ACCRUAL ACCOUNTING BASIS AND CASH FLOW FUTURE PREDICTIONS

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Abstract

Cash flow statement is considered one of the key financial statements that the accounting standards, rules whether international or local have obliged companies to prepare at the end of the end of the period year, in addition to the other financial such as income statement and the statements financial position. The statements of cash flow is regarded as the most significant tool for financial analysis that helps users to make different types of economics decisions with a degree of rationality and reasonability, as well as predicting the future of company. The aim of this paper is to show the relationship between the statement of cash flows based on accrual and future forecasts of cash flow for companies by analyzing figures and ratios of this statement. To achieve the objectives of the paper, the researcher relied on reviewing 14 related studies that were published in different journals and by different authors for time periods (2016 - 2020). This study reached a number of results based on the aforesaid studies, the most important of which is that the accrual-based accounting rules relate to the future cash flow of companies, including accounts receivable, accounts payable, expenses, depreciation, etc. Moreover, based on these results, it is expected that future research will explore other financial factors that influence the company's future cash flow, for example, the company's financial risk.

1. Introduction

Many research papers draw to attention to the fact that the ratios which are based on the income statement and financial position statement may not always indicate the true picture of the company's solvency and financial stability because of the accrual basis used in this statement (Rashid, 2020). In addition, the provided information by financial position on performance reports, it is necessary to look for the report of cash flow statement to evaluate the company's future development and solvency.

The primary purpose of statement of cash flow is to provide information about company's cash receipts and cash payments during a period about the operating, investing, and financing a activates that carried on by the company (Rashid, 2018). Ball, Gerakos, Linnainmaa & Nikolaev (2016) conclude the most used cash flow analysis in literature are the one based on cash flow operations, in addition many analysts also believe that cash flow from operations is a guarantee of financial performance that is better than net income, because profits are more subjective to distortions resulting from different accounting practices (Sabir, 2022). Dechow, (1994) claimed that the more accurate analysis needs to include the ratios of investing and financing activities. Some researchers provided an explanation that the main purpose of conducting corporate financial analysis is to predict future cash flows and to evaluate finance and investment (Krishnan & Largay,2000; Farshadfar & Monem,2013; Sabir, 2022).

Furthermore, they said that cash flows reflect investment returns and reflect the ability of the company to achieve earnings in the payment of dividends. That is why, a crucial problem in the financial valuation model (Mustafa et al., 2022). This condition encourages researchers to conduct research that focuses on future cash flows, factors influencing and their implications (Jaf, 2015). This study tried to explore and analyzed further about the factors that affect future cash flow (Rashid, 2019). There are a number of issues that researchers suspect can affect the company's future cash flow. Components of earnings (such as company cash flow, accounts receivable, etc.) can have a significant effect on the company's future cash flows rather than yearly cash flows in that period (Ebaid, 2010; Rashid, 2020).

2. Literature Review

The study of (Hussain et al., 2020) aimed to relatively predicted accruals and further disaggregated accruals–trading accruals, non-trading accruals, and financial accruals in the estimation of future cash flows. It also seen that researchers try to examines the effect of the global financial crisis on this association between accruals and future cash flow prediction. To achieve the objectives of the study, the study uses annual data from the period of 1999 to 2018 from 453 firms, which includes 9060 observations, the study was carried out during the financial crisis period from 2008 to 2009, also Pre financial crisis period from 1999 to 2007 and post global financial crisis period 2010 to 2018. Some hypotheses were developed and seasoned through OLS, to examine the relationship between accruals, disaggregated accruals, and estimation of future cash flows. This research paper reach to results confirms that financial accruals, non-trading accruals, and total aggregated accruals were significant, but trading

accruals was not a significant contributor to the estimation of future cash flows. Furthermore, there was no significant effect of the global financial crisis on the relationship among disaggregated accruals and estimated of imminent cash flows during Pre and Post and during the global financial crisis period.

The study of (Nguyen & Nguyen, 2020) Conducted to evaluate the predictive ability of future cash flows from operating activities by using accounting earnings and cash flows information in the past. This study was carried out depended on data that were collected from the firms listed on Ho Chi Minh Stock Exchange (HOSE) from 2009 to 2018, the sample of the study content of 242 non-financial listed companies. For the purpose of data analysis and to achieve the objectives of the study three statistical methods approaches have been used to treat econometric issues and to improve the accuracy of the regression coefficients based on Ordinary Least Squares (OLS), Random Effects Model (REM), and Fixed Effects Model (FEM). The outcomes of the study showed that earnings and cash flows and aggregated accruals had remarkable ability to forecast future cash flows and the model of operating cash flows combined with aggregated accruals had the most effective prediction ability for companies listed on Ho Chi Minh Stock Exchange.

The research that conducted by (Dakhlallh et al., 2020) deals with manager`s intend to beautifies the image of the company and improve its performance by manipulating the firm's earnings through earnings management to demonstrate higher performance in the current and future periods. The primary objective of the present study is to investigate the influence of accrual-based earnings management (AEM) and actual earnings management (REM) on Jordanian firms' performance by using discretionary accruals for (AEM), and abnormal operating cash flow for (REM), and firm`s performance through Tobin`s Q. To achieve the objectives of the study, the researchers used the panel data technique to assess the connection between variables. 180 companies listed on the Amman Stock Exchange (ASE) from 2009 to 2017 have been selected as a sample for the study that were utilize the fixed-effect method in order to examine the association between selected variables with the Jordanian firm`s performance. The findings of this study indicated that the association between discretionary accrual and abnormal cash flow from operations with Tobin's Q is significantly negatively. This study also shows that firms involved in discretionary accrual and cash flow from operations to report greater earnings in the future have less performance. Hence, it shows that the manipulation of earnings causes issues in the future. Finally, the study provides empirical evidence to support managers; stakeholders in their decisions.

Özcan, (2020) In his study the researcher highlighted on the importance of cash flow statement in the competitive economic environment, due to the prominent information that this statement reveals. The present study aims to examine the usefulness of cash flow statement in the prediction of business failure by using ratios that can be extracted from financial statements. A sample including 66 firms listed on bursa Istanbul from 2010 to 2018, content of 33 non-failed firms against 33 failed firms based on size and industry. In order to achieve the objectives of the present study, logistic regression models are constructed for each of three years prior to business failure. The main outcomes of the study showed that cash flow measures are strong predictors of business failure in the competitive economic environment.

Noury et al., (2020) Attempted to investigate the efficiencies of both cash-based and accruals- based accounting data for predicting future cash flows from operations activities within French context. Hence, the primary objective of the study is to compare the efficiency of utilizing different accounting data in order to explain future operating cash flows in addition, the paper aims to examine the effect of the economic crisis on the prediction of future cash flow. The sample consists of 61 non-financial French listed companies, using annual data over the period 1999–2016. Several statistical analyses and empirical models were utilized and implemented in order to examine the best model with which to predict future cash flows. The study concludes that, regardless of the period, the model based on the operating cash flows combined with disaggregate accruals has a stronger explanatory power for predicting future operating cash flows, compared to both earnings and operating cash flows combined with the aggregate accrual's models. In addition, this paper results show that the aggregation of earnings falsifies the contribution of each accrual item and, as a result, the decomposition of earnings into cash flows and disaggregate accrual enables a much more accurate explanation of future operating cash flows.

Nallareddy et al., (2020) The authors of this research focused on how to reconcile the mixed evidence (conflicting evidence) in prior literature on the relative ability of earnings and cash flaws in predicting future cash flaws. They documented that the conflicting evidence is attributable to differences in the manner in which cash flaws are measured.   Moreover, this study investigates the implications of temporal shifts in accrual properties and operating environment for cash flow predictability. Accordingly,three key insights emerge. First, cash flows consistently outperform earnings in predicting future cash flows. Second, accruals and its components, including those capturing non-articulating events, have incremental (albeit

small) predictive ability over cash flows. Third, earnings' ability to predict future cash flows has increased over the period 1989–2015, however, this trend is attributable to the increasing predictive ability of operating cash flows rather than accruals.

Safiq et al., (2020) This study aimed to determine financial and non-financial factors influencing future cash flow and their impacts on company's financial distress. This study uses earnings, cash flow from operations, accrual components, working capital (financial), inflation (nonfinancial) as independent variables that are thought to have an effect on future cash flow. In addition, this research also suspects that there is an impact of this influence on company financial distress. The sample used in this study was 30 food and beverage manufacturing companies listed on the Indonesia Stock Exchange from 2013 to 2015. Hypothesis testing, in this research, used Structural Equation Model (SEM) method with AMOS 24 statistic. The result showed that earnings, accrual component, and working capital had a significant positive effect on future cash flow. Furthermore, cash flow from operation had significant negative effect on future cash flow, but inflation did not affect company's future cash flow. These results indicate that financial variables have a significant effect, both positive and negative, on the company's future cash flow. Meanwhile, non-financial variables have no significant effect. Other test resulted that future cash flow had a significant negative effect on financial distress. Based on the results of this study, it can be seen that stakeholders, especially investors, really pay attention to the company's financial performance compared to non-finance. This is due to the significant influence of financial variables on the company's future cash flow and it can have an impact on financial distress. Therefore, future research is expected to explore other financial factors that affect the company's future cash flow, for example, the company's financial risk.

Güleç & Bektaş, (2019) The objective of this study is to investigated the cash flows by using fundamental cash flow ratios developed in the accounting literature; cash flow-based information provides more insights about liquidity, profitability and financial structure of companies with the other primary financial statements. Hence, using cash flow ratios together with the conventional financial ratios will contribute to the financial statement analysis. Since cash flow ratios are not common as much as the traditional ratios and are still evolving, developing benchmarks and determining normative values are relatively harder for the assessment of firms. Thus, the main motivation of this study is to demonstrate the power of the statement of cash flows by using 8 fundamental cash flow ratios with 10 traditional ratios in

the areas of liquidity, profitability and financial structure. This study uses 107 non-financial firms (966 firm-year observations) in Manufacturing Industry from 7 different sub-sectors in Borsa Istanbul (BIST) between the periods of 2008-2017. The main results of the study, firms are not good enough to generate sufficient cash to maintain activities and there is low quality of income due to the values in cash quality of sales ratio and quality of income. In addition to high external financing needs of firms, liquidity is also another big concern for the sample period. Furthermore, according to the results, cash flow ratios provide consistent results with the conventional financial ratios in terms of liquidity, profitability and financial structure. Finally, the paper concludes that industry and yearly results, Non-Metallic Mineral Products sector and the year of 2009 have relatively the best values in terms of cash-flow based information.

Sarraf, (2019) Focused on the importance of liquidity situation of firms, he stated that the cash flow is one of the critical resources in the economic unit and the balance between available cash and cash needs is the most important factor in economic health. Since decisions of investors and shareholders about the financial position of the firm are based on liquidity situation. In this study, I found that the role of cash and accrual items of cash flow forecasts has been studied. Providing a proper model to predict operating cash flows and review some important characteristics of cash flow forecasting regression models, using a multilayer perceptron and determining the best model by using accrual regression model variables for predicting cash flows. For this purpose, a sample of 287 firms listed in Tehran Stock Exchange during 2008 to 2017 were studied; Linear and nonlinear regression, correlation coefficient and artificial neural network statistical methods have been used for data analysis and predictive powers was compared by using the sum of squared prediction error and coefficient of determination. The paper end to results showed that the accrual regression model can predict future cash flows better than other tested models and among corporate characteristics, the highest correlation belongs to sales volatility and firm size with accrual regression models. On the other hand, results of fitting different neural network models indicate that two structures with 8 and 11 hidden nodes are the best models to predict cash flows.

Amayreh & Castaneda, (2019) The authors of this research focused on that the importance of this study embodied in the role of cash flow forecasts as an instrument in predicting future cash surpluses and deficiencies that allow business leaders to make the correct planning decisions to account for future changes. Accordingly, we can say it assist in employee

decision-making, as well as planning for present and future purchases, and the opening or closing of retail and factory locations. Hence, the aim of this study was to develop predictive models of cash flow forecasting which can be used by businesses in order to build and implement predictive models of future dynamics. To achieve the objectives of the study, compiled annual data from the last 10 years of operation of three US corporations in order to build predictive models in which the outcomes of future profit/loss, current ratio, debt to equity ratio, depreciation, interest expense, and cash flow from operations are predicted on the basis of total cash flow. Initial diagnostics determined whether linear regression, fixed-effects panel regression, or random-effects panel regression was used in each individual model conducted. The finding of cash flows as being a significant predictor and positively related to cash flow and profits suggest that within a corporation, things will generally progress in one of two directions. If cash flow is high, this would be suggestive of even higher cash flow in the future, along with higher profits, while similarly, if cash flow is low, this would suggest even lower cash flows in the future along with reduced profits. This paper also found total cash flow, in general, have a very high level of predictive power with regard to these outcome measures analyzed.

Al - Yasri , (2018) Studied the additional financial indicators that can be relied upon in assessing financial performance, which has led to the use of another financial statement, such as the cash flow statement and the extent to which their indicators contribute to the assessment of liquidity and profitability, it is adopted in the most global financial and economic institutions, as a strategic analytical tool of financial analysis of all types, financial ratios derived from the operational activities as well as investment, and financing activities provide users with useful information on the cash receipts and cash payments of the institution during the financial period, and in view of the credibility of its information, it is an important indicators that depend on the evaluation of the financial performance of the economic unit in general and the quality of profits and liquidity in particular, and maintain the pillars of work, especially within the banking business in the balance between liquidity and profitability and professional honesty and build the reputation of the bank. The research reach to a number of conclusions, the most important of which is that the financial indicators used in the analysis of financial performance based on cash flows are better than the traditional rates that use the accrual basis, as well as, cash flows is desirable in the financial institution because it eliminates the effect of traditional accruals used to evaluate liquidity. The cash basis makes it more efficient and more appropriate than the liquidity and profitability based on the accrual basis, finally emphasis

should be placed on the integration of the financial information provided by the financial statements shown on an accrual basis with information derived from the cash flow statement based on the cash basis, improving the capacity of the financial institution, predicting financial risk or failure, and financial analysis as the focal point in the planning process of economic units as well as being an instrument of internal control as it helps identify the strengths and weaknesses in the financial institution.

Nnubia et al., (2018) Attempted to investigates the relationship between Accrual Accounting basis and Cash flow future predictions of selected quoted companies in Nigeria. Because cash flows play a vital role in almost all the decision making of many parties including security analysts, creditors and managers. Additionally, the decision makers are interested in a firm's cash flows because they expect that current cash flows may affect their future cash flows and they will have an interest in assessing the firm's future cash flows to the extent that these provide a clearer indication of the firm's cash flow in the future. To achieve the above tasks a sample of 10 Nigerian firms listed on Nigerian Stock Exchange for a period of 10 years (from 2007-2016) was selected. The main type of data used in this study is secondary data. This study applied ex post facto research design. The data collected were analyzed using Ordinary Least Square Method. Finally, the results show that for the Nigerian listed firms, Cash flow (CFO) has positively associated with accounts receivable (0.522725), accounts payable (0.823528), deferred tax liability (0.632530) and depreciation expense (0.075088). The study, therefore recommends among others that the Investors should not ignore information from current accruals, since knowledge of accounting accruals aids in predicting future cash flows over and above these firm characteristics.

Nallareddy et al., (2018) The primary objectives of this study are to revisit and reexamine the predictive ability of earnings and cash flows to help reconcile the contradictory evidence in the literature, and investigate the implications of temporal shifts in accrual accounting for cash flow predictability over time. The conceptual framework outlines those earnings provide a better basis than current cash flows for assessing a firm's future expected cash flows. However, an extensive literature investigating the relative ability of earnings and cash flows for predicting future cash flows finds mixed evidence. Despite the conflicting evidence, accounting educators, regulators, standard setters, and scholars continue to extol earnings as a superior summary measure for predicting future cash flows**.** This study reaches to three key insights emerge from the analyses. First, contrary to conventional wisdom, the

cash flows are superior to earnings in predicting future cash flows. After evaluating several alternative explanations, we attribute the mixed evidence in prior research mainly to measurement errors induced by the balance sheet method of estimating cash flows. Second, the earnings' ability to predict future cash flows is increasing over the period 1989-2015. However, this trend is attributable to the increasing predictive ability of cash flows rather than accruals. That is, while cash flows show an increasing ability to predict future cash flows over time, accruals display no such trend. Finally, the increasing predictive ability of cash flows is associated with shortening operating cycles, decreasing working capital accruals, and increasing intensity of intangibles over time.

Ball et al., (2016) After quick review of this research paper, you can say it relates to prior research that examines the relation between cash flows and the cross section of expected returns. Forester, Tsagarelis and Wang (2015) examine the ability of cash flows to explain average returns relative to earnings-based profitability measures. Accruals are the non-cash component of earnings. They represent adjustments made to cash flows to generate a profit measure largely unaffected by the timing of receipts and payments of cash. Prior research uncovers two anomalies: expected returns increase in profitability and decrease in accruals. The present study shows that cash-based operating profitability (a measure that excludes accruals) outperforms measures of profitability that include accruals. Further, cash-based operating profitability subsumes accruals in predicting the cross section of average returns. An investor can increase a strategy's Sharpe ratio more by adding just a cash-based operating profitability factor to the investment opportunity set than by adding both an accruals factor and a profitability factor that includes accruals. The outcomes of the study showed three primary results. First, cash-based operating profitability, a measure of profitability that is devoid of accounting accruals adjustments, better explains the cross section of expected returns than gross profitability, operating profitability, and net income, all of which include accruals. Second, cash-based operating profitability performs so well in explaining the cross section of expected returns that it subsumes the accrual anomaly. Third, cash-based operating profitability explains expected returns as far as ten years ahead.

3. Conclusion and Discussion

The above research papers confirm the fact the ratios which are based on the income statement and financial position statement may not always indicate the true picture of the company's solvency and financial stability because of the accrual basis used in this statement. In this

regard, international and local accounting standards and rules required companies to prepare a statement of cash flow at the end of the fiscal year, to be one of the financial statements set that regarded as the most significant tool for financial analysis that helps users to make different types of economics decisions with a degree of rationality and reasonability, as well as predicting the future of company (Jaf et al., 2019; Rashid, 2017). Based on the above literatures, the aim of this paper is to show the relationship between the statements of cash flows based on accrual and future forecasts of cash flow for companies by analyzing figures and ratios of this statement. To achieve the objectives of the paper, the researcher relied on reviewing 14 related studies that were published in different journals and by different authors for time periods (2016 - 2020). Most of these literatures agreed that the relationship between accruals basis accounting and predicting of future cash flaw was interrelated.

The main limitation of current paper was time, cost, and not available some related source. Finally, the study reached a number of results based on the aforesaid studies, the most important of which is that the accrual-based accounting rules relate to the future cash flow of companies, including accounts receivable, accounts payable, expenses, depreciation, etc. Moreover, based on these results, it is expected that future research will explore other financial factors that influence the company's future cash flow, for example, the company's financial risk.

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