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Voluntary IFRS Adoption and Tax Avoidance Empirical Study on Iraq

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Abstract: This study aims to analyze the impact of voluntary adoption of IFRS on the level of tax avoidance and tax conformity in the Iraq Stock Exchange using a sample of 205 observations in the time period 2015-2017. The study results revealed that a significant positive relationship between applying the International Financial Reporting Standards and the tax avoidance, i.e., the application of International Financial Reporting Standards leads to increasing in the level of tax avoidance on the Iraq stock market exchange. And no relationship between applying the International Financial Reporting Standards and the tax conformity in Iraq Stock Market Exchange.

Key words: Voluntary IFRS adoption, tax avoidance, tax conformity, effective tax rate, observations, Iraq Stock Markrt

INTRODUCTION

The adoption of International Financial Reporting Standards (IFRS) has a great attention in the recent times. These standards have a higher quality so it can provide more useful information for stakeholders because of the increasing comparability and transparency in the financial statements, therefore helping stakeholders in the predicting with the future performances of the firm (Ding *et al*., 2017). The IFRS represent globally accepted accounting standardsbased on clearly articulated principles where the International Accounting StandardsBoard (IASB) tries to develop these standards to be more comprehensible and executablein order to help investors, capital market participants around the world and financial statements users to take economic decisions because it takes into account providing useful information related to the economic decision making of users in general but it doesn't provide theneeds of tax authorities (Huang *et al*., 2018).

In recent times, the growth of tax-avoidance mechanisms has drawn public attention to both practically and in academic research. The most important tax-avoidance mechanisms are transfer-pricing, corporate inversions, re-invoicing and other means for tax evasion (Christensen and Murphy, 2004; Desai and Dharmapala, 2009; Cai and Liu, 2009). Opportunistic managershave an offer room by tax-avoidance to satisfy their individual self-interest, since, it represents a secret technique for achieving some tax benefits without offensetax authorities (Desai, 2005).

These benefits is the final results of the relations between accounting and taxation, since, the gap between net income and taxable income has often been approached because of the differences between income measurement accounting criteriaand fiscal criteria which leads to the disconnection between accounting and taxation (Gee *et al*., 2010; Nobes, 2011; Kvaal and Nobes, 2013; Hellman *et al*., 2015). These differences allow the companie's aggressiveness to manage accounting income through alternative measures of income related to accounting standards (Graham *et al*., 2012).

Initially, the adoption of IFRS may have a lot of taxation consequences where the level of book-tax conformityfor the country is the main determinant for using IFRS to both preparing financial statements and calculating taxable income. In this regard, we must differentiate between the countries with a highlevel of book-tax conformity and countries with a low level of book-tax conformity. In the case of high level: High conformity level when using IFRS as a basis for calculating taxable income; the conformity level may reduce when using IFRS for preparing financial statements and maintaining local GAAP as the basis forcalculating taxable income; the conformity level may reduce when using local GAAP for preparing financial statements and creating special standards for calculating taxable income (Tang, 2015).

Consequently, numerous studies agreed that IFRS adoption in the low level of book-tax conformity may

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increase the levels of tax avoidance (Desai, 2005; Chan *et al*., 2010, 2013; Atwood *et al*., 2012; Tang, 2015). In addition, the IFRS adoption may creates a greater creation for the managers in choosing the accounting methods which gives the opportunistic managers to reflect the best economic and financial position of the company to providing more useful information for external users of the financial statements, hence the financial statements becomes not acceptable for tax authorities (Chan *et al*., 2010, 2013; Karampinis and Hevas, 2013; Chen and Gavious, 2015).

In this regard, we expect the Iraq information environment provide a fertile testing ground for considering the effect of voluntary IFRS adoption on tax avoidance. Especially, after the first scientific conference of the Iraqi Association of Certified Public Accountants in 2012-2017 which recommend the necessity of adoption of IFRS in Iraq which promoted many companies and banks for the voluntary adoption IFRS. In addition, the Iraq is one of the most countries which suffer from the low level of tax conformity.

Literature review: Numerous studies conducted on the effect of IFRS adoption on tax avoidance and they differed among themselves because of the way of adoption IFRS (Voluntary and mandatory) or adaptation which led to the researcher's interest in analyzing the relationship between IFRS adoption and tax avoidance.

Kager and Niemann (2013) analyzed the relationship between income tax based on IFRS adoption and tax payments in the companies listed in EU countries (Austria, Germany and the Netherlands) by estimating firm's tax equity using the notes related to income taxes of the financial statements prepared using IFRS. The study revealed that IFRS equity larger than estimated tax equity which means increasing the present value of corporate taxes by IFRS-based taxation.

Amidu *et al*. (2016) analyzed the effect of IFRS adoption on the both accounting information quality and the level of tax avoidance. The results indicate that a decrease on the level of tax avoidance and increasing on the level of earnings quality because of IFRS adoption, especially if the firm uses its internal funding. In addition the study concluded that financing strategy is the most important variable that has a great effect on the relationship among IFRS adoption and accounting information quality and the level of tax avoidance.

Istrate (2016) examined the effect of IFRS adoption on the income tax disclosure strategies by a sample of romanian companies. The results of this study indicate to significant differences between accounting and taxable income, this means a great disconnection between taxation and accounting. The study also explored that deferred tax assetsmore present thandeferred tax liabilities, despite the lack of importance of these liabilities compared to deferred tax assets.

Braga (2017) examined the relationship between corporate tax avoidance and mandatory IFRS adoption. This study presented high levels of tax avoidance after the mandatory IFRS adoption, even after controlling volume of accruals and the level of book-tax conformity. In addition, this study found that higher levels of book-tax conformity increase the level of tax avoidance.

Huang *et al*. (2018) analyzed the effect of mandatory IFRS adoption on the level of tax avoidance in the countries which are members on EU. This study also found a significant positive relationship between tax avoidance and mandatory IFRS adoption. Furthermore, this study found using additional tests a significant positive relationship between temporary book-tax differences and mandatory IFRS adoption.

Mao and Wu (2018) investigated the relationship between the income tax revenue and the mandatory IFRS adoption for a panel datacovering the period from 2000-2010 of 137 countries. By using the difference-in-differences designand the propensity score matching method, the study found a significant negative relationship between the mandatory IFRS adoption and the income tax revenue.

Jin (2018) tried to identify the role of IFRS adoption for Canadian firms on determining the change of tax expense and its information content. This study results indicate that there is no significant relationship between them where the average effective tax rate doesn't change for the post IFRS period.

The previous presentation of studies shows that great conflicts among results of studies, this conflict represent a research gap must be covered. And the previous studies used a number of measures for tax avoidance without preference on one another. In addition, the previous studies analyzed only the mandatory adoption of IFRS on tax avoidance without talk to voluntary adaptation of IFRS effect on tax avoidanceas well as tax conformity which also represent a gap must be covered.

So, we conclude that the research gap is analyzing the voluntary adaptation of IFRS effect on tax avoidance in Iraq. Therefore, this study will contributes to the international accounting literature in 3 ways. First one, to our best knowledge it is the first study examining the impact of voluntary adaptation of IFRS on tax avoidance in Iraq. Second, this study will use 3 measures of tax avoidance trying to compare among them. Third, this study also will analyze the effect of voluntary adaptation of IFRS on tax conformity using difference-in-differences design.

Theory and hypothesis development: In order to examine the effect voluntary adaptation of IFRS on tax avoidance in Iraq, we will perform several empirical analyses. The first one, we will rank the measures of tax avoidance using Kruskal-Wallis test. Second, based on ranking which was obtained from Kruskal-Wallis test we will use the best measure for tax avoidance in the regression analysis for the relationship between voluntary adaptation of IFRS and tax avoidance. Third, we will use the regression analysis for the relationship between voluntary adaptation of IFRS and tax conformity.

In this regard, Hanlon and Heitzman (2010) found that using more than one measure of tax avoidance helping to avoid the limitations of each other. We therefore, will use 3 tax avoidance proxy measures in our main analysis. One of them is the book tax difference which represents the difference between pre-tax earnings before exceptional items multiplied by statutory tax rate and the effective tax rate.

In another vein, a positive difference between the Statutory Tax Rate (STR) and the Effective Tax Rate (ETR) refers to higher tax savings (tax avoidance), this measure called the ETR approach. This approach easy to use without communications with the firm and the tax authorities and it doesn't altered by any tax strategy that defers taxes (Gupta and Newberry, 1997; Noor and Fadzillah, 2010). In addition, the ETR approach reflects permanent book-tax differences and other statutory adjustments (Frank *et al*., 2009).

On the other side, tax avoidance can be measured by the Cash Effective Tax Rate (CETR) by using tax paid in the statement of cash flow divided by the operating cash flow of the firm, this modification represent a modified version of the ETR approach (Inger, 2013). In the presence of 3 measures of tax avoidance, we expect a room for a trade off among them. This leads to our first hypothesis as follow:

- H_1: there is no significant difference among book-tax differences, Effective Tax Rate (ETR) and Cash Effective Tax Rate (CETR) as a measures for tax avoidance

There are conflicting results among the previous studies related to the effect of IFRS adoption on tax avoidance differed. Some of these (Kager and Niemann, 2013; Amidu *et al*., 2016; Istrate, 2016) have found a positive relationship between IFRS adoption and tax avoidance and the other (Braga, 2017; Mao and Wu, 2018; Jin, 2018) have found a negative relationship. This leads to our secondhypothesis as follow:

- H_2: there is no effect of voluntary adoption of IFRS on tax avoidance

The level of tax conformity is an important variable when analyzing the relationship between IFRS adoption and tax avoidance where IFRS adoption may reduce the book-tax conformity level which indicates a more tax avoidance. So, it's important to analyze the effect of IFRS adoption on the book-tax conformity level (Atwood *et al*., 2010). This leads to our third hypothesis as follow:

- H_3: the IFRS adoption reduces the book-tax conformity level

MATERIALS AND METHODS

Research models: In this study this article aim to show the measurement of variables and empirical models that can be used for testing hypothesis as follow:

The independent variable; IFRS adoption: The study focuses on the voluntary adoption of IFRS. Hence, we will use a dummy variableas a measure of IFRS to distinguish the companies which adopted IFRS. This variable takes 1 to indicate the voluntary use of IFRS in preparing financial reporting and 0 otherwise.

The first dependent variable; tax avoidance: We will use 3 measures for purposes of trade-offs among them and we can show these measures as follow:

$$T\_aviod_{i,t} = \frac{(EBTX \times STR)_{i,t} - CTE_{i,t}}{EBTX_{i,t}} \quad (1)$$

$$T\_avoid_{i,t} = STR - \frac{CTE_{i,t}}{EBTX_{i,t}} \quad (2)$$

$$T\_avoid_{i,t} = STR - \frac{CTE_{i,t}}{OCF_{i,t}} \quad (3)$$

Where:

T_avoid	=	Tax avoidance
EBTX	=	Earnings Before Tax and exceptional items
STR	=	Homecountry Statutory Corporate income tax rate
CTE	=	Current Tax Expense
OCF	=	Operating Cash Flow
I	=	Indexes firm
T	=	Indexes Time (year)

The second dependent variable; tax conformity: Book-tax conformity represents the not explained amount of the variation in the current tax expenseby the variation in the earnings before tax. Consequently, the researchers followed (Braga, 2017) model for book-tax conformity as follow:

$$CTE_{i,t} = \alpha_0 + \alpha_1\ EBTX_{i,t} + \alpha_2\ DIV_{i,t} + \varepsilon_{i,t} \quad (4)$$

Where:

CTE = Current Tax Expense
EBTX = Earnings Before Tax
DIV = Total dividends and
ε = Error

The residuals of this model represent the measure of tax conformity for every observation and a higher (lower) Root Mean-Squared Error (RMSE), indicates lower (higher) book-tax conformity.

Control variables: We will control for the firm level factors that may affect the tax avoidance level, so, we can show the control variables as stated in Huang *et al.* (2018) (Table 1):

Empirical models for testing hypothesis: The first hypothesis of this study predicts the significant differences among the measures of tax avoidance, so, for testing H_1 we can use Kruskal-Wallis test. The second, hypothesis of this study predicts that no effect of voluntary adaptation of IFRS on tax avoidance, so, for testing H_2 we can use this structural equation model:

$$CTE_{i,t} = \alpha_0 + \alpha_1\ EBTX_{i,t} + \alpha_2\ DIV_{i,t} + \varepsilon_{i,t} \quad (5)$$

The third hypothesis of this study predicts that no effect of voluntary adaptation of IFRS on tax conformity, so for testing H_3 we can use this structural equation model:

$$T\_avoid_{i,t} = \beta_0 + \beta_1\ IFRS_{i,t} + \beta_2 \sum controls + \varepsilon \quad (6)$$

Where:

RTC = Residuals of Model No. 4 which represent tax conformity and
IFRS = Dummy Variable represent the voluntary adoption of IFRS and controls represent all control variables stated above

RESULTS AND DISCUSSION

Data collection and results: My sample period will cover 2015-2017. The sample period starts in 2016 because firm's disclosure according to the voluntary adoption of IFRS. In addition the Iraq Stock Market is separated into 2 classes from the standpoint of adoption IFRS, the first one apply the local accounting standard, the second apply the IFRS voluntary.

My primary data source is the Iraq Stock Market. From the 268 firm-year observations available in the Iraq Stock Market we exclude: 63 observations that have missing values for variables used inthe multivariate regression analysis. After imposing these screens, our final sample consists of 205 firm-year observations.

As shown in the Table 2, the sample concentrates in the last 2 years of the time series because of the increased interest of applying the international financial reporting in the recent years. The results of Kruskal-Wallis test indicate that tax avoidance measures differ among them but the Ta1 and Ta2 are completely identical and have a higher rank than Ta3 which mean that Ta3 is not a preferred measure of tax avoidance in Iraq, so, we use the Ta1 as a measure for tax avoidance for statistical analysis (Table 3).

This result denies the first hypothesis of this study and supports our opinion in the theoretical study, so, we can refuse the first null hypothesis of this study and accept the alternative hypothesis. The averages for the dependent variables are similar for Ta1 and Ta2 and are 36.5 and 61.3% for Ta3. Compared with the 8.4% average found by Atwood *et al.* (2012), the higher level of tax avoidance for the study sample and period isevident.

Table 1: Firm level factors

Variable	Explanation
Growth	The 3 years average change in sales revenue
RD	Research and developmentexpense divided by total assets
Firm size	Market value of equity
Lev	Financial leverage of the firm
Roa	Return on assets of the firm

Table 2: Sample distribution on the different sectors in Iraq stock market

Sector	2015	2016	2017	Total
Banks	10	32	22	64
Insurance	3	5	1	9
Financial services	2	6	7	15
Services	4	3	9	16
Industries	7	20	15	42
Hotels and tourism	1	3	12	16
Agriculture	2	3	5	10
Communications	1	1	3	5
Financial transfer	4	7	17	28
Total	34	80	91	205

Table 3:Results of Kruskal-Wallis test

Rank	Obs.	Rank	Sum
Ta1	205	71089	0.50
Ta2	205	71089	0.50
Ta3	205	47241	0.00

χ^2 = 58.587 with 2 df; Propablity = 0.0001

Table 4: Descriptive statistics

Variables	Obs.	Mean	SD	Min	Max
RD	205	94361.83	274252.8	0	2138800
Ptex	205	5736213	1.33E+07	24421	8.54E+07
CTE	205	1960109	4699116	-67439	3.80E+07
OCF	205	4430509	1.04E+07	15163.49	7.32E+07
Ta1	205	-0.365506	0.2649782	-0.7724143	0.3850138
Ta2	205	-0.365506	0.2649782	-0.7724143	0.3850138
Ta3	205	-0.6134203	0.430588	-1.746411	0.4379797
Div	205	272806.5	296046.8	13400	2589500
Size	205	1.02E+07	2.36E+07	39584.49	1.59E+08
Lev	205	48.35151	127.6237	-793	1129.05
Roa	205	0.2998049	0.3133625	0	0.99
Growth	205	2.874915	6.202913	0	50.09

Table 5: Results of regression analysis

	Dependent variable-tax avoidance			Dependent variable-tax conformity		
	A			B		
Variables	Coef.	t-stat	p-values	Coef.	t-stat	p-values
Conatant	-0.44	-20.35	0.000	0.85	1.44	0.15
IFRS	0.54	11.63	0.000	-0.10	-0.08	0.933
Size	3.78	0.53	0.597	-8.54	-0.44	0.66
Lev	-0.00	-0.88	0.381	0.00	0.96	0.341
Roa	-0.02	-0.56	0.575	3.09	2.77	0.006
Growth	0.00	2.48	0.014	0.02	0.39	0.698
RD	-2.11	-0.46	0.647	-4.81	-0.39	0.7
N	205			205		
Adj. R^2	0.50			0.16		

In addition the percentages of tax avoidance are so, high in Iraq Stock Exchange which means that Iraq Stock Market exchange suffer from the tax avoidance without applying the International Financial Reporting Standards but their application may contribute increasing this phenomenon (Table 4 and 5).

As shown in the Table 3 above in panel A the coefficient of IFRS has a positive signal and it's significantly at the level of confidence 95% which means a significant positive relationship between applying the international financial reporting standards and the tax avoidance, i.e., the application of International Financial Reporting Standards lead to increasing in the level of tax avoidance on the Iraq Stock Market exchange. This result means that the companies listed in the Iraq Stock Exchange depend on the choices found in the International Financial Reporting Standards as an instrument for tax avoidance.

In addition, the significance of one of the control variables (Growth) which has a positive signal and it's significantly at the level of confidence 95% which means a significant positive relationship between growth the company and tax avoidance of the company and there are no significance of any other control variables which indicates that these variables have no effect on tax avoidance in Iraq Stock Exchange.

This result denies the second hypothesis of this study, so, we can refuse the second null hypothesis of this study and accept the alternative hypothesis. As shown in the Table 3 above in panel B the coefficient of IFRS has a negative signal and it's not significantly at the level of confidence 95% which means no relationship between applying the International Financial Reporting Standards and the tax conformity in Iraq stock market exchange. Besides, there is no significance of any other control variables which indicates that these variables have no effect on tax conformity in Iraq Stock Exchange. This result denies the third hypothesis of this study, so, we can refuse the third alternative hypothesis of this study and accept the null hypothesis.

CONCLUSION

This study aims to analyze the impact of voluntary adoption of IFRS on the level of tax avoidance and tax conformity in the Iraq Stock Exchange using a sample of 205 observations in the time period 2015-2017. This study tries to show the different measures of tax avoidance and make a preference among them for choosing the best one of them and insert it in the main model of this study.

The study results revealed that the first and second measure of tax avoidance is completely identical, so, they have the same rank and the third measure is the worst measure of tax avoidance, so, the researchers neglected this measure and insert the first measure in the main empirical model of this study. This result supports our opinion in the theoretical study.

In addition the study results revealed that a significant positive relationship between applying the International Financial Reporting Standards and the tax avoidance, i.e., the application of international financial reporting standards lead to increasing in the level of tax avoidance on the Iraq Stock Market exchange. This result means that the companies listed in the Iraq Stock Exchange depend on the choices found in the International Financial Reporting Standards as an instrument for tax avoidance. And no relationship between applying the International Financial Reporting Standards and the tax conformity in Iraq Stock Market exchange.

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