Exploring the Internal Determinants of Kuwaiti Banking Sector Profitability

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Abstract

The aim of this study is to examine the internal factors that mostly affects the profitability of Kuwaiti banking sector. Unlike previous studies, this paper uses the aggregate financials of the whole sector rather than taking each bank individually. The research is based on data spanning over the period 2011-2018. Results obtained from this study revealed that assets size, leverage, and assets quality had a statistically significant effect on both return on assets (ROA) and return on equities (ROE). On the other hand, management efficiency, capital adequacy, and assets growth showed insignificant effect on profitability.

Key words: Kuwait banking sector, Return on assets (ROA), Return on equity (ROE), Profitability, Leverage.

1. Introduction

Banking sector is the cornerstone of any economy, it plays an important role in the economic development of any country. Economies that have a profitable banking sector are better able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou, Brissimis and Delis, 2005). Therefore, it is important to understand the determinants of banking sector profitability. Malik (2011) states that profitability is one of the main determinants of the performance of any institution. Koller (2011) argued that profitability is the most important and reliable indicator to measure the risk of insolvency of banks.

Numerous studies were conducted to examine the effect of internal factors on the profitability of banks. These internal factors would include the assets size, leverage, assets quality, management efficiency and capital adequacy of the bank. Ahmed and Khababa (1999) found out that bank size was one of the main determinants of the banks' performance in Saudi Arabia. Idris et al (2011) using panel data analysis for Malaysian banks over the period 2007-2009 and concluded that only the bank size was significant in determining the profitability with positive relationship. Halkos and Salamouris (2004) conducted a study on Greek banks and showed that banks with larger assets are more profitable. A positive relationship between size and bank efficiency was also suggested by Bikker (1999) for the European banking industry. The rationale behind the direct relation between the bank's assets size and profitability may be explained by the economies of scale resulting in a higher profit margin than smaller banks. A study by Eichengreen and Gibson (2001) proposed that

bank's size had a positive impact on profitability to a certain limit. However, the size effect could be negative due to bureaucracy which makes them less efficient in coping with the changes in market conditions. Hussein (2003) studied the Sudanese banks over the period 1999 to 2000 and concluded that, larger banks are less efficient than smaller size.

Bashir (2000) studied banks performance over the period 1993-1998 in eight Middle Eastern countries' and reported a positive significant relationship between leverage and bank performance. Akhtar et al. (2011) used a sample of banks in Pakistan over the period 2006-2009 to investigate the effect of bank-specific factors on bank's profitability using a multivariate regression models. They found that gearing and capital adequacy ratios had a significant positive impact on bank performance. On the other hand, bank size affected performance negatively but insignificantly. Schaek and Cˇihak (2007) showed that banks in a competitive market tend to hold higher capital adequacy ratios. Srairi (2009) examined the bank's profitability for conventional and Islamic commercial banks operating in GCC countries for the period 1999–2006. The results of the research showed that the profitability of Islamic and conventional banks is affected by operational efficiency, capital adequacy and credit risk. Masood et al. (2009) identify the determinants of commercial banks' profitability in Saudi Arabia for the period 1999–2007. Their results indicate that operational efficiency, earning assets to deposits; capital adequacy ratio, GDP growth, and financial development significantly affect banks profitability.

2. Methodology

The model examines the effect of assets size, leverage, asset quality, management efficiency, growth, and capital adequacy on return on assets (ROA) and return on equity (ROE). The study is based on the aggregate financial results of the banking sector in Kuwait over the period 2011-2018. Ordinary least squared (OLS) regression is used to examine the statistical significance of the factors. Two models are used in this study;

Model 1 examines the effect of the factors on return on assets (ROA) using equation 1;

$$ROA = \alpha + \beta_1\, lnsize + \beta_2\, lev + \beta_3 AQ + \beta_4 ME + \beta_5 CAR + \beta_6 TAG + \varepsilon \qquad (1)$$

Model 2 examines the effect of the factors on return on equity (ROE) using equation 2;

$$ROE = \alpha + \beta_1\, lnsize + \beta_2\, lev + \beta_3 AQ + \beta_4 ME + \beta_5 CAR + \beta_6 TAG + \varepsilon \qquad (2)$$

Where the factors are shown in table 1;

Table 1. Factors under study

Profitability	ROA	Net Profit /Total Assets
Profitability	ROE	Net Profit /Shareholders Equity
Assets Size	Size	Natural Logarithm of Total Assets
Leverage	Lev	Total Assets / Shareholders Equity
Assets Quality	AQ	Non-Performing Loans/Total Loans
Management Efficiency	ME	Total Expenses / Total Earnings

| Capital Adequacy | CAR | (Tier 1 Capital + Tier 2 Capital) / Risk Weighted Assets |
| Growth | TAG | $(TA_t - TA_{t-1})/TA_{t-1}$ |

3. Data and Empirical Results

The aim of this study is to examine the effect of internal factors on the profitability of the banking sector in Kuwait. Data spanning over the period 2011-2018 were used in this study. The data used in this study were downloaded from the Kuwait Institute of Banking Studies website.

The correlation analysis measures the strength and the nature of the relation between two variables. The correlation coefficient takes the value of +1 to -1, the closer the coefficient is to the 1 or -1 indicates the strength of the relation while as the value comes to or near zero the relation is weakened and zero coefficient indicates no relation between the two variables. The negative sign in the coefficient would indicate an inverse relation between the two variables while a positive sign would indicate a direct relation. However, the correlation does not necessarily imply any cause-and-effect relationship (Guajarati, 2004). The correlation matrix is widely used to identify any multicollinearity in the data. Multicollinearity can cause unrealistically high standard error estimates of regression coefficients and in the end can cause false conclusion about the significance of independent variables in the model being evaluated. By looking at Pearson correlation matrix in table 2, it can be seen that none of the variables have a correlation that is higher than the threshold, 070, indicating no multicollinearity in the data.

Table 2. Pearson correlation matrix

	ROA	ROE	TA	Lev	AQ	ME	CAR	Growth
ROA	1							
ROE	0.897	1						
TA	0.479	0.406	1					
Lev	-0.572	-0.431	-0.616	1				
AQ	-0.396	-0.433	-0.631	0.029	1			
ME	-0.009	0.235	0.095	0.489	-0.570	1		
CAR	0.155	0.120	0.332	-0.324	-0.182	0.138	1	
TAG	-0.073	-0.223	-0.224	0.022	0.359	-0.485	-0.347	1

From the OLS regression results shown in table 3, it can be seen that model 1 had a significant *F* that is less than 0.10 indicating that the model can be labeled as a "good fit" at the 90% confidence level. The results also show that the variables used can only explain 40.70% of the profitability while the remaining 59.3% is caused by other variables. In terms of return on assets (ROA) the results show that total assets size, leverage, and assets quality have a statistically significant effect on return on assets (ROA) while management efficiency, capital adequacy, and total assets growth did not have significant effect. The results show that there is an inverse relation between the assets size of the banking sector in Kuwait and its profitability which contradicts the findings of Ahmed

and Khababa (1999), Idris et al (2011), and Halkos and Salamouris (2004). The results also contradicts the finding of Bashir (2000) that there is a direct relation between profitability and leverage since the results show an inverse relation between leverage and profitability.

Table 3. OLS regression results

Model 1: Return on Assets (ROA)				Model 2: Return on Equity (ROE)			
R^2	0.6442	Sig F	0.0864	R^2	0.6565	Sig F	0.0757
Adj R^2	0.4070			Adj R^2	0.4276		
	Coefficient	t-Stat	P-Value		Coefficient	t-Stat	P-Value
Intercept	6.481	3.405***	0.008	Intercept	36.157	3.523***	0.006
TA	-0.036	-1.863*	0.095	TA	-0.076	-1.999*	0.077
Lev	-0.584	-3.103**	0.013	Lev	-3.449	-3.397***	0.008
AQ	0.129	2.154*	0.060	AQ	0.608	1.889*	0.091
ME	1.332	0.748	0.474	ME	17.096	1.780	0.109
CAR	-0.005	-0.413	0.689	CAR	-0.053	-0.852	0.416
TAG	0.012	0.758	0.468	TAG	0.040	0.479	0.643

*, **, *** represent the confidence level at 90%, 95% and 99% respectively

In terms of return on equity (ROE), the results show that the model is reliable at the 90% confidence level but it only explains 42.76% of the profitability. Results also show that total assets size, leverage, and assets quality were the only factors that had a statistically significant effect on the banking sector return on equity (ROE) while the remaining factors did not show that significant effect.

4. Conclusion

The banking sector is the heart of any economy, a healthy banking sector would result in a stronger economy. The health of the banking sector can be measured by its profitability. The aim of this study was to examine the internal factors that mostly affects the banking sector profitability in Kuwait. A panel data was used over the period 2011-2018 to examine the factors that mostly affects the profitability of the banking sector. The profitability parameters that were used in this study were return on assets (ROA) and return on equity (ROE). Results obtained from the OLS regression model revealed that size, leverage, and assets quality had the most effect on the banking sector profitability while management efficiency, capital adequacy, and total assets growth showed no statistical significant on the profitability of the banking sector.

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