

Evaluating the Adequacy of the use of CAMELS Financial Failure Prediction Indicators in the Yemeni Banking Sector 2014

¹Abdulwase Al-Mekhlafie, ²Mongi Gharsallaoui

¹PhD Student, ISCAE, University of Manouba, Tunisia

²Associate Professor, ISCAE, University of Manouba, Tunisia

DOI: https://dx.doi.org/10.47772/IJRISS.2024.804071

Received: 17 March 2024; Revised: 02 April 2024; Accepted: 06 April 2024; Published: 06 May 2024

ABSTRACT

The study aimed to identify the predictability of financial failure by the criteria and indicators of international banking safety (CAMELS)to the Yemeni banking environment in content and variables of calculation and classification of risk to predict the financial failure, which requires the Central Bank to carry out the functions of the control and supervision of the Yemeni banking sector indicators (because the Yemeni banking sector operates under perilous environment). It also aimed to identify the extent of the Central Bank of Yemen's efficiency in the application of those criteria and indicators on the Yemeni commercial banks, to enhance the safety of these banks and banking through the application of those criteria (CAMELS).

The study was carried out through a method combining a comprehensive review of previous studies on the use of international criteria and indicators CAMELS in general and taking advantage of publications and books published about those international criteria and indicators, and characteristics and mechanism of application in particular, with a focus on the recommendations made in this regard and good practices to manage and adjust the indicators of banking safety and predictability of financial failure. The second component depends on the applied method of these indicators (CAMELS) in some Arab and foreign countries and some international institutions of bank credit to get to know the central banks' actual practices in the control of banks and financial failure prediction and control risks.

The study concluded that international criteria CAMEL'S suit, in the application, Yemeni banks for their flexibility and absorption of the economic, political, and social country-specific circumstances. It found that the Central Bank of Yemen applies these criteria but traditionally and there are still some deficiencies in the application of the developed and modern criteria (in terms of the methods and tools of measurement) by the International Commission of Criteria of 2004-9 / 2010. Besides, the Central Bank of Yemen is not able to impose its authority and powers to conduct banking reforms to address imbalances that threaten some banks to avoid financial failure in the future. The study also concluded that most of the neighboring Arab states have begun to initiate practical application of the international criteria of 9/2010, which are the third phase of the advanced phases of the international criteria and indicators CAMELS. The study suggested an adjusted model for the system of criteria CAMELS fit to the traditional Yemeni banking environment, taking into account the specificities of Islamic banks. This model was called the CAMELS.

THE INTRODUCTION

This research is about the study of CAMELS financial failure prediction indicators in the evaluation of banking performance in Yemen, as the research adopts the descriptive method to attain a frame for the



means of about the capacity of the central bank in the prediction of banking financial failure, as the research depends on the laws and instructions of this bank and the supervision besides the secondary source of reference, therefore, the study is limited to the study of the Yemen central bank upon the assumptions about the effective use from this bank of indicators of international banking criteria on supervision over Yemen banks in the early prediction of failure.

Our study deals with traditional criteria for the prediction of financial failure like Altman indicators (1968) and Kida indicator (1981) as the research had reached the results about the use by the central bank of these criteria for evaluation of performance and prediction of failure from Yemen banks. However, the study shows the shortage of application in (1992-1994-1998-2004-2010) as the central bank is adherent to the criteria of 1994 which shows the shortage in performance and prediction and which were evolved in 1988-2004-2010 as the indicators of capital quality consider the modification in the assessment of credit risks with the abolition of segregation for classification of countries toward the specific preponderance with three optional methods highly sensitive to the risks, besides the new modification in the classification of assets in accordance to the type of debt with the preponderance of credit risks from 0% to 150% as these weights rise with the higher risks or the low level of client classification.

The key words: prediction indicators – financial failure – banking sector – American evaluation criteria

INTRODUCTION

The banking system is an important factor in social and economic life as it reinforces the trust in country policy therefore it is necessary to provide an effective banking sector that assists other sectors in finance therefore the rules of the central bank of a way compete between the countries (Yehia 2017-595).

The competition in banking is in better services to clients without sacrifice of profit (Uppal, 2010: 40) in a way that the banks have to deal with complicated risks besides the economic shrinkage since 2008 with the failure of many American banks and all over the world (Metawaa and Ayyach & Ghssan, 2018: 242)_beside the crises in seventies with the collapse of Herstat bank in Germany on 1974 and crisis of Latin America 1974-1980 (Kenneth and Adeniui, 2014: 2) and which requires close examination as this study deals with traditional criteria of failure prediction like Altman indicators and ketda indicators and from prior studies of Eslamboly 2003 Attia 1995, and El Gahmani 2001, Deakin 1972, Blum 1974, Fulmer 1984, Sherrod 1987.

The evaluation of financial safety is necessary for the smooth operation of the banking sector to detect weaknesses to take corrective procedures in due time and for the fight against the instability of the financial sector in many countries with the bankruptcy of banks from the risks in the nineties and (2007-2008) as there several systems of prediction like CAMELS system about the effective application of these indicators and points of force and weakness and the capacity of indicators in the provision of accurate results.

Problem of the Study

The bankruptcy of the National Bank for Trade and Investment in Yemen in 2006 AD (Al-Masry: 2012:123), which was one of the most prominent justifications for its bankruptcy (according to the study) was the insufficient control tools of the Central Bank of Yemen, the mismanagement of the National Bank, the high credit risk index, the bad debt index, and the low capital adequacy index.

The problem is about the stability of the banking organ which depends on the success of banks in the adoption of the right system for management of capital and risks with the evolution of accountancy systems transparency according to the international agreements and criteria in the aim of sufficient in the banks.

The assessment of the efficiency of CAMELS indicators is very important for the ideal exploitation of



sources with the highest return with the lowest risk, therefore CAMELS assists in the identification of sufficiency of capital and the safety of the operations and exploitation of funds and the liquidity of the bank and its ability to satisfy its obligation beside the level of sensitivity toward risks and market turbulence, therefore this research is about the efficiency of prediction indicators of financial failure CAMELS and its assessment in Yemen banking sector on 2014.

The Importance of the Research:

- The importance of research is that it deals with one main concept in banking financial administration according to CAMELS which is very important if it is adopted correctly in Yemen banks.
- Throw light on the best means in the evaluation of the financial performance of Yemen banks in the application of competency of total performance.
- Throw light on the strong and weak points of work systems in Yemen banks for the service of depositors and investors.

The assumption of research:

The study was established on the assumption of the adequacy of using the Central Bank to apply international standards for bank supervision in Yemen to predict Yemeni banking failures.

METHODOLOGY OF RESEARCH

The research addressed the adequacy of the Central Bank of Yemen's use of bank evaluation indicators. It adopted a descriptive-analytical approach to propose a framework for supervisory tools based on the CAMELS model for the Central Bank of Yemen to monitor the prediction of banking failures through the bank's laws and instructions, as well as secondary reference sources. Therefore, the study was limited to the Central Bank of Yemen according to the CAMELS system.

Where the data was collected from

1- Primary sources, including:

- Laws and instructions issued by the Central Bank of Yemen and Arab and foreign central banks, the guide for banking supervision of Yemeni banks, the guide for supervision and supervision of Egyptian banks and banks, the supervisory guide for the Central Bank of Iraq, the Kuwaiti control guide, and the Omani control guide.

2- Secondary sources, including: -

Using references and books written on the topic, periodicals, published research, peer-reviewed studies in journals, and master's theses written on the same topic, as well as reports and bulletins issued and unpublished scientific dissertations at the National Information Center, and utilizing the Internet and electronic copies found on its pages.

Theoretical Frame of Research:

CAMELS are a quick indicator of the financial competency of any bank and one of the supervisory means of field inspection (Ahmed 2005: 4).

This indicator is a group of tools for the evaluation of bank performance (Geady, 2014: 120) the efficiency of management and accommodation with any changes (El Reda, 2016), and points of force and weakness in

Page 962



bank performance (Gaoul and Geryville, 2021: 213).

CAMELS are the result of the efforts of many countries that adopt quantitative and qualitative means in the prediction of financial failure as it is an important system of classification by supervisory authorities to evaluate the bank performance, particularly G20 countries.

CAMELS system for evaluation of unpublished confidential performance the results of evaluation are confidential and unpublished as one opponent of this idea from American federal bank John Hawk had stared that divulgation of evaluation results in withdrawal of the deposits however Richard Carnell the professor of law in Fordham university supports the idea as he had stated that divulgation with assist in objective criticism and without regard to supports and opponents our topic is about classification system adopted by central banks in many banks all over the world.

Causes and justification of CAMELS indicators.

The United States was the first country due to a banking collapse in 1993 with the bankruptcy of 4000 banks with another collapse in 1988 for the failure of 221 banks due to the lending of real estate mortgages (El Hadad, 2015: 17).

The period from 1974 to 1980 is about bank collapse in America Japan and Germany due to the Huge rise of interest on the dollar and the disparity of due terms between the assets of banks and obligations with the constant interest in Western banks and the low lend amounts as a result of huge reduction of capitals respect to assets (Hamoudy, 2009: 6).

Since the seventies, the managers of central banks found that competition between central banks in their countries was not fair due to the disparity of constraints on these banks (2014-9).

Components of CAMELS system:

CAMELS are the most prevalent in the international society as they depend on classification degrees on banks as a base for evaluation of performance upon quantitative and qualitative analysis as each element of this pattern is a concept as the terminology of this system is about the following main elements (Mohammad, 2012: 5)

Table (1)

The element	The symbol
Capital adequacy	С
Assets quality	А
Management	М
Earnings	E
Liquidity	L
Sensitivity to market risk	S

With the difference of elements in some countries:

- India adopts CAMELS SC, as (c) is the commitment to the system (Hasan, 2011: 2).
- Angola adopts CAMELS as (S) is the system and control.



There are two kinds of measurement means.

• Indicators of quantitative measure.

There are indicators of financial ratios in measurement through CAMELS criteria as these ratios reveal weakness and early prediction of risks to the bank (El Hadad, 2015: 21).

• The qualitative criteria and indicators.

These criteria are based upon the measure of risks however the descriptive measure requires the field examination from the central bank auditor to the bank for the measure of kind and number of risks.

Measure of CAMELS Indicators:

Each element of CAMELS allocates five classifications and points from one to five and each classification has a nomination.

Table (2)

Rating scale	Rating analysis	Rating range
1	Strong	1-1.4
2	Satisfactory (very good)	1.6 - 2.4
3	Fair (medium – good)	2.6 - 3.4
4	Marginal	3.6-4.4
5	Unsatisfactory (weak)	4.6 – 5

The degrees of classification are flexible as it is possible to increase from one to five or to decrease from five to one

Classification of each component is based upon evaluation of level and degree of risk of capital and revenues with the amount of risk for each element with the change of economic conditions of the country as the degrees of risk differ from one country to another (El Hadid, 2015: 25).

Table (3)

Serial	Element of main field	Degree of risk	Classification degree	Prevalence
1	Capital sufficiency (c)	25%		
2	Assets quality (A)	20%		
3	Management quality (M)	25%		
4	Earnings (E)	10%		
5	Liquidity (L)	10%		
6	Sensitivity to market risk(s)	10%		
	Total	100%		

Indicators of capital adequacy:

Adequacy is an important element to supervisory authorities and which is about the solid condition of bank



as these authorities provide many different measures of adequacy such as capital adequacy measured by quantitative indicators and descriptive indicators (Basel, 2010: 77).

Capitalism rule (First category - second category - third category) percentage of capital adequacy 10.5%.

Preponderant assets and credit risks plus assets with risks (from the market and operation) 12.5%.

Classification is made on capital adequacy, asset quality earnings, and liquidity of bank in a Company quantity upon a scale from one to five as one is excellent and five.

The development to the criteria of capital efficiency is in the reserved capital from yearly profits as an addition to the main capital amount the first category of the first layer of capitalist rule of banks.

Table (4):

Item	January 2016	January 2017	January 2018	January 2019
Continuous capital	4.5%	4.5%	4.5%	4.5%
Reserved support	0.625%	1.250%	1.875%	2.5%
Additional capital	1.5%	1.5%	1.5%	1.5%
First layer and reserve	6.625%	7.25%	7.875%	8.5%
Second layer of capital	4%	4%	4%	4%
Criteria of capital adequacy	10%	10%	10%	10%
Total of capital adequacy criteria and reserve	10.625%	11.250%	11.785%	12.5%

With the following Standardization ratios of the least requirements of capital:

- 1. Ratio of capital of first level to total assets with risks at 4.5%.
- 2. Ratio of capital of first level to total assets with risks at 6%.
- 3. Ratio of capital of total assets with risks at 8%.
- 4. Ratio of capital of first level to mean total assets at 4%.

Criteria of asset quality

Asset quality is important in the evaluation as it is crucial to the bank's activity, and the acquisition of new assets will provide more income between evaluation of liquidity and capital management as this quality is classified according to the risky assets to total capital, and the delay in payment of loans and procedures of reschedule, the risk of borrower and lenders and the attitude of administration toward the loans of employees (El Feraa, 2008: 25).

Indicators for Evaluation of Assets Quality:

Quantitative indicators of asset quality

The ratios are to be considered in the evaluation of asset quality (El Hadad, 2015: 55).

- 1. Ratio of loan losses to total assets.
- 2. Ratio of risky assets to total loans.
- 3. Ratio of risky assets to main capital.
- 4. Ratio of loan losses in risky loans.



Table (5):

Samial	Dating	1	2	3	4	5	
Serial	Rating	Strong	Satisfactory	Marginal	Risky	Unsatisfactory	
1	Nonpayment of debt increase of loans	0-5%	5.1-10%	10.1-*15%	15.1- 20%	More than 20%	
	Risk	0-20%	20-40%	40-60%	60-80%	80-100%	
2	Net incident and loan loss provision revenue						
2	Risk	0-20%	20-40%	40-60%	60-80%	80-100%	
3	Net asset to total asset						
4	Net asset to net loans						
5	Total investments to total assets						

Weights of quantitively indicators in measurement of management quality

Table (6):

Sorial	Rating	1	2	3	4	
Serial	Kating	Strong	Satisfactory	Marginal	Risky	
6	Net charge office	Less than 0.25%	0.25.0.57%	0.75 1.75%	1 75 2 504	
0	Mean of loans	Less than 0.25%	0.23-0.37%	0.75-1.75%	1.73-2.3%	
7	From two million to 10 million capital					
7	Delinquent loans	More than 1.5%	1.5-3.5%	3.5-7%	7-9%	
Loans						
	From two million to ten million capital					
8	Percentage of allocation	More than 4 000/	5 14 000/	15 24 000/	25 50 000/	
	Ownership rights and allocations	More than 4.99%	5-14.99%	15-54.99%	35-59.99%	

There are classifications of credit risks and credit efficiency which are according to the scales and criteria of CAMELS.

Table (7):

Serial	Description	Allocation percentage	Value of allocation
А	Regular loans	0%	
В	Irregular loans		
	Due loan in 30 days	10%	
	Due loan from 31 to 60 days	25%	
	Due loan from 61 to 90 days	50%	
	Due loan from 91 to 180 days	75%	
	Due loans from 181 to 365 days	90%	
	Due loans after 365 days	100%	



Among the causes of bank collapse are the mismanagement and capacity of banks to abide by instructions and the ability of banks to respond to changes in the work environment as the supervisory department should analyze the problems related to the performance of the administration.

Indicators of scales of management quality:

Quantities indicators

There are the following quantitate indicators

Spending rates, percentage of revenues to each employee, and expansion in the number of financial companies.

The indicators of banking safety are according to CAMELS from the Nigerian Central Bank the management quality as a quantitate indicator.

Table (8):

Factor	Component of evaluation	Component weight	Factor	Weight
Management quality	85/CAMELS – Compliancy with Laws Regulations	5% 10%	15%	

Qualitative indicators:

They represent the clear policies for the delegation of responsibilities to preserve banks' assets upon the convenient system for internal and external review with the establishment of a control unit that will inspect the extent of commitment to laws and systems as there are aspects in the process of internal valuation of risks, and capital for the issuance of reports about this evaluation (Egyptian central bank, 2014: 23).

Earnings quality within the system international criteria banking earning reflects the ability of the bank to increase the value of invested assets which is the difference between paid cash for the purchase of investment element and collected cash from the sale, as bank profit is a relative concept about the relation between profit and the investments that contribute in the achievement of profits in specific period and which is one performance indicator.

Percentage of quantitates indicators for classification of profits.

Table (9):

Classification degree	Classification type	Classification of income from finance and total income	Expenses and income	Net income to net asset
1	Strong	More than 15%	More than 55%	More than 1.5%
2	Satisfactory	50-75%	55-65%	0.75-1.5
3	Fair	20-35%	65-75%	0.4-0.75
4	Marginal	10-20%	75-85%	0-0.4
5	Unsatisfactory	Less than 10%	Less than 85%	Less than 0



There are qualitative criteria

Table (10)

Earning strong	Classification 0-20	Rick Level rare	more than indirect	Profit distribution less than 15%	Planning and controls bank has controls for deviation
Satisfactory	21-40	Possible	Less than 25%	Less than 29%	Weakness of control
Good	41-60	Margin	al less than 15%	Less than 30%	No follow-up budget
Marginal	61-80	Critical	less than 10%	Less than 40%	No budget
Unsatisfactory	81-100	Catastrophic	Indirect expenses more than net interest	Distribution of more than 40%	No budget and no control

The following is about quantities indicators of earnings (El Hadad, 208).

- Net profit to mean rights of contributors.
- Net profit to mean total of assets.
- Net collected interests to mean the total of assets.
- Net collected interests to total revenues.
- Other revenues to mean total assets.
- Other expenses to total revenues.

Liquidity quality and management of assets and liabilities according to CAMELS.

Liquidity is the ability of the bank to finance the excess of assets and the satisfaction of dues without denied losses as the main role of banks is the conversion of short-term deposits to long-term loans in a way that banks are vulnerable to liquidity losses (BCB, 2008: 1).

The international cash fund had defined liquidity as the sale of assets during a definite period for sale at market value (Dusuki, 2007: 9) and the fund management includes the evaluation of liquidity requirements and its satisfaction effectively within different periods and change of finance requirements in different scenarios (Abou Ahmed, 2002: 192)

Indicators of liquidity measure (Manual of Examination 24)

Table (11):

Criteria	I mundity coverage rate	Criteria of net cumulative	Criteria of net finance
	Store of good liquid assets total cash flows within the next thirty days		Available amount for finance and return from finance



Weight of indicator	No less than 100% of currency		More than 100%
Criteria clarification	Out cash flows during thirty days		Cash flows for more than year
Application year	January 2020		January 2020
Calculation	Monthly	Yearly	
Time limit of reports	14 days		

Weights of quantitates indicators for classification of liquidity as in the federal reserve system liquidity and funds management sections 6-24.

Table (12):

Classification	Type of classification	Finance deposits	Net assets finance	Percent of inner liquidity
1	Strong	Less than 55%	Less than 50%	More than 15%
2	Satisfactory	Less than 60%	Less than 60%	More than 12%
3	Fair	Less than 65%	Less than 65%	More than 10%
4	Marginal	Less than 70%	Less than 70%	More than 5%
5	Unsatisfactory	More than 71%	More than 71%	Less than 5%

Sensitivity to market risks:

They are the risks of the stock market for economic political and social classes the risks of return prices and the risks of the source of financial tools compared to credit risks (Risks of currency prices) opposite part and risks of option contracts and the risks from the changes in assets markets (Basel 2019).

Reality of central bank in the application of CAMELS indicators

- The Yemen central bank has to supervise Yemen banks and had made corrective works in December 1999 based upon CAMELS in its publication 231 Year 1996 on two kinds of supervision which are stationary control and field examination for evaluation of Yemen banks risks and management within five years as in the following:
- First step: collection of information.
- Second step: the scope and release.
- Third step: evaluation and field analysis.
- Fourth step: evaluation and analysis of CAMELS.

Upon the adequacy – assets quality – quality of management – earnings – liquidity.

Capital quality

Capital quality is measured according to capital adequacy and CAMELS, by publication (3) in 1996 for the measure of percentage of capital at the weight of (8%) of main capital and prevalent assets and their risks according to Basel 1994 and that had been followed till 2022 despite updates by Basel second and third with the addition of market risks and operation at 125% that the indicator of capital adequacy is 10.5% adopted by Arabic and foreign banks and consideration of other indicators like financial adequacy.

Table thirteen about historical weights of capital quality upon CAMELS criteria in September 2010



Years and description		2014	2015	2016	2017	2018	2019
Percent of capital to liquidity	3.5%	4%	4.5%	4.5%	4.5%	4.5%	4.5%
Percent of capital to free risk capital	—	_	_	0.625%	1.25%	1.82%	2.5%
Capital and liquidity		4%	4.5%	5.12%	5.5%	6.375%	7%
Capital		5.5%	6%	6%	6%	6%	6%
Capital and free-risk capital	_	_	-6.625%	7.25%	7.87%	7.87%	8.5%
Capital	8%	8%	8%	8%	8%	8%	8%
Free risk capital	8%	8%	8%	8.62%	9.25%	9.87%	10.5%
	_	20%	40%	60%	80%	100%	100%

These instructions apply to the indicator of capital adequacy within the period from 2013 to 2019 besides another category to confront the potential crises and to hoist the reserves to 7% from 2015 to 2019.

Table fourteen about the historical weights of capitalist rule and reserve capital from 2013 to 2015

Description	Category	2013	2014	2015
Capitalist rule		8.5%	8%	10.5%
Main capital	Total	4.5%	5.5%	6%
Supportive capital	Total	2%	3.5%	4.5%
Reserve capital	Total	2016	2017	2018
		0.0625%	1.25%	1.875%

The Yemen banking system is adherent to traditional criteria to measure capital adequacy besides the weight for credit risks by Basel One till the present.

Assets quality:

By the publication, three-year 1996 and amended by publication two-year 1997 for classification of assets risks into two categories the first is about the weights of risks inside the budget and the other is outside it and each includes the items of budget to weights of the risk's preponderance as in the following figure

Figure one about the weights of preponderant assets with risks

Income items			
Medium assets			Out-of-budget items
Non risk assets	Risk weight	High-risk assets	Items of weights 20%
Weight = 0	Weight $= 20\%$	Weight = 100%	
Cash	Claims from banks of OECD	Claims from private	documental credit without cash over
Claims from government	Claims from regional banks	Claims from other banks	Total value of outside items
Other claims from OECD countries	Claims from public sector guaranteed loans	Claims from public sector	Total of budget items and weights



Indicator of management quality

Quantities indicators (Bou Kholkal, op. cit., 5)

There are some quantities indicators as in the following

Spending rates - percent of profits for each employee - expansion in the branches

The indicators of banking safety are measured by CAMELS system by Nigerian central bank for management quality as quantities factor.

Table fifteen

Factor component	Component weight	Factor weight
Management quality 85/cael	5%	
Compliance with laws and regulations	10%	15%

Qualitative indicators:

They are the clear policies for delegation of authorities existence of a system for internal and external audition and the establishment of a unit that supervises the application of instructions as there are a group of elements that should be considered in internal evaluation for each bank in the scope of full evaluation of risks and capital with the issuance of reports independent internal and external supervision for the evaluation of risks (Guide of Control and inspection – Egyptian central bank 2014: 23).

Earning Quality:

The profit is the ability of the bank to increase the value of invested assets which is the cash excess that is the difference between paid cash on the purchase of investment elements and collected cash from sale and this profit is a relative contribution in these profits within a specific period and one of the indicators of performance that measure the ability of management in earning of profit.

Percentage of quantitative indicators for classification of profits.

Table sixteen:

Classification degree	Income from finance and total income	Expenses and income	Net income and asset mean
1	More than 75%	More than 55%	More than 15
2	50-75%	55-65%	0.75-1.5
3	20-35%	65-75%	0.4-0.75
4	10-0%	75-85%	0.40
5	Less than 10%	Less than 25%	Less than 0

For more information, you can refer to administrative risks in banks, combined control – seventh unit – legislation of control and supervision the Qatar central bank

There are qualitative criteria as in the following



Earning	Classifica	Risk on level	Effectiveness	Dist of profits	Planning controlsand budget
Strong	0-20	Rare	Net interest less than indirect expenses 25%	Less than 15%	The bank has budget control of deviation
Satisfactor	y21-40	Possible	Less than 25%	Less than 20%	The bank has a budget with weak control
Good	41-60	Marginal	Less than 15%	Less than 30%	The bank has a budget but has not followed
Marginal	61-80		Less than 10%	Less than 40%	No budgets
Unsatisfac	8ily100	Catastrop	Indirect expense greater than ^{1C} net interest	More than 40%	No budgets and no control

Table seventeen:

Other than earning indicators that give a future view about the financial position of companies like large client base as if there are few clients then this company lacks competition advantage and inability to acquire more clients and to expand its activities to include familial and other sectors and this has an impact on costs and profits like the large margin of interest from loans and deposits and this reflects the environment of the company and market structure of monopoly and among the effective quantitative indicators to measure earning quality as in the following.

Net profit – average rights of shareholders – net profit to total assets net collected interests over mean total of assets – net collected interest over total profits – other revenues – mean total of assets – total revenues fifth: liquidity quality and management of assets and liabilities within CAMELS.

Liquidity is the capacity of a bank to finance the excess of the assets and satisfaction of dues as the main role of the bank is the conversion of short-term loans in a way that the banks are vulnerable to risks (Dusuki, 2007: 49) while international cash fund has described the sale of assets in specific period for sale in market value or near it and liquidity reflects capacity of bank to finance assets as it is necessary to satisfy client withdrawal compensation of turbulence in general budget as fund management includes evaluation of liquidity assets and satisfy them effectively (Neadal, 2000: 273).

Components of available stable finance and relevant factors:

Weight	Components
	- Total capital in levels one and two according to criteria issued by the committee
100%	 The total amount of storage is not included in the second level with the remnant due date of more than one year with the option to shorten dues to less than a year.
	 Total of loans and claims are due in one or more years except for the option to shorten the due date to less than one year and the investor can choose the option.
90%	– Due fixed deposits or term deposits as in LCR in paragraphs 55-61 with due dates in less than one year from retail and clients of small companies.
80%	– Non-due of deposits in less than one year from retail and clients of small companies.
50%	- Unguaranteed finance of gross none due deposits of less than one year from non-financial companies' governments development banks and corporations of the private sector.



0%

All claims and ownership rights not previously mentioned.

The following is about the prevalent percentage of auditors:

- Full reliance on unnecessary finance, net of loans, and contract of lease for deposits.
- Net loans and leases to total assets and short-term assets to short-term claim.
- Mortgage of financial papers to the total of papers.
- Main deposits of total assets net loans to the contract of lease for deposits.
- Net loans and leases to total assets and short-term assets to short-term claims.
- Mortgage of financial papers to total financial papers.
- Main deposits to total assets.

Yemen's central bank is in lack of evaluation and management of the liquidity assets as in the following:

- Non-application of liquidity coverage ratio.
- Non-application of net stable funding ratio.

Which are included in Basel instructions for risk management.

• Stable finance is a part of amounts necessary to finance rights of ownership and claims with confident sources of funds within a time horizon of one year.

Classification of liquidity within CAMELS

The practitioners should know that analysis of liquidity percentage does not provide an accurate picture about the company liquidity as they have to consider quality stability and aspects of asset and liabilities account as before analysis of these percentage as it is necessary to analyze the loans financial papers deposits before the use of these percentages.

The quantitative indicators for a measure of liquidity quality

Weights of quantitative indicators for classification of liquidity

Table nineteen:

Classification	Classification type	Finance and deposits	Net finance and assets	Percentage of internal liquidity
1	Strong	Less than 55%	Less than 5%	More than 15%
2	Satisfactory	Less than 60%	Less than 60%	More than 12%
3	Fair	Less than 65%	Less than 65%	More than 10%
4	Marginal	Less than 70%	Less than 70	More than 5%
5	Unsatisfactory	More than 71%	More than 71%	Less than 5%

Yemen banks do not divulge indicators for the management of liquidity resistance in published financial reports while the central bank imposes upon Yemen banks in brochure three the years 1997 to banks onto keep liquidity of 25% minimum from allocated items for assets dues and even if banks announce these date, they are not considered in a financial position



Classifica	1tion	2	3	4	5
Quantita	Ve	1	1	1	Loans to depositmore than 100%

Therefore the results of divulgation are deceptive to users of reports table twenty

Sixth: sensitivity to market risk

They are the risks on the stock market for economic political and social causes that include risks of return prices (Settlement) risks relevant to the source of financial tools compared to credit risks – opposite part – risks from the contact of options and the risks from changes in the stock market.

The risks from each asset as it is expected that banks cope with market risks to meet the capital requirement by the end of every day while censor conducts procedures to granite that banks do not publish false or fake data in reports through adherence of banks to the strict management however if any bank fails to meet the requirement then the central bank protect the currency from loss of difference in prices, but it does not protect the capital adequacy and if the bank capital is in local currency the ration between capital percentage to assets will fall if the local currency rise up as it is necessary to apply these requirements on a united universal system and official authorities allow banks to prepare the same unified leader with evaluation of capital on a universal system to report their position on long and short run.

As there is no stock market in Yemen this indicator is ignored in spite of treasury orders and governmental bonds in hard currency with a return equal to published interests in libor London according to the republican decree of law eighteen year 1995 about general debt.

This study was made according to CAMELS as in central banks

• Foreign countries:

Pakistan Bangladesh Nigeria Colombia access international and credit unions for finance.

• Arab countries:

Lebanon Qatar Egypt Sudan Iraq Syria Kuwait and Algeria.

First: the results:

The verification of study assumption about efficiency of central bank in application of international criteria for control CAMELS on Yemen banks to predict financial failure as the results show that central bank use these criteria in evaluation of performance in Yemen banks which is a priority to advance banks to regional and international competition with shortage in application (1992-194-1998-2004-2010) as central bank adheres to these criteria from 1994 and which had corrected this shortage through the amendment of 81-2004-2010 as the indicators of capital quality had obliterated discrimination of countries with qualitative preponderance of credit risks through three facultative methods sensitive to risks with the modification for categories of assets with weights of credit risks from 2ero to 150% as the weights rise up with immense risk up to 250% for stumble loans and 100% for non resident client through this unbiased classification with the free choice to banks to choose more sensitive methods.

The update of international criteria (1998-2004) includes full coverage of market risks about the losses related to budget or due to changes in market price by the committee 1988 and permit to banks to issue



supportive loans for two years of no more than 250% which the addition of operation risk to measure capital adequacy and which is not considered by Yemen central bank however banks should apply criteria correctly in order to improve the management of risks with the rise of shares for shareholders through the ammendements of 2% as it is mandatory that capital adequacy at 8% if first layer is 6% minimum and the rights of shareholders is less than 4.6% for 2% for supportive fund for transparency through short period (2015-2019) for preservation of capital at 2.5% for emergency and the provision of sufficient liquidity from stable finance sources that CAMELS had been approved at 60% for liquidity coverage through a schedule up to 100% on 2019 as assets is an indicator of cash flows through thirty years as these indicators are applied on the level of currency in the aim to maintain enough liquidity for central banks in Arab and foreign countries in application of CAMELS upon the sample of rules in third version on 2010 and as form 2014 and practical application from January 2015 that reveal the lack of efficiency from Yemen central bank in application of CAMELS on Yemen bank in retarded means 1992 however these criteria had been updated from 1998 to 2010 beside the control criteria had been ignored the Islamic perspective in Islamic banks as one indicator in spite of prescription (1997) in Yemen and which still follow the criteria of traditional bans as it lacks the application of Islamic criteria with the adoption of same indicators on capital quality in spite that Islamic banks have abundant liquidity as it is supposed to follow the safety criteria to Islamic banks therefore the Yemen central bank does not practice effective control on Islamic banks and other banks for evaluation of their performance there the indicator of sensitivity to risk from financial tools and which is not applied on commercial banks beside the shortage in insufficient of quantitates indicators and which are not enough for a full complete evaluation about the future of the bank beside the shortage in use of qualitative indicators based upon subjective view of the auditor therefore the results are not completely correct.

THE RECOMMENDATIONS

- 1. The study recommends the Yemen central bank about CAMELS system issued on 1994 which had been primitive and to refere to updated version of CAMELS issued from 2004 to 2010 which is more developed in the ways for calculation of indicators about evaluation and prediction of the financial failure with the multitude of indicators and variety of means of classification.
- 2. Amendment of indicators about risks according to CAMELS system since 1997 as Yemen suffers from economic social political risks besides the low prices of petrol derivatives which is the strut to the economy of any petroleum company.
- 3. Formation of a committee of experts to study the indicators of early detection (full indicators of the economy) and partial warning indicators CAMELS with the amendment of partial warning according to variables of early precocious warning that cope with Yemen economy and follow other counters and which revealed the administrative incompetency in public sector companies beside the waste of public fund and low level service with rise of indebtedness.
- 4. The connection of Yemen banks data network to information network of supervisory sector in central bank in the aim to unify the data assembly of information in real time and the important role of the competency of credit information for effectiveness of banking sector through amelioration of practices of risk management and ease of access to finance for full development fight against unemployment by the great role of these companies and job opportunity with least cost and effort with unification of account coding to calculate credit concentration according to CAMELS system without the human factor in calculation.
- 5. Islamic banks adopt investment tools different than those of usury and which have different degrees of risk and for the achievement of goals of society central bank has to follow a particular method of censoring Islamic banks
- 6. Conduct a study about the efficiency of indicators followed by central banks upon foreign banks in Yemen which had not been considered in our study.
- 7. The CAMELS system of evaluation should be activated for the detection of weak points for each

element and its use for prevention and cure with a high degree of efficiency and effectiveness.

- 8. Application of the American evaluation system according to criteria of 2004-2010 to achieve the role of Yemen's central bank on the supervision of credit policy of banks in an effective sophisticated form.
- 9. The study recommends traditional banks to apply CAMELS indicators and also Islamic banks CAMELS in the purpose of banking evaluation as these indicators are updated in their indicators tools and to cope with the requirements of international criteria to predict prematurely the financial failure of banks.

REFERENCES

Arabic references:

- 1. Abu Ahmed, Reda Sahib, Banking Management, Introduction to Analysis, Amman, Jordan, 2002, p. 192.
- 2. Ahmed, Malik Al-Rashid, a comparison between the CAMELS and CAEL standards as modern tools for banking supervision, Banking Magazine, Central Bank of Sudan, No. 35, 2005, p. 4.
- 3. Jaadi, Sharifa, measuring operational efficiency in banking institutions, a case study of a sample of banks operating in Algeria during the period 2006-2012, a memorandum submitted as part of obtaining a doctorate degree in financial sciences, specializing in financial and economic studies, Kasdi Merbah University, Ouargla, Algeria, 2013. /2014, p. 120.
- 4. Al-Haddad, Abdul-Wasi Abdo, Evaluating the adequacy of using CAMELS financial failure prediction indicators applied to the Yemeni banking sector (an applied study compared to the Central Bank of Yemen), unpublished master's thesis, 2014-2015 AD, p. 17.
- 5. Hamoudi, Ali Abd al-Rida Hamoudi, indicators of total prudence and the possibility of predicting crises (an applied study on the case of Iraq) 2003-2009, p. 6.
- 6. Al-Rida, Saba Abdel-Hadi Abdel-Rida and Abdel-Rida Shafiq Al-Basri: The CAMELS matrix in evaluating the performance of banks, published research, dated March 25, 2016, htt://www.iasj.net/
- 7. Siham, Tamisa, Evaluating the performance of commercial banks using the CAMELS model, a case study of the National Bank of Algeria (2008-2012), published master's thesis, Kasdi Merbah University, Algeria, 2013-2014, p. 9.
- 8. Shehata, Hussein Hussein, Liquidity Management in Islamic Banks, Standards and Tools, p. 40
- 9. Al-Shalabi, Dr. Youssef, Liquidity Risk Management Tools and Alternatives to Repurchase Agreements in Islamic Financial Institutions, p. 6
- Al-Farra, Ahmed Nour El-Din: Analysis of the American Banking Evaluation System (CAMLS) as a tool for monitoring the banking sector, Master's thesis, Islamic University, Gaza, Palestine, (D. T.), p. 25.
- 11. Nidal, Ziad, Jouda, Mahfouz Contemporary Trends in Bank Management, Amman, Jordan: Dar Wael for Publishing and Distribution. 2000, p. 273.

Foreign references

- 1. Mohammad Jahid Iqbal, Banking Sector's Performance In Bangladesh- An Application Of Selected CAMELS Ratio, Professional Master University Of Dhaka, Bangladesh, 2012, P5
- 2. Hasan Dincer, Gulsah Gencer, Nacif Orhan and Kevser Sahinbas:
- 3. A performance evaluation of the Turkish banking sector after the global crisis via CAMELS ratios, 7th international strategic management conference, procedia social and behavioral sciences24, Turkey, 2011, p. 02.
- Basel III: A global regulatory framework for resilient banks and banking systems, December 2010, P77
- 5. Tracking Financial Performance Standards, P60



- 6. BCBS, Principles for Sound Liquidity Risk Management and Supervision, 2008, P1
- 7. Dusuki, Commodity Murabahah Programme (CMP): An Innovative Approach to Liquidity Management,2007, P49.
- 8. RMS Manual of Examination Policies Federal Deposit Insurance Corporation, Liquidity and Funds Management, Section 6.1, P24
- 9. Federal Reserve System, Liquidity And Funds Management, Section 6.1, P24
- 10. Basel Committee on Banking Supervision, Calculation of RWA for market risk, 2019
- 11. BCBS, Principles for Sound Liquidity Risk Management and Supervision, 2008, P1
- 12. Dusuki , Commodity Murabahah Programme (CMP): An Innovative Approach to Liquidity Management,2007,P49
- 13. Federal Reserve System, Liquidity And Funds Management, Qatar Financial Center, Banking Business Prudential Rules 2014, CTRL Repeal, ISFI Partial Repeal and Consequential
- 14. Amendments Rules 2021, P241
- 15. Basel III: International framework for liquidity risk measurement, standards and monitoring, 2010, P-9
- 16. Complete set of agreed changes to the formulation of the Liquidity Coverage Ratio published in December, Annex 2 ,2010, P1-2
- 17. RMS Manual of Examination Policies Federal Deposit Insurance Corporation, Liquidity and Funds Management, Section 6.1, P24
- 18. Federal Reserve System, Liquidity And Funds Management, Section 6.1, P24
- 19. Basel Committee on Banking Supervision, Calculation of RWA for market risk, 2019

Websites:

- 1. http://bankingindiaupdate.com/rating.htm
- 2. http://mangalmay.org/blog/CAMELS-rating-study
- 3. http://www.gdrc.org/icm/rating/rate-2.html
- 4. Source: FDIC Deposit Insurance Assessments (ddfconsulting.com)
- 5. FDIC Deposit Insurance Assessments (ddfconsulting.com)
- 6. https://www.fdic.gov/regulations/safety/manual/section2-1.pdf
- 7. https://www.ecfr.gov/current/title-12/chapter-II/subchapter-A/part-208/subpart-D/section-208.43#p-208.43(c)(2)(iv)(B)
- 8. NPA- Non- Performing Assets3
- 9. bis.org · Basel Committee: Basel III: A global regulatory framework for more resilent banks and banking systems December 2010 (rev June 2011
- 10. http://ar.wikipedia.org/wiki
- 11. http://www.search.ask.