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THE EFFECT OF UNSYSTEMATIC RISKS AND FINANCIAL FLEXIBILITY ON PROFITABILITY IN LOSER BANKS-A CASE STUDY FROM IRAQI BANKS

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Abstract
The research was aimed to find the effect of unsystematic risks and financial flexibility on profitability in loser banks in light of a bad distribution of risks and an inability to seize exceptional, rare and rapid opportunities in a highly changing environment are limiting profitability assuming
To fulfill this aim, the data was from sample of 4 from total 13 Iraqi banks listed in the first market of Stock Exchange in Iraq, the research had comparing between the average return on assets for each bank for the period 2011-2020 with the risk-free rate, where the bank whose average return is less than the risk-free rate was classified in loser bank
The research used the semi standard deviation and downside beta to find systematic risk, and unsystematic risks
The multiple linear regression coefficient had used. The result that financial flexibility and unsystematic risks negatively effect on profitability which reflects inefficient in using financial resources and bad managing the risks.

Keywords: financial flexibility, unsystematic risk, profitability JEL Classification: G32.

Introduction

Introduction

Iraqi banks are operating in an environment characterized by high risk and limited opportunities, because Iraq considers high risks environment that impact on the performance of its banks (Mohammad & Thajil,2023), Consequently, some of these banks suffer from the inability to achieve the minimum required return, that is the risk-free rate, while others were able to achieve this or more.

In terms of risks, all banks are subject to the same systemic risks, while they differ in unsystematic risks. From another side profitability is an indicator of the efficient use of resources (M.M.,2016), so when its less than risk-free rate in some banks, that is meaning unsystematic risks are an influential variable, at the same time, financial flexibility is an important tool for seizing opportunities, according to (De Angelo and De Angelo, 2007) it is the provision of funds to respond to investment opportunities and unexpected financial needs, Therefore, in the rapidly changing Iraqi environment, it is an important financial tool to capture unique, rare and quick opportunities ,so it is the another influential variable in profitability.

In light of two variables (unsystematic risk and financial flexibility) and the case of banks who are unable to achieve the risk-free rate, the research question is:

What is the effect of financial flexibility and unsystematic risks on profitability of banks who did not achieve the minimum required return?

To achieve this aim, risks must be measured, but the measurement of the total risk when bank's actual return on assets is less than the risk-free rate, its total risk is measured by the semi-standard deviation (Semi Std)

(Roy,1952) had formulated the measure of downside return, that is semi standard deviation and according to (Estrada,2006, Estrada,2007, Swee-Sim & Kim-Leng,2010) the performance of semi standard deviation and downside beta are better than total risks measures (standard deviation and beta) in measuring risks, from another side the unsystematic risks are different between banks .

Principally to the above following steps were adopted:

First: the comparison between the actual return and the risk-free return to find the loser banks

Second: Measuring the unsystematic risk by subtracting the systemic risk from the total risk, the systemic risk is the beta downside square multiplied by the market variance (Tofallis ,2008)

The research didn't take liquidity risks, credit risks, and operational risks as indicators of unsystematic risks , but subtract the systematic risks from the total risks, because the indicators above do not reflect all the unsystematic risks, and that the statistical measure is more accurate, for it relates to the output side of performance ,Also unsystematic risks are an outcome of the financial climate, which refers to the total undesirable internal factors that limit the efficiency and effectiveness of performance, therefore cannot be limited to percentages.

From another side the beta downside coefficient was in most of the results about one or greater than one, while the total risk is decimal fraction, consequently , subtracting the beta downside coefficient from the total risk makes the unsystemic risk negative.

For reaching the aim of the research it was through the steps: literature review, theoretical review and hypothesis, data and research Model , results, and discussion

1.Literature Review

(AbulMongid&Muazaroh,2017)studying the relating between risk taking and profitability depending on 150 Indonesian banks from 2008-2014, risk taking were measured by Credit and Operational risk to total asset , while profitability measured by return on average asset by using regression in two stages. size, efficiency and ratios: loan to assets ,loan loss to reserve, equity and liquidity ratio, were used with economic variable, to find the effect on risk taking and then with estimate risk taking on the profitability ,the result found significant positive relationship between risk taking and profitability.

The study of(Alqisie i,2018) had studying the role of risk management in profitability by using 13 commercial banks in jordan from 2010-2015 ,the results had shown there was vital role of the practices of Risk management in explaining the profitability.

The study of (Hallunovi and Berdo,2018) investigate about the effect of management of credit risk on profitability in Albanian commercial banks to the period 2008-2015**.** the results had shown negative effect of credit risk on profitability while there was effect of capital adequacy(CAR)

The study of (Bhatti1 et al,2019)had aim to find the impact of credit chance management measured by the credit risk ,liquidity risk, operational risk, and market risk, on productivity measured by profitability (ROA,ROE**),**by using data of 3 commercial banks in Pakistan to the period 2016-2018 shown positive impact of operational risk on profitability ,while the another variables hadn't impact.

(Embaye and Haile,2019) had study the effect financial flexibility on profitability of 231 company from north Africa to the period 1997-2017,the results shows that financial flexibility measured by liquidity ratio and dividend ratio were significant effect while that is measured by financial leverage wasn't significant,

(Al-Slehat,2019) had study the effect of financial flexibility on firm performance, the sample was 18 service firms from Amman of Jordan Stock exchange to the period 2010-2017 ,financial flexibility was measured by cash flow ,cash holding and liquidity ,While the ratios of interest coverage and operation margin were used for performance ,by using regression analysis the result was shown significant effect,

(Bilyay-Erdogan,2020) studied the effect of financial flexibility on firm value to compare between of the Europeans countries emergent and developed, the data covered 4,334 firms from 15 developed and 1436 firm from 6 emergent to the period 2000-2016,the study concerned with the company which had financial flexibility if it had "Spare Debit Capacity". the Spare Debit Capacity obtained by the difference between predicted leverage and actual leverage, the predicted leverage was obtained by regression model, independent variables is: profitability ,debit to assets (Leverage t – 1), control variables were: size, sales growth, tax shield ,cash ratio, depreciation and asset tangibility . The firm value is dependent variable ,the results of study shown then positive impact of the financial flexibility on the firm value .

2. Theoretical Review and Hypothesis

a. unsystematic risk

unsystematic risk is the group of risk under the control of the firm which can be avoided by diversification , (Hess, 2011, Gadzo et al., 2019, Abu Roman, 2021) mentioned several risks :credit risk, , Liquidity risk operational risk,also it is known business risk or liquidity risks which is including ability of assets for liquidity and ability of getting funds , financial risk which is including credit risk , operational risks such as technological risks and so on

According to (Mihai & Cristina, 2015) they are residual risks that arise from specific factors that affect the company, and these risks are outside the CAMP theory so they are not calculable because they can be avoided depending on the company’s ability to distribute the risks.

The research believes that all risks come from internal factors, which limit efficiency and effectiveness, but can be avoided through diversification. This means that unsystematic risks result from the financial climate, which is the set of internal factors that relate to and are reflected on the financial side.

b. financial flexibility

The main concept of financial flexibility includes three dimensions of cash response through : holding cash , low leverage and suitable policy of payment, these dimensions are engaged with ensure finance for unexpected needs with efficiency ,it is ability to provide sources to response

to the opportunities of investment or shocks ,this concept includes responding to changes in environments.

Because of environment is changeable the firm must be reactive with that changing, In this context (Chukwu,2019) had mentioned two perspectives the first is internally refers to ability to response for the environmental demand and the second is externally refers to the ability to effect firm's environment ,(Yang,2019)regarded it a Moderator variable between the dynamic environment and the strategic changing . It's connections between strategy and financial through efficiency utilization of assets to capture opportunities and achieve competitive advantage (Teng et al,2021) refers to the ability to reach capital markets for getting capital efficiently in order to response for opportunities and ability to face crisis, because of ability to absorb the income shocks ,facing crises (Ang and Smedema ,2011) as result of mobilizing funds to achieve a rapid response to the deferent needs and to create the financial capacity to face uncertainties (Al- Shammari and Al Yahya,2021)

From the above, it is the ability to face financial risks by avoiding failure in urgent financing and also facing business risks related to lost opportunities.

High financial flexibility is an incentive for managers to expand which may lead to agency cost while low financial flexibility leads to low growth due to low investment, in both cases it becomes a constraint on market value.

c. hypothesis

In light of the two concepts, and holding other factors constant, unsystematic risks limit efficiency (but can be eliminated by distributing risks to support profitability) ,While financial flexibility supports profitability to achieve effectiveness. Accordingly, if the effect of unsystematic risks and financial flexibility is negative on profitability, this means bad distribution of risks and an inability to seize exceptional, rare and rapid opportunities in a highly changing environment, which leads to a negative or less than free risk ratio he problem of business organizations with regard to the financial aspect is how to respond to financial requirements by planning to obtain them and allocating them in a way that maximizes the value of the firm(M.&T.,2023)

Based on the above, the research hypothesis can be formulated as follows

" there is a significant and negative effect of both financial flexibility and unsystematic risk on profitability in loser banks"

3. Data and Research Model

a. data collection

Data were collected from the financial reports of Iraqi banks listed on the first stock market (13 banks) for the period 2011-2020 to choose the sample according to the lowest return on assets, as below

Table (1) return on assets of Iraqi banks from 2011 to 2020

Years Banks	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avr.
Mansour	0.029	0.028	0.03	0.019	0.017	0.012	0.011	0.014	0.071	0.03	0.0261
summer	0.03	0.028	0.026	0.005	0.01	0.011	0.001	0.002	0.003	0.003	0.0119
Al-musul	0.041	0.034	0.024	0.009	-0.002	0.009	0.012	0.006	0.008	0.004	0.0153
National	0.01	0.021	0.026	0.011	0.004	0.041	-0.004	-0.015	-0.013	0.01	0.0091
M.East	0.027	0.029	0.027	0.005	0.008	0.018	-0.001	-0.003	-0.001	-0.005	0.018
Creadit	0.02	0.052	0.019	0.021	0.019	0.01	0.014	0.011	-0.009	-0.006	0.0151
Cluf	0.09	0.027	0.061	0.044	0.012	0.007	0.007	0.001	-0.007	0.000	0.0242
baghdad	0.02	0.019	0.018	0.015	0.004	0.017	0.006	0.004	0.009	0.018	0.013
united	0.045	0.07	0.049	0.044	0.034	0.002	-0.006	-0.033	-0.002	0.001	0.0204
commerce	0.04	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.03
kurdstan	0.03	0.04	0.034	0.036	0.041	0.049	0.039	0.006	0.041	0.008	0.0324
investment	0.01	0.03	0.01	0.032	0.031	0.036	0.02	0.04	0.05	0.051	0.031
Ashur	0.06	0.05	0.044	0.022	0.044	0.013	0.036	0.01	0.011	0.031	0.0321
Market return (Avrs.)	0.0348	0.0368	0.0306	0.0218	0.0186	0.0188	0.0119	0.0048	0.0039	0.0158	0.0214

The table shows that there were four of them that had the lowest average return on assets It was chosen as shown in Table (2) below

Table(2) The averages of the least comparing with risk free rate

years	Summer	credit	Baghdad	national
2011	0.03	0.02	0.02	0.01
2012	0.28	0.052	0.019	0.021
2013	0.026	0.019	0.018	0.026
2014	0.005	0.021	0.015	0.011
2015	0.01	0.019	0.004	0.004
2016	0.011	0.01	0.017	0.041
2017	0.001	0.014	0.006	-0.004
2018	0.002	0.011	0.004	-0.015
2019	0.003	-0.009	0.009	-0.013
2020	0.003	0.006-	0.018	0.01
Average(1)	0.0119	0.0151	0.013	0.009
Risk free(2)	0.03	0.03	0.03	0.03
3=(1)-(2)	-0.018	-0.014	-0.017	- 0.021
Total risk Measure	Semi Std	Semi Std	Semi Std	Semi Std

In Table (2) Compared with the risk-free rate (0.03), a bank whose average return was lower than the risk-free rate had its total risk measured by the semi-standard deviation (Semi Std)

Due to the inefficiency of the Iraqi Stock Exchange, the weight of the market index was changed more than once during the research period, which made it difficult to track it to extract the beta coefficient and market variance. Therefore, the systemic risks of each bank were not measured on the basis of the price of its shares in the financial market. Rather, the banks were considered the market based on Average return on assets for all banks annually

b. The research model and variables

a. the research model

The research used a multiple regression coefficient to determine the effect of financial flexibility and unsystematic risks on profitability, as in the following equation

Lrit=Bo+B1unsys1+B2flex1 …….(1)

Lrit= profitability(ROA) ,Bo constant, B1 ,B2,regression coefficient, unsys1 is unsystematic risks, flex1is financial flexibility

b. variables

-Unsystematic risks:

=total risks-systematic risks

$=\partial Rft$ –sys1……(2)

∂Rft=semi standard deviation(semi Std.) :

$$\partial Rft = \sqrt{1/T \sum_{i=1}^{T} (Min[rit - rft, 0])^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots \; T=6 \text{ (beginning from 2011)} \; \ldots\ldots(3)$$

rit=return on assets (net profit)

rft=risk free rate

sys1=systematic risk $=(BD)^2 * (Mrit1\partial^2)$ ……(4) according to (Tofallis ,2008)

BD = downside beta:

$$= \sum_{i=1}^{T} \{(Min(rit - rft, 0)\ (Min(Mrit - rft, 0)\} / \sum_{i=1}^{T} \{Min(Mrit - rft, 0)\}^2$$ (Estrada ,2007) …….(5)

Mrit= Market Return

$Mrit1\partial^2$=Market Return variance:

$$Mrit1\partial^2 = 1/T \sum_{i=1}^{T} (Mrit - rft)^2/n-1 \ldots\ldots \quad T=6 \text{(beginning from 2011)} \; \ldots\ldots\ldots\ldots(6)$$

Table(3) includes these variables

Table(3) unsystematic risks of loser banks from 2016-2020

years	banks	$Mrit1\partial^2$ (1)	*BD* (2)	BD^2 (3)	sys1 (4)=(1)*(3)	∂Rft (5)	unsys1 (6)=(5)-(4)
2016	summer	0.00006	2.00	4.0000	0.000240	0.01677	0.016529
2017		0.00003	2.20	4.8400	0.000129	0.02120	0.021070
2018		0.00016	1.80	3.2400	0.000518	0.02460	0.024086

2019		0.00024	1.60	2.5600	0.000614	0.02735	0.026735
2020		0.00024	1.70	2.8900	0.000694	0.02773	0.027034
2016	credit	0.00006	1.70	2.8900	0.000173	0.01617	0.015994
2017		0.00003	0.90	0.8100	0.000022	0.01711	0.017084
2018		0.00016	0.60	0.3600	0.000058	0.01637	0.016313
2019		0.00024	0.70	0.4900	0.000118	0.02341	0.023292
2020		0.00024	0.40	0.1600	0.000038	0.02812	0.028086
2016	Baghdad	0.00006	1.80	3.2400	0.000194	0.01694	0.016747
2017		0.00003	0.80	0.6400	0.000017	0.01955	0.019533
2018		0.00016	1.60	2.5600	0.000410	0.02221	0.021799
2019		0.00024	1.40	1.9600	0.000470	0.02351	0.023037
2020		0.00024	1.40	1.9600	0.000470	0.02316	0.022690
2016	national	0.00006	0.20	0.0400	0.000002	0.01819	0.018191
2017		0.00003	0.70	0.4900	0.000013	0.02196	0.021946
2018		0.00016	2.00	4.0000	0.000640	0.02951	0.028873
2019		0.00024	2.00	4.0000	0.000960	0.03518	0.034220
2020		0.00024	2.00	4.0000	0.000960	0.03523	0.034271

The market variance for all banks sample is close, and this reflects the closeness of their performance results, as mentioned above, the measure depends on the average return on investment. Also the Table shows most of unsystematic risks were ranging 0.01-0.02 unless the year 2020 were about 0.03

-financial flexibility:

financial flexibility: according to(Meier and Lauren,2013,Arslan-Ayaydin et al,2014, Teng et al,2021)

= Cash flexibility + Debt flexibility ……...(1)

Cash flexibility=(cash + cash equivalent)/total assets

Debt flexibility=1 − corporate debt ratio

The financial flexibility in the following table

Table(4)financial flexibility of banks from 2016-2020

years	banks	Assets(1)	Cash+cash equivalent (2)	(3)= (2):(1)	Debt: assets (4)	Debit flexibility =(1)-(4)	flex1 =(5)+(3)
2016	summer	351772887	177310964	0.50	0.24	0.76	1.26
2017		390176184	217185262	0.56	0.32	0.68	1.24
2018		409535591	217354803	0.53	0.34	0.66	1.19
2019		350387452	207323742	0.59	0.23	0.77	1.36
2020		333165030	200829456	0.60	0.21	0.79	1.39
2016	credit	513382999	84928510	0.17	0.40	0.60	0.76
2017		476683010	116338715	0.24	0.34	0.66	0.91
2018		497694366	341339760	0.69	0.37	0.63	1.32
2019		522536815	404119631	0.77	0.44	0.56	1.34
2020		527045441	480972170	0.91	0.44	0.56	1.48

2016	Baghdad	1200424117	541806853	0.45	0.57	0.43	0.88
2017		1090152647	500901780	0.46	0.74	0.26	0.72
2018		1113538558	612061251	0.55	0.75	0.25	0.80
2019		1133744205	690513865	0.61	0.77	0.23	0.84
2020		1419528237	1034330192	0.73	0.82	0.18	0.91
2016	national	579598327	308745185	0.53	0.50	0.50	1.03
2017		603980329	270947891	0.45	0.53	0.47	0.92
2018		525757058	378455143	0.72	0.48	0.52	1.24
2019		632802650	160246455	0.25	0.59	0.41	0.66
2020		893964966	239063346	0.27	0.71	0.29	0.56

The table shows that cash flexibility is low than 1 in the half of the sample

4. Results

Measuring the effect of financial flexibility and unsystematic risk on profitability as the following hypotheses

Ho: there isn't significant effect of flex1 and unsys1 on Lrit

H1. there is significant effect of flex1 and unsys1 on Lrit

the statistical test :

Table (5) effect of multi flex1 and unsys1 on lrit

model	df.	R^2	F	Sig.	Tolerance	VIF
3	V1=2 V2=17	38%	5.144	0.018	0.996	1.005

From Table (5) the result explain the accepted hypothesis is the alternative (H1) in which the value of (F) is statistical significant(less than 0.05), the model without linear overlap for Variance Inflation Factor (VIF) ,it is less than 5 and Tolerance is more than 0.1 ,Also the (R^2) indicates a significant effect ,it is 38%. i.e. (>25%), that mean 38% of changing in profitability due to the two mentioned explanatory variables, and the rest (62%) due to another variables, the most effect is by unsystematic risk because it's (t) is the biggest (2.994) with statistical significant (0.008)

5. Results Discussion

The relationship of financial flexibility(cash and debit flexibility) with profitability is negative , this means that the loss banks were unable to seize the rare and quick opportunities in the environment due to low financial flexibility in about half of sample ,this was clearly evident in the decrease in their profits less than risk-free rate, as mentioned previously in Table (2).

This finding is consistent with finding of (Vithessonthi and Tongurai, 2015) and with result of (Embaye and Haile,2019) about the effect of debit flexibility on performance

The results also showed that unsystematic risks have a negative effect, this indicates to the weak diversification in banks and high agency costs. The operational activity of banks was also weak,

especially in the low ratio of debts (deposits) to assets despite the high adequacy of assets. In more than half of the sample .

The significant negative effect of unsystematic risk on profitability and at the same time less returns refers to inefficient management

6. Conclusion

The research had taking the loser banks which return on assets were less than risk-free rate, for that ,the research used semi standard deviation and downside beta for measuring systematic risk and then unsystematic risks in order to find the effect of unsystematic risks and flexibility on profitability, the results had shown significant negative effect this can be interpreted in bad financial climate inefficient management and high cost egency ,high adequacy of bank , low added value as result of bad use to the financial resources which appear clearly in ineffectiveness diversification

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