

The Impact of Digital Banking on Banking Competition: A Case Study of a Sample of Iraqi Commercial Banks

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Abstract

This study aims to measure and analyze the extent of digital banking's impact on the banking competition of three commercial banks in Iraq for the period of 2016-2022. These banks are the Bank of Baghdad, the Iraqi Middle East Bank, and the National Bank of Iraq. The current study employed a deductive approach and used the Panel ARDL methodology, which shows the effect of independent variables in the short run and long run on the dependent variable. The study concluded that there is a statistically significant relationship between the independent variables and the dependent variable. The estimation results revealed that the coefficients of two determinants of digital banking, which are the independent variables affecting banking competition, are consistent with economic theory, while one independent variable contradicts economic theory. It was found that the Bank of Baghdad is the best in reflecting its use of digital banking in its banking competition, followed by the National Bank of Iraq in second place, closely behind the Bank of Baghdad, and the Iraqi Middle East Bank came in third and last place.

Keywords: Digital Banking, Banking Competition, Iraqi Commercial Banks

INTRODUCTION

Digital banking emerged as a result of the tremendous technological and informational boom that radically changed the world of economics and business over decades. Digital banking contributes to enriching the financial and banking sector by reducing the cost of banking services and attracting customers. For the consumer, digital banking saves time and provides speedy access to services anywhere and anytime, being available 24 hours a day. Banking competition contributes to achieving social welfare gains, reducing the prices of banking services, and encouraging investment, and economic growth. At the institutional level, investing in digital banking is an important technological factor to enhance the banks' position within the competitive environment today.

The importance of the research is highlighted by addressing a topic that is undoubtedly important in the global economy. The competition between banks now and in the future is boundless competition between countries. Therefore, the use of digital means in financial and banking operations has become a necessity at present.

The main goal of the research is to determine the extent to which digital banking can influence the banking competition for each bank in the sample. It also aims to diagnose the differences between these banks in the level of their application of digital banking.

The research problem arises from the following questions:

Is there a significant relationship and impact between digital banking and banking competition in the sample banks?

What is the level of digital banking application in the sample banks?

Are there significant differences between the sample banks in the level of digital banking application?

Three basic hypotheses were set for the research:

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There is a significant correlation between digital banking and banking competition at the overall level and the dimensional level.

There is a significant impact of digital banking on banking competition at the overall level and the dimensional level.

There are significant differences in the level of digital banking application among the banks in the study sample.

Firstly. The Conceptual Framework of Digital Banking, Banking Competition, and Their Relationship

Concept of Digital Banking

Digital banking is defined as the use of electronic devices to provide banking services primarily through the Internet, mobile phones, and other electronic devices as a distribution channel for banking services, including traditional services such as balance inquiries, statement printing, transferring funds to other accounts, bill payments, and net banking services such as presenting and paying bills electronically without the need to go to the bank (Tran et al, 2023: 4).

Outlets and Channels for Distributing Digital Banking Services

Mobile Banking (M-banking): Mobile banking services, one of the most prominent and latest technological innovations in banking and commerce today, have positively responded to the growing popularity of mobile commerce in business by offering an alternative banking channel via mobile phones. It has revolutionized the way personal banking transactions are conducted (Alam & Hendratmi et al, 2022: 2).

Automated Teller Machine (ATM): ATMs enable users to perform various banking transactions efficiently and securely around the clock without the need for a bank employee, contributing to cost reduction and increasing the bank's market share (Nazaritehrani & Mashali, 2020: 6).

Internet Banking: Internet banking offers direct access to banking services with multiple benefits such as improved communications and increased customer satisfaction, helping banks achieve a larger market share (Nazaritehrani & Mashali, 2020: 7).

Point of Sale (POS) Device: POS devices reduce reliance on cash transactions and facilitate virtual transactions, enhancing convenience and security for customers and helping merchants monitor various commercial transactions (Madaan, 2018: 3).

Personal Computer Banking (PC Banking): Enables customers to conduct secure digital financial transactions and easily access their financial information through bank-affiliated software installed on the customer's personal computer (Bouras & Brika, 2014: 102).

Concept of Banking Competition

Banking competition is defined as "a process or behavior undertaken by banks offering banking products to compete to obtain the largest share of the banking market, as each bank strives to acquire as many customers as possible" (Batal & Faisal, 2021: 36).

The advantages of banking competition include improving access to credit and stimulating economic growth (De Marco & Petriconi, 2023: 1), contributing to the improvement of banking service quality, reducing their cost, and leading to a continuous diversification and development of the range of banking products and services offered (Boukhalala, 2017: 19). However, its disadvantages are that banks may focus more on increasing profits and reducing costs, which could lead to a decrease in loan quality. This is because banks may be less willing to spend resources on collecting and analyzing information about borrowers, which could lead to adverse selection and an increased likelihood of loan default (De Marco & Petriconi, 2023: 18).

The Relationship Between Digital Banking and Banking Competition According to Economic Theory

Digital banking contributes to cost savings and simplification of operational processes. This integration makes the customer experience easier and more attractive. A digital bank can conduct most banking transactions online, meaning customers do not need to visit bank branches when using digital banking services, reducing associated paperwork. At the same time, digital banking can be conducted anytime and anywhere (Tran et al, 2023: 4-5). Digital innovation enhances banks by making them more competitive and profitable, and thus more stable and flexible. However, the long-term success of banks largely depends on the consistent and proper use of innovative technologies (Deutsche Bundesbank, 2021: 49). Also, some fundamental elements, such as customer satisfaction, retention, forming joint ventures, low prices, and high quality of products and services, can significantly affect the growth of the bank's market share.

Therefore, banks must offer new banking services through innovative channels to remain competitive, create added value, and achieve a larger market share (Nazaritehrani & Mashali, 2020: 3).

Secondly. Digital Banking and Banking Competition in Iraq

Modern digital banking in Iraq is still in its early growth stage. Mobile and internet banking have only been implemented in the past few years. Even regarding devices such as Point of Sale (POS) and Point of Cash (POC), most financial institutions in Iraq began using them around 2016.

For the sample study banks, we observe an annual increase in the number of digital banking devices for the period 2016-2022. These trends are illustrated in Figures (1), (2), and (3), with each bank represented by a specific color:

— Bank of Baghdad — Iraqi Middle East Bank — National Bank of Iraq

Figure (1): Number of (ATMs)

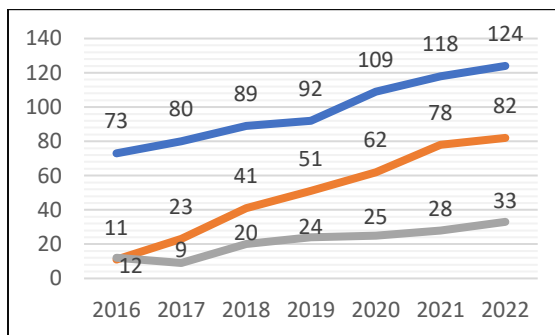
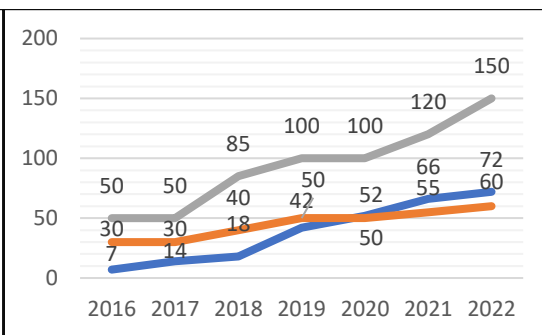


Figure (2): Number of (POS)



From Figure (1), it can be seen that in 2016, the Bank of Baghdad had 73 ATMs, while the Middle East Bank had 11, and the National Bank of Iraq had 12. By 2022, the number of ATMs increased to 124 for the Bank of Baghdad, 82 for the Iraqi Middle East Bank, and 33 for the National Bank of Iraq. Thus, it is clear that the Bank of Baghdad shows a strong interest in deploying ATMs. From Figures (2) and (3), it can be seen that The Iraqi National Bank of Iraq demonstrates significant interest in deploying POS and POC devices. This reflects the bank's focus on localizing employee salaries and activating electronic commercial transactions. However, it's also noticeable that the National Bank of Iraq's interest in deploying ATMs is relatively weak.

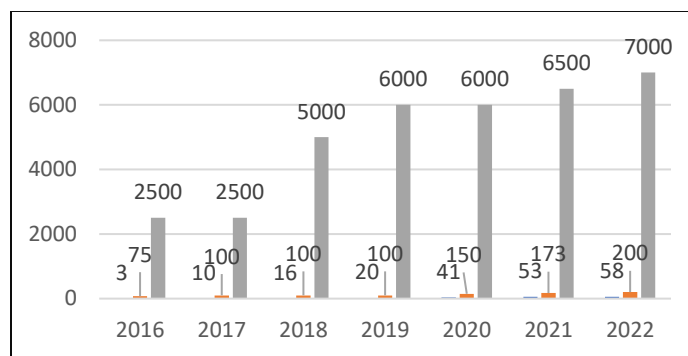


Figure (2): Number of Point of Cash (POC)

In addition to mobile banking, Bank of Baghdad's mobile app on (Google Play) has been downloaded more than 10,000 times, while the Middle East Bank's app has been downloaded over 1,000 times. The Middle East Bank achieved high download numbers, exceeding 100,000 downloads.

Regarding indicators of banking competition for the banks in the study sample, the Bank of Baghdad achieved a balance between profitability and liquidity, about cost efficiency in 2021 and 2022, with ratios of 68.69% and 72.27%, respectively. The lowest ratio was in 2016 at 4.41%. As for the market share of cash credit and deposits (the share of each bank about the banks in the study sample), the Bank of Baghdad's highest market share was in 2016 and 2017 (55.55% and 50.60%, respectively). The lowest share was in 2022 (24.65%).

Middle East Bank faced losses that appeared in net profit in the period from 2017 to 2021. It also showed weakness in its investment of funds, as capital adequacy (shareholders' equity) and liquidity reached high levels beyond what is appropriate, and liquidity ratios increased. The best cost efficiency was in 2016 (34.89%), while the lowest was in 2020 (-6.9%), affected by the COVID-19 pandemic. As for the market share of cash credit and deposits, the highest percentage achieved by a bank was in 2017 when it reached (28.50%), and the lowest percentage was in 2021, when it reached (9.55%).

National Bank of Iraq's cost efficiency peaked in 2016 (65.68%) and remained relatively stable in 2020, 2021, and 2022 (55.12%, 52.94%, and 52.47%, respectively). The National Bank of Iraq's cost efficiency peaked in 2016 (65.68%). Its market share of cash credit and deposits reached its highest levels in 2021 and 2022 (62.50% and 62.60%, respectively), reflecting the bank's activity during that year, The lowest percentage achieved was in 2016 and amounted to (18.60%).

Digital banking contributes to attracting customers and customer satisfaction, as a result of the spread of banking services and the provision of high-quality banking services, and this is what inevitably revives indicators of banking competition.

Third. Estimation and Analysis of the Econometric Model

Description of the Econometric Model

The composite indicators were extracted by combining the sub-indicators as follows:

Profitability Index/ and its sub-indicators, Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM).

Liquidity Index/ and its sub-indicators, Cash Reserve Ratio (CRR), Legal Liquidity Ratio (CLR), Cash Ratio (CA), and Loan to Deposit Ratio (LDR).

Capital Adequacy Index/ and its sub-indicators, Equity/Assets, Equity/Deposits, Equity/Loans.

Funds Utilization Index/ and its sub-indicators, Loan to Deposit Ratio (LDR), Investment to Deposit Ratio, and Return on Loans.

Market Share Index/ and its sub-indicators, Market Share of Deposits, Market Share of Cash Credit.

Similarly, the dependent composite indicators were merged into a single composite index called the Banking Competition Index, denoted by the symbol (YC). However, at this stage, the weights were distributed in terms of impact rather than importance, as the indicators directly and fundamentally affected by digital banking from the researcher's point of view represent the minority, numbering (2), which are the Profitability (Y1) and Cost Efficiency (Y5) indicators. The indicators secondarily affected by digital banking are (4), which are Liquidity (Y2), Capital Adequacy (Y3), Funds Utilization (Y4), and Market Share (Y6). The researcher divided the weights as follows: (50%) for the first section and (50%) for the second section, and the weights were distributed equally among the divisions (Profitability Index 25%, Cost Efficiency Index 25%). As for the indicators in the second section, a weight of (12.5%) was given to each indicator. The Banking Competition Index (YC) was extracted through the (SPSS) program according to the following programming command:

$$(Y1*0.25 + Y2*0.125 + Y3*0.125 + Y4*0.125 + Y5*0.25 + Y6*0.125)$$

Thus, the econometric model consists of three independent variables and one dependent (reliant) variable for three banks as shown in the table:

Bank	Variable	Symbol of Variable	Type of Variable
Bank of Baghdad	Banking Competition	YC_01	Dependent
Bank of Baghdad	Number of ATMs	X1_01	Independent
Bank of Baghdad	Number of POS Devices	X2_01	Independent
Bank of Baghdad	Number of POC Devices	X3_01	Independent
Iraqi Middle East Bank	Banking Competition	YC_02	Dependent
Iraqi Middle East Bank	Number of ATMs	X1_02	Independent
Iraqi Middle East Bank	Number of POS Devices	X2_02	Independent
Iraqi Middle East Bank	Number of POC Devices	X3_02	Independent
National Bank of Iraq	Banking Competition	YC_03	Dependent
National Bank of Iraq	Number of ATMs	X1_03	Independent
National Bank of Iraq	Number of POS Devices	X2_03	Independent
National Bank of Iraq	Number of POC Devices	X3_03	Independent

The econometric model can be mathematically formulated as follows:

$$YC_{ij} = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 \dots\dots(1) \quad i = 1,2,3$$

where:

$\beta_0; \beta_1; \beta_2; \beta_3$ represent the model parameters,

YC_{ij} : is the dependent variable, Banking Competition,

$X1$: ATMs,

$X2$: Points of Sale,

$X3$: Points of Cash.

If the independent variable (X1) number of ATM units increases by one unit, then the dependent variable (YC) Banking Competition increases by (0.499609).

If the independent variable (X2) number of sales points increases by one unit, then the dependent variable (YC) Banking Competition increases by (0.480325).

If the independent variable (X3) number of Point of Cash devices decreases by one unit, then the dependent variable (YC) Banking Competition increases by (0.010488) .

Accordingly, the estimation can be formulated according to the following equation:

$$YC = 8.439997 + 0.499609X1 + 0.480325X2 - 0.010488X3$$

The error correction parameter or the speed of adjustment, COINTEQ01, has a value of (-0.228341), which is negative and significant, with a significance level of (0.0429), less than (0.05). This aligns with economic theory logic, indicating a long-term equilibrium relationship between the independent variables and the dependent variable. Approximately (0.228) of the short-term policies can be corrected within two years and two months in the long term.

The duration required for the banks' policy adjustments in the long term can be determined through the following equation:

$$\text{Duration of Long-Term Adjustment} = \frac{1}{\frac{\text{Speed of Adjustment (COINTEQ01)}}{\text{Type of Time Period}}}$$

Since the period used is semi-annual, the division is by (2).

Comparison Between the Sample Banks:

From Appendix (4), we find that the error correction parameter or the speed of adjustment COINTEQ01 for the three banks is as follows:

Bank of Baghdad: (-0.252949) with a significance of(0.0000)

Iraqi Middle East Bank: (-0.181248) with a significance of(0.0004)

National Bank of Iraq: (-0.250825) with a significance of(0.0002)

Therefore, we can deduce the following according to the previous mathematical equation:

The Bank of Baghdad is the best in utilizing digital banking to increase its competitiveness, indicating its market dominance in the competitive environment, followed closely by the National Bank, with the Middle East Bank in third place.

The .Bank of Baghdad needs **one year, twelve months, and a half** to achieve full competition, while the National Bank of Iraq needs **two years**, and the Iraqi Middle East Bank requires **two years and nine months** of policy adjustments to reach full competition.

The impact of the independent variables in the short term for the three banks:

All independent variables are at one degree of lag, and the impacts are as follows:

For the Bank of Baghdad, the significant positive impact of the variable number of ATM units (X1_01) in the short term is observed in Appendix (4). If it increases by one unit, the dependent variable (YC_01) Banking Competition will increase by (0.946797). Similarly, the significant impact of the number of POS devices (X2_01) is observed. If it increases by one unit, the dependent variable (YC_01) will increase by (0.025514). However, the variable Point of Cash (X3) has an inverse effect. If it decreases by one unit, the dependent variable (YC_01) will increase by (0.544309). The estimated equation can be formulated as follows:

$$YC_{01} = -6.860802 + 0.946797X1_{01} + 0.025514X2_{01} - 0.544309X3_{01}$$

For the Middle East Bank, the variables (X1_02, X2_02) have a significant inverse effect in the short term. If the variable number of ATM units (X1_02) decreases by one unit, the dependent variable (YC_02) will increase by (0.168976). If the variable number of POS devices (X2_02) decreases by one unit, the dependent variable (YC_02) will increase by (1.490731). However, the variable number of Point of Cash devices (X3_02) has a significant positive effect. If it increases by one unit, the dependent variable (YC_02) Banking Competition will increase by (0.014781). The estimated equation can be formulated as follows:

$$YC_{02} = 10.87096 - 0.168976X1_{02} - 1.490731X2_{02} + 0.014781X3_{02}$$

For the National Bank, the variables (X1_03, X2_03) are not significant in the short term, so they cannot explain the dependent variable. The independent variable number of Point of Cash (X3_03) has a significant inverse effect in the short term. If it increases by one unit, the dependent variable Banking Competition (YC_03) will increase by (0.009897). Therefore, the estimated equation is as follows:

$$YC_{03} = 21.30982 - 0.683740X1_{03} + 0.157947X2_{03} - 0.009897X3_{03}$$

The Economic Reasons For The Superiority Of The Bank Of Baghdad Are

- 1 .Significant attention to incorporating modern banking technology.
- 2 .It was among the first Iraqi banks to automate its operations early on and has continuously worked to enhance its technological environment since then.
- 3 .Bank of Baghdad excels in the number of ATMs (X1) in terms of the linearity of the time series for the variable as shown in Figure (1), i.e., from the beginning of the applied study years 2016-2022. In 2016, it had (73) ATMs and began to gradually increase in the following years, while the National Bank had only (12) ATMs that year, and the Middle East Bank had only (11) ATMs.
- 4 .Its good financial performance and appropriate employment of its funds reflect the quality of its internal management. It has been shown to have the highest rates in the dependent variable index of banking competition (YC) as shown in Appendix (4), indicating the bank's superiority in most banking competition indicators.

The Economic Reason for The National Bank of Iraq Obtaining the Second Rank in Competition, Very Close To The Bank Of Baghdad

Its increased focus on digital banking across all its outlets in general and Point of Cash (POC), which is the independent variable (X3), and the points of sale (POC), which is the independent variable (X2). This can be seen through Figures (1) and (2) in particular, in addition to reviving its banking competition indicators, especially in the last years of the year Study.

The Economic Reason for The Iraqi Middle East Bank Obtaining the Third Rank and With a Difference In The Speed Of Adjustment From The Previous Two Banks

It does not show much interest in increasing digital banking devices in general, as in the number of point-of-sale (POS) devices, which is the independent variable (X2), it ranks last in terms of number compared to the Bank of Baghdad and the National Bank. In addition to the significant increase in the rate of decline in the efficiency of its costs and the lack of correct management in employing the funds it has, which led to a decrease in its profitability, specifically the last years of study, and all of this is included in the dependent variable, banking competition (YC).

CONCLUSIONS

There is a statistically significant relationship between the variables of digital banking and banking competition for the banks in the study sample.

There is a positive relationship in the long term between the independent variables, the number of ATMs, and the number of POS devices (POS) in the sample banks, with the dependent variable of banking competition. However, it was found that there is an inverse relationship between the independent variable, the number of Point of Cash Devices (POC), and the dependent variable.

The results showed that the Bank of Baghdad is the best in terms of employing digital banking to influence banking competition, meaning it is the dominant force in the competitive environment for the banks in the study sample, followed by the National Bank in second place, and the Middle East Bank in third place.

The error correction parameter (speed of adjustment) showed that within approximately two years and two months, the policies of the banks in the study sample can be corrected, and the Bank of Baghdad is the fastest in the time required for adjustment, meaning it is the quickest to reach full competition, followed by the National Bank, which is not far behind the Bank of Baghdad, and then the Middle East Bank.

There is a significant and positive short-term effect for the independent variables, the number of ATMs (ATM), and the number of POS devices (POS) with the dependent variable for the Bank of Baghdad, and an inverse effect for the independent variable, the number of Point Of Cash Devices (POC). For the Middle East Bank, the independent variables (ATM, POS) showed a significant inverse relationship in the short term, and the variable (POC) showed a positive relationship. As for the National Bank, there is a significant effect for only one independent variable, the number of (POC) devices, which showed a positive relationship. It should be noted that all these effects are at one degree of lag for the independent variables.

Recommendations

The banks included in this study must develop their digital banking channels and outlets, with a particular emphasis on mobile banking (M-Banking) and internet banking (online Banking), as they are strong and advanced competitors to ATMs and plastic cards. Banks should work on enhancing their applications to encompass a wider array of banking services, by contracting with developers specialized in banking applications.

Attention must be paid to the administrative and financial aspects related to the technology department within the bank, such as increasing the number of employees working in the field of technology expanding the fixed assets from electronic devices, and introducing modern systems.

Bank of Baghdad should focus on developing and deploying a greater number of Point of Sale (POS) devices in commercial centers and continue to grow its digital banking environment to reach the level of advanced banks in this field globally.

The National Bank should build a strategy that leads to the expansion of deploying more ATM units and continue to maintain the excellent performance level it achieved in the last year. It should develop strategies and improve performance based on current financial and technological successes.

The Middle East Bank should implement successful policies in managing and employing its funds, whether in granting credit or investing in securities and establish appropriate policies to avoid external impacts on its banking activity. It should expand its technological base to increase its digital customers by focusing on weaknesses and developing them, and put in place an effective future plan based on digital banking development to enhance its competitive ability.

The Central Bank of Iraq must direct efforts to create suitable policies and programs to reduce the use of paper money in various commercial transactions. This can be achieved by activating the culture of electronic payment through Point of Sale (POS) devices in commercial centers and various institutions. This should be achieved on two fronts: firstly, through policies that impose this culture on banks, and secondly, by promoting this culture to individuals and raising awareness for its use, as individuals will learn this culture if they see it as necessary for their daily lives.

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Appendices

Appendix (1)

Results of the Homogeneity Test for (Hsiao)

Specification Tests of Hsiao (1986)			
H1 = Null Hypothesis: the panel is homogeneous vs Alternative Hypothesis: H2			
H2 = Null Hypothesis: H3 vs Alternative Hypothesis: the panel is heterogeneous			
H3 = Null Hypothesis: the panel is homogeneous vs Alternative Hypothesis: the panel is partially homogeneous			
Hypotheses	F-Stat	P-Value	
H1	559.9025	6.04E-28	
H2	119.6583	3.72E-18	
H3	83.30890	1.27E-13	

Source: From the researcher’s work, outputs of the EViews v.12 programming package.

Appendix (2)

Results of the Unit Root Test for Levin, Lin & Chu

Variables	Statistic	P-Value	Stationary at	
YC	-2.68710	0.0036	Level	Individual intercept and trend
X1	-1.66578	0.0479	Level	Individual intercept and trend
X2	-2.96914	0.0015	1 st difference	Individual intercept
X3	-1.78122	0.0374	1 st difference	Individual intercept

Source: From the researcher’s work, outputs of the EViews v.12 programming package.

Appendix (3)

Results of the Autoregressive Distributed Lag (ARDL) Model Test

Dependent Variable: D(YC)				
Method: ARDL				
Date: 04/12/24 Time: 06:05				
Sample: 2017S2 2022S1				
Included observations: 30				
Dependent lags: 3 (Fixed)				
Dynamic regressors (1 lag, fixed): X1 X2 X3				
Fixed regressors: C				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
X1	0.499609	0.006064	82.39108	0.0000
X2	0.480325	0.002199	218.3855	0.0000
X3	-0.010488	0.003695	-2.838494	0.0149
Short Run Equation				
COINTEQ01	-0.228341	0.023554	-9.694155	0.0000
D(YC(-1))	0.076459	0.082887	0.922447	0.3745
D(YC(-2))	-1.087851	0.325096	-3.346242	0.0058
D(X1)	0.031360	0.481236	0.065166	0.9491
D(X2)	-0.435756	0.528871	-0.823937	0.4260
D(X3)	-0.179808	0.182389	-0.985850	0.3437
C	8.439997	8.222494	1.026452	0.3249
@TREND	-0.858632	0.421841	-2.035440	0.0645
Root MSE	0.302828	Mean dependent var	0.301667	
S.D. dependent var	2.215376	S.E. of regression	0.545931	
Akaike info criterion	-5.585338	Sum squared resid	3.576485	
Schwarz criterion	-4.433642	Log likelihood	135.9141	
Hannan-Quinn criter.	-5.172119			
*Note: p-values and any subsequent tests do not account for the model selection.				

Source: From the researcher's work, outputs of the EViews v.12 programming package.

Appendix (4)

Results of the Comparison Between the Sample Banks

Bank of Baghdad				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.252949	2.11E-07	-1197486.	0.0000
D(YC(-1))	-0.083431	1.18E-07	-709365.1	0.0000
D(YC(-2))	-0.773889	1.28E-07	-6069600.	0.0000
D(X1)	0.946797	1.63E-07	5821741.	0.0000
D(X2)	0.025514	3.27E-08	780205.1	0.0000
D(X3)	-0.544309	8.84E-08	-6154944.	0.0000
C	-6.860802	0.010838	-633.0129	0.0000
@TREND	-0.021080	1.58E-05	-1336.480	0.0000

Iraqi Middle East Bank				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.181248	0.010063	-18.01199	0.0004
D(YC(-1))	0.194313	0.011219	17.31956	0.0004
D(YC(-2))	-1.737918	0.190652	-9.115660	0.0028
D(X1)	-0.168976	0.005394	-31.32795	0.0001
D(X2)	-1.490731	0.179186	-8.319439	0.0036
D(X3)	0.014781	0.000123	119.8566	0.0000
C	10.87097	1.852517	5.868217	0.0099
@TREND	-1.189487	0.114027	-10.43158	0.0019

National Bank of Iraq				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.250825	0.011141	-22.51322	0.0002
D(YC(-1))	0.118494	0.032319	3.666368	0.0351
D(YC(-2))	-0.751746	0.132292	-5.682479	0.0108
D(X1)	-0.683740	0.650954	-1.050366	0.3707
D(X2)	0.157947	0.060893	2.593832	0.0808
D(X3)	-0.009897	1.63E-05	-607.3125	0.0000
C	21.30982	69.61080	0.306128	0.7795
@TREND	-1.365329	0.125836	-10.85006	0.0017

Source: From the researcher's work, outputs of the EViews v.12 programming package.