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THE IMPACT OF COMPREHENSIVE INCOME DISCLOSURE ON EARNINGS MANAGEMENT: AN EMPIRICAL STUDY OF JORDANIAN COMPANIES LISTED ON AMMAN STOCK EXCHANGE

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ABTRACT

Research Purpose: This study empirically investigates the impact of OCI disclosure (measured as other comprehensive income divided by comprehensive income) on earnings management (measured by discretionary accruals based on modified Jones model). **Methodology:** This research used cash flow from operations (CFO), current ratio (CR), debt ratio (DR), and SIZE as control variables. Furthermore, the study covers a five-year period (2009-2013) sing a sample of (138) Jordanian firms. Using Pearson correlation and stepwise regression analyses for all sample firms and each sector independently. **Research Finding:** The results indicate that OCI does not have an impact on earnings management. Although size has a negative impact on earnings management, other control variables (CFO,CR,and DR) have no effect on earnings management. **Funding Statement:** The study was supported by grant research publication for faculty members in Applied Science Private University (ASU). This work was carried out under university research program. Author was supported by the grant from the higher degree by research department in ASU.

Keywords: Financial Accounting Standard Board, International Accounting Standard Board, Other Comprehensive Income, Earnings Management, discretionary accruals.

Introduction

Under the new shift for new financial accounting standards such as IAS.1, which was developed to avoid traditional accounting problems, a new concept addressed, which is other comprehensive income. New standards require all publicly traded companies to include a statement of comprehensive income in their set of basic financial statements (Dehning& Ratliff, 2004). Under the Financial Accounting Standards Board (FASB), comprehensive income is defined as "the change in equity or net asset of a business enterprise during a period from transactions and other events and circumstances from non-owner sources" (Munter, 1996), (Jordan&Clark, 2011).

In September 2007, the International Accounting Standards Board (IASB) published the (FASB) amended version of the IAS 1—Presentation of Financial Statements with the aim of

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bringing accounting data as far as possible into line with what had been started by the SFAS 130—Reporting Comprehensive Income, particularly with reference to the representation of economic performance (Ferraro, 2011). The comprehensive income statement includes the net income and other items that are collectively and un creatively termed other comprehensive income (OCI) (Ketz, 1999), and companies are required to disclose all details for each item of other comprehensive income (Bloom, 2020; Lin & Rong, 2012).

Some researchers argue that firms may adopt the comprehensive income concept to cosmetic their financial reporting or false signalling (Aerts et al. ,2013; Jawad & Xia 2015), the comprehensive income statement requires more estimations. Thus, earnings management (EM) has several definitions, such as the Schroeder definition "the attempt by corporate officers to influence short-term reported income' (Schroeder et al., 2014).EM occurs when managers use judgment in financial reporting and in structuring transactions to alter financial results to either mislead stakeholders about the present performance of the company or to influence contractual outcomes or earnings that depend on reported accounting numbers in financial statements (Healy &Wahlen ,1999), There are many EM techniques, such as big bath, cookie jar reserves, operating activities, and others, which indicates that EM is considered a problem that affects the transparency of financial information between management and external users.

A new international accounting standard, such as IAS No.1, indicates that adopting these standards will provide useful information for users (IAS1.,2015). One of the concepts of these standards is the OCI, which theoretically introduces useful information that increases the transparency of information between management and external users (Saaydah, 2012) and this relationship translates to decreased EM. However, we have no clear idea about whether the other comprehensive income OCI disclosure has effectively improved the transparency of Jordanian listed companies' information and to some extent inhibits earnings management, this study motivates researcher to focus on investigating the impact of OCI disclosure on EM in Jordanian market for the period (2009-2013), especially that Managers might also use earnings management to make financial statements more informative for outside users, with accounting choices or estimates being signals of firm's financial performance (Aerts et al. ,2013).

Research Objectives

This study will be conducted on Jordanian companies listed in the ASE. The ASE has its own characteristic that distinguishes it from well-developed markets, so a relationship between other comprehensive income disclosures and earnings management in some markets may be related to the Amman Stock Exchange ASE. Thus, it may add to the literature on the benefits of using other comprehensive income concepts, which will contribute to supporting the application of OCI disclosure in the company's financial statements and may help regulatory bodies to move forward developing this concept with regard to the application and control of other comprehensive income. The basic objective of this study is to determine the impact of other comprehensive income disclosures on earnings management on the transparency of

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information to listed companies in the Amman stock exchange (ASE) in all sectors for the period (2009-2013).

Literature review

This research focuses on the impact of other comprehensive income on earnings management, highlighting previous research relative to the subject of the current study. In a study by **Libby et al., (2004)** the authors experimented the reporting format in regard of earnings management in USA, the experiment included (62) professional financial managers and CEOs, the results show that improving transparency reduce the motivation to meet Wall Street earnings expectation. In this regard, **Huntonet al.(2006)** tried to empirically investigate whether financial information reduces earnings management, and the researchers used (62) experienced participants to determine what they learned in the field. Based on data collected from participants, the researchers found that financial reporting transparency reduces earnings management attempts. **Li et al. (2011)** investigated earnings management and accrual anomalies. They used annual data from the China Stock Exchange for the period (1998-2002). The researchers used the cross-sectional Jones model to measure abnormal accruals and a regression model. The dependent variables of the model are net income and size-adjusted abnormal returns, and the independent variables are net cash flow from operations, total accruals, and company size. In this research, earnings management has been separated into two sections: earnings management in response to regulation and earnings management prompted by market pressure. They found that earnings management responding to market pressure produces an accrual anomaly and earnings management responding to regulation does not, and an accrual anomaly is absent in China. **Dechowet al. (2012)** introduced a new approach to provide a framework for incorporating earnings management reversals to improve test power. This approach exploits the inherent characteristics of accrual-based earnings management. The reversal framework can be extended to individual working capital accrual accounts and to long-term accruals as a result indicating that test incorporating reversals increases test power by approximately 40%.**Lin and Rong (2012)** tested whether the disclosure of other comprehensive income affects the transparency of financial disclosure and, thus, influences earnings management for listed companies in the Shanghai stock exchange for 2009. The researchers use the modified Jones model to introduce discretionary accruals as a proxy for earnings management, which is the dependent variable. The independent variables of this study are other comprehensive income, size, leverage, and operational cash flows. The results of this study show that other comprehensive income plays an important role in all comprehensive income and has a significant effect on earnings management. In addition, **Salewskiet al. (2014)** studied IFRS adoption and its effect on earnings management and disclosure quality for Germany's listed firms for the period 1995–2012. The researchers used a performance-adjusted modified Jones model to introduce the dependent variable, discretionary accruals, to measure earnings management; the independent variables used in the study are Operation Cash Flow (CFO), LEV, SALES GROWTH, and other variables. The results indicate that IFRS adoption is associated with an increase in disclosure quality and the extent of earnings management. **Hassen (2014)** examined the relationship between the elements of executive compensation

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and earnings management in French firms for the period (2007-2010). The researcher used the modified Jones model to estimate the dependent variable, which is discretionary accruals, and total compensation and stock option compensation are the independent variables, and size, CFO, and ROE. The researcher finds that total compensation is negatively related to the absolute value of accruals. Many researchers have studied other comprehensive income sources and empirically tested their relationship with other financial reported information. **Munter (1996)** discussed the relationship between earnings and comprehensive income differences and similarities, finding that earnings and comprehensive income have the same components. Although they differ because some types of gains and losses are included in comprehensive income but not in earnings. Finally, the issue of what components should be displayed and how those components should be displayed become more contentious. **Ketz (1999)** examined the rules for disclosure of OCI and actual company disclosure of OCI and discussed the implications for chief financial officers (CFOS) and financial statement readers. His results indicate that firms with a large number of investments should provide some explanation of the unrealized gains or losses, firms with many foreign operations should explain to the users why the translation adjustments are what they are, and companies with significant pensions ought to inform readers what the minimum pension liability adjustments really mean. **Lobo & Zhou (2001)** tested the relationship between disclosure and information asymmetry and investigated the relationship between information asymmetry and earnings management of Hong Kong listed firms for the period–1990-1995. The researchers used modified Jones model to introduce discretionary accruals as a proxy of earnings management which is the dependent variable, also the main independent variables are LEVERAGE, SIZE, DISCLOSURE POLICY and others. The results indicate a negative relationship between disclosure and earnings management. **Dehning& Ratliff, (2004)** proposed a study to provide empirical evidence of the usefulness of comprehensive income disclosures, as required by FAS 130. They collected (673) observations for the period 1998–1999, which represent data before and after the enactment of the FAS 130 rules. To achieve the study purposes, the researchers used the change in net income from continuing operations, discontinued operations, extra ordinary items, cumulative effect of accounting change, and total other comprehensive income items as independent variables, which were regressed on one-year buy and hold return. The finding is that there is no difference in the market valuation of comprehensive income adjustments before and after the implementation of FAS 130. **VanCauwenberge and Debeelde (2007)** proposed both points of view of accounting theory (historical cost net income and comprehensive fair value income), the typical arguments made by proponents of historical cost net income and comprehensive fair value income; it was found that claims for exclusive reliance on a single concept of income are untenable; after analysis provides arguments in defence of an income display that explicitly features both income concepts, and the article also includes that either of the two points of view are unwarranted. **Chambers et al. (2007)** tested the pricing of OCI before the adoption of SAFC 130 and after adoption for USA firms; the period of the study was ten years: four years before adoption and six years later. The researchers used two components of OCI: foreign currency translation and unrealized gains or losses from available for sale securities. The results show that the adoption of SAFC130 improves the transparency of OCI disclosure.

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Kanagaretnamet al. (2009) examined whether other comprehensive information and its components provide incremental value-relevant information over the historical cost. The researchers collected data for Canadian firms listed on the Toronto Stock Exchange and traded on the New York Stock Exchange, and the final sample consists of (228) firm-year observations. With regard to finding the research objectives, the researchers regressed (the book value of common equity, annual net income, change in fair value of cash flow hedge, change in fair value of available for sale, and change in cumulative foreign currency translation adjustment) on (price per share for three months after the end of the fiscal year). The results indicate that all companies disclose OCI and its components, and the implementation of fair value and its disclosure provide market participants with useful information. **Jordan and Clark (2011)** questioned how firms report comprehensive income. The significance of the items of OCI with regard to the association between the direction or size of items of OCI and the reporting format adopted. A sample of 100 financial service firms from 1998 was used. The results indicate that the majority offirms' samples reported CI and a strong association between both the direction and size of the OCI items and the reporting format chosen. **Ferraro (2011)** investigated the choices for presentation of comprehensive income in the income statement and the impact of this presentation on the indicators of company performance Italian listed companies on the Italian Stock Exchange for the period (2009). Four hypotheses were tested to find the research questions; thus (ROE) and (EPS) used as performance measures in the study to indicate the relationship between EPS, ROE, and companies' performance. The results indicate that companies that opt for the second income statement have positive net income and negative OCI values with a significant impact on the overall total, and the impact on EPS appears to be significant. **Saaydah (2012)** investigated the impact of applying IFRS adoption on the accounting information quality of Amman listed firms for four years in the period between 1996-2009, market value is the dependent variable of the study; and book value, operating cash flow, and discretionary accruals are independent variables. His main result is that discretionary accruals and CFO are the best predictors of market value in the banking sector. Additionally, earnings management has been discussed deeply by academicians; for instance, **Nassar ET. Al., (2017)** investigated the practical applied financial standards by testing the effect of earnings management on financiers' decisions before the announcement of the official adoption of compressive income. They found mixed results regarding this relationship, which cannot be ignored by professionals and academics.

In conclusion, many researchers have examined OCI and its components and others searches on earnings management, but a few studies have prompted the relationship between them, which provides the researcher with the motivation to build on prior research such as (Lin&Rong,2012) by investigating this effect empirically for the Jordanian market, expecting that disclosure of other comprehensive income can curb earnings management to some extent in order to improve the public's understanding of the performance of a given company. There is no similar research conducted in the Jordanian market to this study, which intends to examine whether Jordanian companies comply with the disclosure of other comprehensive

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income and whether other comprehensive income disclosed in the annual reports can affect the information transparency of companies listed on the Amman Stock Exchange (ASE).

Research Methodology

The study population consists of Jordanian companies in all sectors listed on the Amman Stock Exchange (ASE) during the period (2009-2013).The reason behind testing this period is that the first official sound from the FASB to adopt the concept of comprehensive income, especially the research period, covers the four years after the 2008 financial crisis. Thus, the results provide a more precise explanation for this relationship.The study sample included all companies listed on the Amman Stock Exchange ASE that meet the following conditions: The final sample is (138) companies with (690) observations. Table shows the details of the study sample.

Table 1: sample of the study.

Number of all firms	235*
Firms satisfy the study criterion(sample)	138
Firms don't meet the study criterion	97
Available observations over the period 2009-2013.	690
Observations adopt IAS1with OCI value ≠ 0.	525
Observation adopt IAS but the OCI value =0.	165

Source: Amman stock exchange (ASE).

This study used secondary sources to collect the data. Thus, the yearly financial reports for the sample firms were collected to obtain the study variables for analysis and testing.The Amman Stock Exchange (2013) is the primary source of yearly financial reports.To explain the impact of other comprehensive income disclosures on earnings management, this study uses several statistical techniques, such as descriptive statistics to understand the data characteristics, correlation to investigate the relationships between study variables, and regression models to test the study hypothesis.

Schematic diagram representing Conceptual Model of the study

The following figure (1) illustrates the dependent, independent and control variables.

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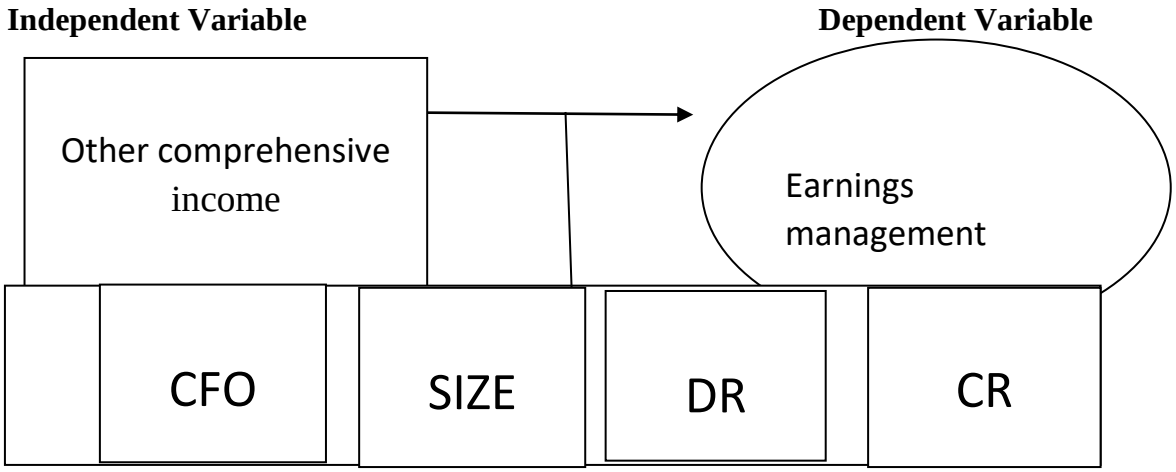

Research Model

To investigate the impact of other comprehensive income disclosures on earnings management, this study uses the following model.

$$|DA|_{i,t} = \alpha_0 + \alpha_1 OCI_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 CR_{i,t} + \alpha_4 DebtR_{i,t} + \alpha_5 CFO_{i,t}$$

Estimating to discretionary accruals

(1)A common method used to measure discretionary accruals is the modified Jones model (Rosmantoet al., 2014), (Hassen, 2014) (Lin & Rong (2012).The following model is used to measure discretionary accruals:

$$ATP_{i,t} \backslash A_{i,t-1} = \alpha_i (1 \backslash A_{i,t-1}) + \alpha_{1i} [\Delta REV_{i,t} \backslash A_{i,t-1}] + \alpha_{2i} (PPE_{i,t} \backslash A_{i,t-1}) + \varepsilon \ldots..(1)$$

(2)Apply the estimated parameter (α_i α_{1i} α_{2i}) to model (2) and calculate each company's non-discretionary accruals NDA_i during each year based on the assets at the end of the previous fiscal year (Lin & Rong, 2012):

$$NDA_{i;t} = \alpha_i (1 \backslash A_{i,t-1}) + \alpha_{1i} [\Delta REV_{i,t} - \Delta REC_{i,t} \backslash A_{i,t-1}] + \alpha_{2i} (PPE_{i,t} \backslash A_{i,t-1}) \ldots\ldots.(2).$$

(3) Apply the results from Models (1) and (2) to Model (3) and calculate the discretionary accruals $DA_{i,t}$:

$$DA_{i,t} = ATP_{i,t}/A_{i,t-1} - NDA_{i,t} \ldots\ldots.(3)$$

The general regression to (Modified Jones model)

Based on the modified Jones model, the first regression model was tested to introduce the regression coefficient for each variable for the three sectors independently for all years; thus, each sector was tested in the equation independently (Rosmantoet al. 2014) , (Chang & Sun 2010).

The first equation of modified Jones model

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$$ATP_{i,t}\backslash A_{i,t-1}=\alpha_i(1\backslash A_{i,t-1})+\alpha_{1i}[\Delta REV_{i,t}\backslash A_{i,t-1}]+\alpha_{2i}(PPE_{i,t}\backslash A_{i,t-1})+\varepsilon\ldots..(1)$$

Based on the results of the regression model, three coefficients were estimated for each sector as follows:

Regression model for the financial sector

$$ATP_{i,t}\backslash A_{i,t-1}= -0.020(1\backslash A_{i,t-1})+ 0.116[\Delta REV_{i,t}\backslash A_{i,t-1}]+ -0.07(PPE_{i,t}\backslash A_{i,t-1})$$

Regression model for the service sector:

$$ATP_{i,t}\backslash A_{i,t-1}= 0.015(1\backslash A_{i,t-1})+ 0.203[\Delta REV_{i,t}\backslash A_{i,t-1}]+ 0.527(PPE_{i,t}\backslash A_{i,t-1})$$

Regression model for the industrial sector:

$$ATP_{i,t}\backslash A_{i,t-1}=-0.054(1\backslash A_{i,t-1})+ 0.394[\Delta REV_{i,t}\backslash A_{i,t-1}]+ -0.174(PPE_{i,t}\backslash A_{i,t-1})$$

The previous section presented the results of the regression model of the first modified Jones model equation for the three sectors. The main idea is to extract the regression coefficient for each variable for use in the regression model. As noted above, the regression model for the financial sector indicates that total assets and PPE have negative effect on (ATP), thus increasing total assets and PPE by 100 % and decreasing discretionary accrual by 2% and 7% respectively. In this regard, REV has positive effect on ATP, thus increasing REV by 100% and increasing ATP by 16,6%. The regression model for the industrial sector indicates that total assets and PPE have negative effect on discretionary accruals, thus increasing total assets and PPE by 100 % and decreasing discretionary accrual by5.4% and 17.4% respectively, in this regard REV has positive effect ATP, thus increasing REV by 100% and increasing ATP by 39.4%. The regression model for the service sector indicates that total assets, PPE, and REV have positively affect discretionaryaccruals;thus increasing total assets, PPE, and REV by 100 % will increase discretionary accrual by 1.5%, 52.7%, and 20.3%, respectively.

To introduce the estimated non-discretionary accruals for each firm-year and each sector, the three estimated coefficients for each sector are calculated in the second equation of the modified Jones model as follows:

The financial sector:

$$NDA_{i;t}=-0.020(1\backslash A_{i,t-1})+ 0.166[\Delta REV_{i,t}-\Delta REC_{i,t}\backslash A_{i,t-1}]+ -0.07(PPE_{i,t}\backslash A_{i,t-1})$$

The service sector:

$$NDA_{i;t}=0.015(1\backslash A_{i,t-1})+ 0.203[\Delta REV_{i,t}-\Delta REC_{i,t}\backslash A_{i,t-1}]+ 0.527(PPE_{i,t}\backslash A_{i,t-1})$$

The industrial sector:

$$NDA_{i;t}=-0.054(1\backslash A_{i,t-1})+ 0.394[\Delta REV_{i,t}-\Delta REC_{i,t}\backslash A_{i,t-1}]+ -0.174(PPE_{i,t}\backslash A_{i,t-1})$$

Then, the estimated values of NDA for each firm –year and the values of ATP for each firm –year were calculated in the third equation of the modified Jones model for each sector in

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order to find the absolute value of the estimated discretionary accruals (|**DA**|), which is a proxy for earnings management.

Descriptive Statistics

Table (2) presents descriptive statistics for the study variables. The absolute value of discretionary accruals |**DA|,** the main dependent variable in our study, ranges from a minimum value of (0.00002) to a maximum value of (9.45) with a reported mean value of (0.15) and an Standard Deviation (SD) value of (0.39). This seems to be comparable to the mean value of DA reported in prior studies, such as Hassan (2014). The results reported inTable (2) indicate a high variation in DA, as indicated by the reported standard deviation (SD) of (0.39) which exceeds the mean value.Additionally, the other comprehensive income ratio (OCI), the main independent variable in our study, ranges from the minimum value of (-39.22) to a maximum value of (17.90) with a reported mean value of (-0.51) and an SD value of (3.18). The results indicate high variation in OCI, as indicated by the reported standard deviation SD of (3.18) which is much higher than the mean value.In addition, the current ratio (CR) is one of the control variables, ranging from the minimum value of (0) to the maximum value of (20), with a reported mean value of (2.47) and SD value of (3.74). The reported results indicated a high variation in the current ratio.

Table (2) the descriptive statistics of the study variables.

Variable	N	Minimum	Maximum	Mean	S.D
DA	690	0.00002	9.45	0.15	0.39
OCI	524	-39.22	17.90	-0.51	3.18
CR	690	0.0	20.0	2.47	3.74
DR	690	0.004	0.99	0.43	0.27
CFO	690	-0.68	0.69	0.04	0.11
SIZE	690	5.0	10.0	7.61	0.78

The reported SD of (3.74) was more than the mean value. The Debit ratio ranges from a minimum (0.004) to a maximum (0.99) with a reported mean value of (0.43) and an SD value of (0.27). The reported main value for CR seems comparable with the mean value and SD of Debt Ratio reported in previous studies (Rosmantoet al., 2014) and in line with that reported by (Salewskiet al., 2014). The results indicate moderate variation in the debt ratio since the reported standard deviation SD of (0.27) is less than the reported mean value. The cash flow from operation ratio (CFO) ranges from the minimum value (-0.68) to the maximum value (0.69), and the reported mean value of (0.04) and SD of (0.11). This result seems to be comparable to that of (Salewskiet al., 2014). This result indicatesa high variation in CFO because the reported SD value of (0.11) is much higher than the mean value of (0.04). Table

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(2) also indicates that SIZEranges from the minimum value of (5) to the maximum value of (10), with a reported mean value of (7.61) and an SD value of (0.78). This result is comparable to (Hassen ,2014) study. In addition, the result indicates moderate variation in SIZE in the study sample, as indicated by the reported standard deviation SD of (0.78) which is less than the mean value and provides a good indicator for the variable observation distribution around the mean value.

Correlation Test

Table (3) presents the correlation results for the study variables. The results show that the highest correlation is between Size and DR. The related correlation coefficient of (0.484) is positive and statistically significant at (0.00) level. In addition, CR has a significant negative correlation with size (-.224) at (0.00) level of significance.The other comprehensive income ratio was negatively, but not significantly, correlated with DA. These results indicate that there is no relationship between OCI disclosure and earnings management, which is inconsistent with prior findings such as (Lin & Rong, 2012). Furthermore, none of the other independent variables (DR, CR, and SIZE) had a significant relationship with the dependent variable (DA).

Table (3) also indicates significant negative correlation between (CR) and DR (-0.440) at 5%. This indicates that an increase in a firm's ability to pay its current liabilities from current assets will negatively affect the size of its total debt with regard to its total assets.

Table (3) Pearson correlation analysis of the study variables.

Variable	DA	OCI	DR	CR	CFO	SIZE
DA	1	-.005 (.912)	-.061 (.108)	-.070 (.065)	-.014 (.711)	.005 (.886)
OCI		1	.060 (.172)	-.002 (.972)	.005 (.905)	.097 (.027)
DR			1	-.440 (.000)	.061 (.110)	.484 (.000)
CR				1	-.025 (.515)	-.224 (.000)
CFO					1	.063 (.098)
SIZE						1

Overall, we can conclude that the measure of earnings management has no correlation with other comprehensive income measures, and control variables have no significant correlation with earnings management measures. These results are not consistent with the study's

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predictions and are not in line with prior research since findings show a significant correlation between earnings management and other comprehensive income OCI, as well as the control variables CFO, LEV, and SIZE (Lin & Rong, 2012).

Regression Results

In order to provide more insightful view about the impact of other comprehensive income disclosure on earnings management, stepwise regression analysis has been used in the study to test this effect, using SPSS software in response to study purpose.

Table (4) provides the results of the earnings management regression on comprehensive income disclosure. The results showed an F-value of 1.79, which is not significant at the confidence level. The reported adjusted R^2 is of 0.008, indicating these regression variables explain less than 1% of the change in earnings management.

The reported regression results show that OCI is negatively correlated with DA, but its regression coefficient is (-0.002) which is not statistically significant. One explanation for this result is that the IFRS are still applied lightly by Jordanian firms (Saayda, 2012), which is not consistent with the study expectations and is also not in line with prior findings in different countries, such as (Lin &Rong, 2012) and (Lobo & Zhou, 2001).

The table also shows the regression coefficient of SIZE has positive and not insignificant effect on earnings management at 5% level of significance. That is an increase in firms' size by 100% is associated with increase in earnings management by 5.2%. This result is not consistent with (Lin& Rong, 2012) but it is consistent with (Lobo & Zhou, 2001) since who find a positive significant effect of size on earnings management.

Table (4): Results of regression analysis for all sectors.

Dependent Variable DA	Regression Coefficient	SE	T-value	Sig. t	Adjusted R^2	F – value (Sig F)
Constant		.202	.326	.745		
OCI	-.002	.006	-.039	.969		
CFO	-.013	.006	-.298	.766	0.008	1.79
CR	-.118	.006	-2.42	.016		(0.113)
DR	-.138	.087	-2.53	.012		
SIZE	.052	.028	1.03	.305		

The operating cash flow ratio is negatively associated with earnings management but is not significant at the confidential level. This result was inconsistent with the findings of previous

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studies. However, some prior studies have found a negative effect of CFO on earnings management (Lin & Rong, 2012), while others have found a positive effect of CFO on EM (Salewskiet al. 2014).

Furthermore, the current ratio has a negative effect on EM (beta = -0.118) and is significant at the confidence level. These results indicate the current ratio effect on earnings management of Jordanian firms, which is consistent with the predictions of this study and prior studies.

results indicate that debt ratio has a strong negative effect on earnings management since its coefficient is (-0.138), and the effect it is significant at 5% level. This result is consistent with our expectations and prior research findings such as (Lin &Rong, 2012) and (salewskiet al., 2014).

Additional investigation

Based on the results shown in Table (4) regarding the insignificant effect of other comprehensive income disclosures (OCI) on earnings management (DA), the researcher independently tested a stepwise regression analysis for each Jordanian sector.In this regard table (5) provide the results of regression analysis of DA on other comprehensive income disclosure for the financial sector, the results show that F-value is (1.15) and its significance is (0.334) which is not statistically significant at a confidential level, the reported adjusted R^2 indicates that the explanatory power of the model is very weak. The model explains approximately 1% of the variation in DA.

Table (5) also shows that OCI has a negative effect (- 0.006) on DA, but it is not significant (sig. 0.90). The results also show that SIZE, CFO, and CR negatively affect the DA (coeff. -0.15, -0.002, and-0.02, respectively), but the effect was not significant for CFO and CR.The regression results for the financial sectors seem to be similar to the overall regression results reported in Table (4) for the entire sample.

Table (5): Results of regression analysis for the financial sector.

Dependent Variable DA	Regression Coefficient	SE	T-value	Sig. t	Adjusted R^2	F – value (Sig F)
Constant		.047	3.826	.000		
OCI	-.006	.000	-.119	.905		
CFO	-.002	.001	-.044	.965	0.017	1.150
CR	-.020	.001	-.347	.729		(0.334)
DR	.122	.022	1.676	.095		
SIZE	-.157	.007	-2.258	.025		

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Table (6) presents the regression results for the industrial sector; the F-value (4.38, sig. 0.001) indicate that the model is fit and suitable for the industrial sector, and the reported adjusted R^2 of (0.12) is substantially higher than the R^2 reported for the whole sample in Table (4). Table (6) also shows that OCI has a negative effect (- 0.037) on DA, but it is not significant (sig. 0.626) at 5% level. The results show that the SIZE and CR are negatively affect DA (coeff. = -0.164, -0.039, respectively) and its significance for size, but is not significant for CR (sig. 0.655).

Additionally, the table shows the positive effect of CFO and DR on DA (coeff = 0.13, 0.276); however, the effect of CFO is insignificant (sig. = .103), whereas DR has a significant effect (sig. = .001), this may suggest that the higher the debt ratio in Jordanian firms, the lower the profit performance, and the higher the possibility of earnings management.

The regression results for the industrial sectors seem to be similar to the regression results reported in Table (4) for the entire sample.

Table (6): Results of regression analysis for the industrial sector.

Dependent Variable DA	Regression Coefficient	SE	T-value	Sig. t	Adjusted R^2	F – value (Sig F)
Constant			2.558	.011	0.118	4.380 (0.001)
OCI	-.037	.002	-.489	.626		
CFO	.130	.071	1.640	.103		
CR	-.039	.002	-.447	.655		
DR	.276	.026	3.231	.001		
SIZE	-.164	.012	-2.053	.042		

Table (7) report the regression results for the service sector. A reported F value of (8.020, sig. = 0.00 indicate that the model is significant at (0.01) level. The reported R^2 of (0.123) for the service sector is not substantially different from the R^2 reported in Table (6) for the industrial sector. Table (7) also show that OCI has a low negative effect (- 0.006) on DA but it is not significant at 5% level, also the results tell that the SIZE , CR , CFO and DR have negatively effect on DA (coeff.= -0.066, -0.082 ,-0.355,-0.077, respectively), but the effect was not significant for SIZE,CR&DR (sig. = 0.304,0.174,0.252), but CFO had a significant effect on DA(sig. =0.00), which suggests that an increase in cash flows from operations leads to less accruals, whether discretionary or non-discretionary, as noted by(Lin &Rong ,2012).

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In conclusion, the regression model for the service sector provides the same results as the regression model for all sectors, as shown in Table (4) except that CFO in the service sector has a significant positive effect on earnings management.

Table (7): Results of regression analysis the service sector.

Dependent Variable DA	Regression Coefficient	SE	T-value	Sig. t	Adjusted R^2	F – value (Sig F)
Constant			2.019	.044	0.123	8.020 (0.00)
OCI	-.006	.012	-.116	.907		
CFO	-.355	.104	-6.206	.000		
CR	-.082	.008	-1.364	.174		
DR	-.077	.067	-1.147	.252		
SIZE	-.066	.025	-1.030	.304		

Conclusion

Some researchers have examined the effect of OCI disclosure, bearing in mind that good quality of OCI disclosure improves the transparency of information and reduces information asymmetry; thus, it should provide an incremental value relevance of information value relevant information that is more useful to users, and that should curb management from manipulating financial information to achieve its aims theoretically, which will lead to reduced earnings management.

The results of this study indicate that more OCI disclosure by Jordanian firms does not impact earnings management; thus, OCI disclosure does not play a role in earnings management, which is not consistent with prior research, such as (Lin &Rong, 2012), (Lobo &Zhou , 2001). One explanation for this result is that IFRS are still applied lightly by Jordanian firms, as noted by (Saayda , 2012), which holds whether at the level of all Jordanian companies and at every sector on the Amman Stock Exchange. The results also show that size plays an important role in limiting Jordanian firms' earnings management. The idea behind this is that increasing firm size will increase control over financial data, which leads to decreasing management manipulation and earnings management; this result is consistent with (Lin& Rong ,2012) thus (Lobo & Zhou ,2001) found a positive effect of size on earnings management. We can conclude that there is no effect of any of the variables (CFO, CR, and DR) on earnings management.

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The current ratio (CR) result is inconsistent with prior research, and the debt ratio (DR) result is not in line with prior research, such as (Lin &Rong, 2012) and (Salewskiet al., 2014). Furthermore, a common explanation is that Jordanian firms may try to depend on debt to pay their other liabilities or decrease their losses, which will not improve their profits, thus suggesting that the debt ratio has no effect on earnings management.

Recommendations

Based on the tested hypothesis and research results, the researcher recommends the following:

1. There are many techniques to measure OCI disclosure in literatures, thus the researcher used one technique, and so future research of the Jordanian market could use other techniques to measure OCI which may play an important role on the research results.

2. Jordanian firms have a weak adoption of IFRS and, as a result, OCI, which affected the research results, so regulator bodies should force Jordanian firms to adopt IFRS completely, and future research could take this into consideration.

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