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THE IMPACT OF THE FINANCIAL PERFORMANCE OF ISLAMIC BANKS ON ECONOMIC GROWTH : (A PANEL DATA ANALYSIS)

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ABSTRACT

This study analyses the impact of the financial performance of Islamic banks on economic growth (GDP) in all of Saudi Arabia, United Arab Emirates, Kuwait, Qatar. For this purpose, it uses Panel data methodology for the period from 2014-2021. The estimation results show that the financial performance of Islamic finance through profitability had a significant positive impact on economic growth. the empirical investigation found that the CPI, which is the proxy variable for inflation is statistically significant and negative for economic growth consistent with the economic conception.

Keywords : Islamic Banking, Profitability, Financial performance, Economic growth, panel-data model, fixed and random effects models.

Jel Classification : C33,G210, O40.

1. INTRODUCTION

Islamic finance is considered a stable financing system that is capable of promoting growth and creating long-term employment. It precludes interest, speculation, hoarding, contractual uncertainty, and the secondary debt market in favor of productive activities and the real economy. It was unaffected by the expansion of credit and did not lead to the speculation that was characteristic of conventional financing. Securitization and the unfettered growth in credit was a known cause of the recent crisis, as well as the consequent massive bankruptcies that took the crisis to an unmanageable level. The crisis highlighted the pressing need for financial stability,

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such as taking the principles of Islamic financing as an example. (Boukhatem, Ben Moussa,2017).

Islamic finance has been one of the fastest rising industries over the last ten years, the Islamic Financial Development Report 2021 highlights the growth of Islamic finance assets witha significant, continuous rise from USD1.975 trillion in 2014 to USD3.374 trillion in 2020, and a projected reach of almost USD5 trillion in 2025. This optimistic tall growth degree of Islamic finance assets year after year attracts the attention of all policymakers, bankers and financial academics to look into the Islamic finance industry.

This study investigated the effect of the Islamic Banks performance on the Economic growth. This paper is organized as follows. The first section tries to draw attention towards the important Studies that Islamic finance and banking. The second section deals with the different empirical works and gives an overview of the added value of Islamic finance to the economic growth. The third section starts with an econometric specification, we will adopt the subsequent panel specification for our analyses. Finally, discusses the results and concludes.

The structure of the paper is as follows. Following this Instruction section, The second section tries to draw attention towards the important Studies that Islamic finance and banking., The third section Methodology. Section4 presents Panel results, followed by the Conclusions and policy implications provided in Section 5.

Against this background, the guiding research question is:- What is the impact of the financial performance of Islamic banks on economic growth?.
Therefore, this research makes the following hypothesises:
H_1: There is a positive relationship between financial performance and economic growth during the study period.
H_2: There is a positive relationship between inflation and economic growth during the study period.

2. LITERATURE REVIEW

The relationship between Economic growth and financial performance of Islamic banks has motivated a voluminous empirical literature in which researchers have evaluated the performance of banking sector using different statistical techniques, For instance, Concerning studies of the performance and profitability of Islamic banks. Some of those studies focus on performance ratios : (Haron, 2004) examined internal and external factors influencing Islamic banks' profitability. (Haron, 2004) found a high correlation between internal factors (liquidity, total expenditures, funds invested in Islamic securities, the percentage of the profit-sharing ratio between the bank and the

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borrower of funds) and the total income's level received by the Islamic banks. The author found almost the same impacts regarding external factors like size of the bank, interest rates and market share.

(Izhar, Asutay, 2007) concluded that the activities of financing were the source of the ways of the Bank Muamalat Indonésia (BMI) profit-seeking, whereas the service activities of the contribution to the profitability of the studied bank were not significant. The document of the authors revealed that the short-term financing was based on the average activities of financing during period 1996-2001. (Izhar, Asutay, 2007) confirmed a positive relation between the inflation and the measure of the profitability. (Jaffar, Manarvi, 2011) conducted their performance comparative study for period from 2005 to 2009 on Islamic and conventional banks operating in Pakistan. They used capital adequacy, asset quality, management quality, earning ability and liquidity position as CAMEL test standard factors. The authors found that Islamic banks are better regarding capital adequacy and liquidity, while conventional banks performed in management quality and earning ability. Asset quality was nearly the same for both modes of banking. (Usman, Kashif Khan, 2012) conducted comparative study of profitability and liquidity ratios from 2007 to 2009 of Islamic banks (Mezan Bank Ltd, Bank Islamic and Albaraka) and conventional banks (Faysal Bank, KASB and Bank of Khyber). (Usman, Kashif Khan, 2012)'s finding indicated that Islamic banks' growth rate and profitability are higher compared to those of conventional banks. The authors conclude that “the Islamic banks have high liquidity power over conventional banks”. (Hidayat, Abduh, 2012) tried to estimate the impact of the financial crisis of 2008-2009 on the financial performance of the Islamic banking industry in Bahrain. (Hidayat, Abduh, 2012) noticed that even if the impact of the financial crisis was not significant on the performance of the Islamic bank of Bahrain for the period of crisis and it was significant after the period of crisis.

(Khan et al, 2014) have examined factors that affect Islamic banking profitability which was adopted as a measure for the financial performance in Pakistan. They employed a sample of five Islamic banks in Pakistan from 2007 to 2014. They employed capital adequacy ratio, bank size, nonperforming loans (NPL) ratio, gearing ratio, asset composition, operational efficiency, asset management, deposit ratio, (GDP) and (CPI) as exogenous variables, ROE, ROA, earnings per share (EPS) as endogenous variables. Their results showed that the profitability of Islamic banking was impacted by bank-specific aspects such as asset management, NPL ratio, deposit ratio and exterior factors such as CPI.

Concerning studies of Islamic banks performances and economic growth nexus, In a study, (Rabaa,Younes, 2016) surveyed the influence of the financial performance of Islamic Banks on the economic growth in terms of financial liberalization through the

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use of Islamic banks in all of Abu Dhabi, Saudi Arabia, Bahrain, Great Britain and Tunisia over the period 2001–2012. They used panel fixed effect and GLS regression with variables of GDP, return on assets (ROA), return on equity (ROE), a ratio of the performance of Zakat, a ratio of Islamic earnings vs. not Islamic earnings, industrial production index (IPI), consumer price index (CPI) and money market rate. They

resolved that Islamic banking performance had a significant influence on economic growth.

Besides, (Boukhatem, Moussa, 2018) presented clear empirical evidence that the implementation of the Islamic financial system has stimulated economic growth in the 13 selected MENA region; they applied panel cointegration and FMOLS regression on a sample of Islamic banks in the MENA region for a period ranged from 2000–2014, and they used GDP per capita growth as dependent variable and loans by Islamic banks/GDP, education, inflation, government consumption/GDP, trade openness, domestic credits to private sector/GDP, regulatory quality and rule of law as independent variables.

(Tabash, 2019) also came to a similar conclusion, which found that there is a constructive significant relationship between financial performance of Islamic banks and economic growth in the UAE; he used pooled ordinary least square with variables of GDP, ROA, ROE and the net revenue margin (NRM) on a sample of all full-sized active Islamic banks in the UAE covering a period from 2000 to 2014.

(Ledhem, Mekidiche, 2020) The findings demonstrated that the only significant factor of the financial performance of Islamic finance, which affects the endogenous economic growth, is profitability through return on equity (ROE). The experimental findings also indicated the necessity of stimulating other financial performance factors of Islamic finance to achieve a significant contribution to economic growth.

3. METHODOLOGY

3-1-Sample and data collection

This study used a balanced panel data of all full-fledged Islamic banks working in four countries of Saudi Arabia (Two Islamic Banks), United Arab Emirates (One Islamic Bank), Kuwait (One Islamic Bank), Qatar (Three Islamic Banks) covering a period range from 2014 to2021.

we use annual reports supplied by the individual banks through their Web sites, Other data were collected from the World Bank database

Experimental variables

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Financial performance of Islamic finance variables, we have focused on this parameter by using three major indicators since most studies have focused on the profitability (earnings) by using three earning indicators of ROA, ROE and NPM.

The economic growth variable. All reviews in this study have settled on the use of GDP as a proxy for economic growth when it is analyzed with the financial performance of Islamic finance. Thus, this empirical study has adopted the GDP as a proxy independent variable for economic growth.

Macroeconomics variables. To avoid the issue of bias due to excluded variables, other variables were included in the model to monitor the potential effects of other growth determinants that will be implemented based on the previous studies, gross fixed capital formation (GFCF) and consumer price index (CPI) as a proxy for inflation, .
Thus, the estimation variables are:
(1) Dependent variable: GDP.
(2) Independent variables: ROA, ROE, NPM, CAR,.
(3) Control variables: GFCF, CPI.
To assess empirically the impact of Financial performance of Islamic banks variables on economic growth, we specify the following model:

$GDP_{it} = f(ROA_{it}, ROE_{it}, CAR_{it}, NPM_{it}, GFCF_{it}, CPI_{it})$

Econometrically expressed as:

$$LGDP_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_3 CAR_{it} + \beta_4 NPM_{it} + \beta_5 LGFCF_{it} + \beta_6 CPI_{it} + \pi_{it}$$

$(\pi_{it} = v_{it} + u_i)$

„i“ is a notation for individual banking firm, „t“ stands for time period, and π_{it} is the disturbance term. Decomposition of π_{it} is to capture error from unobserved bank specific variables (v_{it}), while u_{it} is the robust standard error (RSE), α is the intercept, β and are parameters for estimating variables.

3-2-Econometric methodology

The panel data approach is a combination of cross-sectional and time series statistical analysis. By pooling the time series and cross-sectional dimensions of our data, panel inputs can enhance identification of stationarity and uncorrelated shocks within a model. The econometric form of the panel regression is:

$$Yit = \alpha + \beta Xit + \pi it \ (\pi it = i + i) \ (1)$$

where Y_{it} is the dependent factor of i^{th} component in time t, X_{it} is the explanatory variable of i^{th} component in the corresponding period t. X_{it} is said to be exogenous if it is uncorrelated with the disturbance π_{it}. $\boldsymbol{\mu}_i$ is the unobservable individual effect, v_i is the residual of disturbance; α denotes intercept, and β is our estimating parameter.
Panel data analysis may be in the form of general OLS, fixed effect model (FEM) or random effect model (REM). Under the FEM, unobservable disturbance terms ($\boldsymbol{\mu}_i$) are assumed to be fixed estimated parameter, with stochastic residual term (v_i). FEM is

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suitable when considering individual effect of i^{th} component. Under this condition, β is assumed to be identical for all i^{th} components, but intercepts are different. The FE model can be stated as:

$Y = \alpha 1i + \beta Xit + \pi it$ (2)

A common feature of the FEM is that it concentrates on micro-unit effects, neglecting variations in industry. This omission is corrected for in the random effect model (also known as the error components model). To statistically optimize available data, this study focuses on the random effect model. The random effect model is preferred to the fixed effect because of the random sampling pattern of the collated data. Baltagi (1995)

suggests the fixed effects model would be more appropriate if we are focusing on specific set of observations. Although, using the fixed effects model for large number of observations may grossly lead to loss of degrees of freedom.

The test of specification of Hausman (1978). is a general test which can be applied to numerous problems of specification in econometrics. However, his most answered application is the one tests of specification of the individual effects in panel.

Hypothesis:

H_0: Cov (α_I, x_{it}) = 0 (Random Effect)

H_1: Cov((α_I, x_{it}) ≠ 0 (Fixed Effect)

When the null hypothesis (H0) is rejected, the fixed effect model is used. Otherwise, the random effect model will be more relevant in this case. The fixed effect model is used first, followed by the random effect model. And finally, the Hausman test will be applied to opt the appropriate model either the fixed or random.

3-3-Correlation Total

Table 1 exhibits simple correlation matrix among research variables in order to determine the existence of any multi-co-linearity problem before the régression analysis could be implemented. Cooper and Schindler (2003) argued that a multico-linearity problem exists when correlation scores are 0.8 or greater. As depicted in Table 2, all of them are have no collinearity problem.

Table 1: The Pairwise Correlation Matrix for Explanatory Variables

	LN_CAR	LN_CPI	LN_GDP	LN_GFCF	LN_PM	LN_ROA	LNROE
LN_CAR	1						
LN_CPI	0.4497	1					

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LN_GDP	0.3810	0.0872	1				
LN_GFCF	0.1361	-0.4064	0.6521	1			
LN_PM	-0.1919	-0.2378	-0.1244	-0.0443	1		
LN_ROA	-0.22204	-0.3300	0.0054	0.0687	0.2534	1	
LN_ROE	-0.3030	-0.2463	-0.0370	-0.0144	0.2010	0.9197	1

Source: Author's calculation (Eviews9)

4-Panel Results :

We refer to Table 2 for panel regression results. The table presents three patterns of estimates: (1) the panel ordinary least square model; (2) the fixed effect model estimates; and (3) the random effects model estimates.

Table 2-Estimates of Parameters for Panel Regression Model

	Regression Models		
	Panel OLS	**Fixed Effect (EGLS**	**Random Effect (EGLS)**
ROA	0.0239 (0.5438)	0.0011 (0.8101)	0.0239* (0.0000)
ROE	-0.0136 *** (0.0749)	0.0024 ** (0.0341)	-0.0136* (0.0000)
PM	0.0064 (0.6858)	-0.0018 (0.4548)	0.0064** (0.0018)
CAR	-0.0257** (0.0229)	-0.0008 (0.5728)	-0.0257* (0.0000)
LN CPI	-6.7326* (0.0000)	-0.7256** (0.0038)	-6.7326* (0.0000)
LN GFCF	-0.0708 (0.1340)	-0.1491 (0.1098)	-0.0708* (0.0000
CONSTANT	19.8552* (0.0000)	7.6755* (0.0000)	19.8552 * (0.0000)
R-Square	0.52	0.99	0.52
F-statistic	9.1827	564.42	9.1827
Prob(F-stat)	0.000000	0.000000	0.000000

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The results shown in parentheses are absolute values of the *t*-statistic, with *, ** and *** implying rejection of the null hypothesis at the 1%, 5% and 10% levels respectively. The panel Regression results were carried out on E-VIEWS 9.0.

Source: Author's calculation (Eviews9)

As shown in Table 3The result of Hausman test statistic: A low p-value counts against the null hypothesis that the random effects model is consistent, in favor of the fixed effects model. The p-vale is lower than 0.05 shows that among tested models the Fixed Effects Model is appropriate in this case.

The R^2 coefficient is used in determining the explanatory power of our independent variables as related to changes in the dependent variable. For our model, R^2 is 0.99

under the fixed effect model. This means that about 99 percent variation in economic growth is explained by changes in selected bank performances variables.

Table 3 : Hausman's test

Test Summary		**Chi-SqStatistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random		3165.4380	6	0.0000
Variable	**Fixed**	**Random**	**Var(Diff.)**	**Prob**
ROA	0.0011	0.0239	0.0000	0.0000
ROE	0.0024	-0.0136	0.0000	0.0000
PM	-0.0018	0.0064	0.0000	0.0000
CAR	-0.0008	-0.0257	0.0000	0.0000
L CPI	-0.7256	-6.7326	0.0217	0.0000
L GFCF	-0.1491	-0.0708	0.0083	0.3907

Source: Author's calculation (Eviews9)

As shown in Table 3, we can also reveal the results of regression analysis that explain the influence of bank performance on economic growth based on standardized regression weights. So, the model can be applied as follows:

L GDP = 7.6755+ 0.0011 ROA +0.0024 ROE-0.0018PM -0.0008 CAR -0.7256LN -LCPI0.1491 LGFCF

Based on the above equation, the regression analysis can be shown the standardized coefficient weights of each variable as follows.

Concerning the impact of return on equity on economic growth (GDP), the impact is statistically significant and positive (p-value of ROE: 0.034 is strongly fewer than 0.05) reliably with what Bourke (1989) had confirmed that banks with high profitability

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remain well-capitalized which cause an increase in capital stock due to the banking profitability, which leads to economic growth according to the endogenous growth theory (Romer, 2011), besides, both studies of Rabaa and Younes (2016) and Tabash (2019) Ledhem and Mekidiche (2020) demonstrated the same significant positive link between ROE and GDP.

For the effects of profit margin (PM), capital adequacy ratio (CAR) were not statistically significant on economic growth (GDP).
For other macro-economic variables, only the CPI was significant and negative to economic growth reliable to the economic conception (p-value of CPI: 0.003 is fewer than 0.05), while gross fixed capital formation (GFCF) are not significant to the economic growth also.

5-CONCLUSION :

This study analyses the impact of the financial performance of Islamic banks on economic growth. it uses Panel data methodology were collected from the 7 islamic banks for the period of 2014 to 2021.

This paper concluded that only ROE was statistically significant and positive to economic growth. Therefore, This study found that the financial performance of Islamic finance through profitability had a significant positive impact on economic growth. However, the financial performance of Islamic finance through capital adequacy, net profit margin, it was not significant to economic growth. As a result, those ratios of the financial performance of Islamic finance are still insufficient to make a positive contribution to economic growth; therefore, Islamic banks should stimulate those performance factors to provide a significant impact on the economic growth.

Choosing to focus on the relationship between financial performance of Islamic finance and economic growth, this paper controlled the empirical model with other macro-economic variables to avoid possible bias; the empirical investigation found that the CPI, which is the proxy variable for inflation is statistically significant and negative for economic growth consistent with the economic conception.

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