The Relationship between Fair Value Accounting and Presence of Manipulation in Financial Statements

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Abstract

The application of fair value has started early in Jordan, which was a bone of contention among supporters and opponents. This study came to provide empirical evidence on the relationship between fair value and financial manipulation. The study extracted data from 45 companies' annual reports during a ten-year period (1997- 2006) five years before and after the application of fair value to examine the relationship among the application of fair value accounting and the presence of manipulation in financial statements. The result indicates that the number of firms that manipulated information in the financial statements had increased after applying fair value accounting. The results have policy implications, one of which is that the Jordanian government should either enact new regulations or modify the current regulations in the face of an increasing number of manipulations by firms after the application of fair value accounting. These regulations are needed to increase both the managements' and accountants' responsibility towards the firms and to enhance the business ethics of the organization.

Keywords: Fair value Accounting, Financial Manipulation

1. Introduction

After the international and national standard-setters issued the standards that require companies to use fair value accounting to estimate items in financial statement, the debate about the advantages and disadvantages of using fair value to estimate items in financial statements is still going on. Numerous researchers criticize fair value accounting and consider it one of the reasons for the 2008 financial crisis. For example, Laux and Leuz (2010) state that fair value played a major role in the severity of the financial crisis during 2008. They claim that fair value accounting estimated some assets at zero or fire-sales, which caused some companies to fail. Also, Chevis (2009) maintains that the only way to prevent another financial crisis is to be released from fair value accounting. Power (2008) adds that the standards-setters and other related parties need more time before re-evaluating whether fair vale accounting should be used more widely. He states that the current credit crisis during 2008 highlights the obstacles of using fair value accounting to measure financial statements.

Some researchers such as Benston (2006) warn that fair value accounting is not a perfect measurement. He says, "I believe that Enron's use of fair-value accounting is substantially responsible for its demise." Similarly, Topping (2002) relates the Enron case to fair value, and remarks that the Enron case highlights the problems a company may face after applying fair value. He goes on to say that the fair value accounting complicates the situation and it makes managerial fraud hard to detect. He further adds that the problem would be more complicated if the estimation made in the financial instruments does not have a liquid market to compare it with.

The frequent amendments to fair value standards have made their application very complicated and sometimes unclear, which makes it hard for auditors and accountants to do their job and control the fair value measurements. IAS 39, which requires companies to estimate the financial instruments at fair value, may be considered and referred to as one of the most controversial standards of all auditing and accounting standards because it needs many resources such as knowledge in valuation techniques, and special training to enable the auditors and accountants to estimate and audit the financial instruments fairly and objectively (Abedelal, 2005).Furthermore, since the standard setters in the world such as IAS/IFRS, FASB, and other national standards setters issue standards that require companies to use fair value accounting, a big disagreement arises about the way to estimate the financial instruments, especially when level three of estimation is used as required.

1.1 Significance of study

This study is motivated by the disagreement on the application of fair value accounting between the supporters and detractors to estimate financial statement items. In particular, this study is interested in the debate on the possibility of manipulation in the financial statements with the application of fair value accounting. This study is also motivated by an absence of empirical studies on the relationship between the fair value accounting and the presence of manipulation in the financial statements in Jordan or even in other countries.

This study has contributed additional insight into the accounting literature, and provided useful input to audit profession, research academic, and related governmental departments such as Income Tax and Companies Controlling Department.

1.2 Literature Review

After the international and national standard-setters issued the standards that require companies to use fair value accounting to estimate items in financial statement, the debate about the advantages and disadvantages of using fair value to estimate items in financial statements is still going on. Numerous researchers criticize fair value accounting and consider it one of the reasons for the 2008 financial crisis. For example, Laux and Leuz (2010) state that fair value played a major role in the severity of the financial crisis during 2008. They claim that fair value accounting estimated some assets at zero or fire-sales, which caused some companies to fail. Also, Chevis (2009) maintains that the only way to prevent another financial crisis is to be released from fair value accounting. Power (2008) adds that the standards-setters and other related parties need more time before re-evaluating whether fair vale accounting should be used more widely. He states that the current credit crisis during 2008 highlights the obstacles of using fair value accounting to measure financial statements.

Benston (2006) is one of many researchers who criticize fair value accounting. He argues that the Enron's case should be considered by the FASB, IASB, IFRS and other standard-setters when advocating fair value accounting. He indicates the riskiness of using Level Three to estimate the financial instruments, where the values are not grounded in relevant market prices. He notes that the wide use of Level Three estimations and the weakness of the internal control were the reasons for Enron collapse. He adds that Enron's accountants with Arthur Anderson's approval had abused the use of fair value estimations when they exaggerated the Level Three estimations to report false operating cash flow. Correspondingly, Vinals (2008) criticizes the fair value practicing during the financial crisis, when companies were obligated to write the values of the loans and some financial instruments to zero despite the fact that they had the intentions to hold these loans until they matured. These practices had caused the companies to go bankrupt. They add, however, fair value accounting has proven to be a capable method as it possessed the relevance, reliability, and transparency characteristics.

Hann, Heflin & Subramanayam, (2007) examined the value and credit relevance of financial statements prepared at fair value and SFAS 87 (Employers' Accounting for Pensions). They found that fair value accounting does not enhance the value relevance, and it also may impair some financial statement items. They criticize unrealized gains and losses that came as a result of applying fair value accounting. However, they note that the fair value accounting improves the relevance of the balance sheet, but it impairs income statement because it includes unrealized gains and losses. They remark that there are no informational benefits to adopt fair value accounting in the pension model. Similarly Freixas and Tsomocos (2004) criticize the transparency of fair value accounting. They claim that some researchers have overstated the effect of fair value accounting on the efficiency of the banks' financial statements by claiming that the fair value accounting increases the transparency of financial statements. They argue that transparency does not always improve efficiency. Eckes and

Hitchins (2003) investigated the early adoption of fair value accounting in Germany. They note that German banks are experts in applying fair value. Since the applications of such standards need special training, they advise the EU to defer applying IAS 39 for two years at least, so that the government can put in place the suitable and necessary infrastructure to apply IAS 39.

On the other hand, numerous researchers support fair value accounting. For example, Barth (1994) found that historical cost accounting provides no significant explanatory power incremental to fair values. She adds that fair value accounting was found to have less measurement error than historical costs. Magnan (2009) defends fair value accounting by saying that there is no absolute evidence about the role of fair value accounting during the 2008 financial crisis. He argues that there is no reason to suppose that fair value had contributed to the financial crisis. He adds that fair value accounting is relevant to the financial statement users, but other qualities need to be reviewed by the standard-setters and regulators. Herrmann et al. (2002) remarked that supporters of historical cost in the United States do not have a strong conceptual basis. The researchers argue that fair value accounting for property, plant, and equipment is more beneficial for decision-makers and other financial statement users. They state that most academic researches support their point of view. They argue that fair value accounting improves qualitative characteristics of accounting information more than historical cost accounting. Fiechter (2011) examined the fair value option on earnings volatility in Europe. He found that the effects of fair value option are considered to be economically relevant. He remarks that the European Central Bank shows that applying fair value accounting improved reporting of the true economic consequences of financial transactions as well as improved timeliness of financial statements.

Muller, Riedl, and Sellhorn (2008) examined the situation that made European real estate firms to estimate their properties under fair value before the IFRS requirements took effect. They found that the companies used fair value estimations to improve the transparency in the financial statements. Christensen and Nikolae (2010) examined the use of voluntary fair value accounting for non-financial assets in the UK and Germany. They found that only a few companies use this type of fair value accounting because they perceive the benefits of using fair value accounting exceed those of using historical cost accounting. A survey conducted by the Chartered Financial Analyst Institute in the United States found that most of financial institutions managers (79%) perceive fair value information to enhance the transparency and investor understanding of financial statements (CFA, 2008). Also, Galera, Lopez, and Ariza (2010) examined fair value evaluation ability to improve the utility of construction company financial reports. They sent questionnaires to financial directors in the real estate companies. They found that the fair value accounting improves the usefulness of financial reports of real estate companies. They added that using fair value accounting in such companies would improve the comparability, timeliness, and understandability of their financial statements.

Some researchers suggest a hybrid model of fair value accounting and historical cost accounting to avoid the disadvantages and obtain the advantages of both measurements. Anagnostopoulos and Buckland (2005) suggest a hybrid form of fair value accounting and historical cost accounting to deal with the privacy of trading and banking books in banks.

They note that instead of moving to the full fair value accounting, a mixed model would be beneficial in this case. Wallison (2009) proposes a model to mitigate the fair value estimations effect during the financial crisis. He suggests that using fair value estimations could be suspended if fair value estimations reflect less than 20% or more than 150% of the dollar value during three weeks compared to the same period in the preceding year. If the index is again at least 80% or not more than 120%, then the fair value estimations would be applicable again. He elucidates that these numbers are suggested to help financial institutions avoid using fair value estimations during financial turmoil, but he also notes that these numbers do not offer any magic solutions. He warns that if the ISAB keeps the fair value accounting framework as it is, companies will always be on the edge of another financial crisis. On the contrary, Renders (2009) warns that the use of mixed accounting models or hybrid models may increase the opportunities for earnings management. He supports using fair value estimations for financial instruments and criticizes historical cost accounting by saying that although historical cost accounting is an objective measurement; its estimates are far from the market prices of the financial statement items. Hence, it would not provide useful information to the investors.

After reviewing the supporters and detractors of fair value accounting, it appears that there is a big disagreement about the advantages and disadvantages of using fair value accounting. But there is nearly an agreement about the reliability and relevance of fair value estimations. Some researchers consider fair value accounting as being responsible for the financial crisis during 2007- 2008. However, it is clear that fair value accounting is not the main cause of the financial crisis; it was rather the top management' practices. It is the responsibility of the financial institutions themselves because they had manipulated their financial statements by over-estimating their assets and liabilities. The financial crisis merely exposed the weaknesses of internal control systems and shortcomings in current fair value accounting hierarchy.

1.3 Manipulation in Financial Statements

Beneish (1999) defines manipulation in financial statements as accountant or management misstating financial data to raise net income to influence share prices positively. This is done by increasing revenues like sales or decreasing expenses. Spathis, Doumpos, and Zopounidis (2002) maintain that falsifying financial statements involves the manipulation of financial accounts by increasing assets, revenues and gains, or decreasing liabilities, expenses or losses. Similarly Spathis (2002) remarks that falsifying financial statements primarily consists of manipulating elements by overstating assets, sales and profit, or understating liabilities, expenses, or losses. Bai, Yen, Yang (2008) define false financial statement as "intentional or reckless conducts, that result in materially misleading financial statements" (p. 340).

Rosner (2003) differentiates between earnings management, earnings manipulation, and fraudulent financial reporting. She states that earnings management and fraudulent financial reporting are subsets of earnings manipulation. Both refer to techniques that managers deliberately employ to achieve a desired level of reported earnings.   She exemplifies some methods that managers may use to manage earnings such as deliberate operating, financing,

investing transactions, changes in accounting principle, and another common but less obvious techniques such as discretionary accruals management. She argues that fraudulent financial reporting uses different techniques such as falsification of accounting records or documents, so that managers can intentionally and fraudulently misrepresent material events, transactions, or other significant information in financial statements.

Siam and Abdullatif (2011) surveyed Jordanian bankers' views on usefulness of fair value accounting. They found that the respondents tend to prefer using fair value accounting to measure items in financial statements. However, the Jordanian bankers perceive fair value accounting is open to manipulation due to lack of relevance and ambiguity of some estimated items. The World Bank (2004) issued *Reports on the Observance of Standards and Code* (ROSC) in Jordan. The body remarks that the reliance of Jordanian government on taxes to finance the budget influences the accounting practices, which may increase the manipulation in the financial statements in Jordan. Also, Safeen (2006) argues that the rejection of fair value estimations of some financial statement items may give the management opportunity to manipulate these items due to absence of governmental departments control on such estimations.

Ramanna (2008) investigated the use of fair value to estimate intangible assets under SFAS 142. She concluded that using fair value estimations to evaluate goodwill motivates companies to manipulate their financial statements. She stated that companies supporting fair value goodwill standards tend to be manipulators. She highlighted the probability costs of using fair value accounting by linking fair value with manipulation motives. Bens and Heltzer (2005) studied the effect of fair value changes on the content and timeliness of financial information. They studied fair value reporting of the intangible assets such as goodwill. They found that fair value changes in the information content give the management flexibility to manage the company's earnings to avoid the losses in the same and future periods; the thing that makes the information content biased or even manipulated. Segovia (2003) tested the role of auditors in approving earnings management. He stated the current standards facilitate earnings management in companies. He added that interpretation of GAAP confuse the auditors' decision making. Also, Rosner (2003) provided empirical evidence on the financial statements of failing firms. She found that failing firms appear not to be distressed on an accrual data basis, but they showed a significant decrease in cash flows. She remarked that the accounts in the financial statements have informational value that helps detect manipulation in financial statements.

Spathis (2002) studied published data in an attempt to develop a model for detecting manipulation in financial statements. He determined the factors that are associated with fraud in financial statements. He tested a sample of 76 companies including 38 manipulated companies and 38 non-manipulated companies. He developed a model that is accurate in classifying financial statement into manipulated and non-manipulated with accuracy rate exceeding 84%. Therefore he stated that the model is effective in detecting manipulation in financial statements.

He developed the following model:

$$Mani = b_0 + b_1(DET/EQ) + b_2(SAL/TA) + b_3(NP/SAL) + b_4(REC/SAL)$$
$$+ b_5(NP/TA) + b_6(WC/TA) + b_7(GP/TA) + b_8(INV/SAL)$$
$$+ b_9(TD/TA) + b_{10}(Z) + e$$

Where:

- Mani = financial statement manipulation
- DEBT / EQ = debt / equity
- SAL / TA = sales / total assets
- NP / SAL = net profit / sales
- REC / SAL = receivable / sales
- NP / TA = net profit / total assets
- WC / TA = working capital / total assets
- GP / TA = gross profit / total assets
- INV / SAL = inventories / sales
- TD / TA = total debt / total assets
- Z = Z-Scores

Dechow, Ge, Larson, and Sloan (2011) assert that manipulation appears to be a planned objective to cover up a slowdown in financial performance in order to affect the share prices positively. The evidence of the association between financial statement data and earnings manipulation detection is helpful to accounting researchers and professionals because it suggests that accounting data not only provide useful information to the financial statements' users but also enable an assessment of reliability of these statements. Skousen and Twedt (2009) tested the presence of manipulation in the financial statements using data from nine industries from 23 countries. They succeeded in classifying financial statement into manipulated and non-manipulated and found that the type of industry has no effect on the accuracy of the model in detecting the manipulated companies.

The abovementioned studies tested the possibility of manipulation in financial statements and built models to detect manipulation in the financial statements. This study uses Spathis's (2002) methodology to test the presence of manipulation in financial statements in Jordan. In doing so, it seeks to see whether the application of fair value influences positively or negatively the presence of manipulation in financial statements in Jordan.

1.4 Hypothesis development

In the United States, Watts (2006) argues that fair value accounting is reliable and not easy to be manipulated. Muller et al. (2008) also found that using fair value estimations improves the transparency in the financial statements. Similarly Fiechter (2011) remarks that applying fair value accounting can improve reporting of the true economic consequences of financial transactions. Fortin (2005) argues that fair value accounting is more reliable and relevant than the historical cost. Similarly, Hanselman (2009) found that financial statements under fair value accounting are more faithfully represented than under historical cost. Additionally, Schipper (2005) claimed that there is no need for an active market to obtain the reliability and the representational faithfulness of fair value estimations.

On the other hand, Bens and Heltzer (2004) found that changes in fair value give management the opportunity to manage company's earnings to avoid the losses in the same and future periods, the thing that makes the information content bias or even manipulated. Similarly, Whelan (2004) found that manipulation is reduced when book value is used. Liang and Wen (2006) also claim that the move towards output-based accounting such as fair value accounting may not be beneficial and requires more care and extensive debates. Ramanna (2008) asserts that the use of fair value estimations to evaluate goodwill motivate companies to manipulate their financial statements. She notes that companies supporting fair value goodwill standards tend to be manipulators. Correspondingly, Benston (2006) argues that the Enron's case should be considered by the standard-setters, as the exaggeration of using Level Three estimations to report false operating cash flow is an example of manipulation technique used by Enron. Hann et al. (2007) also found that fair value accounting does not enhance value relevance, and it also may impair some financial statement's items.

It is clear that there are mixed results on the relationship between the application of fair value accounting and presence of manipulation in financial statements. Therefore the hypothesis is stated as follows:

H1: There is a relationship between the application of fair value and the presence of manipulation in the financial statements.

1.5 Population and sample

This study extracted data from annual reports to test the relationship between the application of fair value and presence of manipulation in financial statements. Hair, Money, Samouel, and Page (2007) assert that some of the advantages of using secondary data are that it saves time and cost of acquiring the information generated.   It is helpful to acquire the actual state of phenomenon under study.

After testing the presence of manipulation in the financial statements, this study links the results to the application of fair value accounting. In this study, the non-manipulated financial statement was coded 0 and the manipulated financial statement was coded 1, following Spathis's (2002) indicators. This study used two conditions to classify whether a financial statement is manipulated or non-manipulated. The two conditions are as follows:

1. If the auditor's report is of the opinion that a serious doubt as to the correctness of accounts exists.

2. If the financial statement was rejected by the tax authorities.

Once the two conditions have been met, then, Spathis's (2002) model was applied to ensure the correctness of the financial statements classification into manipulated and non-manipulated.

Table 1.1

Industrial Sector Sampling

Number of industrial sector firms	88
Number of firms that were listed after 1997	33
Number of firms that were delisted before 2006	3
Number of firms that were eliminated due to thin trading	7
Remaining companies	45

Before testing this hypothesis, normality of the data was assured by many tests such as constructing histograms of the residual and normal probability plots. In addition, the variance of inflation factor (VIF) ranged from 1.028 to 1.327, and TOL ranged between 0.753 and 0.973, suggesting no serious problem in multicollinearity.

Afterwards we tested the presence of manipulation in the financial statements before and after applying fair value accounting in Jordan. Based on the published data in Jordanian companies' annual reports, the number of financial statements classified as manipulated was 42, while there were 183 non-manipulated financial statements. In general, the results show that the number of manipulated financial statements has risen during the second period after applying fair value accounting. Table 1.2 below summarizes the number of manipulated and non-manipulated financial statements before and after applying fair value accounting.

Table 1.2

The Number of Manipulated and Non-Manipulated Financial Statements

	Before applying fair value	After applying fair value
Non-manipulated	183	145
Manipulated	42	80
Total of financial statements	225	225

The result of logistic regression shows that the accuracy of the model was 85.1%. To test the goodness of the model based on the conditions set earlier, the Omnibus test and the Hosmer and Lemeshow test were run. The result is shown in Table 1.3

Table 1.3

Omnibus Tests of Model Coefficient

	Chi-square	**df**	**Sig.**
Step	199.707	9	.000
Block	199.707	9	.000
Model	199.707	9	.000

The Omnibus test or "the goodness of fit test" indicates how well the model performs. As shown in Table 1.3, the significance of the model is high (Sig = .000). The chi-square value is 199.707 with 9 degrees of freedom. The other test of goodness of fit is Hosmer and Lemeshow test. This test is interpreted differently from the Omnibus test, where a significant value greater than .05 indicates a poor fit and the insignificant value less than .05 indicates a good fit of the model. In this study, the Chi-square for Hosmer and Lemeshow test is 21.829 with 8 degrees of freedom. The significance level is 0.245. This value is greater than .05 which supports the model. Table 1.4 shows the result.

Table 1.4

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	21.829	8	0.245

The model summary exhibits the usefulness of the model. The Cox and Snell *R* Square and Nagelkerke*R* Square indicate the amount of variation in the dependent variable explained by the model. The values for these statistics are 0.234 and 0.429, respectively. This means that between 0.234 and 0.429 percent of variability is explained by the set of variables. Table 1.5 summarizes the results.

Table 1.5

Logistic Regression Result for Financial Ratios, FVA, and CG against Manipulation

Variables	Coefficient	Significance level
DEBT / EQ	1.389	.000***
SAL / TA	-.196	.822
NP / SAL	-.180	.836
WC / TA	-3.133	.000***
GP / TA	-.497	.194
INV/SAL	1.656	.018**
TD / TA	-.801	.265
REC / SAL	1.710	.000***
NP/TA	-.448	.861
Z	-1.845	.000***
FV	2.868	.005***
Constant	2.33	.003***

Cox & Snell *R* Square	0.234
Nagelkerke *R* Square	0.429

***Sig = 0.01 (two-tailed); ** Sig = 0.05 (two-tailed); * Sig = 0.10 (two-tailed);

MANI = manipulation, DEBT / EQ = debt / equity, SAL/TA=sales/total assets, NP/SAL=net profit/sales, REC/SAL=receivables/sales, NP/TA = net profit/total assets, WC/TA= working capital/total assets, GP/TA= gross profit/total assets, INV/SAL =inventories/ sales, TD / TA = total debt/ total assets, REC / SAL = receivables / sales, Z = Z-scores,   FV, Fair value,

The Wald test demonstrates the importance or the contribution of each independent variable (predictor variable) to the model.   In this study, the variables that contribute significantly to the model are: debt to equity (debt / eq) ($p = .000$), working capital to total assets (WC / TA) ($p = .000$), inventory to sale (INV / SAL) ($p = .001$), receivables to sales (REC / SAL) ($p = .003$), and Z-Scores ($p = .000$). On the other hand, sales to total assets (SAL / TA) ($p = 0.862$), net profit to total assets (NP / TA) ($p = 0.861$), net profit to sales (NP/SAL) ($p= .836$), gross profit to total assets (GP / TA) ($p = 0.071$), and total debt to total assets (TD / TA) ($p = 0.595$) did not significantly contribute to the model.

The result shows that firms with high debt/equity are classified under manipulated firms. This means that firms with high debt to equity have an increasing probability to be classified as manipulated firms. In addition, the inventory to sales ratio has a positive effect, which means that firms with high inventory to sales have an increasing probability to be classified as manipulated firms. Moreover, the receivables to sales ratio have a positive effect which indicates that the firm with high receivables to sales has an increasing probability to be classified as a manipulated firm.

The working capital to total assets ratio has a negative effect, which means that firms with high working capital to total assets have an increasing probability to be classified as non-manipulated firm. The Z-scores has a strong effect on classifying the financial statements into manipulated and non-manipulated categories. When a firm has a high Z-score with a negative sign, it has an increasing probability to be classified as non-manipulated firm.

The classification in Table 1.6 shows how well the model is able to predict the correct category. In other words, financial statements were first classified into manipulated and non-manipulated categories according to the aforementioned conditions. After that the variables were entered together into the equation. The SPSS output illustrates the accuracy of the model to classify financial statements into manipulated and non-manipulated groups with accuracy of 85.1 percent.

Table 1.6

Classification Table

		Non-manipulated	Manipulated	% Correct
Manipulation	non-manipulated	308	20	93.9
	manipulated	47	75	61.5
Overall Percentage				85.1

1.6 Conclusions

This study tested the presence of manipulation in the financial statements in Jordan and linked the results to the application of fair value. Spathis's (2002) model highlights the importance of published data to detect fraud in financial statements. This study used this model and applied it to the industrial public listed Jordanian companies. The results show that the accuracy of the model in classifying financial statement into manipulated and non-manipulated with accuracy of 85.1%.

The results further show that the number of manipulated financial statements has increased after applying fair value accounting. The number of manipulated financial statements before applying fair value was 42 and it reached to 80 after applying fair value accounting.

The result is supported by previous researchers such as Benston (2006) who argued that there is a potential relationship between the application of fair value accounting and manipulation in financial statements. Ramanna (2008) also concluded that the use of fair value estimations to evaluate goodwill motivates companies to manipulate their financial statements. Ramannaand Watts (2007) found that fair value estimations, especially level three, allows management to manipulate the financial statements, as what happened in Enron's case. Furthermore, Dietrich et al. (2001) indicated that some practices of fair value accounting make the fair value estimations seemed to be less reliable.

The results also show that accounting manipulation has increased after the application of fair value accounting in Jordan. This imply that fair value accounting gives the management the opportunity to manipulate the financial statements, especially when using less verifiable estimations such as Level 2 and Level 3 valuations. The Jordanian government should also modify the current regulations or enact new regulations to prevent or mitigate manipulation in the financial statements. This will encourage the management to be more responsible for the firm and its financial position. This is especially true after the financial crisis during 2008 which exposed the important role of financial monitoring and internal control against management's actions.

The opportunity for manipulation should also warn auditors to improve their ability to audit financial statements estimated under fair value, which requires high and intensive training in valuation techniques and IAS/IFRS application. The JACPA has to play a role in this situation as well; such as by providing adequate guidelines of the standards and its application that will make the auditors in Jordan apply the new standards easier.

So far, the relationship between the application of fair value accounting and the presence of manipulation in the financial statements was proposed at the theoretical level only. This study has offered empirical evidence that the application of fair value increases the presence of manipulation in the financial statements. The relationship between the application of fair value accounting and presence of manipulation in the financial statements is comparatively a new topic to accounting researchers. So, more research works are needed in the future and new variables can be examined to support and improve the knowledge in this area. Although the relationship between the fair value accounting and the qualitative characteristics of accounting information has been tested by numerous researchers in developed countries, there is a lack of such studies in developing countries such as in Jordan, especially after the issuance of the new IFRS conceptual framework in 2008. As such, the present study contributes to the existing literature on such phenomenon in developing countries like Jordan.

1.7 Conclusion comments

This study has provided empirical evidence on fair value accounting and its relationship to manipulation in financial statements, and has opened up possible research areas in the future. For instance, ethics have been highlighted in previous studies as a predictor to manipulation in financial statements. It will be beneficial to study how it could, for example, affect manipulation in financial statements specifically and the role of ethics in fair value accounting, generally. Ethics is particularly relevant in today's business world that seems to be marred by various corporate scandals.

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