

**ANALYZING AND MEASURING THE IMPACT OF OPERATIONAL RISKS ON
EARNING MANAGEMENT: AN APPLIED STUDY ON ISLAMIC
BANKS LISTED ON THE IRAQ STOCK EXCHANGE
FOR THE PERIOD (2011-2021)**

Shatha Al-Khayyat ⁱ, Ashurov Sharofiddin ⁱⁱ & Fahd Al-Shaghdari ⁱⁱⁱ

ⁱ Ph.D Student, Institute of Islamic Banking and Finance, International Islamic University Malaysia (IIUM);
Erbil Technology College, Iraq. shatha.fawzi.mahmood@gmail.com

ⁱⁱ Associate Professor, Institute of Islamic Banking and Finance, International Islamic University Malaysia
(IIUM). ashurov@iium.edu.my

ⁱⁱⁱ Assistant Professor, Institute of Islamic Banking and Finance, International Islamic University Malaysia
(IIUM). alshaghdari@iium.edu.my

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Abstract	<p><i>This study investigates the extent of earnings management practiced by Islamic banks listed on the Iraq Stock Exchange from 2011 to 2021 and examines the impact of operational risks on this practice. Employing a quantitative approach with a deductive method, the study measures operational risks using the basic indicator method in accordance with Basel II standards, while earnings management is measured using the modified Jones model (1995) through discretionary accruals. In addition, regression analysis with Panel Data in the Eviews program is utilized to test the impact of operational risks on earnings management. The findings of the research indicate that Islamic banks in the sample engaged in earnings management throughout the study period except for 2017-2018. Furthermore, operational risks showed no significant impact on earnings management in the sampled Islamic banks. This study holds practical implications for regulators, managers, and employees in the banking industry, providing insights for regulatory authorities to enact laws that consider the unique aspects of Islamic banking and tighten supervision to curb earnings management practices. Additionally, it offers valuable information for Islamic banking stakeholders to enhance control over Shariah principles application and mitigate earnings management practices. The research contributes to the literature on Islamic banks, particularly in emerging financial markets, by addressing the gap in studies on the relationship between operational risks and earnings management. On the results, several recommendations are made, with the most significant being the necessity of the legislative and regulatory authorities overseeing Islamic banking to issue standards and regulations and strengthen supervision to ensure compliance with Islamic principles that contribute to limiting earnings management practices in Islamic banks. Furthermore, the study recommended enhancing the effectiveness of risk management supervision in Islamic banks.</i></p> <p>Keywords: <i>Earnings Management, Accruals, Islamic Banks, Operational Risk, Shariah Principles.</i></p>
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INTRODUCTION

The global financial crisis (2008) showed a prominent and interesting phenomenon in the banking sector in which the Islamic banks were less affected than conventional banks. After the collapse of Lehman Brothers, which is considered the fourth investment bank in the US, as a result of concealing the actual reality of the bank through the practice of earnings management, the financial recession turned into a global financial crisis that affected global economic stability, and the result of that crisis showed that disseminating information in the banking industry is not sufficient. There were very severe information asymmetry problems. However, Islamic banks were less affected than conventional banks. This was attributed to the adverse effect of Sharia principles on earnings management practices in Islamic banks (Zainuldin & Lui, 2020; Quttainah, 2011). Therefore, the work of Islamic banks in accordance with the principles of Islamic Sharia has increased their ability to face the financial crisis more than conventional banks.

Studies on earnings management practices in Islamic banks following the financial crisis have shown mixed results. Some studies confirm that the idea of manipulating earnings in Islamic banks seems inconsistent with the principles of Islamic Shariah on which Islamic banks are based. These principles are supposed to contribute to reduce the earnings management practices in Islamic banks in comparison with the conventional counterparts, which is in line with what the global financial crisis has shown, as Islamic banks were less affected than the conventional counterparts (Hamdi & Zarai, 2013; Zainuldin & Lui 2020; Hatane et al., 2019; Syarif et al., 2021). While other studies have found that Islamic banks are similar to conventional banks, they face the challenge of information asymmetry, conflicts of interest and their high risks compared to conventional banks, which may be a motivation for opportunistic practices that contradict the principles of Islamic law, which is consistent with the agency theory (Quttainah, 2011; Lassoued et al., 2017; Mersni & Othman, 2016; Hajjar et al., 2021). Therefore, the proper application of the principles of Islamic Shariah contributes to reducing the practice of earnings management in Islamic banks, unlike the lack of proper application of these principles, which makes them like any other company practicing earnings management to achieve its personal interests.

Consequently, there is a research vacuum that has to be filled in order to determine how operational risk impacts the practice of earnings management in Islamic banks. According to agency theory, studies conducted on businesses (apart from Islamic banks) have revealed that high risk, particularly operational risk, may drive businesses to engage in earnings management in order to conceal their inability to control these risks and the detrimental effects they have on profitability (Monjed & Ibrahim, 2020; Nugrahanti, 2016; Ahmed, 2021). Furthermore, agency theory states that because Islamic banks enter into contracts based on Islamic Shariah principles and are therefore subject to higher operational risks than conventional banks and other sectors, the effect of operational risk on earnings management practice is likely to be greater than that of conventional banks and other sectors (Hatane et al., 2019; Mersni & Othman, 2016). It is observed, therefore, that the impact study of operational risks in encouraging Islamic banks to adopt earnings management practices is noticeably absent. This study aims to rectify this by applying it to the Iraq Stock Exchange.

PROBLEM STATEMENT

The studies in the field of earnings management have shown that the principles of Islamic Sharia, upon which Islamic banks base their operations, are a double-edged sword. The proper application of these principles can contribute to reducing the practices of earnings management compared to traditional banks and other sectors, as Islamic Sharia principles contradict unethical earnings management practices. Conversely, improper application of these principles may lead to increase the practices of earnings management in comparison with traditional banks, as the application of Islamic Sharia principles exposes Islamic

banks to higher risks in their transactions and contracts, which makes them vulnerable to earnings management practices in the absence of proper supervision of Sharia principles application, as any company with a strong incentive to engage in earnings management (Zainuldin & Lui, 2020; Quttainah, 2011; Lassoued et al., 2017; Hajjar et al., 2021; Hatane et al., 2019). Therefore, in the presence of a flaw in the Sharia supervision of the application of Islamic banks of Sharia principles, they may be susceptible to engaging in earnings management to achieve their interests.

One of the biggest concerns that might impact Islamic banks' practices of managing their profitability is operational risk. This is because Islamic banks' contracts, which are founded on the precepts of Islamic law, subject them to more complicated operational risks than conventional banks due to the privacy concerns of Islamic banks (Hemrit, 2018). Therefore, according to the agency theory, the failure of management in Islamic banks can be a motivation for them to practice earnings management like any company, in the event of poor proper application of the principles of Islamic Shariah (Bemshima et al. 2021; Mersni & Othman, 2016; Monjed & Ibrahim, 2020; Khaled, 2020). Therefore, operational risk is a potential driver for Islamic banks to practice earnings management to cover their inefficiency in managing operational risks and their negative impact on profitability. However, it is noted that although it is important to conduct studies in this area, the previous literature in this area lacks the presence of Islamic banks.

Undertaking research on how operational risks impact Islamic banks' earnings management is becoming more and more significant for the Iraqi Stock Exchange. This is a result of the challenges and problems Iraqi Islamic banks encounter, as a result of the newness of their experience causing flaws in the regulatory and legal frameworks. In order to expand this significant and critical sector of the Iraqi Stock Exchange and to close the research gap, scholars in this subject are obligated to carry out further studies and research. By investigating the effect of operational risks on earnings management in Islamic banks listed on the Iraqi Stock Exchange, the current study aims to close this research gap.

RESEARCH QUESTIONS

Based on the problem statement, the research questions can be formulated as follows:

- Do the three Islamic banks list on the Iraqi Stock Exchange practice earnings management?
- How does operational risk impact the three Islamic banks that are listed on the Iraqi Stock Exchange in terms of managing earnings?

SCOPE OF RESEARCH

The scope of the current research includes several points that will be elaborated upon in detail within the research methodology. These points are as follows:

- **Temporal Scope:** The application of the study is limited to a specific timeframe, represented by a time series spanning between the years 2011 and 2021.
- **Spatial Scope:** The application of the study is restricted to a sample of Islamic banks listed on the Iraqi Stock Exchange.
- **Objective Scope:** The modified Jones model is used to monitor earnings management through discretionary accruals, whereas the basic indicator approach is the only way to measure operational risks.
- **Generalizability Scope:** The study's findings are limited to the study sample, its timeframe, and it is possible that the results may not apply to other Islamic banks, financial markets, or different time periods.

LITERATURE REVIEW

Agency Theory

The present study will employ agency theory, which is one of the theories most frequently employed in the literature on earnings management. According to this view, the principle, or owner, gives the agent, or manager, the power to control the business's operations and make decisions on his behalf in order to increase earnings and advance his interests. This authority is transferred to the management through an employment contract. To attain his own goals of salary, wages, bonuses, and the preservation of the post, the agent (manager) is likely to act occasionally against the interests of the client. This results in agency difficulties and associated expenses. Agency theory and earnings management are inextricably linked because of the potential for conflicts of interest between the principal and the agent (manager). This can result in managers preparing financial reports opportunistically through earnings management practices, misleading users in a way that serves their own interests (Jensen & Meckling, 1976; Mukhibad & Nurkhin, 2019; Aryanto et al., 2023, Alexander, 2018). As such, one of the most established and effective theories for explaining managerial behavior and the driving forces behind their practice of earnings management is agency theory.

Agency theory contributes to an explanation about the potential impact of operational risk on companies' earnings management practices. According to agency theory, falling below acceptable level of earnings or making losses as a result of companies failing to manage their operational risks can motivate managers to practice earnings management to hide the true position of companies and avoid litigation problems from investors (Bemshima et al. 2021; Mersni & Othman, 2016; Neffati et al. 2011; Monjed & Ibrahim, 2020; Khaled, 2020). Agency theory therefore provides an explanation for management's opportunistic practices in financial reporting when it fails to manage its operational risks efficiently.

CONCEPTUAL FRAMEWORK

Earnings Management in Islamic Banks

According to Mukhibad and Nurkhin (2019), earnings management strategies frequently violate Shariah. Earnings management, according to Healy and Wahlen (1999) "the use by managers of their judgments and estimates in financial reporting and in structuring transactions to change financial reporting either to mislead certain stakeholders about the reality of economic performance or to influence contractual results that rely on advertised accounting figures". We shall employ this concept in the current study since it is thought to be the most typical in earnings management research. Earnings management techniques at Islamic banks are consistent with agency theory, even if they go against to the ethical and Shariah precepts that form their foundation. Islamic banks, like any other business in other economic sectors, may act opportunistically against Islamic principles in order to further their own advantages due to competing interests and information asymmetry (Hatane et al., 2019).

There are fewer and differing conclusions on earnings management in Islamic banks than in other industries. Some studies show that the religious and ethical principles on which Islamic banks are based, and the Shariah supervision of their business can be the reason for reducing the problems of the institution in Islamic banks and thus reducing the size of earnings management practices in Islamic banks in comparison with to conventional counterparts. Syarif et al., (2021) pointed out that earnings management does not occur much in Indonesian Islamic banks, which is due to the principles of Islamic law on which these banks are based in their work. Moreover, Hamdi and Zarai's (2013) revealed that the ethical standards of Islamic Shariah in Islamic banks contribute to effective control over the work of Islamic banks and reduce the opportunistic behavior of management in the practice of earnings management. In addition, Islamic banks practice earnings management but practice it less than conventional banks by applying to a number of emerging markets (Quttainah, 2011; Lassoued et al., 2017; Hajjar et al., 2021). Other studies have shown that Islamic banks practice higher earnings management than

conventional banks. Zainuldin and Lui (2020) concluded that Islamic banks in emerging markets, contrary to expectations, practice earnings management higher than conventional banks. The result of this study is consistent with the Hatane et al. (2019), it was found that Indonesian Islamic banks practice higher earnings management than conventional banks because they face higher risks than Islamic banks and are therefore more conservative, by forming large provisions for loan losses to avoid future losses. Therefore, according to the previous studies, Islamic banks mostly practice earnings management. However, practices may be greater than other sectors due to greater risk than others, or the ethical principles resulting from Islamic law may contribute to making them lower than conventional banks without the ability to stop them completely. Therefore, the first hypothesis is proposed as follows:

- The three Islamic banks listed on the Iraq Stock Exchange exercise earnings management at a significant level of 10%.

The Impact of Operational Risk on Earnings Management

Several studies have shown an impact of operational risk on earnings management practices. Eventhough the past studies related to this filed are few; however, most of them have found that increased operational risk is an incentive for companies to practice earnings management. For instance, Nugrahanti (2016) found that careful assessment of operational risk leads to a lower level of earnings management in the Indonesian banks. Additionally, Monjed and Ibrahim (2020) concluded that increasing operational risks in companies constitutes an incentive for them to practice earnings management by smoothing income, by applying it to a sample of non-financial companies in the United Kingdom. Moreover, Ahmed (2021) revealed that there is a direct impact of operational risk on management behavior towards earnings management practice in financial reporting for Saudi companies. Lastly, Neffati et al. (2011) found that operational risks have a positive impact on earnings management in U.S. companies. Accordingly, operational risks are expected to be a driver of earnings management practice in the Iraqi Islamic banks of the study sample. Therefore, the second hypothesis is proposed as follows:

- There is a statistically significant impact of operational risk on earnings management in the three Islamic banks listed on the Iraqi Stock Exchange.

RESEARCH METHODOLOGY

The present study uses both the deductive approach and the quantitative method for analysis. Additionally, the study employed the Basel 2 basic indicator method, measured earnings management using the modified Jones model (1995) and tested the impact of operational risk on earnings management using Eviews software through Panel Data analysis and regression analysis method. The secondary data from the financial reports of the Islamic banks in the study sample that are posted on the Iraq Stock Exchange is used as the data gathering instrument. The study was conducted over a period of 11 years, from 2011 to 2021. Data for the three years before to this series and the operational risk estimate were also acquired.

All Islamic banks that are listed on the Iraqi Stock Exchange were the study's population. Nevertheless, the scope of the research was restricted to three Islamic banks that were registered on the Iraqi Stock Exchange, as long as the banks were listed on the market from 2008 to 2021. Additionally, the necessary data for 14 consecutive years were available, and the banks did not incur consecutive losses exceeding two years in order to calculate operational risks using the basic indicator method. The number of banks that met the criteria was 3 banks, represented by Kurdistan International Islamic Bank, Iraqi Islamic Bank, and Alaf Islamic Bank. This is because most Islamic banks in the Iraqi Stock Exchange market were established after 2016. Therefore, if these banks were included in the study sample, the study would start from 2019, due to the need for three previous years to calculate operational risks. Additionally, some Islamic banks incurred consecutive

losses for more than two years, which makes the calculation and assessment of operational risks the responsibility of the bank's management and cannot be calculated using the basic indicator method or obtained accurately for some Islamic banks in certain years. Therefore, the study sample and its years were chosen based on the aforementioned considerations and in a manner that achieves the highest level of observation, which amounted to (3 banks * 11 years = 33 observations).

RESEARCH MODEL

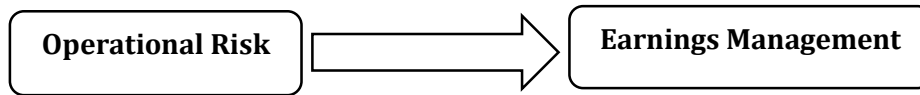


Figure (1): The research model and its variables

MEASUREMENT OF VARIABLE

The variables of the study will be the following: operational risks (independent variable) and earnings management, were measured through the discretionary accruals (dependent variable) of the three Iraqi Islamic banks. The sample study consists of Kurdistan International Islamic Bank, Iraqi Islamic Bank, and Elaf Islamic Bank, for the period from 2008 to 2021.

The Independent Variable: Operational Risk (OR)

The current study measured operational risks in Islamic banks listed on the Iraqi Stock Exchange using the basic indicator technique in accordance with Basel 2 requirements. This is due to the fact that the Iraqi Central Bank requires its implementation throughout the study period. This technique calculates operational risks by multiplying the average yearly positive income for the past three years by a fixed ratio (a). The average is only computed for two years, excluding the year in which there is no revenue at all or a loss. According to the second pillar of Basel 2 standards, the regulatory body of the bank calculates the capital needs to address operational risks if the bank has had losses for two or more of the previous three years (Arab Monetary Fund, 2019; Ahmed, 2018; Mahboub & Sanussi, 2019). According to the instructions of the Central Bank of Iraq, 15% of the average net income after tax for the previous three years is taken, and then the result is multiplied by 12.5%. Therefore, the capital required to cover operational risks (expected operational risk size) equals the average net income for the previous three years multiplied by 15%, and then the result is multiplied by 12.5%.

The Dependent Variable: Earnings Management (EM)

To gauge earnings management, the study employed the accruals approach in accordance with the modified Jones model (1995). In order to predict earnings management, this model assumes that total accruals are divided into two categories: discretionary accruals, which represent the portion that management can manipulate by taking advantage of available flexibility to influence accounting figures, and non-discretionary accruals, which represent the part that management cannot influence. The computation of discretionary accruals is based on the residual obtained from a regression equation. The independent variables in this equation are the total depreciable fixed assets and the change in revenue less the change in accounts payable (Kumawa & Soral, 2020). According to Nirabi (2014), Ahmad (2016) and Vania et al. (2018), the following procedures must be followed in order to measure earnings management using the modified Jones model:

Step (1): Measure total accruals according to the cash flow input:

$$\text{Total Accruals} = \text{Net earnings after tax} - \text{cash flow from operations}$$

Step (2): Estimate the parameters of the model (B_0, B_1, B_2, B_3) through the following regression equation:

In this step, the parameters of the model (B_0, B_1, B_2, B_3) are estimated by the following regression equation:

$$\begin{aligned} TACC_{i,t}/A_{i,t-1} &= \beta_0 + \beta_1 \left(1/A_{i,t-1}\right) + \beta_2 (\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1} \\ &+ \beta_3 \left(PPE_{i,t}/A_{i,t-1}\right) + e_{i,t} \end{aligned}$$

Where:

$TACC_{i,t}$ = total accruals to bank i per year t .

$\Delta REV_{i,t}$ = change in revenue for bank i in year t .

$\Delta REC_{i,t}$ = change in bank receivables i in year t .

$A_{i,t-1}$ = total assets of bank i per year $(t-1)$.

$PPE_{i,t}$ = total depreciable fixed assets of bank i in year t .

$e_{i,t}$ = random error.

Step (3): The parameters of the regression equation (B_0, B_1, B_2, B_3) calculated in step 2 are used to predict the level of nondiscretionary accruals ($NDACC_{i,t}$), which are calculated from the following equation:

$$\begin{aligned} NDACC_{i,t}/A_{i,t-1} &= \beta_0 + \beta_1 \left(1/A_{i,t-1}\right) + \beta_2 (\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1} \\ &+ \beta_3 \left(PPE_{i,t}/A_{i,t-1}\right) \end{aligned}$$

Step (4): Calculating the discretionary accruals ($DACC_{i,t}$) for each company by the difference between the total accruals and the nondiscretionary accruals through the following formula:

$$DACC_{i,t}/A_{i,t-1} = TACC_{i,t}/A_{i,t-1} - NDACC_{i,t}/A_{i,t-1}$$

The remainder of the regression equation ($e_{i,t}$) in the equation in step 2 represent the discretionary accruals divided by the total assets of the previous year, which is the fraction of the total accruals that have not been explained by the regression variables, and these residues are used as a proxy indicator to estimate the discretionary accruals.

RESULTS

To answer the research questions, the first hypothesis was tested using frequencies and percentages of earnings management practices for each year of the study. Additionally, the second hypothesis was tested by conducting a study on the impact of the independent variable, operational risks (OR), on earnings management (EM), expressed through discretionary accruals as a measure of earnings management. Below are the results of hypothesis testing:

The First Hypothesis

The definition of the first hypothesis was as follows: The three Islamic banks listed on the Iraq Stock Exchange exercise earnings management at a significant level of 10%.

Discretionary accruals were calculated using the modified Jones model (1995) in order to evaluate this hypothesis. The methods used by the Islamic banks in the research sample to manage their earnings were then categorized for every year of the study. The bank was deemed to be involved in earnings management and given the value (1) if the total amount of discretionary accruals in a given year was higher than the average total amount of discretionary accruals for the bank during the study period. In contrast, the bank was given the value (0) if it was less than the average, which indicated that it did not participate in earnings management. Next, for each year, the frequencies and percentages of earnings management and non-earnings management were computed for the banks included in the research sample. Additionally, the direction of earnings management practice—that is, whether it attempted to enhance or decrease earnings—was determined for each year of the research period by calculating the average of discretionary accruals for the banks in the study sample. The results were as follows:

Table (1): The Results of Measuring Earnings Management According to the Modified Jones Model for Islamic Banks Study Sample

Years	Discretionary Accruals Average	Earnings Management EM			
		1		0	
		Freq	Percent	Freq	Percent
2011	0.47	1	33.33%	2	66.67%
2012	0.10	2	66.67%	1	33.33%
2013	-0.14	1	33.33%	2	66.67%
2014	-0.47	1	33.33%	2	66.67%
2015	-0.31	2	66.67%	1	33.33%
2016	0.63	2	66.67%	1	33.33%
2017	0.06	0	0%	3	100%
2018	0.05	0	0%	3	100%
2019	0.17	1	33.33%	2	66.67%
2020	0.16	1	33.33%	2	66.67%
2021	-0.76	2	66.67%	1	33.33%
Total	-0.04	13	39.5%	20	60.5%

Table (1) shows that during the study period, the percentage of earnings management practices was approximately 39.5% with a frequency of 13 observations, while the percentage of non-earnings management practices was approximately 60.5% with 20 observations. This suggests that earnings management practices were implemented through discretionary accruals, and it also shows that the study sample banks did not engage in earnings management practices during the years 2017–2018.

As a result, the first hypothesis—that is, that the three Islamic banks listed on the Iraq Stock Exchange engage in earnings management at a significant level of 10%—can be accepted based on the information above, with the exception of the years 2017 and 2018, when they did not.

The Second Hypothesis

The second hypothesis is as follows: operational risk has a significant impact on the earnings management in Islamic banks.

To test this hypothesis, a regression analysis was conducted on the impact of the independent variable Operational Risk (OR) on Earning management (EM) expressed in discretionary accruals. Where the impact study was conducted based on the analysis of Panel Data data, and it is worth noting that there are two types of Panel Data: Balanced Panel is a dataset in which all data is available for each year and for all variables, and

Unbalanced Panel is a data set where data is collected a different number of times each year and for all variables.

When the analysis was carried out using the Eviews software, it was found that the deviations in the data were very high and therefore the results of the regression equation were not accurate enough, so the data was converted from the natural form to the logarithmic function (Natural Log) and upon conversion there was a loss in some observations. This implies that the data to be studied was converted to Unbalanced Panel data. Accordingly, the regression equation is the following:

$$\ln EM_{it} = \beta_0 + \beta_1 \ln OR_{it} + \varepsilon_{it}$$

Where:

(EM): Earnings management (Dependent variable) measured by discretionary accruals, (OR): Operational Risks (Independent variable), i : Banks where $i = 1, 2, 3$, t : time, β_0 and β_1 : constants, ε : Random Error Term

Empirical Results

The results of the regression equation using the Eviews program showed the following:

1. Pooled Least Squares Method (POLS)

In the beginning, POLS is an aggregated linear regression without fixed and random effects. This type of analysis assumes the existence of a fixed intersection and slopes regardless of the group and time period. In the following table the results of the POLS analysis using EViews will be displayed:

Table (2): The Results of the Analysis Using POLS

Pooled OLS					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Obs.
Lnor	-0.630419	0.218519	-2.884963	0.0103	19
C	5.788920	2.787032	2.077092	0.0533	19
R-squared	0.328674				
Adjusted R-squared	0.289184				
F-statistic	8.323012				
Prob(F-statistic)	0.010285				

The above table shows that the independent variable (operational risk) has significant relationship with the dependent variable (earnings management). This is because the P-value is (0.0103), and therefore since its value is less than 5%, we can say that the independent variable has a significant negative relationship with the dependent variable and an increase in operational risk by 1% will lead to a decrease in discretionary accruals by 0.63%. In addition, the value of R-squared (0.328674), this indicates that the independent variable (operational risk) can explain 32.8% of the change in the dependent variable (earnings management). It can also be said that the regression equation is important since the value of Prob (F-statistic) is 0.01, which is less than 5%. Therefore, it can be said that there is at least one variable in the equation that has a significant relationship with the independent variable, and in this test the only independent variable is operational risk and has an important relationship with the dependent variable, which is Earnings management. Based on this, the regression equation can be written as follows:

$$\ln EM_{it} = 5.788920 - 0.630419 \ln OR_{it}$$

2. Fixed Effect Model

The link between predictor factors and the result within the entity (country, individual, firm, etc.) is examined using the Fixed Effects model. Every entity has unique qualities of its own that could influence the predictor variables or not. The Fixed Effects model makes

the assumption that a person may have an internal impact or bias on the predictor or outcome variables, and that this has to be taken into account. This is the rationale behind presuming that the predictor variables and the entity-specific error term are related. In order to assess the net influence of predictors on the outcome variable, the Fixed Effects function works to eliminate the effect of these time-invariant traits. The following table shows the results of the Fixed Effects model using the EViews software:

Table (3): The Results of the Analysis Using Fixed Effect

Fixed Effect					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Obs.
lnOR	-0.420629	0.410928	-1.023607	0.3222	19
C	3.128151	5.217930	0.599500	0.5578	19
R-squared	0.563067	F-statistic	6.443413		
Adjusted R-squared	0.475681	Prob(F-statistic)	0.005103		

The operational risk independent variable has no discernible effect on the earnings management dependent variable, as the preceding table demonstrates. The P-value, which is (0.3222), indicates this. It may be inferred that the independent variable has no discernible impact on the dependent variable because its value is more than 5%. Furthermore, the R-squared value is (0.563067), meaning that 56.3% of the variance in the dependent variable (earnings management) can be explained by the independent variable (operational hazards). Therefore, the Prob (F-statistic) value of 0.005, which is less than 5%, indicates that the regression equation is significant. This suggests that the independent variable and at least one of the equation's variables are significantly correlated. Based on this, the regression equation can be written as follows:

$$\ln EM_{it} = 3.128151 - 0.420629 \ln OR_{it}$$

3. Random Effect Model

The individual effect in the random effects model is a random variable that has no bearing on the independent variables. The benefit of using random effects specifications is that when sample sizes grow, the number of parameters stays constant, enabling the development of effective estimators that take advantage of variation both within and across groups. The assessment of fixed effects over time is also made possible by it. In the following table, the results of the random effects model using the EViews software are presented:

Table (4): Analysis Results Using Random Effect

Random Effect					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Obs.
lnOR	-0.487690	0.336946	-1.447385	0.1660	19
C	4.027749	4.368529	0.921992	0.3694	19
R-squared	0.115256	F-statistic	2.214607		
Adjusted R-squared	0.063213	Prob(F-statistic)	0.155025		

It is clear from the earlier findings that there is no discernible relationship between the independent variable (operational risk) and the dependent variable (earnings management). This is supported by the P-value, which is (0.1660). Because it is more than 5%, it can be said that there is no discernible relationship between the independent and dependent variables. Furthermore, the R-squared value of 0.115256 suggests that 11.5% of the variation in the dependent variable (earnings management) can be accounted for by the independent variable (operational risk). By examining the value of Prob (F-statistic),

which is more than 5%, it is also possible to determine that the regression equation is not significant. Therefore, there is no evidence of a relationship between the dependent variable and the independent variable in the equation. Based on that, the regression equation can be written as Follows:

$$\ln EM_{it} = 4.027749 - 0.487690 \ln OR_{it}$$

4. Redundant Fixed Effect

The Redundant Fixed Effect test, also known as the Redundant Fixed Effect Likelihood Ratio test, is a mixed test to ascertain the efficient estimator between the Fixed Effects model and the Pooled Ordinary Least Squares (POLS) technique. The Redundant Fixed Effect Likelihood Ratio test results are shown in the following table:

- **Redundant Fixed Effect Test Hypotheses**

Null hypothesis (H0): The most convenient grouped least squares (POLS) method.

Alternative hypothesis (H1): The most appropriate Fixed Effect.

Table (5): Redundant Fixed Effect test

Redundant Fixed Effect Likelihood Ratio			
Effects test	Statistic	d.f.	Prob.
Cross-section F	4.023394	(2,15)	0.0399
Cross-section Chi-square	8.160048	2	0.0169

We can observe from the above results that the P-values for the Cross-section F and Cross-section Chi-square are less than 5%, at (0.0399) and (0.0169), respectively. Thus, the Fixed Effect model is better in this case than the Pooled Ordinary Least Squares (POLS) model, proving the rejection of the null hypothesis.

Thus, in order to ascertain which model type—Fixed Effect or Random Effect—is more appropriate for this model, the Hausman Test will be performed next.

5. Correlated Random Effects (Husman Test)

A statistical technique called the Hausman technique is used to evaluate whether model—the Random Effect model or the Fixed Effect model—is more suitable. The model types to be estimated—typically a model with fixed effects or a model with random effects—are evaluated in the test to see whether extra parameters are present. The Hausman Test results are displayed in the table below.

- **Husman Test hypotheses**

Null hypothesis (H0): The most appropriate random effect.

Alternative hypothesis (H1): The most appropriate Fixed Effect.

Table (6): Husman Test

Husman Test			
Test Summary	Chi-square statistic	Chi-square d.f.	Prob.
Cross-section random	0.081280	1	0.7756

From the results of the previous table, we can see that the P-value is (0.7756), which is greater than 5%, and therefore we accept the null hypothesis and conclude that the random effect is the most appropriate effect for this model to be used. Thus, it can be said that the relationship between the independent variable (operational risk) and the dependent variable (earnings management) is an insignificant.

The random and static effect will then be compared and whether there is a difference in effect according to the random effect outputs.

Table (7): Comparison Between Fixed Effect and Random Effect

Cross-section random effects test comparison				
Variable	Fixed	Random	Var (Diff.)	Prob.
InX	-0.420629	-0.487690	0.055330	0.7756

Based on the results of the previous table, it can be concluded that there is no difference between the Fixed Effect and Random Effect, as the P-value (0.7756) is greater than 5%. Therefore, it can be said that there is no significant difference between the Fixed Effect and Random Effect in this model.

Consequently, based on the above, the second hypothesis, which states that there is a statistically significant effect of operational risks on earnings management in Islamic banks listed in the Iraq Stock Exchange, can be rejected.

DISCUSSION OF RESULT

The results of the first hypothesis test indicate that Islamic banks, the sample studied in the Iraq Stock Exchange, have engaged in earnings management through discretionary accruals during the period from 2011 to 2021, except for the years 2017-2018, which were devoid of earnings management practices. The result of this study is consistent with the findings of Zainuldin and Lui (2020), Quttainah (2011), Lassoued *et al.* (2017), Hajjar *et al.* (2021) and Hatane *et al.* (2019), who concluded that Islamic banks practice earnings management. However, the current study's results contradict previous findings regarding the years 2017-2018, which showed no earnings management practices, consistent with studies like Syarif *et al.* (2021), Hamdi and Zarai (2013), which indicated that Islamic banks rarely engage in earnings management. The lack of earnings management practices in these two years, unlike the rest of the years, requires research and attention to study the factors that contributed to reducing the practice of Islamic banks managing the earnings during these two years to work to enhance them, which may be due to the fact that these two years were tightening Shariah supervision and the proper application of the principles of Islamic Shariah compared to the rest of the years studied. Additionally, the negative discretionary accruals observed during certain study years suggest conservative earnings management practices by banks, likely for tax relief purposes or dividend distribution policies.

Regarding the second hypothesis, the results indicate that operational risks do not significantly impact earnings management in Islamic banks in the studied sample. This could be attributed to the sufficient liquidity of Islamic banks in the Iraq Stock Exchange to cover operational disruptions, consistent with the findings of Al-Khayyat *et al.* (2023). However, this contradicts studies such as Ibrahim and Monjed (2020), Ahmed (2021), and Neffati *et al.* (2011), who found an impact of operational risks on earnings management. This suggests that operational risks may not be a driving force for earnings management in Islamic banks in the Iraq Stock Exchange, and the presence of earnings management practices in these banks may be influenced by other factors that warrant further investigation. The variance in measurement approaches for earnings management and operational risks between the current study and previous research may also contribute to the discrepancy in results, underscoring the need for more studies in this area to reconcile or challenge the findings of the current study and reach a comprehensive understanding of whether operational risks do not impact earnings management practices in Islamic banks compared to other sectors.

RECOMMENDATION

Based on the study conducted and the results obtained, the study recommends the following:

- **Legislative and Regulatory Attention:** The legislative and regulatory authorities overseeing Islamic banking operations should prioritize issuing standards and regulations that align with the specificities of Islamic banks based on Islamic law. There should be a strengthening of Sharia supervision to ensure the actual application of Islamic principles by Islamic banks in a manner that mitigates earnings management practices. Additionally, further examination of the factors contributing to the decline in earnings management practices in Islamic banks during the years 2017-2018 is warranted, along with efforts to enhance those factors.
- **Study of Other Influencing Factors:** Given the findings that operational risks do not significantly impact earnings management in Islamic banks in the studied sample and that other factors drive earnings management practices; the study recommends investigating these other factors. Understanding the additional factors influencing earnings management in Islamic banks will provide insights into the motivations behind such practices and inform strategies to address them effectively.

LIMITATIONS AND FUTURE DIRECTIONS

Due to the current study being conducted on a sample consisting of 3 Islamic banks listed on the Iraq Stock Exchange, the study recommends conducting future studies on other Islamic banks in the Iraq Stock Exchange as well as in other financial markets. This is to compare the results of those studies with the results of the current study and to determine the level of agreement or disagreement. As the current study was conducted over a time series spanning from 2011 to 2021, the study recommends conducting other studies on different time periods. This is to compare the results of those studies with the results of the current study and to determine the level of agreement or disagreement. Since operational risks were measured according to the basic indicator approach based on Basel standards that do not consider the specificity of Islamic banks, the study recommends conducting the study again by applying the standards of the Islamic Financial Services Board, which consider the specificity of Islamic banks but are not mandatory for Iraqi Islamic banks. This is to test whether the method of measuring operational risks impact the results of the study. As earnings management was measured through discretionary accruals using the Jones modified model, the study recommends conducting the study again using other methods to measure earnings management. This is to test the level of agreement or disagreement with the results of the current study.

THE CONTRIBUTION OF THE RESEARCH

The results of this study contribute to several important aspects:

- **Theoretical Contribution:** This study fills a research gap in the literature regarding the impact of operational risks on earnings management, particularly in Islamic banks. It paves the way for researchers to conduct further studies to gain a better understanding of whether operational risks incentivize Islamic banks to engage in earnings management practices.
- **Practical Implications:** This study assists managers and professionals in the Islamic banking industry, both generally and specifically in Iraq, in assessing the extent to which Islamic banks engage in earnings management. This understanding helps them make decisions that strengthen supervision to ensure the application of Islamic Sharia principles in Islamic banks, thereby reducing earnings management practices. Additionally, it helps in making decisions that contribute to efficiently managing operational risks in a manner that aligns with the uniqueness of Islamic banks and reduces such risks.
- **At the Decision-Making Level:** The research results may be of significance to regulatory and legislative bodies. They can use these findings to issue laws and regulations that consider the specificity of Islamic banks and strengthen Sharia supervision over their operations. This would contribute to supervising the efficiency of managing operational risks in a way that reduces them effectively.

CONCLUSION

This study aimed to measure the extent of earnings management practiced by Islamic banks listed on the Iraq Stock Exchange during the period from 2011 to 2021. Subsequently, it tested the impact of operational risks on earnings management in the sampled banks. Earnings management was measured using the accruals approach based on the modified Jones model (1995), while operational risks were measured using the basic indicator approach according to Basel II standards adopted by the Central Bank of Iraq. The impact of operational risks on earnings management was then measured using regression analysis with Panel Data in Eviews. The study reached several key findings, including that the sampled Islamic banks practiced earnings management during the period from 2011 to 2021, except for the years 2017 and 2018, which showed no evidence of earnings management practices. Additionally, contrary to previous studies, the study found no impact of operational risks on earnings management, suggesting that operational risks do not drive earnings management practices in the sampled Islamic banks. The study concluded that earnings management practices in these banks are influenced by other factors that warrant further investigation and study.

Based on these findings, the study recommended the legislative and regulatory authorities overseeing Islamic banking to issue standards and regulations and strengthen supervision to ensure compliance with Islamic principles that contribute to limiting earnings management practices in Islamic banks. Furthermore, the study recommended enhancing the effectiveness of risk management supervision in Islamic banks and conducting further studies to explore the impact of operational risks on earnings management using different measures and across different banks, years, and financial markets. This is to address the research gap in this field and ascertain the degree of agreement or disagreement with the current study's results.

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