The Impact of bank regulation and supervision on bank's financial stability and soundness (Empirical study on private banks in Erbil-Iraq)

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ABSTRACT

The study examines the practice of the principles of effective banking supervision in private banks in Iraq. The main research question was: Is the Central Bank effective in organizing and supervising the private banks in Iraq? It compares the practice of banking supervision in private banks in Erbil-Iraq with the principles of Principal of effective banking supervision issued by the Basel committee on banking supervision (2012) and to learn how these principles are effectively practiced and implemented. The study collected data by distributing 144 questionnaires to high-level bank employees involved in banking management. The target population consists of the CEO, board directorate members, credit staff, credit risk managers, and head departments. We Used version 26 of the Statistical Package for the Social Sciences (SPSS) software to analyze the data in the study. Descriptive statistics, such as percentages and frequencies like mean, standard deviation, and variance, are produced as a result of the data analysis. In addition, regression analysis, ANOVA analysis, and Pearson correlation between variables are all examined in the study. Respondents believe that Iraq's private banks effectively practice banking supervisory

standards. According to the survey, banks are actively creating policies and practices for identifying, assessing, monitoring, and controlling credit risk. However, it would recommend rerunning the study on a sample that would be geographically more diversified and address a more significant number of respondents, which may be tested for representativeness and possible biases.

1.Introduction

The recent banking failures, and the strong effects of banking systems on the whole economic development, required countries to rethink about methods of protecting banking system, and encourages to invent new ways and techniques to prevent the banks form failure.

The history of private banks in Iraq is related to the new law No. 56 for central bank of Iraq (CBI) passed in 2004. The new law permits domestic and international banks to operate under Iraq's central bank's supervision. Iraq's supervision authority actively audits and reviews private bank operations to ensure that regulators follow guidelines. Private banks in Iraq have a dedicated audit and control department.

In this chapter, we firstly try to explain the Basel accord and writing a brief history of Basel accord, then we are putting down the importance of the research and motivations, and questions with the Hypotheses for these questions then the importance and lastly the structure of the study.

1.1 Understanding The Basel Accord

Chen (2022) Refers that the Basel Accords are a set of three successive banking regulation accords (Basel I, II, and III) established by the Basel Committee on Bank Supervision (BCBS). The Committee recommends banking and financial regulations and supervisions, notably capital, market, credit and operational risks. The agreements ensure that financial institutions have adequate cash to handle unforeseen losses. Beginning in the 1980s, the Basel Accords were developed over several years. The BCBS was established in 1974 as a platform for regular cooperation

on banking supervisory concerns among its member countries. The BCBS's original goal was to improve "financial stability through strengthening supervisory know-how and the quality of banking supervision globally." Later, the BCBS focused on monitoring and ensuring banks' and the banking system's capital sufficiency.

According to Davis & Obasi (2009), banking supervision and regulation is an essential aspect of modern financial systems, seeking crucially to monitor banks' risk-taking to protect depositors, the government safety net, and the economy as a whole against systemic bank failure and its consequences.

1.2 The Objective Of The Study

The study investigates how Iraq's supervision authority (central bank of Iraq) will regulate and supervise private banks. The study will examine if the supervisory authority effectively does its duty. We try to give a clear vision for understanding the reality the banks supervision on private banks in Erbil-Iraq.

1.3 Research Questions And Hypotheses

The study tries to answer the following questions:

Q.1 Does the Central bank (Supervision authority) is effective in organazing and supervising the private banks in Iraq?

Q.2 Does the banking supervision authority in Iraq process operational Independence?

Q.3 Does the Supervision authority manage credit risk in private banks properly?at the end of research

The researcher will give a clear answer for the mentioned questions after discussion all the sides of the effective banking supervision.

Hypotheses of the study:

1-3-1 Hypotheses for the first question:

H_0: Central bank of Iraq is ineffective in organizing and supervising private banks.

H_1: Central bank of Iraq is effective in organizing and supervising private banks.

1-3-2 Hypotheses for the second question:

H_0: The supervision authority in Iraq processes operational un-independence.

H_1: The supervision authority in Iraq process operational Independence.

1-3-3 Hypotheses for the third question:

H_0: The supervision authority is not managing credit risk in private banks properly.

H_1: The supervision authority is managing credit risk in private banks properly.

1.4 Motivation Of The Study

There are many reasons for doing this study; the main reasons are to investigate the following: first, the study will investigate methods of regulating and supervision. Second, the study will examine the supervision authority's methods of auditing private banks. Third, The study will show the weakness and the strongest of regulation and supervision.

1.5 The Importance Of The Study

The study is helpful for the banking supervision authority in Iraq as it provides suggestions for Iraqi private banks based on its findings. In addition, the study examines different points of practicing effective banking supervision and determines both strengths and weaknesses of the process.

1.6 The structure of the study

This study will comprise five chapters: the first chapter will include an introduction. Chapter two includes a literature review. Chapter three contains methodology. Chapter four comprises a result discussion. Finally, chapter five will comprise a conclusion and suggestion.

1. Literature Review And Theoretical Background

In this chapter, we start by showing the primary purpose of banking regulation, then describe the scope of the regulation and supervision. We continue by identifying the most familiar principles of effective banking supervision. Finally, we close the literature review chapter by determining the concept of this chapter by describing the money laundry and its type and stages.

2.1 The Purpose of Banking Regulation

Anginer (2019) Refers that Banks are subject to several conditions, limitations, and rules under supervision laws. From one Country to another one, the laws are different. Nevertheless, they work toward the same goals, such as lowering systemic risk by, for instance, making it difficult for banks to trade or eliminating bank fraud. Yang (2019) Refers the Setting and enforcing rules for banks and other financial organizations is known as bank regulation. Consumer protection, financial system stability, and crime prevention are the three primary goals of bank regulation. Banking regulations also encourage safe and sound banking practices by ensuring that banks have enough capital to cover their risks, banning them from engaging in unfair or deceptive tactics, and ensuring that consumers have access to their rights and options. Barth (2013) Refers that the supervisor may impose a cap on the amount of interest that banks can charge on loans or ban specific types of fees. Promoting competition through bank regulation decreases client costs and fosters innovation in the banking sector. Bank regulators also monitor bank activities and demand adherence to regulations. By doing this, bank regulators help ensure that banks operate safely and that clients are protected from fraud and Abuse.

2.2 General Principles in Bank Regulation And Supervisions

Core Principles developed by the Bank for International Settlements (BIS), with the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors (IAIS), have become a standard tool to be used by regulators and supervisors in developing their regulatory system and practices. They also use as the bases for regulatory and supervisory authorities or external parties, such as versatile agencies, to assess the strength and effectiveness of supervisors.

2.2.1 Responsibilities, Objectives, And Powers

FSAP (2016) states that an effective banking control system has clear responsibilities and goals for each authority concerned with the supervision of banks and banking groups. Timely corrective measures to enhance the integrity and

efficiency of the banking system. The primary objective of banking supervision is to enhance the security and safety of banks and the banking system. If the banking supervisory authority is assigned broader responsibilities, it is subordinate to the primary objective and does not conflict with it.

IMF (2013) refers to the regulations that provide a framework through which the supervisory authority can set minimum precautionary standards and impose them on banks and banking groups, each separately, based on the risk structure of these banks or banking groups and their importance in the financial system. Prudential laws, regulations, and standards shall be updated to ensure their continued effectiveness and relevance to developments in the banking sector and regulatory practices. Such prudential laws, regulations, and standards shall be subject to general advice. The supervisory authority has the power to review the activities of parent and allied companies of security companies to determine their Impact on the security and safety of the bank and the banking group.

2.2.2 Independence, Accountability, Resourcing, And Legal Protection For Supervisors

IMF (2019) Focuses that the supervisory authority has Independence, transparent procedures, and sound governance. It also has a budget that does not threaten its Independence and sufficient resources and is accountable for implementing its tasks and using its resources. The legal framework for banking supervision provides legal protection for auditors.

IMF (2014) refers that the responsibilities and objectives of each relevant banking supervisory authority are clearly defined in the Act and made public and monitored. The primary objective of banking supervision is to enhance the security and safety of banks and the banking system. If the banking supervisory authority is entrusted with broader responsibilities, it is subservient to the primary objective and does not conflict with it.

2.2.3 Licensing Criteria

BIS (2010) Argue that the bank licensing authority has the power to establish requirements and reject applications from institutions that do not meet those requirements. Prior clearance is obtained from the parent supervisory body, where the owner is a foreign bank or a foreign affiliate, considering the risks and anticipated financial situation, including the capital base. According to the law, the Banking Supervisory Authority or another competent authority may grant or revoke banking licenses. If the granting authority does not express an opinion on all applications, it must address complaints about those applications.

Choudhry (2022) concluded that A banking license may be granted or revoked by the bank licensing authority. The banking supervisor or another qualified authority could be the licensing authority. The supervisor has the right to have its opinions on each application taken into consideration and its concerns addressed if the licensing authority and the supervisor are different. Additionally, the supervisor receives any information from the licensing body that would be relevant to overseeing the licensed bank. The supervisor places prudential restrictions or conditions on the newly licensed bank where necessary.

2.2.4 Risk Management Process

Tursoy (2018) Argue that Banks must have a thorough risk management process (including effective board and senior management oversight) in order to identify, measure, evaluate, monitor, report, and control or mitigate all material risks promptly and to evaluate the sufficiency of their capital and liquidity concerning their risk profile and market and macroeconomic conditions. In addition, the bank's systemic importance and risk profile are considered in the risk management process.

Jarrow & Turnbull (2000) refers that the risk management deal with the four notable risks. Market risk, credit risk, liquidity risk, and operational risk are the four main risks that might result in a loss for a bank or portfolio.

2.2.5 Capital Adequacy

Over the past ten years, capital requirements have effectively supplanted reserve requirements as the primary impediment to banks' behavior. Molyneux (2017) argue that capital adequacy is a key element considered by supervisory authorities. Supervisors evaluate capital strength for its effect on idiosyncratic and systemic risks, managers use it as a basis for strategic decisions such as growth and diversification. Capital adequacy ratio (CAR) is used to measure the required capital adequacy.

Schooner & Taylor (2010) Refers that Basel Accord requires all internationally active banks to maintain a minimum risk assets ratio of 8%. In practice, most domestic or international banks now observe this 8% ratio as the minimum acceptable. However, in some countries, the bank regulators can set a higher requirement than this. According to Alsudany (2019), the central bank of Iraq set 12% as minimum capital adequacy as it reflects the sector's inability to invest its assets.

According to BIS (2012), supervisors should regularly review and evaluate Banks' capital adequacy assessments. If a bank does not maintain compliance with the supervisor's requirements or conditions, the supervisor has the authority to revoke its approval.

2.2.6 Credit Risk

A bank manager is a risk manager. Credit risk cannot be avoided, but it can be minimized by many techniques, such as lending to creditworthy customers and diversifying the loan portfolio. The objective of minimizing credit risk is to avoid exposure to credit risk and to ensure the bank's growth and solvency in the long run. Young (2010) indicates that bank executives pay more attention to credit risk than any other type of risk. While 67% of respondents believe that credit risk is of the highest importance, other types of risk also receive a great deal of attention: operational risk (44%), liquidity risk (38%), market risk (33%), and reputational risk (26%).

Credit risk is one of the most significant concerns facing the banking industry and Supervisors. Stephanou & Mendoza (2005) Arguing that, Traditionally, credit risk

has been described as the risk of loss resulting from a borrower/counterparty's inability to repay the amount owing (Principal or interest) to the bank on a previously agreed payment schedule. BIS (2000) defined It as the possibility that a bank borrower or counterparty would fail to pay their commitments according to the agreed-upon terms. According to BIS (2012), The supervisor requires that banks make credit decisions free of conflicts of interest and on an arm's length basis. Also, The supervisor has the right of full access to information in the credit and investment portfolios and to the bank officers involved in assuming, managing, controlling, and reporting on credit risk. Ntiri (2010) suggested principles of sound practice for credit management. The sound practices address the following areas: creating a suitable credit risk environment, running a reliable credit-granting process, keeping a proper credit administration, measurement, and monitoring procedure, and making sure there are sufficient controls over credit risk.

2.2.7 Market Risk

Market risk is the risk of losses in on- and off-balance sheet risk positions arising from movements in market prices. BIS (2019) defined Market risk as the risk of losses in on- and off-balance sheet risk positions arising from movements in market prices. BIS (2016) defined that market risk is, the risk of losses arising from movements in market prices. The risks subject to market risk capital charges include but are not limited to: (a) Default risk, interest rate risk, credit spread risk, equity risk, foreign exchange risk, and commodities risk for trading book instruments; and (b) Foreign exchange risk and commodities risk for banking book instruments.

Central bank of Trinidad & tobago (2021) Refers that the framework for managing market risk should be included in a financial institution's entire risk management system. This would enable the institution to comprehend better and control its overall risk exposure

2.2.8 Operational Risks

Girling (2013) indicate that in the past, Operational risk had been defined as all risks not caught in market and credit risk management programs. Thus, earlier

operational risk programs took the view that if it was not a credit risk and not a market risk, then it should be an operational risk. However, the most common definition of Operational risk has been defined by Basil III. The BIS (2012) has defined operational risk as the risk of loss resulting from inadequate or failed internal processes, people, and systems or external events. The definition includes legal risk but not includes strategic and reputational risk.

According to Thuraia & Buhadli (2020), the supervisor assesses the quality and comprehensiveness of the bank's disaster recovery and business continuity plans in scenarios of severe business disruption that could affect the bank. In doing so, the supervisor determines that the bank can continue to operate as a going concern while minimizing losses, including those caused by disruptions to payment and settlement systems, in the event of a severe business disruption.

2.2.9 Internal Control And Audit

According to BIS (2001) and BIS (2012), In order to build and maintain a controllable operating system for these banks to carry out their activity, taking into account the nature of their risks, the supervisory authority guarantees that the banks have sufficient frameworks for internal control. These frameworks for payment operations include safeguarding the consistency of accounting entries about its assets and liabilities, protecting the bank's assets, and ensuring the existence of independent and appropriate departments for internal auditing and compliance monitoring, to confirm compliance with these controls, laws, and other applicable regulations.

3.Methodology, Research Design

This chapter describes the empirical approach of this study. The empirical research is mainly based on quantitative analysis of the data collected through the survey among the bank staff of the private banks. The data collection took place in June & July 2021 via distributing hard-copies questionnaires to Department officers, credit department, audit officers, CEO, and board members of different banks with a request as a random sample of bank users to fill them in. An 89% response rate was measured out of the total number of questionnaires filled in by respondents. The

researcher applied the SPSS program version 26 to analyze data collected by questionnaire. In total, 144 questionnaires were used for analysis.

3.1 Empirical Model

The study follows the two models for effective Banking supervision. The first Model is the primary determinant of sound principles for effective banking supervision.

$Ln(EBS)^1 = \alpha + \beta_1 ln(w1,it) + \beta_2 ln(w2,it) + \beta_3 ln(w3,it) + \beta_4 ln(w4,it) + \beta_5 ln(w5,it) + \beta_6 ln(w6,it) + \beta_7 ln(w7,it) + \beta_8 ln(w8,it) + \beta_9 ln(w9,it) + \beta_{10} ln(w10,it) + \beta_{11} ln(w11,it) + \beta_{12} ln(w12,it) + \beta_{13} ln(w13,it) + \beta_{14} ln(w14,it) + \beta_{15} ln(w15,it) + \beta_{16} ln(w16,it) + \beta_{17} ln(w17,it) + \beta_{18} ln(w18,it) + \beta_{19} ln(w19,it) + \beta_{20} ln(w20,it) + \beta_{21} ln(w21,it) + \beta_{22} ln(w22,it) + \beta_{23} ln(w23,it) + \beta_{24} ln(w24,it) + \beta_{25} ln(w25,it) + \beta_{26} ln(w26,it) + \beta_{27} ln(w27,it) + €it$

Equation 1

3.2 Variables

The following variables, explained in more detail below, are analyzed in the current study. There is one dependent variable and several independent variables, which together comprise the linear regression model.

3.2.1 Dependent Variable

The dependent variable, Ln is the Effective banking supervision of the Banks.

3.2.2 Independent Variables

The Independent variable of this study is based on Core principles for effective Banking Supervision (2012) issued by the Basel Committee on Banking Supervision. The present study uses the following independent variables:

w1 is Responsibilities, objectives, and powers, w2 is Independence, accountability, resourcing, and legal protection for supervisors, w3 is Permissible activities , w4 is Licensing criteria , w5 is Transfer of significant ownership, w6 is Major acquisitions,

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[1] EBS Refers to (Effective banking supervision)

w7 is Supervisory approach, w8 is Supervisory techniques and tools, w9 is Corrective and sanctioning powers of supervisors, w10 is Consolidated supervision, w11 is Home-host relationships, w12 is Corporate governance, w13 is the Risk management process, w14 is Capital adequacy, w15 is Credit risk, w16 is Problem assets, provisions, and reserves, w17 is Concentration risk, and large exposure limits, w18 is Transactions with related parties, w19 is Country and transfer risks, w20 is Market risk, w21 is Interest rate risk in the banking book, w22 is Liquidity risk, w23 is Operational risk, w24 is Internal control and audit, w25 is Financial reporting and external audit, w26 is Disclosure and transparency, w27 is Abuse of financial services.

In the second part of the study, we give more details on the principles of effective banking supervision and expand them so that more independent variables are included in the linear regression model.

$Ln(Pit) = \alpha + \beta_1 ln(w1,it) + \beta_2 ln(w2,it) + \beta_3 ln(w3,it) + \beta_4 ln(w4,it) + \beta_5 ln(w5,it) + \beta_6 ln(w6,it) + \beta_7 ln(w7,it) + \beta_8 ln(w8,it) + \beta_9 ln(w9,it) + \beta_{10} ln(w10,it) + \beta_{11} ln(w11,it) + \beta_{12} ln(w12,it) + \beta_{13} ln(w13,it) + \beta_{14} ln(w14,it) + \beta_{15} ln(w15,it) + \beta_{16} ln(w16,it) + \beta_{17} ln(w17,it) + \beta_{18} ln(w18,it) + \beta_{19} n(w19,it) + \beta_{20} ln(w20,it) + \beta_{21} ln(w21,it) + \beta_{22} ln(w22,it) + \beta_{23} ln(w23,it) + \beta_{24} ln(w24,it) + \beta_{25} ln(w25,it) + \beta_{26} ln(w26,it) + \beta_{27} ln(w27,it) + \beta_{28} ln(w28,it) + \beta_{29} ln(w29,it) + \beta_{30} ln(w30,it) + \beta_{31} ln(w31,it) + \beta_{32} ln(w32,it) + \beta_{33} ln(w33,it) + \beta_{34} ln(w34,it) + \beta_{35} ln(w35,it) + \beta_{36} ln(w36,it) + \beta_{37} ln(w37,it) + \beta_{38} ln(w38,it) + \beta_{39} ln(w39,it) + \beta_{40} ln(w40,it) + \beta_{41} ln(w41,it) + \beta_{42} ln(w42,it) + \beta_{43} ln(w43,it) + \beta_{44} ln(w44,it) + \beta_{45} ln(w45,it) + \beta_{46} ln(w46,it) + \beta_{47} ln(w47,it) + \beta_{48} ln(w48,it) + \beta_{49} ln(w49,it) + \beta_{50} ln(w50,it) + \beta_{51} ln(w51,it) + \beta_{52} ln(w52,it) + \beta_{53} ln(w53,it) + \beta_{54} ln(w54,it) + \beta_{55} ln(w55,it) + \beta_{56} ln(w56,it) + \beta_{57} ln(w57,it) + \beta_{58} ln(w58,it) + \beta_{59} ln(w59,it) + \beta_{60} ln(w60,it) + \beta_{61} ln(w61,it) + \beta_{62} ln(w62,it) + \beta_{63} ln(w63,it) + \beta_{64} ln(w64,it) + \beta_{65} ln(w65,it) + \beta_{66} ln(w66,it) + \beta_{67} ln(w67,it) + \beta_{68} ln(w68,it) + \beta_{69} ln(w69,it) + \beta_{70} ln(w70,it) + \beta_{71} ln(w71,it) + \beta_{72} ln(w72,it) + \beta_{73} ln(w73,it) + \beta_{74} ln(w74,it) + \beta_{75} ln(w75,it) + \beta_{76} ln(w76,it) + \beta_{77} ln(w77,it) + \beta_{78} ln(w78,it) + \beta_{79} ln(w79,it) + \beta_{80} ln(w80,it) + \beta_{81} ln(w81,it) + \beta_{82} ln(w82,it) + \beta_{83} ln(w83,it) + \beta_{84} ln(w84,it) + \beta_{85} ln(w85,it) + \beta_{86} ln(w86,it) + \beta_{87} ln(w87,it) + \beta_{88} ln(w88,it) + \beta_{89} ln(w89,it) + \beta_{90} ln(w90,it) + \beta_{91} ln(w91,it) + \beta_{92} ln(w92,it) + \beta_{93} ln(w93,it) + \beta_{94} ln(w94,it) + \beta_{95} ln(w95,it) + \beta_{96} ln(w96,it) +$

$$\beta_{97}\ln(w97,it) + \beta_{98}\ln(w98,it) + \beta_{99}\ln(w99,it) + \beta_{100}\ln(w100,it) + \beta_{101}\ln(w101,it) + \beta_{102}\ln(w102,it) + \beta_{103}\ln(w103,it) + \beta_{104}\ln(w104,it) + €it$$

Equation 2

Equation 3.2 Ln (EBS) is a dependent variable, it is effective banking supervision, while we have 104 independent variables related to the principles of effective banking supervision.

3.4 Data Collection:

The study used a survey to gather data, is an example of qualitative research, and is based on questionnaires distributed to private banks in the city of Erbil. A diverse set of facts must be dispersed across a sizable population for a piece of study to produce a credible conclusion. Therefore, a survey questionnaire was designed to apply heterogeneous target groups so that responses come from the generally open and broad public (from different gender, age groups, educational backgrounds, and ethnicities).

Table 1 shows the distribution of the survey among the Erbil Private banks.

No.	Bank Name	Country	Number of respondents	Percentage of samples
1	Sumer Commercial Bank	Iraqi	7	5%
2	National bank of Iraq	Iraqi	11	8%
3	Ashur Bank	Iraqi	5	3%
4	Trade bank of Iraq	Iraqi	7	5%
5	Esh bank	Turkey	8	6%
7	Region Trade Bank-Main brunch	Iraqi	18	13%
8	Baghdad Bank	Iraqi	6	4%

9	Cihan Bank Main Brunch-Bajger	Iraqi	13	9%
10	Cihan bank 100M Brunch	Iraqi	8	6%
11	Kurdistan International Bank-Main Brunch	Iraqi	14	10%
12	Kurdistan International Bank-Pishawa Qazi Brunch	Iraqi	8	6%
13	Byblos Bank	Lebanese	14	10%
14	Al Baraka Bank	Pakistani	6	4%
15	Erbil Bank for Investment and Finance	Iraqi	8	6%
16	United Bank for investment	Iraqi	4	3%
17	Ziraat bank	Turkey	7	5%
	Total		144	100%

The questionary was distributed to 161 persons in 17 banks in Erbil as it was expected to receive at least 144 fully completed questionnaires which is an 89% response rate.

3.5 Cronbach's Alpha

A standard measure of test score reliability for a single administration is Cronbach's alpha. Cronbach's alpha measures Internal consistency, or how closely connected a group of things is to one another. It serves as a gauge of scale dependability. The measure may not be one-dimensional, even if alpha has a "high" value. Additional analyses can be carried out if you want to show that the scale in question is unidimensional, in addition to testing internal consistency. One technique for determining dimensionality is exploratory factor analysis. Technically, Cronbach's alpha is a coefficient of dependability rather than a statistical test (or consistency).

Table 2 reliability statistics

Cronbach's Alpha	N of Items
.950	104

The alpha coefficient for the items is 0.95, declaring that the items have relatively high internal consistency. Note that a reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations.

3.6 Data Analysis

The study applied a statistical analysis SPSS software version 26 as analyzing tool to test the hypotheses. The data was collected via a questionnaire in which the majority of the question was responded to by using a 5-point Likert scale, giving 1 for a "very dissatisfied" response, 2 for "dissatisfied", 3 for "neutral", 4 for "satisfied", and 5 for "very satisfied "The study found mean values, variance, and standard deviation and, the correlations between variables. The study used multivariate regression analysis and calculated ANOVA, R-squared, and F-test to check the Model's fit and the significance of different variables. The results of the ANOVA test are presented in table 3 and prove the reliability of the results.

Table 3 ANOVA results

	Tests of Between-Subjects Effects					
	Dependent Variable: x1					
	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Between people		29.797[a]	35	.851		

Within people	Between items	1531.841	36	1502.895	3237.13	.009
	Residual	50.141	108	.464		
	Total	2555.000	144			
Total		79.937	143			
Grand mean = .373						

The table 3 shows that the relationship between the variables that affect banking supervision significantly impacts the value of sig. Equal to 0.009, and it is less than alpha 0.005.

Table 4 Intraclass correlation coefficient

Intra class correlation coefficient	Correlation Intra class[b]	%95 confidence interval				True value 0		
	Lower bound	Upper bound	value	Df1	Df2	F test	sig	
Single measure	0.027[a]	0.856	3.25	26	143	61.3	.008	
Average measure	0.0042[c]	0.333	3.25	26	143		.008	
Two – way mixed effect model where people effects are random and measure effects are fixed								

a. The estimator is the same, whether the interaction effect is present or not.

b. Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.

c. This estimate is computed assuming the interaction effect is absent because it is not estimable otherwise.

4.Implementation, Results, And Discussion

In this chapter, we start with the statistical analyses of the two statistical models. Next, we describe and discuss the ANOVA and correlations test results. Then conclude the chapter with the hypothesis confirmation.

4.1 Statistical Analysis

The study analyzed collected data from 144 bank staff who responded using SPSS version 26. The study presents the statistical analysis for the first Model, which includes 27 determinants for establishing Effective Banking Supervision.

4.1.1 Analysis Of Coefficients For The First Model

The findings of the data shown in table 5 indicate that determinants (set of dependent variables) have high means (above 3.0), indicating that most respondents believe that banking supervision is a successful practice. The low variance indicates that the population's distribution was near the mean. Independent variables have a significant p = 0.000 (2-tailed) impact on how banking supervision is carried out. The findings demonstrate the influence of determining factors (independent variables) in creating effective banking supervision. The first Model's findings support the Basel Committee on Supervision's findings that private banks practice effective banking supervision. The histogram for the distribution of the observations is shown in Figure1.

Table 5 Results of responses for the first Model

	t	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		Std. Deviation	Variance
				lower	upper		
Bank supervision in Iraq has impact on banking system stability.	66.540	.000	4.146	4.02	4.27	0.748	0.559

Responsibilities, objectives, and powers	74.918	.000	3.972	3.87	4.08	0.636	0.405
Independence, accountability, resourcing, and legal protection for supervisors	58.341	.000	3.813	3.68	3.94	0.784	0.615
Permissible activities	51.638	.000	3.931	3.78	4.08	0.913	0.834
Licensing criteria	52.307	.000	3.903	3.76	4.05	0.895	0.802
Transfer of significant ownership	62.823	.000	3.958	3.83	4.08	0.756	0.572
Major acquisitions	54.740	.000	3.799	3.66	3.94	0.833	0.693
Supervisory approach	68.110	.000	3.854	3.74	3.97	0.679	0.461
Supervisory techniques and tools	59.683	.000	3.868	3.74	4.00	0.778	0.605
Corrective and sanctioning powers of supervisors	62.121	.000	4.014	3.89	4.14	0.775	0.601
Consolidated supervision	51.725	.000	3.771	3.63	3.91	0.875	0.765
Home-host relationships	58.387	.000	3.799	3.67	3.93	0.781	0.610
Corporate governance	61.100	.000	3.854	3.73	3.98	0.757	0.573
Risk management process	64.763	.000	4.069	3.95	4.19	0.754	0.569
Capital adequacy	69.796	.000	3.931	3.82	4.04	0.676	0.457
Credit risk	72.495	.000	4.111	4.00	4.22	0.681	0.463
Problem assets, provisions, and reserves	61.188	.000	4.000	3.87	4.13	0.784	0.615
Concentration risk and large exposure limits	68.506	.000	4.021	3.90	4.14	0.704	0.496
Transactions with related parties	66.795	.000	3.931	3.81	4.05	0.706	0.499
Country and transfer risks	68.589	.000	3.799	3.69	3.91	0.665	0.442
Market risk	57.217	.000	3.771	3.64	3.90	0.791	0.625
Interest rate risk in the banking book	60.962	.000	3.917	3.79	4.04	0.771	0.594
Liquidity risk	70.859	.000	3.979	3.87	4.09	0.674	0.454
Operational risk	63.387	.000	4.000	3.88	4.12	0.757	0.573
Internal control and audit	68.581	.000	4.083	3.97	4.20	0.714	0.510
Financial reporting and external audit	60.168	.000	3.903	3.77	4.03	0.778	0.606
Disclosure and transparency	70.654	.000	4.000	3.89	4.11	0.679	0.462

Abuse of financial services	58.583	.000	4.000	3.87	4.13	0.819	0.671

In this table, table 5 appears that all the variables are significant, which is why the value of sig. It is less than 0.05% for all the variables, which means all the variables must remain in the mode. Also, it shows the variance, means, and standard deviation for each variable.

The questions (Independence, accountability, resourcing, and legal protection for supervisors) and (Credit risk) have a significant result. Therefore, we accept the alternative hypotheses for both. The supervision authority in Iraq process operational Independence. And, the supervision authority is managing credit risk in private banks properly. Hypotheses.
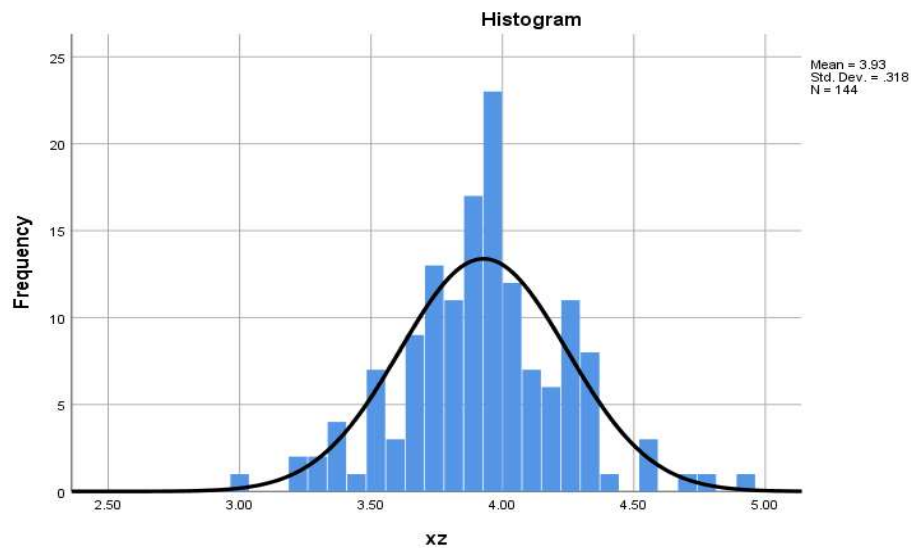

Figure 1 Histogram for distribution of observations

1120

Figure 1 shows a bell-shaped curve. It means that there is a normal distribution of observed data. This histogram shows how numerical data is represented and distributed.

According to Fraser (2012), small R-squared values are not constantly problematic, and high R-squared values are not essentially good. Table 6 shows the results of the ANOVA test.

Table 6 ANOVA for the first Model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	32.218	27	1.193	2.901	.000[b]
	Residual	47.720	116	.411		
	Total	79.938	143			
a. Dependent Variable: x1						
b. Predictors: (Constant), X101, X59, X7, X43, X37, X2, X65, X84, X98, X21, X13, X26, X68, X34, X56, X95, X30, X88, X78, X50, X42, X73, X91, X28, X81, X40, X12						

Analyzing variance is done using the ANOVA test. The ANOVA test can determine whether survey or experiment data are meaningful. In other words, they help a researcher determine if the study needs to accept the null or alternate hypothesis. The degrees of freedom represent the level of over-identification of the Model. The results of ANOVA show that there is a significant impact. The value p =0.000 (2-tailed) for the set of independent variables on establishing an appropriate Banking supervision environment proves the null hypothesis to be rejected. Therefore, we will accept the alternative hypothesis. The value of the F-test is 2.901, which is the law. A low F-test value means that the distance between the means is small relative to the random error within each group. F-test is calculated by dividing 1.193 /0.411 = 2.901a.

4.1.3 Analysis Of Coefficients For The Second Model

The study tests second model ANOVA, including contents for the main determinants of effective banking supervision.

4.2 ANOVA Test

The ANOVA test analyzes variance and shows the Impact of independent variables over the dependent variable. An ANOVA test is a way to find out if the survey or the experiment results are significant. In other words, they help the researcher determine if the study needs to reject the null hypothesis or accept the alternate hypothesis.

Table 7 ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.710	76	.720	1.912	.004[b]
	Residual	25.228	67	.377		
	Total	79.938	143			
a. Dependent Variable: Effective banking supervision						
b. Predictors: (Constant), X104, X24, X54, X77, X82, X5, X70, X38, X94, X60, X32, X49, X14, X58, X11, X67, X97, X44, X31, X17, X74, X89, X19, X27, X99, X41, X80, X9, X47, X52, X21, X72, X35, X102, X87, X3, X71, X69, X76, X57, X85, X93, X29, X64, X83, X66, X45, X55, X100, X62, X39, X53, X103, X86, X6, X22, X15, X90, X10, X48, X61, X18, X8, X25, X4, X92, X20, X79, X96, X16, X36, X33, X63, X23, X46, X51						

The resulting data in ANOVA table 7 shows a significant p=0.004 (2-tailed) Impact of the independent variables on establishing Effective, appropriate supervision. This proves alternative hypotheses for the study to be confirmed.

Mean squares are generally the variance among sample means. The mean square can calculate by dividing the sum of squares by the degree of freedom, and the result is 54.72/76 = 0.719. The F value in the ANOVA test also determines the P-value, which is the probability of getting a result at least as extreme as the observed one, given that the alternative hypothesis is confirmed.
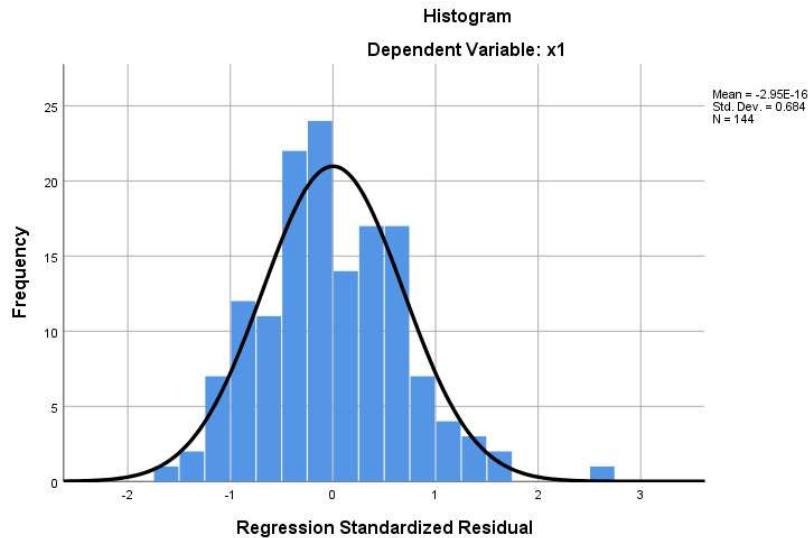

Figure 2 Histogram of distribution for the second Model

Figure 2 shows a bell-shaped curve. This means that there is a normal distribution of observed data. This histogram shows how numerical data is represented and distributed.

Table 8 presents the one-sample t-test for all variables

One-Sample Test					
	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference

					Lower	Upper
X3	60.491	143	.000	3.944	3.82	4.07
X4	61.490	143	.000	3.938	3.81	4.06
X5	62.523	143	.000	3.965	3.84	4.09
X6	63.234	143	.000	3.917	3.79	4.04
X8	53.156	143	.000	3.799	3.66	3.94
X9	51.389	143	.000	3.729	3.59	3.87
:	:	:	:	:	:	:
:	:	:	:	:	:	:
X100	64.695	143	.000	4.007	3.88	4.13
X102	62.275	143	.000	4.104	3.97	4.23
X103	68.927	143	.000	4.125	4.01	4.24
X104	73.615	143	.000	4.111	4.00	4.22

Table 8 shows the comparison between the value of the means with the standard value (0). After we applied one sample t-test, It appeared that the value of seg for all the variables is 0.000, which is less than alfa 0.05, and after we compare the value of sig with the standard value, it appears that all of them are significant. The questions X8, X9, X10, and X11 that related to the question: Does banking supervision authority in Iraq process operational Independence? are all significant, which means we accept the alternative hypothesis (The supervision authority in Iraq, process operational Independence). Moreover, questions X60, X61, X62, X63, and X64 are related to the question: Is the supervision authority managing credit risk in private banks properly?, They are all significant, which means we accept the alternative hypothesis.

4.4 Summary Of Hypotheses Confirmation

The hypotheses confirmation is summarized in table 9. For the transparency matter, only alternative hypotheses are presented. As can be observed in table 9. all alternative hypotheses can be regarded as confirmed. The reference chapter is given to provide a direct link to the evidence on which we judge the validity of a particular hypothesis.

Table 9 Hypotheses confirmation

#	Hypothesis	Status	Reference table
1	H_1: Central bank of Iraq is effective in organizing and supervising private banks.	confirmed	Table 6 Table 7
2	H_1: The supervision authority in Iraq process operational Independence.	confirmed	Table 5 Table 8
3	H_1: The supervision authority is managing credit risk in private banks properly.	confirmed	Table 5 Table 8

5.CONCLUSIONS, RECOMMENDATIONS AND FUTUR WORKS

We present an overview of the work done on this thesis in the final chapter. Then, we repeat some of the most important findings and conclusions. Finally, we summarize the chapter by offering suggestions and ideas for upcoming studies in banking supervision.

The study looks at how private banks in Erbil apply effective banking supervision concepts. The history of private banks is related to the new law No. 56 passed in 2004 for the central banks of Iraq (CBI). The new law permits domestic and international banks to operate under Iraq's central bank's supervision. Iraq's supervision authority actively audits and reviews private bank operations to ensure that regulators follow guidelines. Private banks in Iraq have a dedicated audit and control department.

The study used two models to evaluate how private banks applied the principles of effective banking supervision. The first Model comprises the key elements of creating a suitable environment for banking oversight. Details for each factor contributing to creating proper banking supervision are included in the second Model.

5.1 Conclusions And Findings

The study's primary goal was to assess how effectively Erbil's private banks followed effective supervisory principles. The study examines whether private banks in Iraq adhere to the effective supervision standards recommended and endorsed by the Basel Committee on Banking Supervision (2012). The study aims to determine and validate the factors contributing to creating a suitable environment for banking supervision. According to the study, respondents believe that Iraq's private banks effectively practice banking supervisory standards. According to the survey, banks are actively creating policies and practices for identifying, assessing, monitoring and controlling credit risk. Additionally, respondents believe that private banks have good credit risk management tools. The study finds that private banks in Iraq actively ensure adequate credit risk control. Also, the study shows that the banking supervision authority in Iraq process operational Independence.

The changes on the effective banking supervision in the first Model is % 40.3 are happening by the independent variables. The rest %59.7 is for the other variables that we didn't mention in our study.

The changes on the effective banking supervision in the second Model is % 68.4 are happening by the independent variables. The rest %31.6 is for the other variables that we didn't mention in our study.

The study finds that Supervisor authority in Iraq has a significant role in forcing private banks to practice banking supervision principles. Supervision authority is active in independently evaluating a bank's policies and correcting banks if needed. Supervision authority effectively requires private banks to publish financial

statements promptly and with Disclosure. It also requires banks to provide external auditors with financial reports. In addition, The study finds that Banking supervision requires that the banks appropriate independent internal audit and compliance functions. Finally, the supervision authority is trying to prevent private banks from abusing financial services by focusing on money laundering.

5.2 Recommendation For Further Research

It would recommend rerunning the study on a sample that would be geographically more diversified and address a more significant number of respondents, which may be tested for representativeness and possible biases.

We recommend for further research to make the same research with chosen a larger zone for the research, they can add private banks from Suleimani and Duhok, or can cover the whole private banks Iraq.

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کاریگەری ڕێکخستن وسەرپەرشتیکردنی بانکی لەسەر سەقامگیری و سەلامەتی دارایی بانکەکان (دراسەیەکی پراکتیکی لەسەر بانکە تایبەتەکان لە هەولێر-عێراق)

پوختە:

ئەم توێژینەوەیە کاردەکات لەسەر دۆزینەوەی ئاستی جێبەجێکردنی پرنسیپەکانی سەرپەرشتی بانکی کاریگەر لەسەر بانکە تایبەتەکان لە عێراق. گرنگترین پرسیاری توێژینەوەکە بریتیه لە: ئایا بانکی ناوەندی، چالاکه لە ڕێکخستن و سەرپەرشتی کردنی بانکە تایبەتەکان؟ توێژینەوەکە بەراوردێک دەکات لە نێوان سەرپەرشتیکردنی بانکی لەلایەن بانکی ناوەندی لەسەر

بانکە بازرگانیەکان لە هەولێر-عێراق، لەگەڵ پرەنسیپەکانی سەرپەرشتی کاریگەر، کە لە لایەن لیژنەی بازل بۆ سەرپەرشتی بانکی لەساڵی (2012) دەرچووەو . توێژەر هەڵساوە بە کۆکردنەوەی زانیاری لە رێگەی دابەشکردنی 144 فۆرمی راپرسی لەسەر فەرمانبەرە بالاکانی بانکەکان، تیشک خراوەتە سەر وەرگرتنی زانیاری لە بەرپۆوبەری جێبەجێکار و ئەندامانی بۆردی بەرپۆوەبردن و ستافی یەکەی بەرێوەبردنی مەترسی متمانەپێدان (Credit risk management) و بەرپیوەبەری یەکەکان. دواتر زانیاریە کۆکراوەکانمان شیکارکرد لە رێگەی بەرنامەی SPSSی تایبەت بە شیکردنەوەی ئاماری، ڤێرژنی 26. دەرەنجامە شیکریەکان بریتیبوون لە فریکوێنس وستاندارد دیڤیژن و ڤاریێنس وریگریشن و ئەنۆڤا و کۆریلەیشن و کۆمەڵێك شیکاریتر. بەگوێرەی دەرەنجامی شیکاریەکان، بۆمان دەرکەوت کە بانکی ناوەندی چالاکانە ستانداردەکانی سەرپەرشتی بانکی جێبەجێدەکات لەسەر بانکە بازرگانیەکان. بانکەکان هەڵدەستن بە دارشتنی چەند سیاسەتێکی تایبەت بە ناسینەوە و هەڵسەنگاندن و چاودێری و کۆنترۆلکردنی تایبەت بە کریدیت ریسك. لە کۆتایدا پێشنیاری ئەوە کراوە کە توێژینەوەی تر لەسەر بابەتەکە بکرێ لەسەر ئاستێکی فراوانتر لە رووی جوگرافی و زیادکرنی ژمارەی راپرسیەکان.

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تأثير التنظيم والرقابة المصرفية على استقرار وسلامة المالي للمصارف (دراسة تطبيقية على المصارف الخاصة في أربيل- العراق)

الملخص:

تبحث الدراسة في ممارسة مبادئ الرقابة المصرفية الفعالة في المصارف الخاصة في العراق. وسؤال الاساسي للبحث هي: هل البنك المركزي فعال في التنظيم والرقابة على المصارف الخاصة في العراق؟ ويقارن ممارسة الإشراف المصرفي في البنوك الخاصة في أربيل - العراق بمبادئ الرقابة المصرفية الفعالة الصادرة عن لجنة بازل للرقابة المصرفية (2012)، ولمعرفة كيفية ممارسة هذه المبادئ وتنفيذها بشكل فعال. جمعت الدراسة البيانات من خلال توزيع 144 استبانة على موظفي البنوك رفيعي المستوى المشاركين في الإدارة المصرفية. تتكون المجموعة المستهدفة من الرئيس التنفيذي وأعضاء مجلس الإدارة وموظفي الائتمان ومديري

مخاطر الائتمان والرؤساء الأقسام. استخدمنا الإصدار 26 من برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS)لتحليل البيانات في الدراسة. يتم إنتاج الإحصائيات الوصفية ، مثل النسب المئوية والترددات مثل المتوسط والانحراف المعياري والتباين كنتيجة لتحليل البيانات. بالإضافة إلى ذلك ، تم فحص كل من تحليل الانحدار ، وتحليل ANOVA ، وعلاقة بيرسون بين المتغيرات في الدراسة. يعتقد المجيبون الاستبانة أن المصارف العراقية الخاصة تمارس بفعالية معايير الرقابة المصرفية. وفقًا للمسح ، تعمل البنوك بنشاط على وضع سياسات وممارسات لتحديد وتقييم ومراقبة مخاطر الائتمان والسيطرة عليها. سيوصي بإعادة إجراء الدراسة على عينة ستكون أكثر تنوعًا جغرافيًا وتتناول عددًا أكبر من المستجيبين ، والتي يمكن اختبارها من أجل التمثيل والتحيزات المحتملة.