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The Major Factors that Affect Banks' Performance in Middle Eastern Countries

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Abstract

This paper mainly concentrates on evaluating the major factors that affect the commercial banks' performance in the Middle East region based on factor analysis technique. In our study, we choose 23 variables and analyze them according to factor analysis techniques (PCA), in order to extract them in six different factors based on their importance to banks' performance.

The results revealed that the first factor (banks' characteristics) is considered the most important factor to banks' performance. On the contrary, the sixth factor (other factors) is considered the least important factor that influences commercial banks' performance in the Middle East region. Our results suggest that commercial banks in Middle East region should concentrate on the six factors, mainly variables in the first factor, in order to improve their performance and compete efficiently with global commercial banks.

Keywords: Banks' performance, banks' characteristics, macro economics indictors, legal environment, factor analysis, Middle Eastern countries

1. Introduction

Banks play essential role within economy due to their depositing and lending operations. Having a role of an intermediary between borrowers and lenders, banks (especially commercial banks) can positively contribute to the health and stability of economy.Therefore; most world economies, including Middle Eastern economies, attempt to focus their efforts on growing and stabilizing their banking sectors.

In general, the Middle East is a region with diverse economy that includes countries with common culture, custom, tradition, and religion. Although these countries have many common factors, but they still vary in level of income and set of faced challenges.

The huge appreciation in oil prices in 1970s benefited the Middle East region as a whole. The tremendous growth and investment in the oil exporting countries had positively affected the other countries in the region through big increase in worker remittances, trade, and capital flows. (Abed and Davoodi, 2003)[1]. As a result, the banking sector in these countries has developed rapid.

"Middle East Banking Sector forecast to 2013"[2] indicates that the banking industry in the Middle East region is considered one of the world's fastest growing industries. The competitive environment of the region's commercial banks (with less direct government intervention, more regulatory requirements for better monitoring, low market concentration, better educated demanding generation, more diversity in financial products, increase demand for and offer of Islamic products, and higher entry level of foreign banks to industry) will be more effective and fundamentally stronger in the future. The UAE and Qatar will observe rapid expansion along with other countries of the region.

Since the early 1990s a number of structural changes have affected the banking industry such as globalization, deregulation and technological change. All of these changes increased competition among banks worldwide.

These changes are reflected in two main forms: (1) decline in the total number of banking, (2) increase concentration in the hands of the largest banks.

Banks in Middle Eastern countries, as a part of this big economy, are affected by these changes. As a result, regional differences in banks' earnings persist among these countries. Therefore, efforts in recent years try to explain the main reasons behind these differences.

The main objectives of this study are to identify the major factors affecting performance of commercial banking sector in Middle East region.

This paper is conducted as follows: the first section gives general view about banking sector mainly in the Middle East region. The second section reviews briefly the previous studies. The third section outlines the methodology: describe the data sources, size, and distribution. The fourth section analyzes and explains results. Finally, the paper concludes in final section.

2. Previous Research

The importance of banking sector and its enormous influence on economic growth has produced many studies on factors affecting banking performance. Most of the studies have concentrated in few countries, mainly developed countries while few concentrated in developing countries as Middle Eastern countries. The following is a summary of some of these studies and their results:

(Kobeissi and Sun, 2010) evaluated the relationship between ownership structure and bank performance in the Middle East and North Africa (MENA). By tracking the ownership details of 221 banks in 17 MENA countries, the authors clarified the effects of numerous structural and reform measures on the inconsistency of bank performance in the MENA region. As a result, private banks, specifically foreign banks, perform better than government banks. Moreover, foreign publicly traded banks from the same region, or any foreign banks are tend to have better performance.

In their study, (Awdeh and El Moussawi, 2009) compared the efficiency of banks with majority of domestic ownership, banks with majority of foreign banks, and foreign banks subsidiaries operating in Lebanon from 1996-2005. They used DEA methodology for three groups of banks to calculate the yearly scores for cost effectiveness, technical and allocation. In addition, they extended their study to determine the factors that shape bank efficiency. Their results didn't show big differences between three groups. In spite of this, their evaluation of the efficiency scores shows an improvement in the performance of banks with majority foreign ownership, and weakening in performance of banks with majority of domestic ownership and foreign banks subsidiaries. They also concluded that bank efficiency is differently determined based on bank ownership.

(Okpara, 2009) determined the major factors that influence the banking system in Nigeria. Using factor analysis techniques, the author concluded that undue interference from board members,

[1] http://www.Imf.org
[2] http://www.pubarticles.com/article-middle-east-banking-sector-forecast-to-2013-1289559865.html

political crises, Undercapitalization, and fraudulent practices are considered the most critical factors that impact the performance of banking system in Nigeria.

In his research, (Sufian, 2009) investigated the determinants of bank profitability in a developing economy, case study Malaysian financial sector during the period 2000-2004. The results showed that higher credit risk and higher loan concentration Malaysian banks face lower profitability level. On the contrary, Malaysian banks with higher level of capitalization, higher income from non-interest sources, and higher operational expenses face higher profitability level.

(Al-Tamimi, 2009) determined some significant factors influencing performance of the UAE Islamic and conventional national banks from 1996-2008. Using regression analysis, specifically ROE and ROA as dependent variable, the researcher concluded that liquidity and Concentration were the most significant determinants of conventional national banks. Conversely, number of branches and cost were the most influential factors of Islamic banks' performance.

(Azad, 2006) analyzed the factors affected bank crises in Japan. There are large factors, quantitative and qualitative, identified from analysis. For quantitative analysis; common macro factors, bank sensitive micro factors, household spending factors. The paper also showed some policy implications for the banking/financial of Bangladesh.

In his study, (Tarawneh, 2006) divided the commercial banks in Oman in cohesive categories depending on their financial characteristics revealed by financial ratios. Using simple regression analysis, the followings were determined: the effect of asset management, operational efficiency, and bank size on the financial performance of five Omani commercial banks with more than 20 branches. The results indicated that bank with higher total capital, deposits, credits, or total assets do not always represent a better profitability performance.

A study conducted on Greek banks (Athanasoglou, Brissimis, and Delis, 2006) that tests that effect of bank-specific, industry-specific and macroeconomic determinants of bank profitability. The results indicate that all bank specific determinants, excluding size, significantly affect bank profitability in the anticipated way.

A study done on banks on Arab countries (Mazhar, 2003) illustrated the development and performance of foreign and domestic banks in Arab Gulf region. The author indicated that local and foreign banks in this region have did well over the past couple of years, and showed that the banking sector is well developed and with intense competition among banks.

(Edris, 1997) showed the importance of factors' selection used mainly by Kuwait business consumer when selecting domestic and foreign banks. The results reveal that the highest ranking detriment factor selection by business firm were size of bank assts, personal efficiency, banking experience, friendliness of staff, reputation, and finally the availability of finding branches oversees.

Based on the above previous studies, we can conclude that these are several studies done on some Middle Eastern countries. However, no studies have been done on depth about the primary factors that affect the performance of the whole banking sector in Middle East region.

3. Methodology

Generally, most of the previous studies on commercial banks' performance in developing countries were concentrated on one country, either only on external variables (as inflation and GDP) or on internal variables (such as ROA and ROE). In our study, we combined both internal and external factors affecting commercial banks in the Middle Eastern countries. We also added new variable (religion believes) to our study, which has not been used before in the previous studies. Since the research is conducted on countries with high Muslim population, religion is a primary variable in our study that must not be neglected.

In our study we depend on factor analysis technique. This method has been used to explain complex phenomena. The main reason for choosing this method is to identify the indirect observable factors based on a larger set of observable or measurable indicators (Lingard and Rowlinson,2005)[3]. We used principle component analysis PCA, which is a statistical measure used to replace a large set of variables by a smaller set of factors that considered the top representation of the largest set. In factor analysis, PCA is commonly used in extracting variables in factors. In our study, we followed the steps described below in Norusis (1993).

1. Produce a correlation matrix for all variables. From the matrix, unrelated variables to other variables can be identified.
2. The number of factors important to signify the data and method for calculating them must be resolved. In general, PCA is considered the most widely used method of extracting factors.
3. Factor models rotation to assure that each factor has non zero loadings for only some of the variables.
4. Final step after rotation, scores for each factor can be computed for each case in a sample.

3.1. Data Sources

In our study we relied on questioners. Each questioner is divided to two sections. The first section includes general questions regarding age, gender, profession, and etc. The second section contains 23 questions depending on set of variables that we believe they are the most important variables for our study.

3.2. Data Size and Distribution

For purpose of this study, we distributed around 320 questioners to various professional and academic individuals, who either teach banking or work in banking sector, with different nationalities among Middle East region (Such as Jordan, Lebanon, Saudi Arabia, Kuwait, UAE, Iraq, Oman, and Syria).

The questioners were distributed personally or through e-mails and faxes. In return, 302 questioners were received, which is considered a good sample according (Comrey and Lee ,1992).

3.3. The Variables Affecting Banks' Performance

X1:-the number of banks in the market and regulations to establish new branches.
X2:- relationship between Middle Eastern banks and international banks lend funds in foreign countries.
X3:- competition of foreign ownership banks
X4:-. variety of services provided by banks
X5:- global financial crises.
X6:-. borrowed funds from banks in foreign countries
X7:- bank operating cost.
X8:- net charge off loan.
X9:- competition from tax exempts organization.
X10:-government regulations.
X11:-religion believes.
X12:- GDP per capita
X13:- size and duration of loans.
X14:- economic growth.
X15:-. size and duration of deposits.
X16:- development of stock market and its regulation
X17:-. competition of Islamic banks
X18:-.concentration in lending activity
X19:- bank capital and its capital structure

[3] http://rec.hku.hk/steve/MSc/factoranalysisnoteforstudentresourcepage.pdf

X20:- bank size , measured by total assets
X21:- competition of non financial institutions
X22:- economic condition
X23:-awareness of banks' performances.

4. Results

Table 1: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	5.287	22.989	22.989	5.287	22.989	22.989
2	4.808	20.906	43.895	4.808	20.906	43.895
3	3.323	14.446	58.341	3.323	14.446	58.341
4	2.485	10.804	69.144	2.485	10.804	69.144
5	2.188	9.514	78.658	2.188	9.514	78.658
6	1.726	7.504	86.162	1.726	7.504	86.162
7	.998	4.339	90.502			
8	.731	3.176	93.678			
9	.582	2.530	96.208			
10	.376	1.637	97.845			
11	.306	1.330	99.175			
12	.124	.539	99.714			
13	5.781E-02	.251	99.966			
14	5.875E-03	2.554E-02	99.991			
15	2.012E-03	8.750E-03	100.000			
16	3.848E-16	1.673E-15	100.000			
17	2.778E-16	1.208E-15	100.000			
18	5.645E-17	2.455E-16	100.000			
19	-4.589E-17	-1.995E-16	100.000			
20	-2.128E-16	-9.254E-16	100.000			
21	-2.279E-16	-9.907E-16	100.000			
22	-4.763E-16	-2.071E-15	100.000			
23	-5.533E-16	-2.406E-15	100.000			

Extraction Method: Principal Component Analysis.

Based on the above table (table 1), after analyzing the whole variables in each factor, we find that these factors explained 86% from total variance. The variance was distributed among these following six factors:-

The first factor explained 22.9% from total variance, the second factor explained 20.9%, the third factor explained 14.5%, the fourth factor explained 10.8 %, the fifth factor 9.5%, and finally the last factor explained 7.5%.

Table 2: Component Matrix(a)

	Component					
	1	2	3	4	5	6
VAR00001	5.699E-03	.208	.385	.792	9.334E-02	-.203
VAR00002	9.094E-02	-.212	.387	-.375	.651	.173
VAR00003	-.311	.702	-.218	.472	6.680E-02	-5.038E-02
VAR00004	-.232	.730	6.826E-03	-.534	.237	-.134
VAR00005	.506	-.451	-.648	1.249E-02	-.100	-5.040E-02
VAR00006	-1.587E-02	.384	-9.078E-02	1.637E-02	.784	.326
VAR00007	-.557	.434	-.411	-.156	-4.497E-02	.386
VAR00008	.633	.601	-3.245E-02	.190	-.204	.248

Table 2: Component Matrix(a) - continued

VAR00009	.497	.543	.426	.169	-.365	.148
VAR00010	.507	-.297	.409	-.574	-.262	6.168E-02
VAR00011	-.111	-.213	-7.748E-02	.196	.384	-.773
VAR00012	-5.622E-02	-3.224E-02	.835	.202	-8.493E-02	.327
VAR00013	.796	.345	.264	-.180	-7.763E-02	.134
VAR00014	.329	.372	-.718	-.231	-9.364E-02	5.501E-02
VAR00015	.845	-3.222E-02	.332	4.478E-02	.294	-8.374E-02
VAR00016	-.352	-.505	.179	-.529	2.645E-02	9.046E-02
VAR00017	.580	-.695	-.215	.206	-.108	6.901E-02
VAR00020	-.852	-.365	.111	-.158	-.192	-4.949E-02
VAR00018	-.657	.634	.297	-7.682E-02	1.146E-02	1.008E-02
VAR00019	-.566	-.499	-7.539E-03	.256	-.460	.229
VAR00021	.267	-.599	-.209	.245	.499	.302
VAR00022	-.124	-.228	.639	-7.503E-03	1.304E-02	-.275
VAR00023	-.400	-.416	3.068E-02	.377	.243	.568

Extraction Method: Principal Component Analysis.
6 components extracted.

According to table (2) we illustrate that the first factor (which we called it banks' characteristics) include the most important variables respectively (X20, X15, X13, X18, X8,X19, X7). The second factor (which we called it the competition environment) include the second most important variables respectively(X4, X3, X17, X21, X9). The third factor (which we called it the economic indicator) include the third most important variables respectively (X12, X14, X5, X22). The fourth factor (which we called it regulation and legal environment) include the fourth most important variables respectively (X1, X10, X16). The fifth factor (which we called it country risk) include the fifth most important variables respectively (X6, X2). Lastly, The final factor (which we called it other factors) include the sixth most important variables respectively (X11, X23).

4.1. Results and Discussions

The First Factor: banks' characteristics

Variables	Name of variables	Communalities
X20	Bank size (measured by total assets)	**0.852**
X15	Size and duration of deposits.	**0.845**
X13	Size and duration of loans.	**0.796**
X18	Concentration in lending activity	**0.657**
X8	Net charge off loan.	**0.633**
X19	Bank capital and its capital structure	**0.566**
X7	Bank operating cost.	**0.557**

The first factor, banks characteristics, which is considered the most important variable in the study, contains seven variables ranked based on their communalities. Bank size was the most important variable and bank operating cost was the least important variable in this factor.

The Second Factor: - the competition environment

Variables	Name of variables	Communalities
X_4	Variety of services provided by banks	**0.730**
X_3	Competition of foreign ownership banks	**0.702**
X_{17}	Competition of Islamic banks	**0.695**
X_{21}	Competition of non financial institutions	**0.599**
X_9	Competition from tax exempts organization.	**0.543**

The second factor, the competition environment, which is considered the second most important variable in the study, contains five variables ranked according to their communalities. Variety of services provided by banks was the most important variable and Competition from tax exempts organization was the least important variable in this factor

The Third Factor: - the economic indicators

Variables	Name of variables	Communalities
X_{12}	GDP per capita	**0.835**
X_{14}	Economic growth in the country.	**0.718**
X_5	Global financial crises.	**0.648**
X_{22}	Economic condition	**0.639**

The third factor, the economic indicators, which is considered the third most important variable in the study, contains four variables ranked according to their communalities. GDP per capita was the most important variable and an economic condition was the least important variable in this factor.

The Fourth Factor: - regulation and legal environment

Variables	Name of variables	Communalities
X_1	The number of banks in the market and regulations to establish new branches.	**0.792**
X_{10}	Government regulation.	**0.574**
X_{16}	The development of stock market and its regulation	**0.529**

The fourth factor, regulation and legal environment, which is considered the fourth most important variable in the study, contains three variables ranked according to their communalities. The number of banks in the market and regulation to establish new branches was the most important variable and the development of stock market and its regulation the least important variable in this factor.

The Fifth Factor: - country risk

Variables	Name of variables	Communalities
X_6	Borrowed funds from banks in foreign countries	**0.784**
X_2	Relationship between Middle Eastern banks and international bank lend funds in foreign countries.	**0.651**

The fifth factor, country risk, which is considered the fifth most important variable in the study, contains two variables ranked according to their communalities. Borrowed funds from banks in foreign countries was the most important variable and the Relationship between Middle Eastern banks and international bank lend funds in foreign countries the least important variable in this factor

The Sixth Factor: - other factors

Variables	Name of variables	Communalities
X_{11}	Religion believes.	**0.773**
X_{23}	Awareness of banks performance.	**0.568**

The sixth factor, other factors, which is considered the sixth most important variable in the study, contains two variables ranked according to their communalities. Religion believes was the most important variable in this and Awareness of banks performance is the least important variable in this factor.

5. Conclusion

In summary, this paper aims to provide the major factors that affect the commercial banks' performance in the Middle Eastern countries. In our study, we choose 23 variables and analyze them according to PCA method in order to extract them in the following six factors based on their importance to banks' performance;

1. Banks characteristic.
2. Competition environment
3. Economic indicator
4. Regulation and legal environment
5. Country risk
6. Other factors

The results indicated that all the above factors are important and have big influence on banks' performance. The first factor (banks' characteristics) is considered the most important factor and the sixth factor (other factors) is considered the least important factor that influence commercial banks' performance in Middle East region. Our results, the distribution of factors according to their importance on banks' performance, convey an important indicator that commercial banks in Middle East countries should concentrate on all variables in the six factors, specially the variables in first factor as bank size, in order to grow and stabilize worldwide.

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