

# **The Financial Structure, Lending capacity and Banks performance in the Emerging Market: Does it Matter?**

**By**  
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## **Abstract:**

This study examines the relationship between financial structure, lending capacity and financial performance of banks in the emerging market. It is motivated by a desire to explain the effects of growth of financial resources on lending capacity and performance under medium run analysis approach,2008-2018.The least square regression analysis techniques and correlation were used in this study. The study provides evidence that size and tangibility affect the ROTA. The total debt has an effect on the net interest margin. With respect to the relationship between the lending capacity and banks performance, an effect of tangibility on the ROE was found. The study has policy implications.

Keywords : **Performance, Emerging markets, Matters.**

## **1. Introduction:**

In the wake of high and rising oil prices since 2003, the member states of the GCC, have seen dynamic economic development, enhancing their role in the global economy as investors and trade partners. The International financial crisis of 2008 produced a negative impact on the economic performance of The MENA region and the GCC counties are of no exception. The GCC countries' strong orientation towards oil and gas Implies that the diversification of their economies is a key challenge. The fall in the oil prices remain the new challenges to the GCC economies in the light of prevailing inflation rate, Interest rate and instability of the neighboring countries. The UAE has the second largest economy in the Arab world (after Saudi Arabia) with a gross domestic product (GDP) of USD 414 billion in 2019. The UAE economic policy at both the federal and emirate levels will continue to focus on reducing the economy's dependence on the Hydrocarbons sector (Dev. plan, 2021). The UAE hydrocarbon sector is estimated to have exhibited a growth of 3.4%

in 2019. However, non-oil activities advanced at a softer pace growing by 1%. The Spread a covid-19 is expected to impact trade and supply chain movements in 2020 and 2021.

The insight into the UAE banking sector shows the hottest topics of mergers and acquisitions in 2019 and 2020. The output of the financial sector activities in current prices achieved an increase from US\$ 36.50 billion in 2017 to USD 38. 1 billion in 2018 with a growth rate of 4.6%. The number of listed companies in the UAE securities market rose from 130 in 2017 to 137 in 2018 and to 140 in 2019 ( 72 in Abu Dhabi and 68 in Dubai ). The contribution of the financial sector to the GDP declined from 9. 6% in 2017 to about 9.2% in 2018 and 9.1% in 2019.

The total number of banks operating in the UAE's financial market reached 59 banks by the end of Dec. 2019, including 21 national banks and 38 foreign banks. The total bank branches of national banks are around 981 in 2020 and 170 branches of foreign banks, coming to the total of 1151 bank branches. According to the World Bank database, The UAE population grew to about 9631000 in 2019 and the workforce is about 7384000 in 2019 with a ratio of 77 percent. Based on Goldsmith model of 1965, we could state that the banking density ratio in the UAE is 1.20 with a positive deviation of 20 percent. The total assets of banks operating in the UAE reached US\$ 827 billion by the end of Dec 2019 with an annual growth rate of 6 percent. The total deposits of banks grew strongly in 2018 with a rate of 7.9 percent as compared to the year 2019, with a growth rate of 3.6 percent. The high level of deposits (495 USD Billion in 2019) and capital solvency and capital adequacy of the banking sector (17.3 percent in 2019), improve the capability and ability of banks to continue their banking activities, with a total banking credit growth rate of 4. 8 percent in 2018 and 3.2 percent in 2019. The total banking credit in the UAE reached USD 465 billion by the end of Dec 2019. It is apparent that the ratio of "loans to deposits" continued to decline gradually to reach 93.9 percent in 2019 compared to 94.3 percent in 2018 and 97.1 percent in 2017.

Deposits by type of national banks (conventional VS Islamic), represents 78.5 percent and 21.5 percent of the total deposits at the end of 2019, respectively. Meanwhile, the share of national and foreign banks' deposits represents 88.6 percent and 11.4 percent respectively in 2019.

Despite the decline in Lending to individuals (less than 30 percent of total credit to the private sector), the increase in credit to private corporates led to a rise in overall credit growth to the private sector. In this connection, it is worth to document the UAE banking lending to the small, medium enterprise. Micro, small ,medium enterprises (MSMES) play vital role in diversifying the

UAE economy and boosting job creation. The survey conducted by The Central Bank of the UAE (CBUAE) on MSMES, shows 22 percent micro, 21% small and 57% are medium-sized enterprises. The CBUAE Survey (2019) revealed that the primary challenge MSMES face is related to financial statements which at least 25 percent of respondents (620 firms) fail to provide to raise institutional finance. 69 percent of the respondents consider themselves financially constrained with high interest rate (32% reported paying more than 10 percent).

The performance highlights of the UAE banking sector as an average of the last five years (2015-2019) could be reflected into followings;

<b>Average Net profit margin percentage</b>	<i>11.5 %</i>
<b>Average cost to income ratio</b>	1.6%
<b>Average capital adequacy ratio</b>	17.33%
<b>Average Return on Equity (ROE)</b>	13.7%
<b>Average Return on Total Assets (ROTA)</b>	1.71%
<b>Average liquidity Ratio</b>	33.52%
<b>Average Non-performing loan ratio</b>	3.13%

In addressing the association and the degree of interaction between the financial structure, lending capacity and the performance of banks operating in a competitive financial market, a number of questions are expected to be raised and answered:

- Is there a relationship between financial structure, lending capacity and efficiency of banks regardless of size and nature in the UAE?
- In what sense the components of the financial structure determine the lending capacity of banks and consequently influences their efficiency and effectiveness?

## **2. Literature Review:**

This part of the paper will shed light on the related three topics of financial structure of the banking sector in the emerging market, lending behavior and determination of lending capacity and the performance of banks.

The financial structure of bank is playing an important role in determining its performance. In addressing the relationship between bank's capital structure and the performance (EL-Chaarani and EL-Abiad 2019) found that the performance is influential by the capital structure. In addressing the issue in the Middle East at post crisis era (2011-2016), the authors found that short term debt and total debt affect ROTA negatively, but they have a positive effect on the ROE. In a study conducted by Taani (2013), to examine the impact of capital structure on the performance of banks in the Jordanian economy, the research findings reveal that both ROE and net profit are affected significantly by the total debt. Saeed, Gull and Rasheed; 2013 investigated the impact of financial structure on performance of banks in Pakistan during the period (2007-2011). The study was built around many independent variables such as total debt, and size. ROTA and ROE were used to determine the performance as well as EPS. The study provides an evidence on a positive relationship between the size of the bank and the three dependent variables ROTA, ROE and EPS. Swal, 2016, studied 14 banks operating in Tanzania for the period (1998-2010). He found that size, profitably and growth of the bank were the major determinants of the bank's financial structure. In the West African context, Musah (2017) examined how can the financial structure of 23 banks operating in Ghana affects the profitability. The research results provided an evidence that there is negative relationship between profitability and short- and long-term debt ratios. As the size of the bank was considered in Musah study as of one of control variables, the study showed a positive relationship between the bank size and the profitability indicators.

Bugri Ebenezer (2015) has conducted a study on relationship between financial structure and performance of banks in sub-Saharan Africa (2000-2006). The performance was measured by the dependent variables (ROTA, ROE, NPM) whereas total debt ratio was used as independent variable. Growth, tax and inflation rates were used as control variables. Based on Granger causality test, the study revealed that the performance of bank affects its financial structure and not via versa. On The same trend, Akhtar, 2016, had studied to influence of the financial structure of five banks in Pakistan for the period 2005-2015. The study employed five independent variables such as profitability, tangibility, liquidity ratios, growth rate and interest rate to determine the performance. By applying the pooled analysis, the study results indicated that all the employed Independent variables associated positively with the performance of the selected banks. It is apparent that most scholars used ROTA, ROE and NPM as measures of the performance of the banking sector.

Lending behavior of banks vary from bank to bank and from economy to economy. Ladine, Osei, and Sarpong-Kumankoma (2013), studied the banking lending behavior in Ghana in pre-financial crisis (1997-2006). They used three characteristics, namely financial structure, bank size, macro-economic characteristics, which include the Central Bank lending rate and exchange rate and finally the industry characteristics. The study provides an evidence that on a positive impact of both bank's characteristics on lending behavior of the bank. On the other hand, the study indicated that the relationship between the lending behavior and macro-economic characteristics was negative. In a very comprehensive study conducted on 89 commercial banks based in Nigeria, under long-run analysis (1980-2005) OLOKOYO, 2011, found that the lending behavior of the banks was influenced by their deposits. Following the same methodology, Ayieyo(2016) on examining the lending behavior of banks in Nigeria, he found that the impact on the lending behavior was positive in relation to the volume of deposits and negative in relation to the interest rate.

Under co- integration analysis, study conducted by Olusanya, Oyebo, and Ohadebeve (2012), to investigate the factors that influence the lending behavior of commercial banks in Nigeria during the period 1975-2010, using the same variables of Ayieyo (2016). The study results give evidence on positive impacts of volumes of deposits and GDP at current market price on the lending behavior expressed by loans and advances. However, a negative impact of interest rate on lending behavior was found. By using descriptive statistical tools and regression analysis, Khangalah (2016), investigated the impacts of factors such as liquidity, capital adequacy and interest rate on the lending behavior of Commercial banks operating in the Kenyan financial market. The research findings provided indication that the lending behavior of these banks positively associated with capital adequacy and liquidity. On the other hand, interest rate and asset quality negatively associated with the lending behavior.

Performance of banks can be measured through many ratios (ROE, ROTA, and NPM). A study to measure the performance during the 2008 financial crisis of two sets of banks 4 Islamic banks and 7 conventional banks based in Saudi Arabia, was conducted by Mbarek and Zehri (2016) for the period 2005 to 2014. The different nine ratios used by the authors were divided equally, three ratios for profitability, three for efficiency and three to assess the risk. By using the logit regression, the results revealed that Islamic banks have low degree of efficiency but it's still more profitable

than conventional banks. Banerjee, 2018 investigated the performance of 21 National Commercial banks operating in the UAE between 2014 and 2017. The Study divided performance into three categories: internal based performance (ROTA); market-based performance (Tobin's Q) and economic based performance (EVA). By applying the multiple regression and correlation, the results showed that all independent variables except size of the bank have a positive impact on ROTA. On the other hand, there was a positive correlation between Tobin's Q ratio and all independent variables, but it was very weak.

The relevant literature showed that the size of the bank is one of the independent variables, that affects the performance of bank in term of its profitability (Aladwan, 2015; Samad, 2010)

The conceptual framework of this investigation is built around the interaction between the financial structure, lending behavior and the UAE banking performance from 2008 to 2018 (medium-term analysis). Based on the critical review of the relevant literature, we end up with two main hypotheses:

**a. Hypothesis 1:**

ROTA, ROE and NPM are influenced by the financial structure of the bank.

**b. Hypothesis 2:**

There is an association between ROTA, ROE and NPM and lending capacity of the bank.

### **3. Research Methodology:**

**a. Sample:**

The study is built around selected 8 national banks out of 21 operating in The UAE's financial market over the period 2008 to 2018 (medium-run analysis). The banks' sample are three Islamic banks and five conventional banks.

**b. Variable Selection:**

In this paper, we tried to examine empirically the impacts of the financial structure components on the determination of lending capacity and the performance of the bank. Thus, performance is the dependent variable in the empirical investigation. A frequently used measures of bank performance are ROE, ROTA and Net-profit-margin (NPM).

Since the study targeted to investigate the relationship between the financial structure and its components and lending capacity on the performance of banks, financial structure and lending capacity variables are taken as the independent variables. Thus, we calculated total the total debt by dividing total debt over total assets, change in lending capacity, lending capacity as a percentage of total financial resources and the change in the components of the total financial resources in relation to change in lending capacity and change in performance indicators.

In order to separate the effects of financial structure and lending capacity on bank's performance, a number of control variables are applied in this study, and it is about bank-specific variables that's expected to influence the performance of the bank and therefore are controlled. Bank-specific control variables employed in this study are tangibility, size and growth opportunities. We measure tangibility by dividing fixed assets over total assets of a bank. According to recent banking theories, the banking efficiency resulting from economies of scale is related to the bank size (Flamini, et al 2009). To measure the growth of bank, we calculate the difference between current year asset and previous year and dividing it by previous year asset. In a summary, table (1) here below provides a recap of the used variables and their corresponding measurements:

**Table (1) Variables of Study:**

<i>Variable</i>	<i>Legend</i>	<i>Measurement</i>
<i><u>Independent:</u></i>		
<b>Total Debt</b>	TD	TD/TA
<b>Change in lending capacity</b>	$\Delta$ LC	CLC-PCL/PCL
<b>Lending capacity</b>	LC	TRF-Resources
<b>Total deposits</b>	TA	DD=QD
<i><u>Dependent:</u></i>		
<b>Return on total assets</b>	ROTA	NI/TA
<b>Return on equity</b>	ROE	NI/Equity
<b>Net-Integrated Margin</b>	NIM	Net Income-Interest/TA
<i><u>Control:</u></i>		
<b>Tangibility</b>	LNTC	FA/TA
<b>Size</b>	SZ	Natural logarithm TA
<b>Growth</b>	GW	% change in TA

## 4. Statistical Analysis of the Financial Data

The financial system in the UAE is entirely regulated and managed by the Central Bank in light of the liberalization and coexistence of conventional and Islamic financial institutions. The review of the literature asserted that the conventional and non-conventional banks were criticized by the demand side for the lack of their response to the financial needs of the productive sectors. (Sayed Abbas, 2020). This debate raises the question on the degree of association between the financial resources of banks as exemplified into equity, deposits, and bank borrowing and the lending capacity and in turn the overall performance of the banking system. In examining the association, a testable hypothesis has been developed. The medium-run analysis was adopted to provide a holistic view in connection with the valid data and well-articulated method of analysis. To this point, we turn our attention now.

### 4.1 Regression Analysis

*Table 1: Regression Analysis (ROA)*

Dependent Variable: ROA				
Method: Least Squares				
Date: 04/18/20 Time: 21:00				
Sample: 1 88				
Included observations: 88				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.030492	0.015160	2.011362	0.0476
TOTAL_DEBTS	-0.113864	0.018756	-6.070901	0.0000
TANG	-0.164926	0.052813	-3.122845	0.0025
GROWTH	-0.010285	0.010791	-0.953088	0.3433
SIZE_TOTAL_ASSET	0.003329	0.000970	3.431118	0.0009
CHANGE_IN_TFR	0.014185	0.009418	1.506103	0.1359
R-squared	0.372320	Mean dependent var		0.016360
Adjusted R-squared	0.334047	S.D. dependent var		0.007220
S.E. of regression	0.005892	Akaike info criterion		-7.364672
Sum squared resid	0.002847	Schwarz criterion		-7.195763
Log likelihood	330.0456	Hannan-Quinn criter.		-7.296623
F-statistic	9.727958	Durbin-Watson stat		1.206830
Prob(F-statistic)	0.000000			

In relation to the first hypothesis that tests whether the financial structure is affecting the performance or not, table 3 above shows the first dependent variable which is the return on assets and independent variables. We can see that both size and tangibility which were deployed as control variables have a significant effect on the return on assets of the UAE banks. R-squared is 0.37 which means that 0.372320 variations in ROA can be explained by total debt, tangibility,

growth, size, and change in total financial resources, and the rest is 0.62768 variation in ROA can be explained by other independent variables.

***Table 2:Regression Analysis (ROE)***

Dependent Variable: ROE				
Method: Least Squares				
Date: 04/18/20 Time: 21:04				
Sample: 1 88				
Included observations: 88				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	-0.211250	0.089469	-2.361159	0.0206
TOTAL_DEBTS	0.014477	0.110692	0.130789	0.8963
TANG	-0.994249	0.311689	-3.189871	0.0020
GROWTH	-0.124377	0.063687	-1.952948	0.0542
SIZE_TOTAL_ASSET	0.012848	0.005727	2.243486	0.0276
CHANGE_IN_TFR	0.115579	0.055586	2.079293	0.0407
R-squared	0.289860	Mean dependent var		0.110590
Adjusted R-squared	0.246558	S.D. dependent var		0.040061
S.E. of regression	0.034774	Akaike info criterion		-3.814164
Sum squared resid	0.099155	Schwarz criterion		-3.645255
Log likelihood	173.8232	Hannan-Quinn criter.		-3.746115
F-statistic	6.694027	Durbin-Watson stat		1.148210
Prob(F-statistic)	0.000028			

Regarding the first hypothesis that test whether the financial structure is affecting the performance or not, table 4 shows the second dependent variable which is the return on equity and some independent variables. We can observe that tangibility, size, as it was expressed by total assets and change in TFR, have a significant effect on the return on equity of the UAE banks throughout the selected period. R-squared is 0.289860 which means that 0.289860 variations in ROE can be explained by total debt, tangibility, growth, size, and change in total financial resources, and the rest is 0.71014 variation in ROE can be explained by other independent variables. since the prob

(F-statistic is less than 5% so our independent variables as used total debt, tangibility, growth, size, and change in total financial resources jointly can influence ROE.

***Table 3:Regression Analysis (NIM)***

Dependent Variable: NIM				
Method: Least Squares				
Date: 04/18/20 Time: 21:06				
Sample: 1 88				
Included observations: 88				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	0.060044	0.016208	3.704680	0.0004
TOTAL_DEBTS	-0.072534	0.020052	-3.617278	0.0005
TANG	-0.066801	0.056463	-1.183088	0.2402
GROWTH	-0.017693	0.011537	-1.533562	0.1290
SIZE TOTAL ASSET	0.001102	0.001037	1.062653	0.2911
CHANGE_IN_TFR	0.000715	0.010070	0.071041	0.9435
R-squared	0.288366	Mean dependent var		0.024376
Adjusted R-squared	0.244974	S.D. dependent var		0.007250
S.E. of regression	0.006299	Akaike info criterion		-7.230991
Sum squared resid	0.003254	Schwarz criterion		-7.062082
Log likelihood	324.1636	Hannan-Quinn criter.		-7.162942
F-statistic	6.645564	Durbin-Watson stat		1.181842
Prob(F-statistic)	0.000031			

In relation to the first hypothesis that tests whether the financial structure is affecting the performance, table 5 above shows the third and last dependent variable which is the net interest margin and some independent variables. We can observe that total debt has a significant effect on the net interest margin of the UAE banks throughout the selected period. R-squared is 0.288366 which means that 0.288366 variations in NIM can be explained by total debt, tangibility, growth, size, and change in total financial resources, and the rest is 0.711634 variation in NIM can be explained by other independent variables. since the prob (F-statistic is less than 5% so our independent variables as used total debt, tangibility, growth, size, and change in total financial resources jointly can influence NIM.

***Table 4:Regression Analysis (NIM)***

Dependent Variable: NIM				
Method: Least Squares				
Date: 04/18/20 Time: 21:17				
Sample: 1 88				
Included observations: 88				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.078452	0.017412	4.505586	0.0000
CHANGE_IN_LC	-0.004987	0.012856	-0.387922	0.6991
LENDING_CAPACITY	0.006127	0.023129	0.264888	0.7918
TANG	-0.033268	0.063182	-0.526542	0.5999
SIZE_TOTAL_ASSET_	-0.008200	0.023244	-0.352766	0.7252
CHANGE_IN_TFR	-0.006272	0.012898	-0.486248	0.6281
R-squared	0.154744	Mean dependent var		0.024376
Adjusted R-squared	0.103204	S.D. dependent var		0.007250
S.E. of regression	0.006865	Akaike info criterion		-7.058915
Sum squared resid	0.003865	Schwarz criterion		-6.890006
Log likelihood	316.5923	Hannan-Quinn criter.		-6.990866
F-statistic	3.002406	Durbin-Watson stat		1.058264
Prob(F-statistic)	0.015405			

with respect to the second hypothesis that tests whether the lending capacity of the bank is affecting the performance or not, table 6 above shows the third dependent variable which is net interest margin and independent variables. We can observe that none of the independent variables have a significant effect on the net interest margin of the UAE banks throughout the selected period. R-squared is 0.154744 which means that 0.154744 variations in NIM can be explained by the change in lending capacity, lending capacity tangibility, size, and change in total financial resources, and rest is 0.845256 variation in NIM can be explained by other independent variables. since the prob (F-statistic is less than 5% so our independent variables as used change in lending capacity, lending capacity tangibility, size, and change in total financial resources jointly can influence NIM.

***Table 5:Regression Analysis (ROE)***

Dependent Variable: ROE				
Method: Least Squares				
Date: 04/18/20 Time: 21:17				
Sample: 1 88				
Included observations: 88				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.199979	0.088627	-2.256405	0.0267
CHANGE_IN_LC	-0.113073	0.065438	-1.727933	0.0878
LENDING_CAPACITY	0.020970	0.117727	0.178124	0.8591
TANG	-0.989320	0.321592	-3.076317	0.0028
SIZE_TOTAL_ASSET_	-0.008112	0.118312	-0.068569	0.9455
CHANGE_IN_TFR	0.125949	0.065652	1.918447	0.0585
R-squared	0.282871	Mean dependent var		0.110590
Adjusted R-squared	0.239143	S.D. dependent var		0.040061
S.E. of regression	0.034944	Akaike info criterion		-3.804371
Sum squared resid	0.100131	Schwarz criterion		-3.635462
Log likelihood	173.3923	Hannan-Quinn criter.		-3.736322
F-statistic	6.468962	Durbin-Watson stat		1.207120
Prob(F-statistic)	0.000041			

In examining the second hypothesis that tests whether the lending capacity of the bank is affecting the performance or not, table 7 above shows the second dependent variable which is the return on equity and some independent variables. We can observe that only tangibility has a significant effect on the return on equity of the UAE banks. R-squared is 0.282871 which means that 0.282871 variations in ROE can be explained by the change in lending capacity, lending capacity tangibility, size, and change in total financial resources, and rest is 0.71713 variation in ROE can be explained by other independent variables. since the prob (F-statistic is less than 5% so our independent variables as used change in lending capacity, lending capacity tangibility, size, and change in total financial resources jointly can influence ROE.

***Table 6:Regression Analysis (ROA)***

Dependent Variable: ROA				
Method: Least Squares				
Date: 04/18/20 Time: 21:18				
Sample: 1 88				
Included observations: 88				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.052642	0.017992	2.925812	0.0044
CHANGE_IN_LC	-0.010397	0.013285	-0.782669	0.4361
LENDING_CAPACITY	-0.007820	0.023900	-0.327184	0.7444
TANG	-0.127044	0.065287	-1.945941	0.0551
SIZE_TOTAL_ASSET_	0.006423	0.024019	0.267419	0.7898
CHANGE_IN_TFR	0.018268	0.013328	1.370669	0.1742
R-squared	0.090095	Mean dependent var		0.016360
Adjusted R-squared	0.034613	S.D. dependent var		0.007220
S.E. of regression	0.007094	Akaike info criterion		-6.993364
Sum squared resid	0.004127	Schwarz criterion		-6.824454
Log likelihood	313.7080	Hannan-Quinn criter.		-6.925314
F-statistic	1.623869	Durbin-Watson stat		0.868231
Prob(F-statistic)	0.162883			

In relation to the second hypothesis that tests whether the lending capacity of the bank is affecting the performance or not, table 8 above shows the first dependent variable which is the return on assets and some independent variables. We can observe that none of the variables have a significant effect on the return on assets of the UAE banks. R-squared is 0.090095 which means that 0.090095 variations in ROA can be explained by the change in lending capacity, lending capacity tangibility, size, and change in total financial resources, and rest is 0.909905 variation in ROA can be explained by other independent variables. Since the prob (F-statistic is more than 5% so our independent variables as used change in lending capacity, lending capacity tangibility, size, and change in total financial resources jointly have no influence ROA.

## 4.2 Correlation Analysis

*Table 7: Correlation analysis*

	ROA	ROE	NIM	TOTAL_DEBTS	TANG	SIZE_TOTAL_ASSET_	GROWTH	CHANGE_IN_TFR
ROA	1.000000							
ROE	0.548	1.000000						
NIM	0.610	0.160	1.000000					
TOTAL_DEBTS	-0.442	0.361	-0.471	1.000000				
TANG	-0.155	-0.333600	-0.048	-0.1838	1.000000			
SIZE_TOTAL_ASSET_	-0.183	0.409	-0.353	0.815	-0.121	1.000000		
GROWTH	-0.041	0.0246	-0.305	0.206	0.099	0.2799	1.000000	
CHANGE_IN_TFR	0.0463	0.116	-0.230	0.141	0.168	0.222	0.774	1.000000

Table 9 explains the correlation between dependent variables and independent variables that were used in the research model. We can conclude that there is a positive relationship between ROA and change in total financial resources but is weak. On the other hand, the relationship between

ROA and total debts, tangibility, size, and growth are negative which is mean as ROA increases these variables decrease or via versa. Regarding ROE relationship the table above shows that there is a positive relationship between ROE size, growth, change in total financial resources, and total debts. Whereas there is a negative relationship between ROE and tangibility. The NIM also exhibits a negative relationship with total debts, tangibility, size and growth, and change in total financial resources.

**Table 8: Correlation analysis**

	ROA	ROE	NIM	CHANGE_IN_LC	LENDING_CAPACITY	TANG	CHANGE_IN_TFR	SIZE_TOTAL_ASSET_
ROA	1.000000							
ROE	0.548	1.000000						
NIM	0.610	0.160000	1.000000					
CHANGE_IN_LC	-0.0157	0.041682	-0.232	1.000000				
LENDING_CAPACITY	-0.182	0.412	-0.352	0.253517	1.000000			
TANG	-0.155	-0.334	-0.0483	0.114	-0.127	1.000000		
CHANGE_IN_TFR	0.046	0.116	-0.230	0.843	0.227	0.168	1.000000	
SIZE_TOTAL_ASSET_	-0.183	0.409	-0.353	0.248	0.9995	-0.1206	0.222	1.000000

Based on the results showed above in Table 10 ROA has a positive relationship with the change in total financial resources and a negative relationship with the other variables. On the other hand, change in lending capacity, lending capacity, change in total financial resources, and size are positively correlated with ROE. As mentioned in the previous table that the relationship between NIM and change in lending capacity, lending capacity, change in total financial resources, tangibility, and size is negative.

**Table 9: Descriptive analysis**

	CHANGE_IN_TFR	GROWTH	CHANGE_IN_LC	LENDING_CAPACITY	NIM	ROA	ROE	SIZE_TOTAL_ASSET_	TANG	TOTAL_DEBITS
Mean	0.072668	0.075811	0.075477	25.25975	0.024376	0.016360	0.110590	25.30755	0.014594	0.845154
Median	0.063661	0.059563	0.057718	25.48433	0.023772	0.016188	0.111911	25.51340	0.009079	0.870846
Maximum	0.590427	0.590080	0.676806	27.32215	0.043656	0.033358	0.210268	27.33548	0.051720	0.912808
Minimum	-0.333001	-0.115313	-0.181792	23.09196	0.000000	-0.003181	-0.026862	23.18363	0.000000	0.695643
Std. Dev.	0.107277	0.094028	0.107443	1.156103	0.007250	0.007220	0.040061	1.147109	0.012419	0.058789
Skewness	0.596768	1.880107	1.943839	-0.525755	-0.258904	-0.318410	-0.502984	-0.501983	1.357848	-1.380837
Kurtosis	9.633777	11.49109	12.64822	2.222343	5.002911	3.813238	3.782935	2.191549	3.992278	3.630060
Jarque-Bera	166.5823	316.2056	396.7413	6.271550	15.69251	3.911956	5.958177	6.092319	30.65192	29.42069
Probability	0.000000	0.000000	0.000000	0.043466	0.000391	0.141426	0.050839	0.047541	0.000000	0.000000
Sum	6.394822	6.671365	6.641954	2222.858	2.145087	1.439687	9.731956	2227.065	1.284236	74.37354
Sum Sq. Dev.	1.001224	0.769183	1.004324	116.2820	0.004572	0.004535	0.139628	114.4798	0.013418	0.300681
Observations	88	88	88	88	88	88	88	88	88	88

### **4.3 Descriptive Analysis**

The table 11 above shows the descriptive statistics for the independent variables as well as the dependent variables which are ROA, ROE, and NIM. First, regarding the dependent variables. ROA mean is 0.016 with 0.007 standard deviation. The minimum and maximum of ROA values were 0.033 and -0.003 respectively. The mean ROE is 0.11 with 0.04 standard deviation and a minimum -0.026 and a maximum of 0.21. On the other hand, the NIM mean value was 0.02 with a low standard deviation of 0.007 and the maximum of NIM was 0.043.

### **4.4 Brief Findings**

Based on medium-run analysis (2008-2018) of the financial records of the banking sector, and in connection with proper selection of the research sample in terms of size, nature, capitalization and banking density ratio, the research work attempts to give contribution to the body of knowledge. In deriving constructive findings, the study adhered to the most relevant and prominent method of analysis (4.1- 4.3). The findings of the study could be briefly summarized into the following:

First, the study provide confirmation to the research hypotheses which in turn shows the contribution to the body of knowledge on the association between financial structure, lending capacity and Performance. On the other hand, it leads to a proposed research work on the propping effects of the categories of the financial structure on lending capacity and performance.

Second, the study provides evidence that the profitability indicator built around the relation between the generated net income and net worth is highly influenced by the volume of total assets, total financial resources and change in total financial resources. This is applicable as well on the net interest margin. This calls for the new research efforts to explain the degree of influence on the components of total financial resources on ROE and NIM.

Third, the lending capacity and tangibility and performance of banking sector is one of the findings of this study.

## **5. Conclusions and Policy Implications**

### **5.1 Conclusions**

In this intensive study on the association between the financial structure, lending behavior, and the performance of the banking sector in the emerging market, three basic questions have been discussed at length. First, the degree of interaction between the financial structure and lending behavior. Second, the question of the association between lending behavior, financing, and the performance of the banking sector under long-run analysis 2008-2018.

The result is built around the research framework and well-defined research hypotheses which were testing the effect of financial structure on the performance of the UAE banks and testing the effect of lending capacity on the performance of the UAE banks.

As equity is one of the important factors in determining the financial recourse of the selected banks throughout the selected period, we can see that there is an increase in equity from year to year. This is applicable to large and small conventional and Islamic banks.

Return on assets and return on equity gain popularity among the previous research work in addressing the relationship between profitability and performance. For instance, (Samad, 2015) uses the size as one of the variables to determine the performance of the bank. He founds that there is no influence of the bank size on profitability. In our study, we found that there is a negative relationship between return on assets, net interest margin, and size of the bank. On the other hand, there is a positive relationship between the size of the bank and the ROE. (Banerjee, 2018) investigated the performance of 21 national commercial banks operating in UAE between 2014 and 2017. As ROA was used as dependent variables the results indicate that there is a negative relationship between ROA and size of the bank which is consistent with our correlation analysis findings.

## **5.2 Policy Implications**

The findings of the research have policy implications for the development of the banking sector in the UAE and the GCC at large. This is a very natural process of empirical research, starting with the formulation of research questions from a critical review of the literature and our background. This part of the study is addressed primarily to those who are in charge of policy formulation in the financial sector.

The policy implications of this research will be structured around the following:

- 1- Research work sheds light on the branching policy of the banking sector as spelled out by Goldsmith. The banking sector is maintaining a positive deviation. This is at the expense of efficiency as banks allotted heavy investment in banking technology. The study proposed a policy issue on the association between banking technology and branching geographical distribution
- 2- The degree of utilization of resources is showing significant frozen resources in light of the formidable gap facing SMEs in the UAE. As we found that the degree of utilization of lending capacity is very high, we recommend that to increase it in order to have full utilization.
- 3- The variation between ROE and the ROTA of all samples regardless of size and nature provides evidence on the variation between equity and total assets. Moreover, it shows that the operational cost and branching are not in line with the banking technology invested, which accounts for 10-15 percent of the total asset. This calls for policy measures on

operational performance and typology of banking technology investment and banking approach to reach its target in an efficient and effective way.

4- The study shows a high degree of similarity between conventional and Islamic banks in connection with deposit structure and the growth rate. This question the policy for Islamic banks established by the Central Bank.

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