flows in Hong Kong, Singapore, Malaysia, and Thailand. Their evidence suggested that coefficient of earnings, cash flows, and accruals had the same significant level, which means all three independent variables were useful to forecast future cash flows in all periods.

H1: Earnings before interest and tax from the operation has a significant positive impact on the future cash flows

2.2. The Predictive Ability of Cash Flows from Operations in Forecasting Future Cash Flows

The study of Jordan *et al.* (2007) compared the cash flows from operations, earnings and sales in forecasting future cash flows. Their data were collected on a randomly selected 100 fortune1000 companies. The data covered the period from 2002 to 2004. Based on regression analysis, the results showed that cash flows from operations had the weakest explanatory power when compared with sales and earnings.

Many studies as mentioned above have examined cash flows from operations and earnings to forecast future cash flows. However, their results are inconsistent. In addition, most studies have been undertaken in Australia and the United States. There has been just one published research undertaken in Thailand that is conducted by Chotkunakitti (2005). The study, however, only covered the period from 1996 to 2002. Recent years witness changes in Thailand economy. The economy has improved compared to years prior to 2002. As reported by the Bank of Thailand (2009), Thailand has been attracting more foreign investors due to the favorable business environment. In addition, the quality of financial reporting in Thailand has improved. Beginning 2006, preparation of financial

reporting in Thailand must be in accordance with the International Financial Reporting Standards (IFRS). These changes in a business environment affected the usefulness of accounting numbers reported by financial reporting.

Cash that generated from operations by one company acts as the most important sources used to pay dividends. The company cannot maintain its dividend payout over a long time of period if the operating cash that generated by the company was not sufficient to pay the cash dividend. Based on a study by [Robinson and Sensoy \(2016\)](#), found that cash flow affects the dividend payout by the companies and act as an important role in enhancing the company's ability to pay dividends. The result is supported by Jordan. Meanwhile, the studies that generated a negative relationship between operating cash flow and dividend payout were found in the research by [Faulkender et al. \(2012\)](#). Results from the studies revealed that cash flow in the companies does not influence the amount of profit that has divided to the investors. Referred to the previous research, the majority of studies regarding operating cash flow show a positive relationship. Other previous research that supported this result is [Robinson \(Goldman and Viswanath, 2013\)](#), Based on the above explanation, the following hypothesis is formulated:

H2: Cash flow from the operation has a significant positive impact on the future cash flows

2.4. The Predictive Ability of capital Expenditures in Forecasting Future Cash Flows

The capital expenditures are carried out for investment purposes. The investment decisions are interlinked with financing and cash decisions. Issues such as overinvestment or capital expenditures are also linked with free cash flow. For Instance, Richardson found that when free cash flow is high there is the probability of overinvestment by managers as he revealed a high correlation between free cash flows and overinvestment. Moreover, a high amount of free cash flow means the company has high agency costs. Managers can use free cash flow for empire building or overinvestment, which further effect shareholder value negatively. Additionally, paying dividends to shareholders is also the solution for agency conflicts as it leads to lower free cash flows and lower agency costs ([Easterbrook, 1984; Javed and Basheer, 2017](#)) also purported that dividend can be utilized to avoid misusing funds by executives. To meet the needs of new investment opportunities, executives approach the capital market for funds. This effort would impose a discipline on the managers and thus reduce the cost of monitoring the managers or executives. Consistent with this hypothesis, dividends can reduce agency conflicts and could also be utilized as a substitute control device.

In terms of stakeholders, like a creditors' lending decision, when cash flow in a firm decreases, it can provide the early warning signal of bankruptcy to them. Therefore, poor cash flow can be a good indicator of a problematic firm. This is the reason why cash flows prediction is important for creditors' lending decisions ([Zwaig and Pickett, 2001](#)). Meanwhile, from the business manager's perspective, cash flow is the lifeblood of a business because it must be obtainable when it is needed ([Schaeffer, 2002](#)). Prior researches have shown that cash flows have a role in forecasting future cash flows. However, the outcomes are inconsistent. Thus, this study has taken into consideration the cash flow variable in terms of operations and earnings, similar to many prior types of research that have been conducted. This is because financial transactions are recorded by historical cost based on the recognition of revenues and basic accounting principles. This may explain the efforts by the Financial Accounting Standard Board (FASB) to change the way earnings are measured even if the changes do not make sense ([FASB, 1978](#)). Furthermore, earnings in the capital market are a good proxy for companies' future cash flows. Several researchers have examined the ability of firms investment and doing capital expenditures in predicting future cash flows.

H3: Capital expenditures have a significant positive impact on future cash flows

2.5. The Impact Dividend on the Predictive Ability of Cash Flows from Operations, and Earning in Forecasting Future Cash Flows Forecasting Future Cash Flows

The dividend was defined in a simple word as a percentage of earnings that paid to shareholders in term of the dividend. In previous studies, the researchers found that there were various types of characteristics that might have a relationship with the dividend payout. The various types of characteristics are the profitability of firms, growth opportunities, investment opportunities, financial leverage and others ([Adil et al., 2011; Basheer M. F. et al., 2018](#)). [Al-Gharaibeh et al. \(2013\)](#) an important element in the financial area that they should manage. They also have mentioned that, based on the majority economists, they suggest that the investor should not only focus on whether a firm pays dividends or otherwise. This is because the investor already owned the firm by investing in that firm and they will just either obtained the dividend or just invest it back in the firm business. Referred to [Setiawan & Phua](#), in their research stated that minority shareholders preferred the dividend payment more than reinvested firm's earnings to the company. That is one strategy that the investors used to ensure their rights on dividend payment that have promised by the company.

In the investor's thought, the dividend payment was an important right that they should obtain when they invested in any company's stock. There were no investors that willing to invest in one company with not obtaining the profit. Research by [Ullah et al. \(2012\)](#) and [Basheer M. et al. \(2019\)](#) have suggested that dividend payment that announced by a company could create a conflict among the managers and shareholders Here, agency conflict will occur as the goal of managers and shareholders were different. In the previous research by [Easterbrook](#) stressed that dividends play an important role in control the agency problem between manager and shareholders. Thus, by monitoring the capital market activities, it indirectly will control the firm's performance. This is because the probability that one company will sell new common stock market will increase if the firms have the ability to pay higher dividends. This performance that shows by a company attracted the attention of many shareholders such as a financial institution, bank, capital supplier and others. [Belo et al. \(2015\)](#) mentioned that a firm could be forced by the dividend payment to frequently focus only on the external market. Because of that, the company must lead the

in our case, as our sample is spread of 6 years from 2012 to 2017 and the total number of firms is 100, therefore $i=1, \dots, 100, t=1, \dots, 6$

The error vector is given by

$$\varepsilon_{it} = v_{it} + u_{it} \dots \dots \dots (2)$$

Where v_{it} the individual is the effect of each of the industrial companies and u_{it} is the error which assumes a normal distribution.

To investigate the relationship between, dividend payout cash flow from operation, capital expenditures, earnings before interest and tax and cash flow we have used the following models

$$FCF_{it} = \alpha_0 + \alpha_1 EBIT_{it} + \alpha_2 SIZE_{it} + \alpha_3 LIQ + \alpha_4 LEV_{it} + \varepsilon_{it} \dots \dots \dots (3)$$

$$FCF_{it} = \alpha_0 + \alpha_1 CFFO_{it} + \alpha_2 SIZE_{it} + \alpha_3 LIQ + \alpha_4 LEV_{it} + \varepsilon_{it} \dots \dots \dots (4)$$

$$FCF_{it} = \alpha_0 + \alpha_1 CEX_{it} + \alpha_2 SIZE_{it} + \alpha_3 LIQ + \alpha_4 LEV_{it} + \varepsilon_{it} \dots \dots \dots (5)$$

$$FCF_{it} = \alpha_0 + \alpha_1 DPO_{it} + \alpha_2 SIZE_{it} + \alpha_3 LIQ + \alpha_4 LEV_{it} + \varepsilon_{it} \dots \dots \dots (6)$$

Hierarchical multiple regression model is a minor extension form of classical linear multiple regression (Hair *et al.*, 2006). Hierarchical multiple regressions allow another variable between independent the ent and dependent variable to depend on the level of another independent variable. (i.e. the moderator) It is an appropriate method for detecting the effects of moderating variables. This method improves the attempts of ordinary linear regression estimation by adding a third variable in the model

The moderator hypothesis is accepted or rejected on the basis, if outcome the of interacting term is significant or insignificant. also highlighted that there may be direct as significant ant relationship between path a and path b with outcome variable, but these paths are not conically not relevant to test the moderating effect. The linear model of moderated relationship defines by Hair is as follow:

$$Y = Y_{it} = \alpha_0 + \alpha_1 X1_{it} + \alpha_2 X2_{it} + \alpha_3 X1_{it} X2_{it} \dots \dots \dots (7)$$

Where:

α_0 = Intercept

$\alpha_1 X1$ = Linear effect of X1

$\alpha_2 X2$ = Linear effect of X2

$\alpha_3 X1 X2$ = Moderating effect of X2 on X1

Thus, following Baron and Kenny (1986) and Hair the equations Moderating the moderating impact of dividend payout in the relationship between cash flow from operation, capital expenditures, earnings before interest and tax and cash flow moderating model for this study are as follows:

$$FCF_{it} = \alpha_0 + \alpha_1 EBIT_{it} + \alpha_2 EBIT * DPO_{it} + \alpha_3 SIZE_{it} + \alpha_4 LIQ + \alpha_5 LEV_{it} + \varepsilon_{it} \dots \dots \dots (8)$$

$$FCF_{it} = \alpha_0 + \alpha_1 CFFO_{it} + \alpha_2 CFFO * DPO_{it} + \alpha_3 SIZE_{it} + \alpha_4 LIQ + \alpha_5 LEV_{it} + \varepsilon_{it} \dots \dots \dots (9)$$

$$FCF_{it} = \alpha_0 + \alpha_1 CPEX_{it} + \alpha_2 CPEX * DPO_{it} + \alpha_3 SIZE_{it} + \alpha_4 LIQ + \alpha_5 LEV_{it} + \varepsilon_{it} \dots \dots \dots (10)$$

Where i and t denote firm and year, respectively, FCF_{it} is free ash flow represents the flow of cash earned and spent in a company. This pattern reveals how much money is available in a company at a given time, DPR_{it} is the ratio of dividend paid by an ith observation during time t divided by the total asset, $SIZE_{it}$ is measured as the natural log of total asset asset for an ith observation during time t, LEV_{it} is the ratio of total liabilities to total assets an ith observation during time t. $EBIT_{it}$ is the ratio of earnings before interest and tax to total asset an ith observation during time t. $EBIT * DPO_{it}$, $CFFO * DPO_{it}$, and $CAPEX * DPO_{it}$ are intraction terms. $\alpha_1 - \alpha_5$ are coefficients of concerned variables and ε_{it} is random error term for the i^{th} firm of time t.

4. Analysis, Results, and Discussion

4.1. Pre-test Specifications

To achieve the objectives of the current study, the data has undergone some primary diagnostic test of data as well as of the selection of appropriate methodology. For the selected t tion of most appropriate mythology the tests namely restricted Cook-Weisberg (CW) or, Breusch-Pagan (BP) test, Wooldridge test, and Husman specification test. The results of Breusch-Pagan (BP) test shows that OLS is the most appropriate methodology for currents study

4.2. Descriptive Statistics

The deceptive values of variables used in the current study have shown in Table 1 below

Table-1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
<i>FCF</i>	600	0	1	0.21	0.088
<i>CFFO</i>	600	0	1	0.17	0.302
<i>EBIT</i>	600	0	1	0.23	0.187
<i>CAPEX</i>	600	0	1	0.23	0.187
<i>SIZE</i>	600	11	20	15.12	1.322
<i>DPO</i>	600	0	1	0.31	0.195
<i>LIQ</i>	600	0	1	0.22	0.218
<i>LEV</i>	600	0	1	0.43	0.252
Valid N (listwise)	600				

Source: Own calculations based on data from the firm’s annual reports

4.3. Correlation Analysis

The correlation results shown in table 2 indicates that free cash flow, cash flow from operations and earnings before interest and tax are positively related with each other whereas the dividend payout and capital expenditures in a negative correlation.

Table-2. Correlation Analysis

	<i>FCF</i>	<i>CFFO</i>	<i>EBIT</i>	<i>CAPEX</i>	<i>SIZE</i>	<i>DPO</i>	<i>LIQ</i>	<i>LEV</i>
<i>FCF</i>	1							
<i>CFFO</i>	0.3079*	1						
<i>EBIT</i>	0.2755**	0.2344*	1					
<i>CAPEX</i>	-0.2137	-0.2257	0.186	1				
<i>SIZE</i>	-0.0137**	0.1159**	-0.1117*	-0.2614*	1			
<i>DPO</i>	-0.0023**	0.2043*	-0.0711*	-0.1492*	-0.0312	1		
<i>LIQ</i>	0.2354***	0.1342**	-0.2545*	-0.0210*	0.0210	-0.1300	1	
<i>LEV</i>	-0.2243**	0.1242*	-0.2141*	0.0113**	0.1220*	-0.3210	0.3341*	1

Source: Own calculations based on data from the firm’s annual reports

5. Direct Results

The results of first four hypothesis of currents study which is related to the hypothesized direct relationship between earnings before interest and tax, cash flow from operations, capital expenditures, dividend payout, and free cash flow and are molded as equation (3), (4), (5), and (6) respectively are shown in table 3.

The results of the model (3), indicates that earnings before interest and tax is one of the key detriments of free cash flow. The negative relation between leverage and free cash flow is also confirming the above-mentioned argument. Meanwhile, the relationship between firm size and cash flow is negative whereas of liquidity with free cash flow is positive.

Table-3. The Result of OLS Regression Analysis

Dependent Variable: <i>FCF</i>	(3)	(4)	(5)	(6)
<i>EBIT</i>	0.239*** (0.019)			
<i>CFFO</i>		0.299*** (0.020)		
<i>CAPEX</i>			0.281** (0.002)	
<i>DPO</i>				0.021*** (0.019)
<i>SIZE</i>	-0.548** (0.226)	-0.882** (0.229)	-0.571** (0.226)	0.082** (0.003)
<i>LIQ</i>	0.676* (0.177)	0.624* (0.170)	0.682* (0.177)	-0.500*** (0.062)
<i>LEV</i>	-0.258*** (0.018)	-0.884 (0.026)	-0.531*** (0.062)	-0.077** (0.003)
<i>R</i> ²	0.659	0.661	0.660	
Adjusted <i>R</i> ²	0.647	0.646	0.646	0.786
<i>F</i> -statistic	21.453	19.434	20.549	19.649
Prob.(<i>F</i> – Statistics)	0.000	0.000	0.000	0.000
S.E of Regression.	0.087	0.087	0.087	0.089
Number of firms	100	100	100	100

Source: Own calculations based on data from the firm’s annual reports

The results of the model (4), indicates that cash flow from operation is one of the key detriments of free cash flow. The negative relation between leverage and free cash flow is also confirming the above-mentioned argument that under an increasing level of operating cash flow the relationship between leverage and cash flow as well as the firm size and free cash flow is negative. Meanwhile, the relationship of firm liquidity with free cash flow is positive. The regression results of the model (5) also confirm the hypothesized results between capital expenditures and firm cash flow. The regression results of equation (6) provide support to the hypothesized results between dividend and free cash flow by declaring a positive and significant relationship between dividend payout and free cash flow.

5.1. Results of the Hierarchical Multiple Regression Model

The results of the hierarchical multiple regression Model are shown in table 4. The direct results have shown consistency with the finding of direct results presented in table 3. The dividend payout appears as a strong moderator in all models.

Table-5. The Result of OLS Regression Analysis

Dependent Variable:FCF	(8)	(9)	(10)
EBIT	0.241*** (0.029)		
CFFO		0.342*** (0.012)	
CAPEX			0.351** (0.023)
DPO			
SIZE	-0.388** (0.126)	-0.742** (0.139)	-0.641** (0.236)
LIQ	0.456* (0.157)	0.534* (0.147)	0.532* (0.167)
LEV	-0.325*** (0.028)	- 0.765 (0.026)	-0.431*** (0.032)
EBIT * DPO _{it}	0.548** (0.226)		
CFFO * DPO _{it}		0.676* (0.177)	
CAPEX * DPO _{it}			-0.258*** (0.018)
Number of firms	100	100	100

Source: Own calculations based on data from the firm's annual reports

6. Discussion and Conclusion

The first and foremost task required in decision-making is cash flow predictions. This is due to the fact that cash flow has a vital part in most decision-making activities in firms. Investors and stakeholders focus on companies' cash flows because they consider cash flows as reflective of their future cash flows. They also have to ensure that a firm's future cash flow provides a clear indication of their investment decision (Basheer M. F., 2014). Nonetheless, the companies' future cash flows forecasting is a typical and fundamental part of analyzing a firm's status (Staubus, 2004). Interest payments, dividends or debt repayment are the basis for a firm's cash flows. In the capital markets particularly, investors need to evaluate the cash returns from their investment decisions.

For the sake of testable proposition of theoretical justification the current study has developed four models (3), (4), (5), and (6) for the direct impact of earnings before interest and tax, cash flow from operations, capital expenditures, dividend payout on the free cash flow. Whereas three models namely (8), (9), and (10) are developed to test the moderating role of dividend payout in the relationship between earnings before interest and tax, cash flow from operations, capital expenditures, and free cash flow. The results of the model (3), indicates that earnings before interest and tax are one of the key detriments of free cash flow. The relationship is positive and significant which is confirming the view broached by the theory of free cash flow and pecking order theory. The earlier i.e. theory of free cash flow considers, earning as a key source of determination of free cash flow of any firm. Whereas according to pecking order theory which considers internally generated cash as one of the cheapest and most suitable sources of financing argues that the earnings before interest and tax are a key determinant of free cash flow. The negative relation between leverage and free cash flow is also confirming the above-mentioned argument. Meanwhile, the relationship between firm size and cash flow is negative whereas of liquidity with free cash flow is positive.

The results of the model (4), indicates that cash flow from operation is one of the key detriments of free cash flow. The relationship is consistent with the theoretical justification by the theory of cash flow and pecking order theory. The negative relation between leverage and free cash flow is also confirming the above-mentioned argument that under an increasing level of operating cash flow the relationship between leverage and cash flow as well as the firm size and free cash flow is negative. Meanwhile, the relationship of firm liquidity with free cash flow is positive.

The regression results of the model (5) also confirm the hypothesized results between capital expenditures and firm cash flow. The capital expenditures are also seen as a proxy of firm growth; therefore, this relation indicates that the growing firm prefers to maintain a larger cash flow. The negative relationship between size and cash flow is also providing support to this the large or established firm rely on external financing as they are in better-negotiating power with investor and can easily raise funds. Whereas the growing funds are relying heavily on cash flows. The regression results of equation (6) provide support to the hypothesized results between dividend and free cash flow by declaring a positive and significant relationship between dividend payout and free cash flow. Interestingly the nature of the relationship of size in this equation is turned to positive which indicates that the large firms which are paying dividends are maintaining high cash flows. In nutshell, the results discussed in table three has provided support to the hypothesized results, prior findings and theoretical justifications.

The results of interaction term $EBIT \cdot DPO$ is positive and significant which indicates that the dividend payout has a significant moderating effect in the relationship between earnings before interest and tax and cash flow. Similarly, the results of the interaction term $FFO \cdot DPO$ also significant and positive. Whereas the results of interaction term $CAPEX \cdot DPO$ and cash flow is negative and significant, which indicates that the firm investing heavily do not consider dividend as a reason for large cash flow. The study is among few pioneering studies carried out to achieve the unique objective of testing the moderating role of dividend payout the relationship between earnings before interest and tax, cash flow from operations, capital expenditures, and free cash flow. The study is carried out on the non-financial firms listed in Iraq Stock Exchange. However, it is recommended to carry out a study, on a larger sample of more than one country. It is also suggested to carry out a competitive study of different sectors

References

- Abdelsalam, O., El-Masry, A. and Elsegini, S. (2008). Board composition, ownership structure and dividend policies in an emerging market, Further evidence from case 50. *Managerial Finance*, 34(12): 953-64.
- Adil, C. M., Zafar, N. and Yaseen, N. (2011). Empirical analysis of determinants of dividend payout, Profitability and liquidity. *Interdisciplinary Journal of Contemporary Research in Business*, 3(1): 289-300.
- Ahmed, K. and Jahangir Ali, M. (2013). Determinants and usefulness of analysts' cash flow forecasts, evidence from Australia. *International Journal of Accounting & Information Management*, 21(1): 4-21.
- Al-Gharaibeh, M., Zurigat, Z. and Al-Harashsheh, K. (2013). The effect of ownership structure on dividends policy in Jordanian companies. *Interdisciplinary Journal of Contemporary Research in Business*, 4(9): 769-96.
- Al-Kuwari, D. (2009). Determinants of the dividend policy of companies listed on emerging stock exchanges, the case of the Gulf Cooperation Council (GCC) countries.
- Al-Najjar, B. and Clark, E. (2017). Corporate governance and cash holdings in MENA: evidence from internal and external governance practices. *Research in International Business and Finance*, 39: 1-12.
- Al-Shubiri, F. N., Al Taleb, G. and Al-Zoued, A. A. N. (2012). The relationship between ownership structure and dividend policy, An empirical investigation. *Revista de Management Comparat International*, 13(4): 644.
- Al-Attar, A. and Hussain, S. (2004). Corporate data and future cash flows. *Journal of Business Finance & Accounting*, 31(7-8): 861-903.
- Alias, N., Rahim, R. A., Nor, F. M. and Yaacob, M. H. (2012). Board structure, capital structure and dividend per share, Do they interact? *International Proceedings of Economics Development and Research*, 57: 148.
- Almeida, H., Campello, M. and Weisbach, M. S. (2004). The cash flow sensitivity of cash. *The Journal of Finance*, 59(4): 1777-804.
- Atwood, T. J., Drake, M. S., Myers, J. N. and Myers, L. A. (2011). Do earnings reported under IFRS tell us more about future earnings and cash flows? *Journal of Accounting and Public Policy*, 30(2): 103-21.
- Baron, R. M. and Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research, Conceptual, Strategic, And statistical considerations. *Journal of Personality and Social Psychology*, 51(6): 1173.
- Bartov, E., Goldberg, S. R. and Kim, M. S. (2001). The valuation-relevance of earnings and cash flows: An international perspective. *Journal of International Financial Management & Accounting*, 12(2): 103-32.
- Basheer, M., Ahmad, A. and Hassan, S. (2019). Impact of economic and financial factors on tax revenue, Evidence from the middle east countries. *Accounting*, 5(2): 53-60.
- Basheer, M. F. (2014). Impact of corporate governance on corporate cash holdings, An empirical study of firms in manufacturing industry of pakistan. *International Journal of Innovation and Applied Studies*, 7(4): 1371.
- Basheer, M. F., KhorramI, A. A. A. and Hassan, S. G. (2018). Patronage factors of islamic banking system in Pakistan. *Academy of Accounting and Financial Studies Journal*, 22: 1-9.
- Belo, F., Collin-Dufresne, P. and Goldstein, R. S. (2015). Dividend dynamics and the term structure of dividend strips. *The Journal of Finance*, 70(3): 1115-60.
- Chotkunakitti, P. (2005). Cash flows and accrual accounting in predicting future cash flows of Thai listed companies.
- Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American economic review*, 74(4): 650-59.
- Efeyana, O. (2015). The role of accrual accounting basis in the prediction of future cash flows, The Nigerian evidence. *Research Journal of Finance and Accounting*, 6(4): 171-80.
- FASB, F. A. S. B. (1978). Statements of financial accounting concepts.

- Faulkender, M., Flannery, M. J., Hankins, K. W. and Smith, J. M. (2012). Cash flows and leverage adjustments. *Journal of Financial Economics*, 103(3): 632-46.
- Goldman, E. and Viswanath, P. V. (2013). Does Cash flow Volatility Explain Dividend Policy. A Study of Exporting and non-Exporting Firms in India. Online paper in: iegindia.org/wshop2526july/paper18.pdf.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L. (2006). Multivariate data analysis. 6: Harford, J., Klasa, S. and Maxwell, W. F. (2014). Refinancing risk and cash holdings. *The Journal of Finance*, 69(3): 975-1012.
- Hashemijoo, M., Mahdavi-Ardekani, A. and Younesi, N. (2012). The impact of dividend policy on share price volatility in the Malaysian stock market.
- Jabbouri, I. (2016). Determinants of corporate dividend policy in emerging markets, Evidence from MENA stock markets. *Research in International Business and Finance*, 37: 283-98.
- Javed, M. A. and Basheer, M. F. (2017). Impact of external factors on bank profitability. *EPRA International Journal of Research and Development*, 2(5): 1-11.
- Jensen, B. D., Gunter, K. K. and Gunter, T. E. (1986). The efficiencies of the component steps of oxidative phosphorylation, II. Experimental determination of the efficiencies in mitochondria and examination of the equivalence of membrane potential and pH gradient in phosphorylation. *Archives of Biochemistry and Biophysics*, 248(1): 305-23.
- Jordan, C. E., Waldron, M. A. and Clark, S. J. (2007). An analysis of the comparative predictive abilities of operating cash flows, earnings, and sales. *Journal of Applied Business Research*, 23(3): 53.
- Kajola, S. O., Desu, A. A. and Agbanike, T. F. (2015). Factors influencing dividend payout policy decisions of Nigerian listed firms. *International Journal of Economics, Commerce and Management*, 3(6): 539-57.
- Kim, M. and Kross, W. (2005). The ability of earnings to predict future operating cash flows has been increasing—not decreasing. *Journal of Accounting research*, 43(5): 753-80.
- Lipe, R. (1990). The relation between stock returns and accounting earnings given alternative information. *Accounting Review*: 49-71.
- Liu, S. S. and Wang, C. J. (2009). Two-stage profit optimization model for linear scheduling problems considering cash flow. *Construction Management and Economics*, 27(11): 1023-37.
- McGowan, C. B., Billah, N. B. and Jakob, N. A. (2015). Liquidity Analysis of Selected Public-Listed Companies in Malaysia. *Issues in Economics and Business*, 1(1): 1.
- Richardson, S. (2006). Over-investment of free cash flow. *Review of accounting studies*, 11(2-3): 159-89.
- Robinson, D. T. and Sensoy, B. A. (2016). Cyclicity, performance measurement, and cash flow liquidity in private equity. *Journal of Financial Economics*, 122(3): 521-43.
- Schaeffer, H. A. (2002). *Essentials of cash flow*. John Wiley and Sons Limited.
- Staubus, G. J. (2004). Two views of accounting measurement. *Abacus*, 40(3): 265-79.
- Ullah, H., Fida, A. and Khan, S. (2012). The impact of ownership structure on dividend policy evidence from emerging markets KSE-100 Index Pakistan. *International Journal of Business and Social Science*, 3(9):
- Yahya, F. and Ghazali, Z. B. (2017). Effectiveness of board governance and dividend policy as alignment mechanisms to firm performance and CEO compensation. *Cogent Business & Management*, 4(1): 1398124.
- Zwaig, M. C. and Pickett, M. M. (2001). Early warning signs of a bankruptcy. *Business Credit*, 103(1): 65-65.