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Research Article

The Impact Of Credit Shocks On Iraqi Banking Performance: An Analytical Study

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Abstract: The current study aims to determine the nature of the impact of credit shock on banking performance by applying to The Sumer Commercial Bank of Iraq from 2004 to 2016. The banking sector is an important economic sector, which is the artery of the economy, which is the vibrant economic role in financial intermediation, mobilization of savings, and the granting of credit to various sectors, organizations. This study addresses the fundamental problem of Sumer Bank with sample search mechanisms. There is a knowledge gap around interpreting the relationship between the current research variables, represented by the independent variable credit shock and the variable dependent banking performance. New methods enable them to compete strongly within this sector and achieve high performance. The research found a set of scientific findings, including an honest impact relationship between credit shock and banking performance. The study results can protect the bank from falling into crises and financial problems and lead to improved services provided to customers. Thus, improving the standards of traditional and modern performance make their long-term goals and objectives.

Keywords: Bank Credit, Credit Shock, Bank Performance, Balanced Performance Card, Sumer Commercial Bank.

Introduction

The research is an attempt to analyze and diagnose the impact of credit shock on banking performance. The employees affect their functional performance, reduce the frequency of adverse credit shocks, and avoid problems and surprises affecting performance. Knowing the extent of The Sumer Bank's credit shock and determining its type, whether positive or negative. The problem lies in answering the impact of the credit shock on banking performance in the balanced performance card in its four dimensions (finance, clientele, internal processes, education, and growth). Kamiya, et al. [1] show a clear link between the shocks facing banks and the performance of borrowing companies in Japan. Additionally, the more dependent companies on banks enjoyed better stock performance during adverse shocks, exposing borrowers' income levels and pursuing their financial performance. Bodnár, et al. [2] suggested that credit shocks can affect the real economy and the nominal variables. However, current research indicates a significant impact of the credit shock on the performance of The Sumer Bank expressed by the variables of the balanced performance card.

The theoretical aspect of credit shock

First: The concept of credit shock

The evidence suggests that the credit shock has historically emerged in the credit banking crisis, or the mortgage crisis in the United States of America in 2008. However, it does not mean that there were no credit shocks before this date, but the crisis of 2008 caused the most. The literature indicates that the shock has moved to more than 33 countries in a record period, causing a global crisis. The shock, in general, is the occurrence of an unexpected or sudden situation, and shock is the main cause of the future crisis. A crisis means a defect that affects materially or significantly in the entire system, and a sudden or non-sudden event causes this defect [3, 4]. Therefore, the shock is the beginning of the crisis, which causes the balance breakdown in the whole system. Preventive measures can control the shock results and reduce their effects if they are diagnosed. These preventive measures can mitigate the impact of these shocks and provide an opportunity for decision-makers to take swift action to absorb the effects of trauma. The researcher presents the concept of credit shock, which is defaulting on loans. With the start of these bad loans, banks will tighten the granting of credit. Thus, it leads to an excessive decline in asset value rates, as banks try to recover the loss by closing real estate and selling them by auction.

However, it, in turn, is a downward spiral, as loans continue to decline further, and there are still more unsold properties [5, 6].

Second: Types of credit shocks

1- Credit shocks can be categorized into two types concerning their origin:

A- Credit offer shock: The amount of change in the expected or unexpected credit offer that causes an imbalance in the amount of credit planned or the number of balances held by the central bank [7].

B- Credit demand shock: The number of variations in credit demand because of changes in demand [7].

2- Depending on its direction: it is also divided into two types, namely:

A- Positive credit shock: The amount of increase in credit and the achievement of high revenues from it results from positive effects on economic variables. It achieves movement and activity at the banking level and on economic activity in general, including the rest of the various industrial sectors, commercial and real estate, because of their close association with banks [3, 8].

B- Negative credit shock: The opposite of the positive credit shock, which is the amount of decline in credit and the failure to achieve income from it, i.e., caused significant losses. Negative shock is the main cause of the crisis, and it means the existence of a defect that affects the entire system. Generally, the shock is the beginning of the crisis that caused the collapse of the balance [9].

Third: Reasons for the credit shocks:

There are many reasons due to the credit shocks occur, all of which are of similar importance. Let's look at a few reasons, including the mortgage collapse and the credit crunch in 2006- 2006 [10, 11], as follows:

1- **Speculation**: It is straightforward to obtain credit from the banks because of its abundance and competition. Many individuals and investors believe that the prices of assets will continue to rise, leading to many people obtaining additional loans on very favorable terms (such as initial payments or lack of access to initial loans or requirements for obtaining loans).
2- **Mortgage and sub-loans:** With low-interest rates and elementary lending criteria, many individuals who are usually not eligible for traditional mortgage loans (except with a minimum of 20% down payment) turn these loans into mortgages with a rate of 20% down payment. For modification or sub-loans, these loans allow them to buy many properties and many other items.
3- **Lack of regulatory control**: Since many mortgage brokers and bankers continue to write suspicious loans, or mislead the borrower with fictitious loans, the insurance companies, which operate for banks as they determine whether the borrower can repay the loan or not.
4- **Change in interest rates:** Interest rates have a significant impact on loan recovery. In short, loans with high-interest rates that have higher monthly payments or take longer to repay than low-interest loans, from 2000 to 2003, the Us Federal Reserve cut interest rates from 6% to 1% in an attempt to prevent the economy from slipping or reaching recession after the 9/11 attacks.
5- **Central Bank policy:** The central bank's expansionary policy of granting credit to customers and organizations with limited guarantees and non-real guarantees ultimately leads to high rates of credit grants to people who do not have the confidence and ability to pay. Eventually, it leads to a credit shock at the bank.

The effects of credit shocks

The impact of credit shock is summarized in several points [12]:

1- Tightening consumer spending: As the economy deteriorates and unemployment rises, many consumers either slow down or reduce spending to cope with this decline. It leads to lower retail sales as well as a drop in consumer confidence with expenditures.
2- Rising interest rates and correlation: With many borrowers still in debt, interest rate increases lead to a cycle of higher mortgages due to homeowners' capitulation to added financial pressures, causing many homeowners to go bankrupt. Their homes are taking bankruptcy to reduce their debt, leading to further cuts and losses in banks.
3- Effect of dominoes on all other types of loans: The most stringent mortgage lending standards create multiplier effects that make it difficult to obtain loans for different purposes.
4- Banks insist on granting credit: Many banks that have been very easy on lending standards have become very vigilant on various loans. It is mainly necessary for the daily operations of small businesses that rely on these loans and credit lines finance. It has liquidity, forcing it to liquidate or go bankrupt.
5- High unemployment: When companies cannot pay their immediate bills, they face the unpleasant task of laying off employees, creating a high unemployment situation in communities at the national level.

6- Banks and brokerage firms are under severe pressure: As the credit shock continues, the effects on banks and brokerage firms can be devastating. After the abolition of the Glass Act. Stegall, many banks and brokerage firms have jumped aggressively into various loans ranging from home loans to commercial loans and construction loans.

Credit shock transmission mechanism:

The primary sources of credit shocks are sources of credit shocks either from within the country or outside the country, and the following is an explanation of the mechanism for internal and external shock transmission as follows:

Internal shock transmission mechanism: Internal shock can arise due to some problems in credit, including different interest rates or restrictions on credit granted by commercial banks due to the quality and quantitative instruments of the central bank. When there is a credit shock, whether negative or positive, they move to other sectors within the economy through the close association between different industries and banks [13]. The transmission of external credit shock: The credit shock in a country's banking sector, it is possible to move to other countries whether they are neighboring or not. The most important reason for the transmission of credit shock is the international relations between states and the channels [14]. The information of credit shocks between countries is as follows:

A- For International Trade in Goods and Services
B- Financial Trade Channel
C- Commercial and reciprocal channel (reciprocal trade)

Credit shock metrics: according to Bodnár, et al. [2] and Nakamura [15] see credit shock metrics as two measures: Credit shock measurement method based on bank credit: The credit shock measurement model is used by granted bank credit. The amount of shock is approved by random variable (U) to offset the multiple declines of credit, including the following variables.

First: Use bank credit as a dependent variable in time (t) and code it (CRt).
Second: the independent variable (X1) is the deceleration of bank credit in time (t-1) and its symbol (CRt-1).
Third: the independent variable (x2) is the time slowdown of bank credit in time (t-2), and we code it (2-CRT).
Fourth: The amount of credit shock (U) and random condoms of the multiple regression equation, and therefore the equation of considerable regression credit shock by credit granted, is written as follows:

CRT= a +B1CRT-1+B2CRT-2+U

Credit shock measurement method based on factors affecting bank credit: The credit shock measurement model is used by the factors affecting the granted bank credit. The amount of shock is adopted by randomized (U) to offset the multiple regression for recognition, which includes the following variables:

First: - Dependent Variable: Bank credit as a dependent variable, and we code it (CR).
Second: - Independent Variable (X1), which is the first-factor affecting bank credit.
Third: - Independent variable (x2), which is the second factor affecting the bank credit granted.
Fourth: The independent variable (X3), which is the third factor affecting the bank credit granted, to the last elements.
Fifth: The amount of credit shock (U) of random variables to the multiple regression equation. Therefore, the equation of considerable regression credit shock by factors affecting the granted credit is written in the following form:

CR= a + B1 X1+ B2x2+.....+U

Banking performance

First: Private and public organizations must implement a long-term strategy to achieve outstanding performance. The process of implementing this strategy is to turn the goals and plans drawn into results. Performance measurement systems help managers to evaluate, monitor, and revise the implementation process. Method and one of the main objectives of experimental research in operational management are finding and identifying the elements to support good performance [16]. A balanced scorecard is a model for developing performance measurements from several perspectives in a balanced way that considers the past, present, and future readable historical data to achieve the ultimate goals [17]. BSC is a standard tool applied by many banks to evaluate its performance in multiple aspects of the bank. It provides insights into the bank's performance not only for managers to improve performance but also for investors who want to measure the health of performance as the benefits of using BSC for banks [18].

A- It can be used as a framework to assess and develop the bank's strategy.
B- It can develop strategic goals and performance measures to transform the bank's strategy into action.

C- Provides a way to measure and monitor the performance of the main performance programs that may lead to the successful implementation of the bank's strategy.

D- A valuable tool to ensure that the bank continuously improves its system and work.

Second: Balanced Scorecard Approach: The Balanced Scorecard Model integrates all stakeholders (owners, employees, customers, community) with financial balances and non-financial metrics to achieve long-term and short-term strategic objectives [19].

A- Financial Hub: Providing these data at the right time and for the right person in the organization helps a lot in making the right decision at the right time. Under this axis, the most common performance measures are revenue growth, cost reduction, and the use of assets that measure financial indicators such as Return on investment, added economic value, and net operating income [20].

B- Customer Hub: The organization must distinguish itself from the rest of the competing organizations by maintaining the relationship with its target customers, attracting them, and maintaining them. Therefore, managers must develop procedures to achieve a vision of how to show their customers. Additionally, the most critical indicators representing this axis are increasing market share, retaining customers, attracting new customers, and raising customer satisfaction [21].

C- The central theme is internal processes that lead to financial success and customer satisfaction. The measures of this perspective are usually based on the production of goods and services in the most effective and efficient ways. One of the indicators used in this approach is practical Innovation and processing [22].

D- Learning and Growth Hub: Learning and growth procedures are the most difficult to choose. So the capabilities that the organization needs its staff to create, grow, and improve in the long term should be encouraged. One of the most critical indicators that measure this approach is to increase staff capacity, increase motivation, empowerment, and alignment.

The Results

1. Description of the bank credit of Sumer Commercial Bank

Table (1) shows the bank credit granted by Sumer Commercial Bank during the period from (2004-2016), and with all the quality of cash and pledge, as follows:

Table (1) Credit to Sumer Commercial Bank (million DINARS) for 2004-2016

Year	Cash credit	Percentage of cash contribution to credit formation %	Pledge credit	The contribution of the pledge to the formation of credit %	Total credit	Total credit
2004	5633	70.33	2375	29.66	8009	-
2005	16756	80.49	4059	19.50	20815	159.89
2006	15065	78.03	4239	21.95	19305	-7.25
2007	11857	61.65	7373	38.33	19231	-0.38
2008	16750	80.22	4129	19.77	20879	8.56
2009	46974	100.6	325-	0.6-	46648	123.42
2010	49182	87.88	6778	12.11	55960	19.96
2011	75548	91.81	6734	8.18	82283	47.03
2012	74692	95.75	3315	4.24	78007	-5.19
2013	105472	97.80	2376	2.20	107840	38.24
2014	143049	97.70	3365	2.29	146415	35.77
2015	116279	98.88	1313	1.11	117592	-19.68
2016	110800	99.56	480	0.43	111280	-5.36

The reference: Preparing the researcher based on the annual reports of the bank from (2004-2016)

From table (1), the year (2014) has the highest bank credit to Sumer Commercial Bank and amounted to (146) billion dinars. The year (2004) was the lowest in the granting of credit, with the amount of credit (8) billion dinars, and the highest rate of credit change at 159% in 2005.

2. Evaluating banking performance by balanced scorecard:

Evaluating the banking based on the balanced four scorecards (financial, clientele, internal processes, learning, and growth). The researcher gave a total score of the scorecard, which is (100). Thus, the balanced scorecard and its axes were calculated based on data collected from the financial statements of the bank's sample study, as described below:

1. Evaluating the banking performance based on the financial axis: The researcher adopted the balanced performance card about the economic approach of the banks of the study sample. A score of (40%) was given to the financial axis, which consists of four indicators, namely (capital adequacy 10%, return on deposits 10%, return on investment 10%, liquidity 10%). The grades were divided according to the performance achieved by the bank sample research. The results of the banking performance were extracted based on the financial axis of the Sumer Commercial Bank, and as described below:

Table (2) Results of the Financial Axis of the Sumer Commercial Bank

Year	Capital adequacy	Index score 10%	Return on investment	Index score 10%	Return on deposits	Index score 10%	Cash	Index score 10%	Financial Axis Score40
2006	29	6	3	2	9	3	118	4	15
2007	13	3	3	2	10	4	156	7	16
2008	20	4	1	1	5	2	94	10	17
2009	4	1	5	3	18	6	75	6	16
2010	3	1	0.5	1	1	1	58	10	13
2011	2	1	0.1	1	0.5	1	57	9	12
2012	1	1	0.4	1	1	1	37	10	13
2013	1	1	0.4	1	1	1	35	10	13
2014	1	1	0.5	1	1	1	33	10	13
2015	2	1	1	1	4	2	18	10	14
2016	2	1	1	1	4	2	15	10	14
Average	7	2	1	1	5	2	63	9	14

The reference: Preparing the researcher based on the bank's data

2. Evaluating the banking performance based on the customer axis: The researcher adopted the balanced performance card shown below for the customer axis of the banks of the research sample. A score of (20%) was given to the customer axis, which consists of two indicators, namely (market share 10%, loans, and deposits 10%). The grades were divided according to the performance of the research sample bank:

Table (3) results of the customer axis of Sumer Commercial Bank

Year	Market share	Index score 10%	Loans and deposits	Index score 10%	Customer Hub Score 20
2006	176	9	2	1	10
2007	125	7	18	2	9
2008	134	7	25	3	10
2009	129	7	85	9	16
2010	133	7	83	9	16
2011	134	7	71	8	15
2012	203	10	51	6	16
2013	100	5	80	8	13
2014	129	7	92	10	17
2015	68	4	112	10	14
2016	88	5	116	10	15
Average	129	7	67	7	14

The reference: Preparing the researcher based on the bank's data

3. Evaluating banking performance based on the axis of internal operations: The researcher adopted the balanced performance card described below for the internal operations of the bank's sample study. A score (25%)was given for the internal operations axis, which consists of three indicators (growth in the income of banking operations 8.33% value, added 8.33%, cost, and revenue 8.33%). The grades are divided according to the performance achieved by the research sample bank, my agencies:

Table (4) Results of the Internal Operations Axis of Sumer Commercial Bank

Year	Growth in banking revenues	Index Score 8.33	Value-added	Index Score 8.33	Cost and revenue	Index Score 8.33	Axis degree operations 25%
2006	116	3.332	6	2.499	67	5.831	11.662
2007	105	3.332	7	3.332	59	4.998	11.662
2008	148	4.165	4	1.666	77	6.664	12.495
2009	230	6.664	7	3.332	38	3.332	13.328
2010	79	2.499	2	0.833	92	8.33	11.662
2011	137	4.165	1	0.833	97	8.33	13.328
2012	267	7.497	4	1.666	93	8.33	17.493
2013	195	5.831	2	0.833	96	8.33	14.994
2014	34	1.666	3	1.666	84	7.497	10.829
2015	85	2.499	2	0.833	69	5.831	9.163
2016	43	1.666	2	0.833	69	5.831	8.33
Average	131	4	4	2	76	7	12

The reference: Preparing the researcher based on the bank's data

4. Assessing banking performance based on the axis of learning and growth: The researcher adopted the balanced performance card described below for the axis of learning and development of the banks sample research. A score (15%) was given for the training and growth axis, consisting of three indicators (turnover of workers 5%, growth in training expenses 5%, growth in research and development expenses 5%). The grades were divided according to the performance achieved by the bank research sample, agencies:

Table (5) Learning and Growth Hub Results for Sumer Commercial Bank

Year	function of workers	Index score 5%	Growth in training expenses %	Index score 5%	Increase in research and development expenses%	Index score 5%	Axis degree training and gain 15%
2006	14	2.5	242	4.5	72	1.5	8.5
2007	28	5	26	0.5	220	4.5	10
2008	16	3	181	3.5	130	3	9.5
2009	8	1.5	273	5	210	4.5	11
2010	6	1	5	0.5	69	1.5	3
2011	14	2.5	351	5	248	5	12.5
2012	8	1.5	125	2.5	73	1.5	5.5
2013	22	4	71	1.5	86	2	7.5
2014	2	0.5	9662	5	357	5	10.5
2015	3	0.5	33	1	37	1	2.5
2016	48	5	39	1	84	2	8
Average	15	2	1001	3	144	3	8

The reference: Preparing the researcher based on the bank's data

3. Banking performance based on the balanced scorecard

The researcher adopted the balanced scorecard described below for the balanced scorecard for the bank sample research. The grades were divided according to the bank's sample research performance, such as for the levels of the research sample. The performance achieved is divided by the rate of the piece, and each performance level is given according to the score of the balanced scorecard, which is described in the following table:

Table 6. Grade Cut Ratio Performance Levels

Actions to be taken	**Nature of performance**	**Performance and verification ratio**
Performance needs radical adjustments	Weak	until %49
Performance needs a lot of effort to change.	Acceptable	%59-50

Performance needs to be improved, and necessary adjustments	Medium	%69-60
Performance needs constant oversight to stay at this level.	Good	%79-70
Performance needs motivation and support	Very good.	%89-80
Best performance for the bank	Excellent	%100-90

The Reference: Researcher's Preparation

Table (7) Results of the total of the four card axes of The Sumer Commercial Bank

Year	Financial Axis Score40	Customer Hub Score 20	Axis degree operations 25%	Axis degree training and growth 15%	Total Score 100	Evaluating a balanced performance card as a whole	Arrangement
2006	15	10	11.662	8.5	45	Weak	7
2007	16	9	11.662	10	47	Weak	6
2008	17	10	12.495	9.5	49	Weak	5
2009	16	16	13.328	11	56	Acceptable	1
2010	13	16	11.662	3	44	Weak	8
2011	12	15	13.328	12.5	53	Acceptable	2
2012	13	16	17.493	5.5	52	Acceptable	3
2013	13	13	14.994	7.5	49	Weak	5
2014	13	17	10.829	10.5	51	Acceptable	4
2015	14	14	9.163	2.5	40	Weak	9
2016	14	15	8.33	8	45	Weak	7
Average	14	14	12	8	48		

The Reference: Researcher's Preparation

Table (7) shows the banking performance according to the balanced performance card of The Sumer Commercial Bank. It shows that the bank has achieved the best performance according to the grades of the balanced scorecard in the year (2009). The highest score was based on the implementation of the strategies that the bank's management planned to improve performance levels. The bank has achieved an increase in the volume of revenues during the year and reached 8.3 billion dinars while in (2008) it was about 4. 4 billion dinars. It was an increase of nearly double and contributed to the rise in net profit to 5.2 billion from 1. 1 billion with a growth rate of 407%. The bank worked to increase the capacity of its employees and involve them in training courses to increase the efficiency of their performance and experience. Thus, it increases the level of the bank performance not only with financial aspects but also with other elements that depend on customer and development activities.

According to the balanced performance card grades, the lowest performance of the bank was in 2015. It was due to the negative impact on the bank, which is the repercussions of the financial crisis and the deterioration of the economic and security situation in the country. The volume of total assets has decreased from 419 billion dinars to 368 billion dinars in the banking sector. The importance of deposits has reduced to 92 billion dinars, compared to 136 billion dinars in the previous year (2014). Also, the bank has not expanded into the field of development and technology. It is noted from these results that the bank exceeded the cutting threshold of (50%) in 2009 and 2014. These results in the level of performance were within the acceptable level of performance, which requires the bank to strive and make great efforts to change the reality of its performance.

4. The credit shock account of The Sumer Commercial Bank

Table (8) shows the results of the Credit Shock Account of The Sumer Commercial Bank and the period from (2004-2016), and the slope equation was as follows:

CR= 15647+ 0.048CR-1+ 0.845CR-2

(T)= 1.32 2.36 0.13

(F)= 17.18 R^s = 81.11% R^{-s}= 76.39%

Table (8) Results of Sumer Bank Credit Shock Account (JD 1 million) 2004-2016

Year	Negative shock	Positive shock	Total credit shock	Shock growth rate %
2004	-	-	-	-
2005	-	-	-	-
2006	-14319	-	-14319	-
2007	-13730	-	-13730	-4.11
2008	-11947	-	-11947	-12.99
2009	-	12432	12432	4.46
2010	-116	-	-116	-99.07
2011	-	17101	17101	146.42
2012	-9870	-	-9870	-42.28
2013	-	22317	22317	126.11
2014	-	35880	35880	60.77
2015	-26976	-	-26976	-24.82
2016	-10771	-	-10771	-60.07

The Reference: Prepared by the researcher based on the results of the statistical program 18.Minitab

Table (8) shows the Sumer Commercial Bank's exposure to adverse shocks more than positive throughout the study period, as its intensity ranged between (116 - 26976) in the years (2010, 2015), respectively. The reason can be attributed to the most substantial negative shock of bank Sumer Commercial due to many reasons. Challenging economic and security conditions were some of the major causes at that time. Additionally, the decrease in the size of assets and the rate of decline was about (13.55%). Similarly, the reduction in the ratio of cash liquidity about (16.67%) compared to the previous year (2014).

Furthermore, as well as the decrease in funding sources with Current accounts, deposits, and savings performances at (32.08%) compared to the previous year Also, the theft of debtors' balance of (5.222) billion dinars and (10.808) billion dinars are suspended balances from the debtor's credit. The positive shocks ranged between (12432 - 35880) in the years (2009 and 2014), respectively. The reason for the most significant positive surprise for Sumer Commercial Bank can be attributed to many reasons, including the increase in the size of assets by a rate of (35%) (For the previous year (2013). It indicates a significant development in banking operations and an increase in the amount of cash credit granted by (38.50%). (Annual report of the bank)

5. Test the hypotheses

The research hypotheses will be tested, whether primary or sub-, using a simple regression equation,

$Y=a+bx$

Which states:

Y: Child variable, a: The fixed limit in the slope equation, or the cut part of the y axis.

b: Slope line, or the amount of change in the dependent variable when the independent variable changes by one unit.

X: Independent Variable (Sir and Others, 110: 2018).

The first primary hypothesis is that "there is a significant impact relationship between credit shock and banking performance represented by a balanced performance card," and the following table explains the test of the hypothesis:

Table (9) Testing sub hypotheses between credit shock and balanced performance

Independent variable	α	β	T	F	R^2	Dependent variable	Significance	the decision
X	47.69	0.599	2.498	6.166	0.359	Y	Significant	Acceptance

The Reference: Preparing the researcher based on the outputs of the program 25.SPSS v

The value of f tabular is (4.96), and the tabular t is (2.228).

The calculated (f) value of the bank's credit shock, which measures the significance of the simple regression model, was higher than the scheduled (4.96) at a significant level (5%). Therefore it was honest, while the calculated (t) value was acceptable because it was higher than the scheduled (2.228) at a significant level (5%). The slope equation of bank performance (y) shows that it is positively and significantly affected by the credit shock and by (59%), and the value (R2) of the Bank Sumer amounted to (0.359). It means that (35.9%) is the percentage of what

explains the credit shock of the change in performance. The banker is Based on the above, the critical hypothesis was accepted.

A- Testing the first sub-hypothesis: which states that "there is a significant impact relationship between credit shock and banking performance represented by the financial axis," and table (10) shows the test results shown below:

Table (10) Testing sub-hypotheses between credit shock and financial hub

Independent variable	α	β	T	F	R^2	Dependent variable	Significance	the decision
X	14.81	-0.438	-3.463	6.099	0.291	Y1	Significant	Acceptance

The Reference: Prepare the researcher based on the outputs of program 25.SPSS v.
The value of **f** tabular is (4.96), and the tabular **t** is (2.228).

That the calculated value (f) of credit shock and its effect on financial performance represented by the economic axis, which measures the significance of the simple regression model, was higher than the scheduled (4.96) at a significant level (5%). Therefore, it was substantial, and the calculated value (t) was acceptable because it was higher than the tablets (2.228) at a significant level (5%). The slope equation of banking performance (y) shows that it is adversely and significantly affected by the credit shock of Sumer, and for it (43%), the value (R2) is (0.291). It means that the percentage of credit shock explained by the change in the banking performance of the financial axis is (29.1%), and therefore acceptance of the first sub-hypothesis.

B- Testing the second sub hypothesis: It states that "there is a significant impact relationship between credit shock and banking performance represented by the customer hub," as described in the table below:

Table (11) Testing sub-hypotheses between credit shock and customer hub

Independent Variable	α	β	T	F	R^2	dependent variable	Significance	the Decision
X	13.72	0.49	3.711	8.929	0.246	Y2	Significant	Acceptance

The Reference: Prepare the researcher based on the outputs of program 25.SPSS v.
The value of **f** tabular is (4.96), and the tabular **t** is (2.228).

The calculated value (f) of credit shock and its effect on bank performance represented by the customer axis, which measures the significance of the simple regression model, was higher than the scheduled (4.96) at a significant level (5%). Therefore, the calculated value (alpha) was accepted as it was higher than the planned (2.228) at a substantial level (5%). The slope equation of bank performance (y), which is the axis of customers, is positively and significantly affected by the credit shock of The Bank Sumer, and for it (49%), the value of R2 has It was 0.246. It means that the percentage of credit shock is explained by the change in banking performance (24.6%), thus accepting the second sub-hypothesis.

C- Testing the third sub-hypothesis: which states that "there is a significant impact relationship between credit shock and banking performance represented by the axis of internal operations," and table (12) explains the hypothesis test, my agencies:

Table (12) Testing sub hypotheses between credit shock and internal operations hub

Independent Variable	α	β	T	F	R^2	Dependent Variable	Significant	the Decision
X9	12.26	0.263	0.818	0.668	0.069	Y3	Significante	Rejected

The Reference: Prepare the researcher based on the outputs of program 25.SPSS v.
The value of **f** tabular is (4.96), and the tabular **t** is (2.228).

The calculated value of (f) of credit shock and its impact on bank performance is the axis of internal operations, which measures the significance of the simple regression model was less than the scheduled (4.96) at a significant level (5%). Therefore, the calculated (t) value was unacceptable as it is lower than the planned (2.228) at a substantial level (5%) and therefore rejects the third sub hypothesis.

D- Testing the fourth sub-hypothesis: which states that "there is a significant impact relationship between credit shock and banking performance, which is the axis of learning and growth," and table (13) explains the test of the hypothesis agencies:

Table (13) Testing sub hypotheses between credit shock, learning, and growth

Independent Variable	α	β	T	F	R^2	Dependent Variable	Significant	the Decision
X	8.045	0.506	2.760	5.097	0.256	Y4	Significante	Acceptance

The Reference: Prepare the researcher based on the outputs of program 25.SPSS v.

The value of **f** tabular is (4.96), and the tabular **t** is (2.228).

The calculated (f) value of the bank's credit shock, which measures the significance of the simple regression model, was higher than the scheduled (4.96) at a significant level (5%). Therefore, the value of (t) favoritism was acceptable because it was higher than the scheduled (2.228) at a significant level (5%). The value of the standard coefficient of regression (b) means that, from the slope equation of bank performance (y) of the axis of learning and growth, it is affected by the direct and significant impact of the credit shock (50%). The value (R2) of banks amounted to (0.256), thus accepting the fourth sub-hypothesis.

Conclusions

The results of calculating the bank's credit shock research sample showed positive and negative credit shocks. Hence, the positive credit shock was more dominant than the negative. The results of calculating bank performance by balanced performance at the overall level of the cards were characterized mainly by the decline of the year's study. However, the customers' focus was the best approach between them and learning and growth. The results exceeded the threshold of cutting, while the rest of the other methods (financial, internal processes) the products were characterized by decrease sometimes and rise again but dominated by the character of the decline more, as The results of the hypotheses test showed that the credit shock has a significant impact on the banking performance at the level of the card. Still, at the level of the axes, it was substantial except for the axis of internal operations, and the relationship was not significant.

The research recommends more attention by the bank's management to the bank credit variable, a vital and essential variable. Additionally, caring for customers and meeting their demands to achieve an important goal. Customer satisfaction leads to gaining more new customers and maintaining existing customers. The necessity interest by the management of the study banks samples and other banks to study credit shocks and determine their causes to reduce and address them. It enables them to build a strong reputation that contributes to achieving high banking performance at the medium- and long-term levels. The authorities, such as the Central Bank, the Ministry of Finance, and other regulators, adopt the credit shock index as an early warning indicator of the financial and banking system as a whole and thus the country's economic system.

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