RES MILITARIS
REVUE EUROPEENNE D ETUDES EUROPEAN JOURNAL OF MILITARY STUDIES
Social Science Journal

The Impact of Earnings Quality and Firm Characteristics on the Stock-Market Valuation of the Firm: Empirical Evidence from Listed Firms in Iraq

Maithm Khaghaany

Faculty of Administration and Economics,

University of Kufa, Najaf, Iraq.
E-mail: maithmm.khaghaany@uokufa.edu.iq

Abstract

The purpose of this study to investigate the impact of earnings quality and firm specific characteristics on the stock-market valuation of firms listed on the Iraq Stock Exchange. Earnings quality includes the relevance and faithful representation of accounting information provided by firms, which is a critical factor affecting investor confidence and investment decisions. Firm characteristics include a set of factors such as firm size, firm age, financial leverage ratio, price to book value ratio, profitability, operating cash flow ratio, and liquidity. The research sample included (78) firms from 9 industries listed on the Iraqi Stock Exchange for the period from (2010-2018). The research results showed that there is a significant disparity in the levels of earnings quality for Iraqi firms. The results also showed that good accounting earnings quality has positive significant effects on the reputation of Iraqi firms and has achieved a significant increase in their stock prices and market values compared to firms that had low accounting earnings quality. This showed a decrease in their stock prices and market values. The results also showed that the financial characteristics of the firm (firm size, share price to book value ratio, financial leverage ratio, industry) have a significant impact on the firm's value and reputation in the market. This research recommended that managers should strive to significantly improve the images of their firms and their financial results in front of their current and potential creditors and investors by increasing the quality of accounting information. Also, the behavior of selecting and using certain accounting policies and methods and the high rate of estimates may affect the quality characteristics of accounting information. This leads to negative repercussions on the value and reputation of the firm in the financial markets.

Keywords: Earnings quality, firm characteristics, firm value, Iraqi firms

1. Introduction

The function of the financial market is to ensure the flow of funds from lenders to borrowers and to carry out the conversion of those funds into productive opportunities. This creates a demand for information, i.e., corporate financial information disclosed by firms. This information is much needed by creditors, managers, investors, employees, governments, researchers, and relevant market participants to assess both the financial performance and the financial position of the firm. Financial information about firms is considered the basis for the economic and social decisions of investors and other users of accounting information (Hidayah & Zarkasyi, 2017).

Managers are the link to the decision-making process within the firm; they are also responsible for the preparation, presentation, and disclosure of financial statements that reflect the business performance and financial position (Mansali et al., 2019). They are responsible for preparing financial reports by making discretionary judgments adapted to the guidelines set by the financial accounting system. The result of their judgments shows earnings. Earnings are more valuable to investors if they are of higher quality, which reflects the provision of useful information about the firm's economic performance (Dechow et al., 2010). Therefore, it is interesting to examine whether earnings quality influences firm value.

The Iraq stock exchange is one of the oldest in the Middle East, but has dropped its ranking within the regional stock market. Shares sold at the market were few, and the index was declining. The interest of investors in the stock market is to achieve high levels of earnings quality. Following the importance of earnings as a reliable scale to measure the performance of a financial institution, charges for determining investors' decisions, raising new financial capital, making investment plans, and dealing with the provisions of

a debt contract, the low-quality contributors' consequences include incorrect estimates and decisions, and limited debt contracting.

While many have become interested in analyzing earnings quality in particular, researchers have not addressed the subject, especially in Middle Eastern countries and more specifically in Iraq. After all the ongoing complaints and concerns about earnings quality, such as restatements, lack of any expenses, high compensation plans, firms manipulating earnings to achieve positive results, high volatility, it is important to discuss the quality of income, particularly in Iraq. This study provides assurance on the relevance and importance of earnings quality as investors avoid losing money if the data they receive is correct and follows a more accurate track.

This research contributes to accounting literature in that the influence of earnings quality is generally assessed using accounting-based measures, while the impact of growth opportunities is mostly examined from a stock market perspective. Thus, the research attempts to investigate whether high- or low-quality earnings from the accounting-based perspective can be generated or preserved in the stock market value of listed firms. The potential coexistence of high growth and bad earnings as an important business model serves as a warning to others of a growth-at-all-costs strategy. The creation of an enduring growth firm may be the capital market's unqualified, but only in the sense of disapproval of crass 'short-termist' accounting practices and impetuous and thoughtless decision-making.

The study is relevant for both financial markets and users of financial statements. It is also of interest to financial analysts, academic writers, and various standard-setting regulators, who aim to improve the quality of financial information and decision-making for capital providers, such as investors, particularly in firms characterized by high growth and rapid expansion. Financial reporting quality greatly hinges on the existence of appropriate incentives for management to report timely information that reflects the true state of the firm, as perceived and valued by investors, which supports economic efficiency and the allocation of resources through the financial market mechanism.

In addition, the study is important to management, who, in their reporting roles, need to observe directives and ethical requirements to support the transparency and credibility of their decision-making through voluntary financial disclosures that are relevant to users of financial statements. The discussion about good and bad growth firms, to some extent, affects the responsiveness of managers and capital market investors to both establish growth firms and invest in growth firms.

In addition, the results of this research contribute to clarifying the impact of firm characteristics on the firm's value in financial markets as determinants and influential factors related to its reputation and the extent of its impact on the investor's view of the firm's evaluation. This research may also help in the future to make firms more focused on the concepts that raise the quality of accounting earnings, which may be positively reflected in the future on decision-making processes and contribute to increasing the value of firms and their ability to confront the risks of declining their value in the market.

2. Literature Review and Hypothesis Development

2.1 Theoretical Framework for Earnings Quality

Good accounting information is the most useful and influential information for current or future economic decision makers. Information that does not provide a clear indication of the decisions that need to be made is not useful accounting information (Laudon & Laudon, 2012: 28). Hidayah and Zarkasyi (2017) confirm that the value of information is directly related to how it helps decision makers achieve the goals sought by the firm in a way that this information can contribute to helping people and their firms perform tasks more efficiently and effectively. Others believe that information must have a direct

impact on users, who use the information to implement or not implement their work (Harun et al., 2012:285).

On the other hand, the concept of accounting information quality refers to a set of basic and enhancing characteristics that accounting information should have, as specified by the Financial Accounting Standards Board (FASB) in Statement No. (8) issued in September 2010, which was consistent with the latest conceptual framework issued by the International Accounting Standards Board (IASB) in 2018 (Kieso et al., 2018). The conceptual framework includes the basic qualitative characteristics (relevance and faithful representation) and supporting characteristics (verifiability, timeliness, understandability, and comparability) that accounting information should have in order to be useful in decision-making processes. In addition, many researchers may measure the quality of accounting information indirectly by focusing on the characteristics that are believed to affect the quality of financial reporting, for example earnings management, financial statement restatement, and timeliness (Ritchi et al., 2016: 3).

Some firms' managements may resort to manipulating their numbers within the limits permitted for them in applying accounting procedures and principles. Some managements manipulate the timing of recognizing some revenues and expenses within the scope of managing their earnings, which will greatly affect the quality of accounting information. The accrual basis of accounting allows management to use many accounting alternatives and options, which it may resort to in order to influence the accounting information, in a way that shows its performance and financial position within its desires. For example, capitalizing the expenses of acquiring long-term assets or limiting the expansion of provisions (such as provisions for decline in inventory prices) or recognizing the increase or decrease in the value of the asset. Optional accounting accruals may greatly affect the nature and quality of the accounting information disclosed in the financial statements. Accounting accruals are among the earnings management tools that it may resort to manage its earnings, and the element of diligence, settlement and personal assessment enters into its calculation. (Stair & Reynolds, 2010). Accordingly, flexibility in choosing accounting methods and policies for some financial transactions, and diligence in the method of accounting treatment for them, may negatively affect the reduction in the quality of accounting information that will be produced, and thus reduce the confidence of users in relying on that information in their decision-making processes.

In addition, researchers have found in previous studies that earnings quality is a good and important indicator of measuring the quality of accounting information and determining the level and nature of expectations about the firm's stock price levels in the short term (Mansali et al., 2019:1129). Other researchers showed that bad earnings quality results from weak auditing, which exposes the resources of the firm to risk (Gao & Jia, 2016). Thus, information asymmetry due to earnings efficiencies is expected to make external finance more expensive, thus increasing the likelihood of corporate wealth accumulation. The earnings quality is an important indicator of the quality of accounting information; because earnings contain information about expected cash flows in order to inform stakeholders. Therefore, earnings will be more representative of future cash flows if earnings are of good quality (Mansali et al., 2019: 1129).

On the other hand, Martinez indicates that accounting accruals are one of the important elements that contribute to the superiority of earnings over cash flows. In other words, accounting accruals are elements of accounting earnings that adjust the recognition of cash flows over time, with the aim of improving the measurement of the economic performance of the firm (Martinez, 2008: 7). Therefore, accruals are all earnings accounts included in the income statement, but they do not mean a necessary cash movement. The total accruals of the firm can be measured by the difference between net profits and operating cash flow, which represents an important component of the earnings of the firm (Leal et al., 2017: 207). Accordingly, the accruals of the firm are the

difference between the disclosed earnings and cash flows from operations. The high quality of accruals reduces the information risks that the firm may be exposed to regarding cash flows and earnings in the future by reducing the asymmetry of information between firms and market participants (Shin & Oh, 2017: 224). Therefore, the quality of accounting earnings can indicate the extent to which accruals are included in the financially disclosed earnings map to actual cash flows over successive financial periods. Earnings consist of cash flows and future accruals that will be converted into cash flows in the future. Earnings reliability increases in the event that cash flows exceed accruals that are subject to manipulation and subsequently the earnings quality increases. Therefore, increasing in level of accruals in the earnings figure reflects a decline in the reliability of earnings in financial reports.

2.2 Earnings Quality and Firm Value

A significant number of studies have attempted to find the relationship between these two variables due to their importance in influencing the various decision-making processes in evaluating the firm and determining future investment opportunities. The outcomes of previous studies varied in the results of the relationship between the quality of accounting information and the value of the firm and the strength of this relationship.

Some studies have addressed the relationship between the quality of accounting earnings and the value of the firm from the point of view of the cost of capital. Since the decisions of rational investors depend largely on the quality and quantity of information available to them, investors, in the event of poor quality and mismatch of information, which may expose them to significant risks, will compensate for this weakness in the quality of information by increasing the cost of capital, which will ultimately initiate a lessening in the stock prices and the value of the firm in the market (Baimukhamedova et al., 2017:6). Francis et al. also confirm that firms with low-quality accounting earnings will lead to a higher cost of debt and a higher cost of equity, which will negatively affect the value of the firm and its stock prices in the market (Francis et al., 2004:968). Barth et al. also provided evidence that implicit earnings, positive earnings, which are more reflective of changes in the financial value of the firm, have lower cost of capital and higher market value (Barth et al., 2016:28).

On the other hand, based on the investment risks that the investor may be exposed to, the risks of poor information quality may lead investors to pay additional investment costs. Investor decisions under low information quality will be subject to increased uncertainty, because investor decisions will be based on specific, insufficient and less transparent information about the firm. On the other hand, if uncertainty is low, i.e. the quality of accounting information is high, investors expect a decrease in capital costs. Therefore, the market value of firms as the present value of current and future cash flows discounted at the risk-adjusted cost of capital will lead to a lower cost of capital, which will be positively reflected in a better value for the firm (Gaio & Raposo, 2011:468). Leuz & Verrecchia also confirms that better quality information (good accounting earnings quality) can help improve coordination between firms and investors regarding capital investment, which reduces information risks and thus reduces the cost of capital of the firm and thus increases its value (Leuz & Verrecchia, 2005:3).

Kiriukhin (2018) also initially argued that accounting quality can significantly influence the stock market valuation of company over several aspects. Better accounting information can improve cash flow, reduce the cost of capital, improve monitoring, reduce agency problems and information asymmetry problems, and finally improve real decisions, all of which increase firm value (Kiriukhin, 2018: 10). Kiriukhin believes that the overall direct impact of the quality of accounting procedures and information is not known and generally defined by previous studies. Therefore, (Kiriukhin) developed new measurement models to measure the quality of accounting earnings, through which he distinguished between the quality of accruals and operating volatility (fluctuations in the components of performance in accruals), on the one hand, and on the other hand, studied

the relationship between the quality of accounting earnings and the value of the firm using the approach based on the stated preferences of investors. He showed that the impact of earnings quality on the firm's value is largely affected by operational risks.

It is concluded from the above discussion that the quality of accounting earnings is an important indicator that can largely reflect the level of quality and credibility reflected by the firm's financial reports, which are largely relied upon by investors in their evaluation of the firm and its shares in the market. The good quality of accounting earnings will reflect the high quality of information and the decrease in arbitrary estimates and levels of earnings management, which will contribute significantly to reducing the cost of capital and information risks. This will also significantly increase the ability of investors to make better decisions based on such financial information. Based on this discussion, it is hypothesized that:

H1: There is a significant positive impact of the earnings quality on the stock-market valuation of the Iraqi firms.

2.3 Firm Characteristics and Firm Value

At the present time, the competition in the business world is intense, and all levels of business development are constantly affected by the macroeconomic, political and technological progress. As a result, every firm must have the right policies in order to compete in the business world to achieve the firm's goals. In general, firms have two goals, short-term and long-term. The short-term goals of a firm are to maximize profits with its resources, while the long-term goals of a firm are to increase the value of the firm.

Firm characteristics refer to different traits that a firm possesses, which may have consequences for its value and operational performance. These characteristics differ significantly among firms and, among other things, can influence the way that investors perceive them. Some examples of firm characteristics include firm size, the industry in which firms operate, the growth opportunities of firms, and capital structure. Firm characteristics are one of the main determinants of the usefulness of accounting information (Aras & Yildirim, 2018). Empirical findings disclose that accounting information is more useful for investors or more value-relevant in large firms, R&D intensive industries, growth firms, and firms with low debt ratios. The market for some potentially high-growth firms is locked to savers only (Fedyk & Khimich, 2018).

They hope the necessary careful research is undertaken to make them feel safer. It has been empirically shown that the association between earnings quality and firm value is conditional on the presence or absence of firm characteristics and interacts with different groups of firm characteristics (Bohnert et al., 2017). While ample regulation is in place to address misleading disclosures, less attention has been devoted to the role of qualitatively different firm characteristics in potentially mediating or moderating the likely impact of earnings quality on firm value. Some very intuitive expectations regarding the connection of such firm characteristics with firm value have been formed: the larger the firm size, the longer its growth opportunities, and the lower the leverage, the higher the firm value. Several empirical studies in the finance and accounting domain have also built these expectations. Some empirical studies documented decreasing trends in the association of growth opportunities with both firm size and leverage in relation to firm value. In that sense, earnings quality is expected to result in more firm value for large firms and less for large firms (Ying & Dawei, 2019). Based on this discussion, it is hypothesized that:

H2: There is a significant impact of the firm characteristics on the stock-market valuation of the Iraqi firms.

This hypothesis is broken down into 6 other sub-hypotheses to exam the impact of the firm characteristics on the stock-market valuation of the Iraq firms as follows:

2.3.1 Firm Age and Firm Value

In order for a firm to reach a certain level of financial and administrative stability, it must go through a period of recovery and another of contraction and recession. This is the state that most firms go through until they reach the period in which they understand the financial markets and how to deal with them in a way that helps them achieve their goals. Firms that have experience (longevity) are distinguished by their extensive knowledge of the financial markets, which allows them to adapt to the changes that occur continuously, which helps them maintain their financial position in the markets in a stable manner. Many studies have shown that the age of the firm is one of the basic points on which investors rely between continuing decisions about trade-offs (Nilssen, 2014: 26). Based on this discussion, it is hypothesized that:

H2.1: There is a significant positive impact of the firm size on the stock-market valuation of the Iraqi firms.

2.3.2 Firm Size and Firm Value

The size of the firm is an important factor in influencing the value of the firm in the markets. Large firms often expand their work over a wide geographical area, if it includes more than one country, as is the case with multinational firms. Increasing the size of the firm leads to diversifying the financial returns achieved from the branches of these firms from within and outside. This in turn helps to increase the profits achieved and increase the share of shareholders in the profits, which leads to an increase in demand for the shares of these firms. As for small and medium-sized firms, they are described as having limited sources of income compared to large firms; because their financial returns are limited to internal transactions with customers and clients. This in turn affects the volume of trading in their shares by affecting the share of shareholders in the profits achieved for them. Because the size of the firm has a significant impact on the neutrality of its value. Large firms have operating assets that are commensurate with their size, which means that they have a high value given the assets they own (Zuhroh, 2019: 212). Based on this discussion, it is hypothesized that:

H2.2: There is a significant positive impact of the firm age on the stock-market valuation of the Iraqi firms.

2.3.3 Price to Book Value and Firm Value

Price to book value ratio is also called the market value to shareholders' equity ratio. It is used to compare the market value and the book value of the firm. Its calculation is based on tangible assets that reveal the real value of the firm. This ratio is important in inferring the absence of exaggeration in the evaluation of the share price, which in turn indicates the number of monetary units that the investor pays in exchange for obtaining one monetary unit or one dinar from the net shareholders' equity. This ratio affects the value of the firm by increasing the value of shares in the financial markets over the volume of investments in assets. In other words, the increase in the market value of the share over the book value, which means that this ratio is an indicator to measure the extent to which the value of the firm's shares in the financial markets increases over its book value represented by the value of the shares extracted from the equity; because the increase in this ratio is a positive indicator of enhancing the value of the firm (Gharaibeh & Qader, 2017: 334). Based on this discussion, it is hypothesized that:

H2.3: There is a significant positive impact of the price to book value ratio on the stock-market valuation of the Iraqi firms.

2.3.4 Operating Cash Flow and Firm Value

Operating cash flow ratio is one of the important determinants that affect the reputation and company's value. This variable is measured based on the ratio of operating cash flow to the total assets of the firm (Hilgen, 2015:8). Hierarchy theory suggests that firms are more willing to hold earned internally because of market imperfections, and because cash flow represents a source of savings, firms are expected

to own the rest of the money good relationships (Mansali et al., 2019). Based on this discussion, it is hypothesized that:

H2.4: There is a significant positive impact of the operating cash flow ratio on the stock-market valuation of the Iraqi firms.

2.3.5 Profitability and Firm Value

The firm's profitability reflects the efficiency of its management in generating profits from shareholders' equity. The firm's profitability gives a clear picture to the stock investor to compare between firms. If the profitability value decreases, this is a bad indicator of the firm's performance, and if it increases for a long period, this indicates good management of the firm, and thus its increase has a positive effect and supports the firm's value in the financial markets (Foshtomi, 2017:24). The return on assets ratio is one of the important measures to know the ratio of the firm's profit to its total assets (Kosmidou: 2008, 147). This ratio is calculated by dividing the firm's net profit by its total assets. This measure reveals the return on profit on total assets, and the firm's efficiency in generating profits from its assets. This ratio shows important profitability indicators for investors; because it gives a clear picture to the stock investor to compare between firms. If the value of this ratio decreases, this is considered a bad indicator of the firm's performance. If this rate increases for a long period, this indicates good management of the firm. Therefore, its increase has a positive effect and supports the firm's value in the financial markets (Foshtomi, 2017:24). Based on this discussion, it is hypothesized that:

H2.5: There is a significant positive impact of the firm's profitability on the stock-market valuation of the Iraqi firms.

2.3.6 Leverage and Firm Value

Financial leverage is measured by total debt over total book assets. The funding priority theory suggests that firms have preferences for their sources of financing, ranked in order of preference by internal financing first, then debt and finally increasing equity, which means that liquidity decreases as leverage increases (Mansali et al., 2019). Another study on the supervisory role of financial institutions suggests that firms with high levels of debt are less able to store liquidity because they are better monitored by debtors (Ferreira & Vilela, 2004). Furthermore, firms with higher debt can indicate a lack of internal funds, so this suggests the assumption of a negative relationship between debt and cash balances (Limanta & Malelak, 2017: 3). Based on this discussion, it is hypothesized that:

H2.6: There is a significant positive impact of the leverage on the stock-market valuation of the Iraqi firms.

3. Data Sources and Methodology

3.1 Sample Selection and Data

Initially, all firms listed in the Iraq Stock Exchange and all industries were targeted, totaling (134) firms distributed over nine industries for a period of (9) years from 2010 to 2018. This research targeted all firms listed in the Iraq Stock Exchange in order to obtain the largest possible number of observations. The financial data collection in the practical aspect of this research was mainly based on the published financial reports of the firms listed on the Iraq Stock Exchange, which were uploaded manually. After searching and investigating the research data in the financial reports of all Iraqi firms listed on the Iraq Stock Exchange, some firms were excluded due to the unavailability of their data or because their operations had stopped. Accordingly, the final sample of the research became (78) firms for a period of nine years from 2010 to 2018. Table (1) shows how was the research sample selected.

Table 1. Selecting the research sample

Selecting criteria	**Number of firms**
All the firms listed on the Iraq Stock Exchange	134
Firms that were newly established after 2010	(14)
Firms that have ceased their activity or merged	(23)
Firms with unavailable data	(19)
Research sample	**78**

Table (2) shows the number of firms listed in the Iraq Stock Exchange and the number of research sample firms for each industries.

Table 2. The percentage of sample firms to the total number of Iraqi firms distributed according to industries

No.	**Industryname**	**Total number of firms**	**Number of firms in the research sample**	**Percentage of total firms**	**Percentage of total research sample**
1	Banking	46	24	52%	31%
2	Insurance	5	5	100%	6%
3	Investment	9	6	67%	8%
4	Service	11	9	82%	12%
5	Industry	25	16	64%	21%
6	Hotels and tourism	10	9	90%	12%
7	Agriculture	7	4	57%	5%
8	Communication	2	1	50%	1%
9	Financial	19	4	21%	5%
Total		**134**	**78**	**58%**	**100%**

Table (2) shows that most firms have a high representation of the research community, reaching 100% for the insurance industry and 90% for the hotel industries. While the percentage ranged between 50% and 64% for the rest of the industry except for the financial transfer industries, whose representation ranged 21% due to the lack of significant data for firms in these industries. On the other hand, Table (2) shows the percentage of firms' representation in the research sample for each industry. The table shows that the banking industry represents the largest percentage of firms in the research sample at 31% (24 banks), while firms from the industrial sector came in second place at 21% (16 firms). The communications industry was the least among the industries, with firm (1) in the research sample, as the total number of firms listed on the Iraq Stock Exchange for the communications industry is only (2), (1) was excluded due to its activity ceasing in 2014. In addition, figure (1) presents sample distribution by industry more clearly.

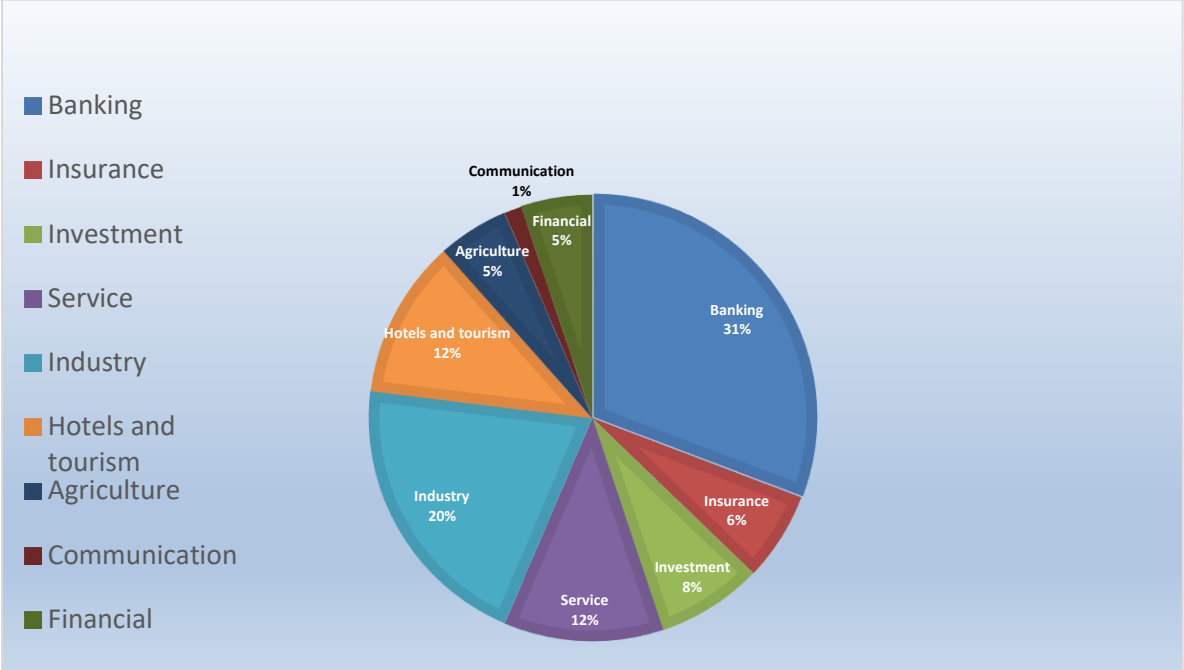

Figure 1. Sample distribution by industry

3.2 Models for Measuring Accounting Earnings Quality

The quality of accounting earnings represents the main independent variable of this study. This study relied on the (Dechow & Dichev, 2002) model to measure the earning quality using accruals quality as a proxy for earning quality, which was adopted in many previous solid studies such as (Francis, et al., 2005; Beatty et al., 2010; Rajgopal & Venkatachalam, 2011; Bhattacharya et al., 2012; Ogneva, 2012; Nallareddy & Ogneva, 2017). The model (Dechow & Dichev, 2002) uses the estimation of errors and noise around accounting estimates of future cash flows. Here (Dechow & Dichev, 2002) assumes that errors and noise increase with the presence of manipulation in accounting estimates, which is reflected in a decrease in the quality of earnings. In order to measure the quality of earnings, we first calculate Equation (1) to calculate the total accruals as follows (Nallareddy & Ogneva, 2017: 513):

$$\mathrm{TotAcc_{it}} = \alpha_1 + \beta_{1t}\,\mathrm{OCF_{it-1}} + \beta_{2t}\,\mathrm{OCF_{it}} + \beta_{3t}\,\mathrm{OCF_{it+1}} + \beta_{4t}\,\Delta\mathrm{SA_{it}} + \beta_{5t}\,\mathrm{PPE_{it}} + \varepsilon_{it} \qquad (1)$$

Variables are defined as follows:

$\mathrm{TotAcc_{it}}$	= represents the current total accruals of the firm (i) in year (t).
$\mathrm{OCF_{it-1}}$	= represents the cash flows from the operating activities of the firm (i) in the previous year (t-1).
$\mathrm{OCF_{it}}$	= represents the cash flows from the operating activities of the firm (i) in the current year (t).
$\mathrm{OCF_{it+1}}$	= represents the cash flows from the operating activities of the firm (i) in the next year (t+1).
$\Delta\mathrm{SA_{it}}$	= represents the change in sales for one year and the change is calculated as follows: Sales of the firm (i) in the current year (t) minus sales of the firm (i) in the previous year (t-1).
$\mathrm{PPE_{it}}$	= represents the total property, plant and equipment of the firm (i) in year (t).

The total current accruals ($TotAcc_{it}$) of the research sample firms are calculated using Equation No. (2) as follows:

$$TotAcc_{it} = \Delta CRA_{it} - \Delta CRL_{it} - \Delta CAS_{it} + \Delta SHTD_{it} \quad (2)$$

Variables are defined as follows:

$TotAcc_{it}$	= Represents the total current accruals of the firm (i) in the current year (t).
ΔCRA_{it}	= Represents the change over one year in total current assets, calculated as follows: Total current assets of the firm (i) in year (t) minus total current assets of the firm (i) in the previous year (t-1).
ΔCRL_{it}	= Represents the change over one year in total current liabilities, calculated as follows: Total current liabilities of the firm (i) in the current year (t) minus total current liabilities of the firm (i) in the previous year (t-1).
ΔCAS_{it}	= Represents the change over one year in cash balances, calculated as follows: Cash balances of the firm (i) in the current year (t) minus cash balances of the firm (i) in the previous year (t-1).
$\Delta SHTD_{it}$	= Represents the change over one year in short-term debt, calculated as follows: Short-term debt of the firm (i) in the current year (t) minus short-term debt of the firm (i) in the previous year (t-1).

After completing the collection of financial data from the financial statements of the research sample firms, all variables for equation (1) and equation (2) are then calculated. The residual values explain the deviations in working capital which are used to estimate the accruals quality as proxy of earnings quality by using equation (3) as follows (Francis et al., 2005: 303):

$$EarnQ_{it} = \sigma(\varepsilon_{it}) \quad (3)$$

Variables are defined as follows:

$EarnQ_{it}$	= represents the measure of earnings quality for firm (i) in the current year (t).
$\sigma(\varepsilon_{it})$	= represents the standard deviation of the remaining values of firm (i) in the current year (t).

Francis et al. (2005: 302) indicate that if the standard deviations of the residual values are high, this indicates that the earnings quality is low, while if the standard deviations of the residual values are high (the larger unjustified or unexplained part in the model (Dechow & Dichev, 2002)), this indicates that the earnings quality is high.

3.3 Models for Measuring Firm Characteristics

Table (3) shows the proxies measuring the firm's characteristics and the references that adopted these indicators.

Table 3. Proxies measuring the firm's characteristics

Variables	Code	Proxies	Reference
Firm's size	LogAss	Logarithm of total assets	(Nilssen, 2014: 26)
Firm's age	Age	Number of years of the firm's life	(Nilssen, 2014: 26)
Price to book value ratio	MarBok	Market value of the firm's share to its book value	(Marvadi,2015; Sharif et al.,2015)
Leverage	Lev	Ratio of total debt to total assets	(Welch, 2011)

Profitability	ROA	The ratio of the firm's net profit to the firm's total assets	(Foshtomi, 2017)
Operating cash flow	OCFrat	The ratio of operating cash flows to total assets	(Mansali et al., 2019)
Industry	Indu	The dummy variable for the industry represents the firm, in which it takes a value of (1) if the firm is a financial company and (0) otherwise.	(Kusnadi, 2015; Al-Najjar & Clark, 2017)

3.4 Models for Measuring Firm Value

The firm value variable is the dependent variable of this study and is measured using the modified Tobin's Q scale (Lu & Keung, 2019). The firm value is by using modified Tobin's Q which measures as follows (Hung et al., 2018):

$$TQ_{it} = \frac{(Shares \times Price_{it} + Liab_{it})}{Asset_{it}} \qquad (4)$$

Variables are defined as follows:

TQ_{it}	= represents firm value for firm (i) at the end of the first quarter after the end of the fiscal year (t).
$Shares_{it}$	= represents outstanding shares for firm (i) in year (t).
$Price_{it}$	= represents the share price at the end of the first quarter after the end of the fiscal year (t).
$Liab_{it}$	= represents the total liabilities of firm (i) in year (t).
$Asset_{it}$	= represents the total assets of firm (i) in year (t).

3.4 Models for Measuring the Impact of Earning Quality on Firm Value

The impact of accounting earnings quality on firm value was measured using the following logistic regression model:

$$TQ_{it} = \beta_0 + \beta_1\, EarnQ_{it} + \beta_2\, LogAss_{it} + \beta_3\, Age_{it} + \beta_4\, MarBok_{it} + \beta_5\, OCFrat_{it} + \beta_6\, ROA_{it} + \beta_7\, Lev_{it} + \beta_8\, Indu_{it} + \varepsilon_{it}$$

Variables are defined as follows:

TQ_{it}	= represents firm value for firm (i) at the end of the first quarter after the end of the fiscal year (t).
$EarnQ_{it}$	= represents the measure of the earnings quality which represents the earnings quality for firm (i) in the current year (t).
$LogAss_{it}$	= represents logarithm of total assets
Age_{it}	= represents number of years of the firm's life
$MarBok_{it}$	= represents market value of the firm's share to its book value
$OCFrat_{it}$	= represents ratio of operating cash flows to total assets
ROA_{it}	= represents ratio of the firm's net profit to the firm's total assets
Lev_{it}	= represents ratio of total liabilities to total assets
$Indu_{it}$	= Dummy variable for the industry represents the firm, in which it takes a value of (1) if the firm is a financial company and (0) otherwise.
ε_{it}	= represents

4. Results

4.1 Descriptive Analysis

Table (4) shows the descriptive statistics of the accounting earnings quality measurement

model using the model (Dechow & Dichev, 2002) used to measure the quality of accounting accruals.

Table 4. Descriptive statistics for the earnings quality measurement model (Amounts in millions of dinars): 78 firms over 2010-2018 (n = 702)

Variable	Mean	Std. Dev.	Min.	Max.
$TotAcc_{it}$	-5111	9699	-30701	1869
OCF_{it-1}	219	2099	-2921	5999
OCF_{it}	4349	25999	-52701	76899
OCF_{it+1}	1649	26099	-80001	57699
ΔSA_{it}	-1291	1229	-5931	1879
PPE_{it}	9399	15999	-993	51799

Notes: Variables are defined as follows; $TotAcc_{it}$ is current total accruals of the firm (i) in year (t); OCF_{it-1} is the cash flows from the operating activities of the firm (i) in the previous year (t-1); OCF_{it} is the cash flows from the operating activities of the firm (i) in the current year (t); OCF_{it+1} is the cash flows from the operating activities of the firm (i) in the next year (t+1); ΔSA_{it} is the change in sales of the firm (i) in year (t); PPE_{it} is the total property, plant and equipment of the firm (i) in year (t).

Table (4) shows that the number of observations is (702) observations, with (78) firms, for a period from (2010 to 2018). The table shows that the total average of total accruals $TotAcc_{it}$ is (-5111) million dinars, with a standard deviation of (9699) million dinars. This negative average of total accruals indicates a high percentage of cash balances held and current liabilities compared to the remaining other current assets shown in the balance sheets of the research sample firms. The large standard deviation of total accruals also indicates a large variation in the total accruals of the research sample firms, which is clearly evident in the difference between the highest value (1869) million dinars and the lowest value, which is (-30701) million dinars. Table (4) also shows that there is a large variation between previous cash flows OCF_{it-1}, current cash flows OCF_{it}, and future cash flows OCF_{it+1}. It should be noted that the large discrepancy between the highest and lowest values of the adopted research variables and the high standard deviation values of the research variables is due to the difference in the nature of the firms' businesses and the industry to which they belong. The reason for the difference is also due to the long period of the adopted research (9 years), which is a strength of the research and its results for the study.

The value of accruals quality is calculated based on regression equation (1). In equation (1), accruals quality is measured by using multiple regression analysis to find out the relationship between the dependent variable, total accruals ($TotAcc_{it}$), and the independent variables, which are operating cash flows in the previous year (OCF_{it-1}), operating cash flows in the current year (OCF_{it}), operating cash flows in the next year (OCF_{it+1}), change in sales (ΔSA_{it}), and total property, plant and equipment (PPE_{it}). Table (5) shows the results of the regression equation for the model (Dechow & Dichev, 2002) to measure accruals quality. Table (5) shows that there is a highly significant relationship between the dependent variable ($TotAcc_{it}$) and the independent variables at p-value < 0.01. The results presented in table (5) also show that the independent variables are statistically significant in explaining the association with the dependent variable the earning quality (F (7, 538) = 46.38, Prob > F = 0.000). The Adjusted R^2 also indicates that the independent variables in the model (Dechow & Dichev, 2002) explain (29%) of the value of earnings quality.

Table 5. Results of regression model (1) to measure the earnings quality

$$\mathbf{TotAcc_{it} = \alpha_1 + \beta_{1t}\, OCF_{it-1} + \beta_{2t}\, OCF_{it} + \beta_{3t}\, OCF_{it+1} + \beta_{4t}\, \Delta SA_{it} + \beta_{5t}\, PPE_{it} + \varepsilon_{it}} \quad (1)$$

Variable	Coefficient	Std. Err.	t	P>t
OCF_{it-1}	-0.452	0.231	-3.610	0.003***
OCF_{it}	0.057	0.025	4.500	0.002***
OCF_{it+1}	-0.263	0.029	-12.260	0.000***
ΔSA_{it}	-0.496	0.283	-2.370	0.033**
PPE_{it}	-0.159	0.036	-7.830	0.000***
Constant	-1540000000	526000000	-4.710	0.000***
R^2= 0.292		**F (7, 538) = 46.38**		**No. of Obs. = 702**
Adjusted R^2= 0.293		**Prob > F= 0.000**		

*** and ** indicate significance at 0.01 and 0.05 significance levels, respectively.

After calculating the results of the regression equation (1), we predict the residual value (Residuals) based on the regression equation (1) and calculate the standard deviation of the residual values (Standard deviation of residuals) to estimate the value of the variance in the total accruals in the model (Dechow & Dichev, 2002), which represents the value of the earnings quality as shown in the following equation (3):

$$\mathrm{EarnQ_{it}} = \sigma(\varepsilon_{it}) \quad (3)$$

The high values of the standard deviation of the residual values indicate poor earnings quality, while the low values of the standard deviation of the residual values indicate high earnings quality. Table (6) shows the descriptive statistics of the earnings quality for the research sample firms, arranged according to the business industry for each firm, ranked from the industry with the highest earnings quality to the industry with the lowest earnings quality.

Table 6. Descriptive statistics of earnings quality by business industry: 78 firms over 2010-2018 (n = 702)

Industry	Mean	Std. Dev.	Min.	Max.
Banking	-0.248	1.562	-4.458	3.173
Investment	-0.216	0.225	-0.35	0.74
Financial	-0.059	0.685	-3.692	0.866
Insurance	0.129	0.435	-0.499	2.531
Hotels and Tourism	0.15	0.215	-0.431	0.592
Service	0.154	0.439	-1.889	1.926
Industry	0.187	0.628	-3.062	2.531
Agriculture	0.262	0.608	-0.437	1.926
Communication	0.813	1.425	-1.494	2.531

The results presented in Table (6) show that the banking industry is ranked first in terms of the high earnings quality for the banks in the research sample, with an overall average of (-0.248). The high earnings quality for the banking industry is due to several reasons, perhaps the most important of which is the mandatory applying of IFRS for all banks starting in 2016. Also, the Central Bank of Iraq's obligation for all banks to adopt a joint external audit by two auditing firms starting in 2016, has contributed significantly to the high earnings quality.

The results in Table (6) also show that investment and financial transfer industry firms are ranked next to the banking industry in terms of the high earnings quality, with an overall average of (-0.216) and (-0.059), respectively. The insurance industry and the hotel industry came after it, with an overall average of (0.129) and (0.15), respectively. On the other hand, Table (6) shows that the communications industry ranked last with the poorest earnings quality. The agriculture industry, the industry, and the service industry also ranked last after the communications industry in terms of the firms with the lowest

earnings quality, with an overall average of (0.262), (0.187), and (0.154), respectively.

Table (7) shows the descriptive statistics of the firm characteristics and firm value for the research sample firms.

Table 6. Descriptive statistics for the firm characteristics and firm value: 78 firms over 2010-2018 (n = 702)

Variable	Mean	Std. Dev.	Min.	Max.
MarBok	2.68	3.85	0.28	14.01
LogAss	10.56	1.23	7.71	14.71
Age	21.48	12.74	1.21	65.21
OCFrat	0.05	0.75	-2.89	9.21
Lev	0.77	1.98	0.2	35.22
ROA	0.03	0.61	-5.86	5.51
TQ_{it}	2.46	2.34	0.52	8.32

4.2 Correlation Matrix Results

Table (8) shows the results of correlation matrix of Spearman's test. The results show that there is a strong positive correlation between earnings quality (EarnQ) and firm value (TQ) at a high significance level (0.00). The results also show that there are no problems of multicollinearity between the variables. There is no relationship with high correlation (80% or more) between the research variables.

Table 8. Spearman Correlation Matrix results among dependent and independent variables: 78 firms over 2010-2018 (n = 702)

Variable	TQ	EarnQ	LogAss	Age	MarBok	OCFrat	ROA	Lev	Indu
TQ	1								
EarnQ	0.613	1							
(sign.)	***								
LogAss	0.332	0.331	1						
(sign.)	***	***							
Age	0.28	0.221	-0.345	1					
(sign.)	***	***	***						
MarBok	0.644	0.135	-0.021	0.315	1				
(sign.)	***	**	**	***					
OCFrat	0.018	0.018	-0.044	-0.018	0.045	1			
(sign.)									
ROA	0.084	0.042	0.075	-0.236	0.073	0.231	1		
(sign.)	*			***		***			
Lev	-0.012	-0.085	-0.087	0.237	-0.129	-0.137	0.251	1	
(sign.)		**	**	**		***	***		
Indu	-0.456	-0.273	0.438	-0.739	-0.562	-0.139	0.264	-0.369	1
(sign.)	***	***	***	***	***				
***, ** and * indicate significance at 0.01, 0.05 and 0.1 significance levels, respectively.									

The results in table (8) also show that there is a positive significant correlation between the firm size (LogAss) and the earnings quality (EarnQ) at a significance level of (0.01). There is also a positive significant correlation between the firm age (Age) and the earnings quality at a significance level of (0.01). This result indicates that large firms with long life and experience in their business are keen to have high quality of earnings to maintain their reputation and gain the confidence of investors. There is also a positive significant correlation at a level of (0.01) between the ratio of market value to book value (MarBok) and the earnings quality. This is a result of the high quality of accounting information enjoyed by these firms, which is reflected in improving their reputation and increasing the value of their shares in the market. The results of the correlation test also

indicate a negative correlation between financial leverage (Lev) and the industry (Indu) in which the firm operates with the earnings quality at a significance level of (0.05) and (0.01), respectively.

4.3 Analysis of Empirical Results

Table (9) shows the results of the multiple regression analysis to measure the impact of earnings quality and firm characteristics on the firm value of Iraqi listed firms. The results show that the regression model has a high statistical significance (Prob > chi2 = 0.000), which confirms the strength of the results in explaining the nature of the relationship between the variables in this model. The results show that there is a strong positive impact relationship for earnings quality (EarnQ) on the firm value (TQ) for Iraqi firms with a high significance at the level of (0.000) and a regression coefficient of (0.744).

The results in table (9) also indicate that there is a highly significant positive effect of the firm size (LogAss) on the firm value at a significant level of (0.01) and with a regression coefficient of (0.566). There is also a highly significant positive effect of the market value to book value ratio (MarBok) on the firm value at a significant level of (0.01) and with a regression coefficient of (0.352). There is also a highly significant positive effect of the financial leverage ratio (Lev) at a significance level of (0.5) and a regression coefficient of (0.078). On the other hand, the results show a highly significant negative effect of the type of business industry (Indu) in which the firm operates and the firm's value. This indicates that firms operating in industries other than financial services industries have a relatively higher market value compared to firms in the financial services industries.

Table 9. Results of multiple regression analysis of the impact of earnings quality and firm characteristics on firm value: 78 firms over 2010-2018 (n = 702)

$TQ_{it} = \beta_0 + \beta_1\ EarnQ_{it} + \beta_2\ LogAss_{it} + \beta_3\ Age_{it} + \beta_4\ MarBok_{it} + \beta_5\ OCFrat_{it} + \beta_6\ ROA_{it} + \beta_7\ Lev_{it} + \beta_8\ Indu_{it} + \varepsilon_{it}$				
Variable	**Coefficient**	**Std. Err.**	**z**	**P>z**
EarnQ	0.744	0.071	16.410	**0.000*****
LogAss	0.566	0.063	7.340	**0.000*****
Age	-0.002	0.017	-0.082	**0.837**
MarBok	0.352	0.034	12.543	**0.000*****
OCFrat	-0.058	0.206	-0.580	**0.548**
ROA	0.242	0.256	0.740	**0.446**
Lev	0.078	0.044	1.880	**0.049****
Indu	-0.859	0.329	-4.360	**0.001*****
Constant	-3.750	0.878	-4.250	**0.001*****
No. of obs. =702		Wald Chi^2 (8) = 727.32		
No. of groups =702		Prob > chi^2 = 0.000		
R^2 =				
*** and ** indicate significance at 0.01 and 0.05 significance levels, respectively.				

5. Conclusions and discussion

The current study provides a number of important findings that, taken together, offer several useful insights for practitioners and researchers. The intended foremost benefit is the documented role of the fundamental firm characteristics in understanding the association between earnings quality as a fundamental attribute and the value of firms, and the unique findings about the direction of the moderating role of firm characteristics on the aforementioned association. By proving that earnings quality differs with firm characteristics and that the influence of earnings quality on firm value is different with these characteristics, the study contributes to the ongoing earnings quality-firm value

debate.

It is obvious that accurate amounts of earnings form more dependable earnings numbers, in addition to distributing trustworthy information to the market, which is able to reduce the existing uncertainty or differences among investors, creditors, auditors, and management over firm performance. Therefore, investors, as the fairness or agency cost of firms' equity, tend to compensate higher for firms that announce stronger evidence of earnings persistence. Consequently, the study findings enhance the likelihood of earnings quality, evidenced by earnings persistence, particularly for high versus low debt, and sophisticated investors who want to extract firm intrinsic value and estimate the expected firm default risk. These investors commonly play a significant role in the contemporary Northern Iraq Stock Exchange.

The results of the statistical analyses of the correlation analysis test and the results of the multiple regression model show that there is a strong positive significant relationship between the quality of earnings and the value of companies for Iraqi companies. Firms seek to increase the quality of earnings and reduce the size and level of earnings management in order to increase the value of their shares in the market, which will be reflected in increasing the value of the company as a whole.

The strong positive correlation and influence between earnings quality and company value also indicates that investors in the Iraq Stock Exchange are aware, understanding and informed of the importance and quality of accounting information and how it affects their evaluation of these companies. Therefore, high earnings quality will contribute to reducing the cost of capital and information risks that companies in the Iraq Stock Exchange may be exposed to. The increase in the quality of accounting information will significantly improve investors' ability to better predict future earnings and cash flows of companies. They will also have a greater incentive and positive impact on their decisions to better evaluate the stock prices of companies with good earnings quality in the financial markets.

The results of this study also show that large companies are more keen than small companies to increase the quality of their accruals and increase the market value of their shares in the market. The logic of this relationship confirms the moral impact of investment opportunities on the company's value through the increase in the ratio of market value to book value of the company. The results also show a strong and positive relationship between the company's value and the ratio of market value to book value. This indicates that providing accounting information with high accounting quality and high profit quality helps in increasing the levels of growth opportunities and the level of expected returns in the future, which will be reflected in increasing the company's value and its share prices in the market.

It is strongly recommended that a more comprehensive proxy of Earnings Management, such as the earnings change as a proportion of the mean earnings from the market, for instance, be tested thoroughly with firm value, given the specific items companies are engaged in. Furthermore, as the nature of this study employs an accounting-based firm value, it is encouraged that further research examine the association between Earnings Quality and the market-based firm value measure to verify whether the relation of earnings quality with firm value holds across various valuation techniques.

References

Al-Najjar, B., & Clark, E. (2017). "Corporate governance and cash holdings in MENA: Evidence from internal and external governance practices". *Research in International Business and Finance*, 39, 1-29.

Aras, G., & Yildirim, F.M. (2018). “The impact of corporate finance decisions on market

value in emerging markets". *Int. J. Prod. Perform. Manag.*, 67, 1959–1976.

Baimukhamedova, A., Baimukhamedova, G., & Luchaninova, A. (2017). "Financial disclosure and the cost of equity capital: The empirical test of the largest listed companies of Kazakhstan". *Journal of Asian Finance, Economics and Business*, 4(3), 5-17.

Barth, M. E., Clinch, G., & Israeli, D. (2016). "What do accruals tell us about future cash flows?". *Rev Account Stud*, 10(4), 1-40.

Bohnert, A., Gatzert, N., Hoyt, R. E., & Lechner, P. (2017). "The relationship between enterprise risk management, value and firm characteristics based on the literature". *Zeitschrift für die gesamte Versicherungswissenschaft*, 106, 311-324.

Dechow, P. M., Ge, W., & Schrand, C. (2010). "Understanding earnings quality: a review of the proxies, their determinants and their consequences". *Journal of Accounting and Economics*, 50, 344–401.

Dechow, P., & Dichev, I. (2002). "The quality of accruals and earnings: the role of accrual estimation errors". *The Accounting Review*, 77, 35–59.

Fedyk, T., & Khimich, N. (2018). "R&D investment decisions of IPO firms and long-term future performance". *Review of Accounting and Finance*, 17(1), 78-108.

Ferreira, M.A., & Vilela, A.S. (2004). "Why Do Firms Hold Cash? Evidence from EMU Countries". *European Financial Management*, 10(2), 295–319.

Francis, J., Fond, R.L., Olsson, P.M., & Schier, K. (2004). "Costs of Equity and Earnings Attributes". *The Accounting Review*, 79 (4), 967-1010.

Francis, J., LaFond, R., Olsson, P., & Schier, K. (2005). "The market pricing of accruals quality". *Journal of Accounting and Economics*, 39, 295–327.

Gaio, C., & Raposo, C. (2011). "Earnings quality and firm valuation: international evidence". *Accounting & Finance*, 51(2),467-499.

Gao, X., & Jia, Y. (2016) . "Internal control over financial reporting and the safeguarding of corporate resources: evidence from the value of cash holdings". *Contemporary Accounting Research*, 33(2), 783-814.

Gharaibeh, A., & Qader, A. (2017). "Factors Influencing Firm Value as Measured by the Tobin's Q: Empirical Evidence from the Saudi Stock Exchange (TADAWUL)". *International journal of Applied Business and Economic Research*, 15(6), 333-358.

Hidayah, N., & Zarkasyi, W. (2017). "The Effect of Human Resources Management Competency and the Role of Culture on Accrual Accounting Implementation Effectiveness and the Impact on Quality of Accounting Information". *European Research Studies Journal*, XX(4B), 183-199.

Hilgen, M. (2015). "The determinants of cash holdings :Evidence from German listed firms". Master's thesis, University of Twente.

Hung, D .N., Cuong, P .D., & Ha, V .T .(2018). "Effects of financial statements information on firms' value: evidence from Vietnamese listed firms". *Investment Management and Financial Innovations*, 15(4), 210-218.

Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2018). "Intermediate Accounting IFRS Edition". 3th Edition, John Wiley & Sons, Inc.

Kiriukhin, O. (2018). "Accruals Quality and Firm value". PhD Dissertation, University of Chicago.

Kusnadi, Y. (2015). "Cross-listings and corporate cash savings: International evidence". *Journal of Corporate Finance*, 36,91-107.

Laudon, K. C., & Laudon, J. P. (2012). "Management Information Systems: Managing the Digital Firm". 12th Edition, New Jersey, Pearson Education Inc.

Leal, L. T. L., Girao, L. F. D., Lucena, W. G. L., & Martins, V.G. (2017). "Persistence value relevance and accruals Quality in extreme earnings and cash flow situations". *Mackenzie Management Review*, 18(3), 203-231.

Leuz, C., & Verrecchia, R. (2005). "Firms Capital Allocation Choices, Information Quality, and the cost of Capital". *Information Quality, and the Cost of Capital*, (January),1-25.

Limanta,V.N., & Malelak, M.I. (2017). "Factors Affecting Corporate Cash Holding of Financial Sector Companies (Non-Bank) Listed in Indonesian Stock Exchange Period 2010-2015". *International Conference on Management & Entrepreneurship*, 14(7), 1-7.

Lu, H., & Keung, E. C. (2019). "Entry mode and firm value: Evidence from investing firms in mainland China". *Pacific-Basin Finance Journal*, 58, 101-208.

Mansali, H., Derouiche, I., & Jemai, K. (2019). "Accruals quality, financial constraints, and corporate cash holdings". *Managerial Finance*, 45 (8), 1129-1145.

Martinez, A. L. (2008). "Detecting Earnings management in Brazil: estimating discretionary accruals". *Revista Contabilidade & Financas*, 19(46),7-19.

Marvadi, C. R. (2015). "Determinants of Shareholder Value Creation in Indian Banking Sector". *International Journal of Business and Administration Research Review*, 1(12), 75-84.

Nallareddy, S., & Ogneva, M. (2017). "Accrual quality, skill, and the cross-section of mutual fund returns". *Review of Accounting Studies*, 22, 503-542.

Nilssen , C. (2014)."Determinants of Capital Structure in Listed Norwegian Firms". Master Thesis, Lancaster University.

Ogneva, M. (2012). "Accrual Quality, Realized Returns, and Expected Returns: The Importance of Controlling for Cash Flow Shocks". *The Accounting Review*, 87 (4), 1415–1444.

Ritchi, H., Fettry, S., & Susanto, A. (2016). "Toward Defining Key Success Factors of E-Government and Accounting Information Quality: Case of Indonesia*". International Journal of Accounting Research*, 4(1), 1-6.

Sharif, T., Purohit, H., & Pillai, R. (2015). "Analysis of Factors Affecting Share Prices: The Case of Bahrain Stock Exchange". *International Journal of Economics and Finance*, 7 (3), 207-216.

Shin, H., & Oh, H. (2017). "The Effect Of Accruals Quality On The Association Between Voluntary Disclosure And Information Asymmetry In Korea". *The Journal of Alied Business Research*, 33(1), 223-236.

Welch, I. (2011). Two common problems in capital structure research: The financial-debt-to-asset ratio and issuing activity versus leverage changes. *International review of finance*, *11*(1), 1-17.

Ying, H., & Dawei, Z. (2019). "Manager's Characteristics, Debt Financing and Firm Value". *China Economist*, 14(5), 96-110.

Zuhroh, I. (2019). "The Effects of Liquidity, Firm Size, and Profitability on The Firm Value with Mediating Leverage". *KnE Social Science*, 203-230.