



RESEARCH ARTICLE

THE EFFECT OF CASH FLOWS AND ACCRUALS ON THE MARKET VALUES OF EQUITY: AUDIT QUALITY AS A MODERATOR

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ARTICLE INFO

Article History:

Received 15th December, 2015
Received in revised form
29th January, 2016
Accepted 17th February, 2016
Published online 31st March, 2016

Key words:

Accruals,
Amman Stock Exchange,
Audit Quality,
Cash Flows,
Financial Crisis,
Market Value of Equity.

ABSTRACT

Accounting information is indispensable for any investment strategy by individuals and institutional investors. The purpose of this study is to verify which factors affect market value of equity and highlight opportunities for future research. The objectives of this study are to:

- Determine the effects of cash flows and accruals on the market values,
- Examine the extent to which one or more of the following parameters: current accruals, total accruals, aggregate accruals, non-current accruals, gross profit, operating profit, net income, operating cash flows, financing cash flows or investing cash flows are able to explain the market values, and
- Investigate the potential that audit quality moderates the effects of cash flows and accruals on the market of Jordanian companies.

Panel data method will be implemented to characterise the impact of cash flows and accruals on the market value of equity of all Jordanian companies listed on the Amman Stock Exchange (ASE). This investigation will be carried out for three periods, six years before the Financial Crisis, during the crisis, and six years following it.

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Citation: Yazan Salameh Mottee Oroud, Md. Aminul Islam and TunkuSalhaBinti Ahmad, 2016. "The effect of cash flows and accruals on the market values of equity: Audit quality as a moderator", *International Journal of Current Research*, 8, (03), 28900-28908.

INTRODUCTION

The accounting information drawn from published financial statements is a vital informative source for varied purposes. The firm owners usually utilize the reported financial information to evaluate managers' performance in carrying their stewardship responsibilities and for taking economic decisions (Godfrey, *et al.*, 2006) and, therefore, firms are supposed to have high-quality financial reporting. The management carries the responsibility of preparing financial statements that, in a correct way, reflect reporting requirements such as the International Financial Reporting Standards (IFRS) or the General Accepted Accounting Principles (GAAP) (Arens, *et al.*, 2010). Investors, managers, creditors, owners, and other users should be able to depend on the financial statements to be able to take informed investment decisions. High-quality financial reporting is important for investors and for the firm itself.

Employees, managers, researchers, and the government all analyse companies and make decisions primarily based on financial information, which can be drawn from many sources, including advice from analysts, the financial press, and changes in economic and market conditions, and one of the major sources is firm's annual and quarterly reports (Scott, 2009). Cash flows from operations (CFO) stand as a basic indicator of the firm's capability to produce sustainable cash flows to keep operating activities, service liabilities and repay, provide internal financing source for investment, and pay dividends to the investors. Operating cash flows (OCFs) result mainly from firm's major activities.

The accounting standards recognize that such information is beneficial for forecasting future OCFs when employed together with other suitable information. The International Accounting Standard Board (IASB) stressed that assessment of the ability of company and the timing and certainty to produce future cash flows is basic when taking economic decisions (IASB, 2004). Primarily, the accrual accounting basis is the more widely accepted accounting convention that is recommended when preparing financial statements than the cash-based reporting (IASB, 2004).

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The Financial Accounting Standard Board (FASB) of the United States too has stressed that the information content of reports based on accrual accounting principles is better than cash receipts and payments in evaluating firm's capability to sustainably generate cash flows. (Arnedo, *et al.*, 2012) brought to notice that the two main accounting standards boards (FASB 1978 and IASB 1989) agree on superiority of accrual-basis accounting over the cash basis in providing summary indicators of company's performance. These boards support that, generally, accrual-based earnings provide better indication of timing and the uncertainty of potential cash flows than information confined to cash receipts and payments. (Rahimi and Motlagh, 2014) argued that operating earnings are among the most important factors which encourage investors to invest. So, solid knowledge of how earnings behave using some reliable criterion is prerequisite for making successful investment. In consequence, specification of a measure related to operational earnings is of topmost importance. Many economic and accounting criteria have been suggested in this regard including accounting indices like accruals and cash from operational activities. Since in economic theories firm's value is based on the present value of its future cash flows and earnings are used as alternative for cash flows, prediction of earnings is highly important and, in consequence, one of the goals of financial reporting is helping creditors and investors to forecast future earnings.

Earnings, or the net income, which is reported on accrual accounting basis is the sum of CFOs and accrual components (Dechow & Dichev, 2002; Dechow *et al.*, 2008). A major line of research investigated the additional explanatory power of accruals via disaggregating earnings into the OCF and accrual components of earnings and then held comparisons between the predictive capacities of OCFs, earnings, and the combination of aggregated/disaggregated accruals and OCFs (e.g., Stammerjohan & Nassiripour (2001), Chotkunakitti (2005), and Ebaid (2011)). These group of studies too reported conflicting results. Some of these studies found that disintegrating earnings into aggregated accruals and individual OCFs enhances the predictive capability of earnings and that further disintegration of accruals into individual accrual components like accounts payable changes, accounts receivable changes, depreciation and amortization expenses, and inventory changes further raises the predictive capability of earnings (Barth, *et al.*, 2001; Al-Attar & Hussain, 2004; Ebaid, 2011). Though, early research still presented conflicting evidence on that OCFs as the only predictor are superior to OCFs plus aggregated/disaggregated accruals and to earnings (Chotkunakitti, 2005) and other studies still reported no significant difference between OCFs alone and OCFs plus accruals as predictors of firm's future OCFs (Stammerjohan & Nassiripour, 2001).

The relationships between accounting measurements based on accruals and stock returns received interest of scholars since the middle of the past century (e.g., Kim & Kross (2005), Pae (2005), and Ebaid (2011)). Several studies (e.g., Farshadfar, Ng, & Brimble (2008), Penham & Yehuda (2009), Habib (2010), and Waldron & Jordan (2010)) have shown that the accounting-based earnings have weak, but detectable, influence on the stock returns.

Yet, this relationship does not explain much of the change in those returns. On the other side, there was a trend towards the study of the relationship between cash flow and dividends, and the study of the cash flows in most research works was based on absolute values and not attributed to certain numbers such as equity. However, use of the accounting profit and the financial condition of the company measured on an accrual basis to determine the value of the stock and judge the outcome of the company's business suffers from weaknesses and this method has been subject to criticisms arising from variations in the treatment of inventories, depreciation and prepaid expenses, and accruals. This highlights the importance of resorting to other measures that serve the investment decisions in calculating the values of accruals. In consequence, over the years the field of accounting has developed varied financial ratios that have proved to be quite valuable not only in determining firm's relative performance but also in forecasting its future performance (Türk, 2006).

One of the objectives of financial reporting is providing information that is beneficial for creditors, investors, and other potential and present users for decisions related to investment and attestation, amongst others. Company's past and current earnings are an essential measure employed by these users for estimating its profitability, forecasting future earnings and concomitant risks, and evaluating management performance. The earnings consist of cash flow and accrual items. Accruals are to a large extent controlled by the management who may manipulate the accrual items so as to reflect better than true firm performance; a practice commonly known as 'Earnings Management'. Audit is one of the ways to stop or reduce earnings management since an intervention that misshapes accuracy of the reported earnings will in turn influence users' decisions (Karaibrahimoğlu and Özkan, 2011). When the financial information is based on audited reports, the investors can perceive the reliability of that information. However, if unqualified opinion was erroneously issued for a company, investors will be basing their decisions on non-reliable information, which may result in unsuitable decisions being taken. The financial statements should in general be truthful, transparent, and complete (Flanagan, *et al.*, 2008).

Since financial statements are the fundamental source of information in the capital markets, it is argued that high quality of audit will improve the perceptions of reliability for the users (investors and shareholders) of this information. One of the basic functions of the external auditors is to impart credibility on financial reports by assessing, independently, the accuracy and fairness of the information presented in the reports. There is evidence supporting that improved audit quality increases perceived reliability of the financial statements (e.g., Balsam, *et al.* (2003), Krishnan (2003), and Khurana & Raman (2004)). Some researchers (e.g., Doyle, *et al.*, (2007) and Drake, *et al.*, (2009)) provided evidence indicating that quality of financial reporting affects accruals and that a low-quality audit means a high level of mispricing. Fundamentally, Theory, Agency Theory of Inspired Confidence defines auditing as a mechanism for mitigating information asymmetries amongst involved parties (Okolie, *et al.*, 2013; Okolie, 2014a). The high auditing quality treats information asymmetry and reduces the uncertainties related to earnings.

Owing to that audit quality is not observable directly, early researchers employed varied proxies to study its impacts. The most common means of quantifying auditor quality is 'Brand Name', which may also be expressed as firm size of auditor (Reynolds & Francis, 2000; Khurana & Raman, 2004) and industry specialization (Balsam *et al.*, 2003; Moroney, 2007). Recent trends in industry move towards specialized audit services, implying that industry specialization can play increased role as measure for audit quality. It is argued that industry-specialist auditors produce more effective audit than non-specialists. (Balsam *et al.*, 2003) utilized auditor industry specialization as proxy for auditor quality and noticed that the clients of the specialist auditors were characterized by lower discretionary accruals incidences of higher ERC. Furthermore, high-quality auditors act as effective deterrents and are thus expected to offer further assurance to stakeholders (Bhattacharya, 2011). Outcomes of the study of (Moroney 2007) indicated positive correlation between industry specialization (which is a form of expertise) and audit judgment efficiency and explained this association by that auditors having industry-specific knowledge can better understand and solve problems related to the respective industry (Bhattacharya, 2011). Findings of these studies demonstrate that industry specialization of auditors is ascribed to high audit fees and improved quality of reported earnings via lower discretionary accruals levels (Bhattacharya, 2011). On the other hand, (Caramanis and Lennox, 2008) employed audit engagement hours as proxy for audit quality and found that quality of client's earnings is better when the auditors expend more time on audit engagements. Moreover, (Gunny and Zhang, 2009) established link between audit quality, approached by auditor's rank, and client's earnings quality. They reported that clients of auditors with higher rank had higher earnings quality, and vice versa.

Thus far, little is known in Jordan about the role of accounting information in terms of its capability to explain changes to the share prices and market values of companies listed on the ASE. Therefore, this work investigates value relevance of accounting information in the ASE, with particular emphasis on determining whether, or not, accounting information has the capability to capture data that influence share prices of firms listed on the ASE. In view of this and the foregoing discussion, it is of great interest to investigate the effects of cash flows, accruals, and audit quality on the market values of Jordanian companies listed in ASE for future improvement of company's performance and its market value. Consequently, the main objective of this research is to investigate and quantify effects of cash flows and accruals on the market values of Jordanian companies and potential significant moderating role of audit quality on these relations. The study therefore intends to provide tools for future forecasting of firm's market value based on knowledge of these three factors. Outcomes of this study are thus expected to contribute to predictions about future performance and investment opportunities of the investigated Jordanian, and similar, firms. Thereupon, this study investigates and models interplay between three major explanatory variables and performance measures. The study investigates already researched variables and compares the outcomes with those of pertinent previous studies. As such, this study is additionally a test of results of related previous

works. Moreover, new variables (financial ratios, e.g., ratios based on cash basis such as the ratio of cash flow to equity, accounting rate of return to equity, and accruals to equity) are included and studied, which may result in interesting findings and concomitant conclusions. Particularly the effects of variables such as rating and auditor's opinion, ratios of accounting profit, cash flow, and accruals to equity, will be of special interest. The researcher sees that this study can also be starting point for further studies, where additional markets (that is, countries) can be investigated and the obtained results compared with the present ones. Studying the information content of cash flows and accrual earnings as well as their effects, besides those of audit quality, on the market values of companies and their potential for providing forecasts of future cash flows and market value of a company is an important subject that is critical to the financial accounting reporting. Previous research which tackled this issue shows varying and inconsistent, even contradictory, findings (Khadash *et al.*, 2013). For instance, (Lorek and Willinger, 2009) examined the ability of previous OCFs (Operating Cash Flows) and previous accrual earnings to obtain forecasts of future OCFs during the period of 1990 to 2004 and found that cash flow from operations has incremental information content over that of accruals. Comparable finding was reported by Waldron and Jordan (2010) who explored and compared the information contents of accrual earnings and current OCFs as predictors of future OCFs during economic boom and economic duress (1994-2004), and they found that the current OCFs outdo accrual earnings in forecasting future cash flows. To the contrary, Daraghma (2010) studied the relative and the incremental information content of earnings and OCFs in Palestine based on 23 firms listed on the Palestinian Stock Exchange Market from 2004-2008, and found that earnings had an incremental information content over the OCFs.

Earnings, or the net income, which is reported on accrual accounting basis is the sum of CFOs and accrual components (Dechow & Dichev, 2002; Dechow *et al.*, 2008). A major line of research investigated the additional explanatory power of accruals via disaggregating earnings into the OCF and accrual components of earnings and then held comparisons between the predictive capacities of OCFs, earnings, and the combination of aggregated/disaggregated accruals and OCFs (e.g., Stammerjohan & Nassiripour (2001), Chotkunakitti (2005), and Ebaid (2011)). These studies reported conflicting results. Some of these studies found that disintegrating earnings into aggregated accruals and individual OCFs enhances the predictive capability of earnings and that further disintegration of accruals into individual accrual components like accounts payable changes, accounts receivable changes, depreciation and amortization expenses, and inventory changes further raises the predictive capability of earnings (Barth *et al.*, 2001; Al-Attar & Hussain, 2004; Ebaid, 2011). Though, early research still presented conflicting evidence on that OCFs as the only predictor are superior to OCFs plus aggregated/disaggregated accruals and to earnings (Chotkunakitti, 2005) and other studies still reported no significant difference between OCFs alone and OCFs plus accruals as predictors of firm's future OCFs (Stam *et al.*, 2011). Given these inconclusive results indicate a knowledge gap that merits further investigation.

The relationship between accounting measurements based on the accrual basis and stock returns has received interest from scholars since the middle of the last century (Wallace *et al.*, 1999). Several studies have shown that the accounting-based earnings have weak, but detectable, influence on the stock returns. Yet, this relationship does not explain more than 10% of change in those returns at best (Lev, 1989). On the other hand, there was a trend towards the study of the relationship between cash flow and stock. (Ghosh *et al.*, 2009) brought to notice that there is evidence in the USA market that pricing of earnings differs depending on the perceived audit quality (e.g., Krishnan, 2003), despite the fact that results are not conclusive. In light of this and similar findings, and based on the foregoing discussions and the associated literature review, the researcher noticed that studies of intermediating effects of audit quality on the contributions of accruals and cash flows to variations in market values of companies are rare, which identifies a knowledge gap in this field of research. Furthermore, investigations of the moderating effects of audit quality on the contributions of accruals and cash flows to variations in market values of companies are remarkably few. This too identifies additional knowledge gap in this field which the present study will fill. This agrees with the argument of Clatworthy *et al.* (2010) who stressed the importance of auditor's quality on the relation between earnings and stock returns. In an example supporting this argument, Frankel *et al.* (2002) observed a negative association between the absolute value of abnormal accruals and auditor tenure, and they reported that auditor tenure has a moderating effect on income-reducing earnings management.

Bukit and Iskandar (2009) investigated the potential for independent audit committee to serve as a moderating variable of the relation between discretionary accounting accruals and surplus free cash flow. This investigation disclosed that audit committee moderates the relationship between surplus free cash flow and discretionary accounting accruals. On the other hand, as far as the moderating role of audit quality is concerned, two studies are notable. In an investigation of the effects of audit quality on earnings management activities of 248 companies listed on ASE over the period 2002-2006, Al-Mousawi and Al-Thuneibat (2011) found that the moderating variable 'Client Importance' did not have any significant effect on the relation between audit quality and discretionary accruals and that auditor's name, as proxy of audit quality, was the moderating variable. However, in their own study, Clatworthy *et al.* (2010) reported that auditor type can play a significant role in moderating the relations between accruals, cash flows, and stock returns, which is consistent with studies employing conventional financial measures and indicators like the ERC, .

Previous studies of the effects of OCFs, accrual-based accounting information, and audit quality on firm's market value were performed mainly in western Europe and the US Stock Markets (e.g., Penham & Yehuda, 2009), Clatworthy *et al.*, 2010), and Waldron & Jordan, 2010). Findings of the above studies may not be generalizable to a developing country like Jordan owing to different economies, statutory systems, market characteristics, and accounting practices. Relevant studies within the Jordanian market context the relationships of each of the accounting earnings and cash flow

with equity market value of shares of Jordanian public shareholding companies (Shbaitah & Abu Nassar, 2005) (Al-Khaddash & Al-Abbadi 2011). Effects of modified opinions of external accounts auditors on share prices of companies were examined by Zureigat (2006). Further, Hamdan *et al.* (2008) investigated the role which the OCFs plays in explaining variations in stock prices, taking into account the magnitude of accruals, measurement window, and length of firm's operating cycle. The effect of modified accounts auditors' appraisals on share prices of firms and ability of aggregate earnings, cash flows from operation, current OCF, future OCFs, and the earnings disaggregated into accrual components and OCF, to predict future OCFs of industrial firms in Jordan were examined by a few investigators (e.g., Zureigat, 2010; Shubita, 2013). Fix these below as shown above. effects of accounting indicators (ROA, ROE, and EPS), besides growth, on market values (expressed as market share price, stock return, and the market value to book value ratio (MVBV)) of Jordanian banks (e.g., Altahtamouni & Alslehat (2014)); and relation between free cash flow to equity (FCFE) and market values of the services sector companies in Jordan, taking into account the relations between net income, FCFE, net capital expenditure, debt position, and working capital (e.g., Al Zararee & Al-Azzawi (2014)). These studies provided evidence on that accounting and cash flows information for Jordanian listed companies are value relevant in explaining equity market valuation. However, neither of these studies provided any direct empirical evidence affirming the comparative capabilities of the studied variables to predict market values of companies and their future OCFs.

In view of the inconsistent findings and inconclusive evidence in cross-sectional research on relations between market values of firms and the respective reported accounting numbers, as well as the potential moderating effect of audit quality on these relations, the question of whether accounting information influence share prices of companies and their behaviour remains an open question. Thereupon, the research problem under consideration here can be briefed in two questions: 'Can accruals and cash flows explain the market values of equity of Jordanian companies listed on the Amman Stock Exchange?' And 'Does audit quality have a moderating effect on association of the market value of equity of the Jordanian company with its accruals and cash flows?'

Factors Affecting Market Value of Equity

Some researchers (e.g., Chen & Chen 2010, Malaolut, *et al.*, 2013, Chariton *et al.*, 2001) adopt market value as a proxy to firm's value, which is defined as stock price per share at the end of the year. Yang *et al.* (2010) provided evidence on that the higher is the firm's profitability, the more distributable earnings there are for shareholders, and hence the firm's value will be greater. Rahimi and Motlagh (2014) pinpointed that financial analysts, academic researchers, and professional accountants usually employ the components of current earnings to forecast future cash flows and earnings. Owing to that in economic theories firm's value depends on the present value of its future cash flows and earnings are employed as alternative for cash flows, then prediction of earnings is of high importance. Subsequently, one of the aims of financial

reporting is helping the creditors and investors to forecast future earnings. According to the Rational Expectation Theory (RET), price of bond or stock partly depends on what prospective sellers and buyers believe it will be in the future. The RET is backbone of the 'Efficient Markets' or 'Random Walk' theory of securities prices. This hypothesis proposes that the most direct effect on stock price is change in the essentials of the business; if profits and revenues are increasing continuously, the share price will be expected to increase as investors tend to buy the increasing fortunes of the firm. However, if the profit is declining or flattening with no change in the horizon, investors start abandoning the stock and its price will decline. The Efficient Market Theory (EMT) supports that stock prices reflect all what is known about a firm and they, thus, can be forecasted via fundamental analysis. Supporters of technical analysis try to forecast future security prices on the basis of historical data (Malaolut, Ogbuabor & Orji, 2013). (Saeedi and Ghaderi 2007) clarified that variables representative of the accounting information and that are related to market values of firms mainly include net profit, investment, book value, and operating cash flows (OCFs).

Apart from distinct firm characteristics, external factors like inflation, government regulations and rules, money supplies, growth in gross domestic products (GDP) and other economic circumstances, exchange rates, investors' behaviors, competition, market circumstances, market forces (e.g., demand and supply), uncontrolled environmental or natural conditions directly influencing firm's production, strikes, interest rates, and behaviors of market forces may be highly important influential factors in determining stock price movements. Further, money supply and national GDP are potential determinants of stock price movements (Malaolut *et al.*, 2013). Chaudhuri and Smiles (2004) studied the long-term association of stock prices with changes in real macroeconomic activities in the Australian stock market from 1960 to 1998 and reported that long-term relation exists between stock prices and real macroeconomic activities (real private consumption, GDP, oil prices, and money supply). Value relevance has been defined as the capability of financial statement information to seize and summarize firm's value (Beisland, 2009). It is determined as the statistical correlation between financial statement information and stock market values or returns. The chief commonality in its definitions is that an accounting amount is thought of as value relevant if it has significant correlation with security market value. Commonly, book value and earnings are used as the basis for firm valuation. Though, reliability of the earnings may be influenced by the earnings management, which can influence relevance of earnings in determining firm value. The information perspective, however, defines value relevance as usefulness of the financial statement information for equity valuation (Oyerinde, 2011). Barth, *et al.* (1999) found that (i) cash flows and accruals aid in predicting abnormal future earnings incremental to equity book value and abnormal earnings; (ii) cash flows and accruals offer explanatory power for the equity market value incremental to abnormal earnings and the equity book value; and (iii) evidence supports that valuation coefficients of cash flows and accruals agree with Ohlson's model.

These researchers found that for all studied industries, cash flows and accruals each have significant explanatory ability for predicting abnormal future earnings incremental to abnormal earnings. In other words, these two components differ in their abilities to forecast future abnormal earnings. Specifically, the coefficients on cash flows are positive while those on accruals are negative. This implies that abnormal earnings are less persistent when accruals constitute larger proportion of the current earnings. The study also found that cash flows and accruals have forecasting relevance in that each has significant association with future abnormal earnings. Considerable variations between industries were observed in the coefficients of the forecasting equations. As predicted, for all industries cash flows and accruals, each, have significant incremental explanatory power in the relationships between the market value of equity and the equity book value, abnormal earnings, and each of the earnings components. This means that knowledge of the cash flow and accrual components of earnings helps in explaining market value of equity, incremental to knowing abnormal earnings and equity book value (Barth *et al.*, 1999).

In line with this, Ben Naceur and Goaid (2002) attempted to identify the most important determinants of market values of shares using a sample of 28 companies listed on the Tunis Stock Exchange Market between 1990 and 1996. These researchers found that there are statistically-significant, positive relations between the stock dividend and market value to book value (MVBV) and between profitability and return on assets (ROA) and market value. Kordestani and Roodneshin (2006) conducted a study to assess relevance of accounting accrual of profit and the cash components to market value of firms.

They supported that the accounting profit reported in financial statements is divisible into two accrual and cash components. In their study, the OCFs as a profit cash component and the changes in accounts receivable, inventory changes, and accounts payable were considered as the major components of the accrual of profit variable. Their findings showed that the cash components of the accounting profits have explanatory and prediction power of the market values of firms. But the three components of accounting accrual of profits (accounts receivable changes, inventory changes, and accounts payable) did not exhibit explanatory and prediction powers of market values of firms. Therefore, the researchers maintained that the cash components of accounting profits are more relevant to market values of firms and are more useful than the accrual components. Livnat and Santicchia (2006) tested associations between cash flows, accruals, and future returns and found that quarterly future earnings are more highly related to the net OCFs than to the accruals since the latter are less persistent and companies having very low current quarterly accruals have significant positive abnormal returns, and vice versa. Nezami (2006) reported that there are significant positive relations between stock returns and return on equity (ROE), ROA, and the net profit. In addition, there are positive, significant relations between operating earnings and each of ROA, ROE, and growth in net market value of operating assets. To the contrary, no significant relations existed between stock returns, free cash flows, ROA, and ROE.

Thus, operating earnings and net profits are meaningful accruals earning measures of shareholder's equity and firm value. Contrarily, free cash flows are irrelevant for evaluation of shareholder's equity, and there is no significant relationship between cash flows and firm values. Akbar, *et al.*, (2011) examined the value relevance of non-current accruals, cash flows, and current accruals in the UK. The researchers employed a valuation model-based methodology and used a sample of non-financial UK firms from 1993 to 2007. The results support that cash flows can have additional value relevance over either funds flows or earnings. This implies that cash flows can have value relevance separate from total or current accruals. In general, the major source of increase in the explanatory power for market value is separate inclusion of cash flow measures in the regressions. Therefore, the cash flow statement provides useful information to investors for valuing firms in the UK. The researchers found that various components of profits including measures of operating cash and measures of non-current and current accruals had ability to explain market values of firms in the UK market and cash flow has increased value relevance for profit or cash flows. As a result, cash flow can be a relevant added value for profit. The findings also show that cash flow is the main source of increased exploratory power of market values. Hence, cash flows statement in the UK provides useful information for investors. However, there was slightly less consistent evidence that non-current and current accruals can have separate value relevance. A somewhat comparable finding was obtained by Rezaei and Safari (2013) who reported that the relation between OCF and non-current and current accruals is more relevant than accruals and OCF for the general and the market values of firms.

Chen and Chen (2011) spotlighted that the effects of leverage and profitability on firm's value have long been critical with respect to financial decision making. The higher the profitability of a company, the higher assignable profits there are, and the higher is the firm value. Profitability hence has significant positive effects on firm's value. The Pecking Order Theory posits that highly profitable companies are not over-dependent on external funds, and, therefore, profitability has significant negative effect on leverage. When leverage grows, both bankruptcy and agency costs increase quickly. In sum, the results confirm that profitability has positive influence on firm's value and negative influence on leverage, while leverage has negative impact on firm's value and profitability has significant mediating effect. Novianti, *et al.* (2012) proposed that the cash flows statement is an indicator of company's market value. This implies that companies with high cash flows have high market values, and vice versa. The high market values attract the investors to invest in the shares of such company, which will increase firm's stock price and eventually lead to an increase in its returns. Hence, it is anticipated that an increase in cash flow will bring about increase in the stock returns. Malaolot *et al.* (2013) underlined that the majority of the studies of determinants of stock price movements in Nigeria were based on theoretical basis without any quantitative empirical evidence to support postulations. In consequence, these researchers carried out a study to examine macroeconomic determinants of stock price movements in Nigeria by means of detailed econometric framework so as to

lay foundations for evidence-based policies. Short-run and long-run dynamic relations between macroeconomic variables and stock price movements were analyzed using time series data covering the period 1985-2010 and the Engle-Granger two-step co-integration test. The study outcomes showed that no co-integration exists between the studied variables, which imply absence of long-run relations. Regression results, however, indicated that in Nigeria three monetary policy variables (real interest rate, money supply, and real exchange rate) and political instability are not determinants of stock price movements. On the other hand, inflation was major determinant of stock price movements. It should be underlined that results of such study are difficult to generalize owing to the varied conditions surrounding each stock market setting as each market has its own regulations and rules, types of investors, country peculiarities, and other factors that establish its uniqueness. Kanani, *et al.* (2014) explored the relations between changes in the components of cash flow statement and market value changes of companies listed on Tehran Stock Exchange Market (TSEM) from 2001-2004. Simple and multiple regression models were developed to test for soundness of the main research hypothesis and the five subsidiary hypotheses. It then tuned out that none of the hypotheses was confirmed, which means that changes in the components of cash flows do not have any significant relationships with market values of the examined firms.

Association of firm value with operational cash flow and accruals has been investigated by Rahimi and Motlagh (2014) as well. These researchers carried a study to explore the relation between operational cash flows and accruals to forecast future earnings of companies listed on TSEM using Jones' adjusted model to calculate and assess accruals, which were categorized into discretionary and non-discretionary accruals. The study was applied to a sample of 123 companies listed on TSEM in the period of 2007 to 2012. Three hypotheses were formulated to address the study problem and they were tested using regression analysis. The non-discretionary accruals (NDAs), discretionary accruals (DAs), and OCFs were the independent variables while the future operating profit was the dependent variable. The analysis outcomes demonstrated that NDAs, DAs, and OCFs correlate significantly with the future operating earnings and that the OCFs have more information content than the other variables for prediction of future earnings.

As far as determinants of share prices in particular are concerned, and in line with the foregoing discussion, this paragraph gives a briefing on the major findings of recent research related to share prices in the form of a concise summary. As a start, Irfan and Nishat (2002) studied a sample of Pakistani companies listed on Karachi Stock Exchange Market during 1981-2000 and found that determinants of share prices were the payout ratio, firm size, and dividend yields. Sharma and Singh (2006) investigated data from 160 Indian firms between 2001 and 2005 and found that firm size, price-earnings ratio, book value per share, earnings per share (EPS), dividend payout, dividend coverage, and dividend per share are the determinants of firms' share prices. Al-Omar and Al-Mutairi (2008) studied seven Kuwaiti banks from 1980 to 2004 and found that the determinants of share prices were EPS and

book value per share. Somoye, *et al.* (2009) employed data from Nigeria and found that determinants of share prices are the EPS and dividend per share. Nirmala, *et al.* (2011) analyzed data from the Indian stock markets during the period 2000-2009 and noticed that the price-earnings ratio and dividend per share were the main determinants of share prices. Sharma (2011) attempted to identify relations of stock prices with dividend per share, book value per share, price earnings ratio, EPS, dividend payout, dividend yield, and company's size in terms of sales and net worth. The results showed that EPS, book value per share, and dividend per share have significant impacts on the market prices of shares. Nisa and Nishat (2012) found that EPS and firm size are the major determinants of market values of Pakistani firms.

Conclusion

Research in this particular arena of finance and accounting is still progressing, but with yet unanswered questions. Some early studies identified a number of knowledge gaps in this field of scientific research and this study is intended to fill in some of these gaps, especially since most of the related evidence found in the literature so far is extracted from western, particularly US-, and European-listed, companies. The gaps include amongst others: clarifying the forecasting ability of cash flows years in the future; use of stock returns to represent future cash flows; analyzing influence of company size on the forecasting abilities of earnings and OCFs of operating future cash flows; implications of earnings management on market values of firms; how exactly the market value of a company is related to audit quality in the Jordanian setting; what/which financial ratios exactly can best reflect market values of companies; and identifying which financial indicators are influenced the most by audit quality, and how. It will also be quite interesting to clarify whether associations of the aforementioned variables differ between the aggregate and firm levels.

In view of the inconsistent findings drawn from previous investigations on relations between market values of firms and the respective reported accounting numbers, and the potential moderating effect of audit quality on these relations, the question of whether accounting information influences share prices of companies and their behaviour remains an open question. Thereupon, the research problem under consideration can be briefed in two questions: 'Can accruals and cash flows explain the market values of equity of Jordanian companies listed on the Amman Stock Exchange?' And 'Does audit quality have a moderating effect on association of the market value of equity of the Jordanian companies with its accruals and cash flows?'

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