

## Performance Evaluation of Iranian Banking Industry through CAMELS Framework

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### Abstract

This research performs an empirical study on the performance evaluation of Iranian banking industry through CAMELS framework. The research method is applied in terms of objective, and correlational according to the type of method. Time domain of research is from 2007 to 2015. The research data are annually collected and extracted from financial statements of operating banks in the Iranian banking industry. Pooled and Panel hybrid regression model with fixed effects are used to analyze the research data and test the hypotheses. Based on the results of research model, the impact of capital adequacy, asset quality, management quality, liquidity quality, and sensitivity to market risk indicators is direct and significant on the return on assets of banks in the Iranian banking industry, but the effect of earnings quality is rejected on the return on assets of banks in the Iranian banking industry.

**Keywords:** Return on assets (ROA); CAMELS indicators; Capital adequacy; Asset quality; Management quality; Earnings quality; Liquidity quality; Sensitivity to market risk; Iranian banking industry

### Introduction

This research performs an empirical study on performance evaluation of Iranian banking industry through CAMELS framework. There are numerous studies on banking performance evaluation. CAMELS framework, which is one of the most analyses for performance evaluation of banking sector compared the important parameters that reflects the results of banking sector performance [1]. On the other hand, CAMELS compounds as the bank performance indicators refer to the managerial performance from various financial and management aspects [2]. It is expected that there will be a relationship between CAMELS framework and bank performance [3]. Given that the identification of relationship between CAMELS framework and bank performance can provide very useful information about identification of risk-taking behavior in banks [4], this study aims at investigating the relationship between CAMELS framework and bank performance through evaluating the performance of Iranian banking industry [5]. CAMELS model has been widely applied in some countries especially the United States of America in order to evaluate the return on assets of financial institutions particularly the banks. This method is put in the group of modern performance evaluation methods. The financial ratios, which are derived from financial statements, are used to evaluate CAMELS framework [6].

The main objective of financial reporting is to express the economic effects of financial events and operations on the status and performance of business unit in order to help the active and potential users to make financial decisions for business unit [7]. The performance evaluation of banks is a major topic of accounting, management and economy discussion.

### Theoretical principles of research

**Research literature:** The total return on assets of a bank is as a result of company performance and activities in relation to their use. Calculation of return on assets is one of the criteria for performance measurement, and measures to the ability of banks to make profits according to the amount of investment in bank and is calculated by dividing the net operating profit of bank by the resources [8]. The credit of return on assets depends on the appropriate measurement of applied

earnings and assets of bank. Return on assets can be calculated by DuPont system. This rate is measured according to the asset turnover ratio and net profit margin ratio. The asset turnover is obtained from dividing the sales by the sum of assets. Furthermore, the net profit margin is measured by dividing the net profit belonging to common stockholders on the sales [9].

Return on assets of an indicator of bank earnings is dependent on the total assets of that bank. Return on assets gives us an idea about efficient management in applying the assets in order to generate profit (productive assets), and it is calculated through dividing the annual profit by the total bank assets [10].

The adequate and appropriate capital is one of the requirements for protecting the health of banking system; and each of the banks and credit institutes should always establish an appropriate ratio between capital and risk of their assets in order to ensure the stability and sustainability of their activities [11]. The main function of this ratio includes the bank protection from unexpected losses, and also the depositors and creditors' support [12].

The aim of calculating the CAMELS ratios is the accurate and consistent assessment of financial conditions and performance of bank in the field of capital adequacy [13], asset quality [1], management quality [14], earnings quality [15], liquidity quality [14], and sensitivity to market risk. CAMELS ratios in banks are not only applied as the reporting tools, but also as the intra-organizational tool for measurement of risk and its management as well as the optimal resource allocation. This system contains all processes of factor identification and their measurement and quantification. Researchers can assess the financial risk of banks by this system [6].

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The final result of all programs, activities, financial and production decisions is reflected in earnings activity of bank. Most of the required data for executive operation of bank is directly obtained from the profit and loss statement which is the summary of operations and financial and production activities in the bank. However, the executive operation should be related to the assets which create the operation results. Furthermore, the results of operation should indicate the outsiders' understanding of operation and income of institute.

The compared profit and loss statement in several consecutive periods of a bank indicates the useful information about the performance of management and the financial situation of bank. However, most of the people, who benefit from the banking affairs in terms of investment, giving the credit, or efficiency of its activity, often pay attention to the rate of profit and the profitability of that bank [12].

Profitability refers to the ability of company to achieve revenues and earnings. Net income or earning is the only criterion for measuring the profitability. The investors and creditors have a great interest to assess the current and future profitability of a company. To provide the required capital, the companies are forced to earn enough profit to obtain the appropriate returns for investors and creditors. In the case that the companies do not obtain enough profit, they will not be able to provide the capital needed to run a variety of projects through shareholders or creditors. In the long term, the survival of a company depends on its ability to earn money to carry out all obligations and provide necessary returns for main shareholders.

**CAMELS' framework:** In recent years one of the most used models for the estimation of a bank performances and soundness is represented by the CAMELS framework [7]. Actually, the analytical framework is based on the CAMELS rating system, a device created by federal banking regulators to assess the overall performance of banks [16]. In order to evaluate banks' overall financial condition, CAMELS supervisory rating system is built and introduced first in USA for onsite monitoring. Now, it is used both onsite and off-site monitoring purposes [17]. The central banks that are responsible for supervising the banks in each country use rating system to assess the soundness of the banks [18]. Due to lack of sufficient historical data about bank defaults, bank rating system are usually based on empirical assessment techniques [19]. Credit agencies, auditors and bank regulators have traditionally relied on the CAMELS model [5]. Actually the most effective way to enforce financial rules and regulations in the financial supervisory system is to conduct financial examinations [20]. The most popular approach is based on the CAMELS framework, which involves the consideration of six major factors [18]. The CAMEL acronym stands for Capital adequacy, Asset quality, Management, Earning and Liquidity. Regulators created an additional measure, Sensitivity, to evaluate market risk associated with changing interest rates and other factors [21], especially in the financial crisis [3].

## Literature review

According to Sarker [22], CAMELS method is a type of financial analysis which is applied to assess the financial management of banks in order to determine the health and safety. The results of empirical research indicate that the profits are related to the performance of companies.

Based on the conducted studies by Hu and Zhou [23] and Ghosh [24], the use of company leverage has an impact on the company performance.

In an article entitled "Financial strategic management from theory

and practice", Rose and Hudgins [16] studied these strategies and their application in improving the company performance. According to this article, the strategy of company is a tool which is established based on how a company achieves its goals. All of the strategy management models have been implemented as a pilot. The financial strategy plays a very important role among these strategies. This study investigates the financial strategy in small, large and medium companies. According to the results, there is a significant positive relationship between financial strategies and performance of companies in these companies. In other words, the performance of companies can be improved by utilizing the financial strategies.

Okpara [25] evaluated the performance of the Nigerian banking industry with a focus on the factors affecting the risk management of banks. They investigated the impact of macro-economic factors and intra-banking characteristics on the risk management of banks through application of panel data for a period of 2003-2009. According to the results, the economic growth and inflation respectively have positive and negative effects on the ratio of capital in Nigerian banks. Among the intra-banking indicators, the liquidity ratio, bank size, and market risk have positive impact, but the credit risk has a negative impact on the capital ratios of Nigerian banks. In fact, the research results indicate the important point that the banking risk management not only depends on the intra-banking factors, but it is also influenced by the macroeconomic factors.

Kumar et al. [26] assessed the financial abilities of governmental banks in India through CAMELS model. The capital adequacy, asset quality, management quality, earnings quality, and liquidity quality have studied in all governmental banks in India, and each of these indicators have been ranked in each bank.

Daud [27] studied the impact of banking diversity on the return on assets of banks through CAMELS rating approach and examined the impact of income diversification, diversification of income-generating assets, and diversity of under balance sheet line items on the return on assets. According to the results of their research, the diversity of income and income-generating assets during the financial crisis has an inverse impact on the return on assets of banks.

Golam [28] assessed the return on assets in two large banks in Bangladesh. This evaluation is done through CAMELS indicators as the latest model of financial analysis. This paper ranks the customer' feedback and their satisfaction with banks by indicators of this model namely the capital adequacy, management quality, asset quality, liquidity quality, and earnings quality.

Mandic [29] used fuzzy multi-criteria decision-making method in order to facilitate the performance evaluation of banks. The results of this study, which is conducted in Serbia, the stock criteria, portfolio, resources, floating assets, liquidity, etc., are considered as the performance evaluation criteria of banks.

## Research Model

### Research methodology

The statistical population and spatial domain of research consist of the Iranian banking industry. The research data is annually collected, extracted and investigated during the time domain of 2007 to 2014. A total of 17 banks operating in the Iranian banking industry are selected in a period of 9 years. Due to the use of panel data, a total of 153 hybrid bank-year observations are examined for testing the research hypotheses.

## Hypotheses

**Main hypothesis: CAMELS indicators explain the bank performance**

**H<sub>1</sub>: Capital adequacy has a significant effect on banking performance:** Capital adequacy indicates the measurement of a bank's financial strength. In this study, capital adequacy ratio was measured related to overall use of financial leverage in the bank given that banks with higher financial leverage are expected to face more volatility in earnings behavior than banks with lower financial leverage. As it indicates up to what level the institutions cover inherent risk in their operations, capital adequacy was defined as the overall use of financial leverage in the bank [13]. Nimalathasan [30] viewed capital adequacy as the capital position of the banks, which at the same time protect depositors from the potential losses incurred by banks. Therefore, capital adequacy was used as a variable under the CAMEL model. In this case, capital adequacy was viewed as the enhancer of bank financial performance.

**H<sub>2</sub>: Asset quality has a significant effect on the banks performance in the Iranian banking industry:** Asset quality takes into account the performance of assets, especially loans made by the bank. Based on a study by Teck [14], the main factors that affect asset quality are the degree of asset diversification, the size and duration of loans, the growth of loan portfolios, quality of collateral backing for each loan, the presence of directed or policy lending, and related party lending. In addition, it shows the risk level of assets and rate of financial strength within the bank [1].

**H<sub>3</sub>: Management quality has a significant effect on the banks performance in the Iranian banking industry:** Management competency plays an important role in determining bank performance. It is a pre-condition for the growth and success of any banking institution. Good management practice can result in stable profit. So, based on work by Teck [14], management practice should display a high standard of integrity, professional competence, and quality of service.

**H<sub>4</sub>: Earnings quality has a significant effect on the banks performance in the Iranian banking industry:** Earnings quality of an institution depends on the institutional effectiveness and efficiency of assets and liabilities management. The rise of earnings performance should inspire confidence among depositors, investors, creditors, and the public. The ability to support present and future bank operations depends on the profile of the earnings and profitability [15].

**H<sub>5</sub>: Liquidity quality has a significant effect on the banks performance in the Iranian banking industry:** Liquidity refers to a bank's ability to meet depositors' withdrawals, maturing liabilities and loan requests without delay [14]. Liquidity is important because banks need to meet short term financial obligations and satisfy customer loan demand. While the banks might be desperate to borrow short term

funds and emergency loans at an excessive interest rate to cover the need for immediate cash, doing so leads to reduction in earnings. The soundness of liquidity management will lead to good bank performance.

**H<sub>6</sub>: Sensitivity to market risk has a significant effect on the banks performance in the Iranian banking industry:** Market risk is the risk of losses in liquid portfolio arising from the movements in market prices and consisting of interest rate, currency, equity and commodity risks. Interest rate and currency risk are the main parts of the market risk in the Iranian banking sector [31]. This article intended to calculate the Bank Performance from the return on assets (ROA) (Table 1).

## Model 1

$$ROA_{i,t} = \beta_0 + \beta_1 CA_{i,t} + \beta_2 AQ_{i,t} + \beta_3 MQ_{i,t} + \beta_4 EQ_{i,t} + \beta_5 LQ_{i,t} + \beta_6 SM_{i,t} + \epsilon_{i,t}$$

## Hypothesis test

**Descriptive statistics:** The conceptual model of research consists of a dependent variable (Table 2).

Return on assets (ROA) is a dependent variable. This variable has a hundred and fifty-three annual observations. With a mean of about 0.013032, this variable indicates the return on assets (ROA) of banks during sampling years. The residual value domain magnitude of fitted model indicates the return on assets (ROA) in studied banks. Distribution of this variable has positive skewness and kurtosis. According to these indicators, the remote observation is located on the right domain of distribution and has a serious difference with normal distribution. The observation density on the axis of central indicators is more severe, and has a serious difference with normal distribution.

**Normality distribution test and unit root of research variables:** The distribution normality of studied variables is one of the fundamental justifiable assumptions in parametric tests. However, the normal distribution is not a necessary condition, and the parametric tests can be used if the sample size is large or sample distribution does not have severe skewness and even if it does not have normal distribution. The static or stationary regression analysis is another test assumption. In other words, the possibility under which it is in a certain distance in current time is like any other time in the past and future. If the time series variables are unstable, there is not any theoretical relationship between dependant and independent, but the high coefficient of determination will be estimated for model. Jarque-bera test is used to test the distribution of studied variables of research; and the calculated significance level is compared with basis of 0.05. The possibility of higher error than 0.05 indicates the normal distribution, but its smaller value indicates the lack of normal distribution. Based on the results of Jarque-bera test, there is not any normal distribution of research variables, which have ratio data, but the use of regression analysis can be justified due to the large sample size, the single-exponential nature, and the lack of very high skewness. "Levin, Lin and Chu" and "Fisher-Phillips-Perron (pp)" tests are used in order to test the reliability of

Calculation Method	Variable role	Variable	Variable name
Net profit divided by total assets	Dependent	Return on assets	ROA
Equity divided by assets	Independent	Capital adequacy	CA
Total assets divided by equity	Independent	Asset quality	AQ
Joint income divided by operating costs	Independent	Management quality	MQ
Income facilities granted divided by total income	Independent	Earnings quality	EQ
Facilities granted divided by total bank deposits	Independent	Liquidity quality	LQ
Subtracting current liabilities from current assets divided by total capital	Independent	Sensitivity to market risk	SM

Table 1: Calculation method of variables.

research variables. The significance level of “Levin, Lin and Chu” test is less than 0.05 for all variables except for the asset quality at the confidence level of 90%, and thus it supports the reliability of variables at this level. The significance level of “Fisher- Phillips-Perron (pp)” test is less than 0.05 for all variables, so it supports their reliability at this level. The results of two different tests are presented in Table 3.

**Study of collinearity relationship:** The collinearity relationship indicates that an independent variable is a linear function of other independent variables. The existence of a strong relationship between independent variables leads to the creation of collinearity, thereby the incorrect inferences. There are several methods to identify the

collinearity relationship; and study on the correlation between independent variables is one of them. Pearson correlation coefficient test is applied in order to investigate the collinearity in this study. Based on the extracted results, there is not any severe relationship between the explanatory variables which have ratio scales, and thus the concurrent inclusion of explanatory variables into the model will not result in collinearity problem. The results of Pearson correlation coefficient test between explanatory variables of research are presented in Table 4.

**Results of regression analysis of conceptual model:** The lack of autocorrelation and normal distribution of residuals is one of the assumptions of applied regression analysis. The residuals of model

	Independent variables						Independent variable
	Sensitivity to market risk	Liquidity quality	Earnings quality	Management quality	Asset quality	Capital adequacy	Performance financial
Mean	1.702794	1.092426	0.569265	3.448603	13.87757	0.137132	0.013032
Median	0.740000	0.820000	0.650000	2.095000	13.26500	0.080000	0.010134
Max	18.46000	5.460000	0.990000	11.11000	60.06000	0.560000	0.077121
min	0.010000	0.460000	-0.620000	0.410000	1.790000	0.020000	-0.019464
S.D	2.616283	0.893597	0.311958	2.790168	9.497553	0.136381	0.013417
Skewness	4.273690	3.201833	-1.244280	0.974521	1.311041	1.772979	1.176257
Kurtosis	26.05825	13.03381	4.851519	2.596780	6.439908	5.033107	5.801366
Number observations	153	153	153	153	153	153	153

Table 2: Descriptive statistics of variables of model.

variables		Distribution Research variables		Reliability test of variables			
Research variables		Jarque-Bera Test results		Pesaran and Shin W- stat Test		Levin, Lin & Chu	
		Prob	Statistic	Prob	Statistic	Prob	Statistic
Return on assets	ROA	0.000000	85.31010	0.0000	83.6651	0.0000	-4.13986
Capital adequacy	CA	0.000000	94.67494	0.0005	65.0364	0.0168	-2.12371
Asset quality	AQ	0.000000	106.0136	0.0001	70.1298	0.9641	1.80028
Management quality	EQ	0.000000	54.51932	0.0786	46.2357	0.0000	-6.46783
Earnings quality	LQ	0.000000	802.8780	0.0015	63.7303	0.0816	-1.39457
Liquidity quality	MQ	0.000013	22.44767	0.0009	65.7437	0.0549	-1.59940
Sensitivity to market risk	SM	0.000000	3426.862	0.0000	81.9935	0.0057	-2.53215

Table 3: Reliability test of variables.

SM	MQ	LQ	EQ	CA	AQ	Test index	Explanatory variables
					1.000000	Correlation coefficient	Asset quality
					-----	T-statistic	
					-----	Probability of Error	
				1.000000	-0.698916	Correlation coefficient	Capital adequacy
				-----	-11.31220	T-statistic	
				-----	0.0000	Probability of Error	
			1.000000	-0.529090	0.310299	Correlation coefficient	Earnings quality
			-----	-7.217656	3.778480	T-statistic	
			-----	0.0000	0.0002	Probability of Error	
		1.000000	-0.093321	0.184577	-0.151666	Correlation coefficient	Liquidity quality
		-----	-1.084999	2.173991	-1.776209	T-statistic	
		-----	0.2799	0.0315	0.0780	Probability of Error	
	1.000000	-0.276146	0.578073	-0.304649	-0.029867	Correlation coefficient	Management quality
	-----	-3.325945	8.200742	-3.702567	-0.345889	T-statistic	
	-----	0.0011	0.0000	0.0003	0.7300	Probability of Error	
1.000000	-0.281836	-0.137344	-0.023828	-0.329156	0.681584	Correlation coefficient	Sensitivity to market risk
-----	-3.400326	-1.605078	-0.275905	-4.035107	10.78241	T-statistic	
-----	0.0009	0.1108	0.7830	0.0001	0.0000	Probability of Error	

Table 4: Correlation analysis results.

should be independent of each other, and there should not be any correlation between them. In other words, the error between the actual and predicted values should have the independence. The results of performed tests are explained in Tables 5 and 6.

**H1: Capital adequacy has a significant effect on banking performance:** Since the capital adequacy coefficient is equal to 0.49, one percent increase in the capital adequacy will lead to the increase of 0.49% in return on assets with probability of 0.07 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the capital adequacy has a significant effect on the return on assets in the Iranian banking industry.

**H2: Asset quality has a significant effect on the banks performance in the Iranian banking industry:** Since the capital asset quality is equal to 0.008, one percent increase in the asset quality will lead to the increase of 0.008% in return on assets with probability of 0.05 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the asset quality has a significant effect on the return on assets in the Iranian banking industry.

**H3: Management quality has a significant effect on the banks performance in the Iranian banking industry:** Since the management quality coefficient is equal to 0.008, one percent increase in the management quality will lead to the increase of 0.008% in return on assets with probability of 0.05 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the management quality has a significant effect on the return on assets in the Iranian banking industry.

**H4: Earnings quality has a significant effect on the banks performance in the Iranian banking industry:** Since the earnings quality coefficient is equal to 0.008, one percent increase in the earnings quality will lead to the increase of 0.008% in return on assets with probability of 0.05 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the earnings quality has a significant effect on the return on assets in the Iranian banking industry.

**H5: Liquidity quality has a significant effect on the banks performance in the Iranian banking industry:** Since the liquidity quality coefficient is equal to 0.008, one percent increase in the liquidity quality will lead to the increase of 0.008% in return on assets with probability of 0.05 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the liquidity quality has a significant effect on the return on assets in the Iranian banking industry.

**H6: Sensitivity to market risk has a significant effect on the banks performance in the Iranian banking industry:** Since the sensitivity to market risk coefficient is equal to 0.008, one percent increase in the sensitivity to market risk will lead to the increase of 0.008% in return on assets with probability of 0.05 (sig <0.05). The adjusted coefficient of determination is equal to 0.31, which should be from 0 to 1; and Durbin-Watson Statistic is 1.81, which should be from 1.5 to 2.5, and thus the sensitivity to market risk has a significant effect on the return on assets in the Iranian banking industry.

### Conclusion and Interpretation of Research Results

This study suggests six hypotheses in order to investigate the impact of CAMELS indicators on the return on assets of banks in the Iranian banking industry and examines the impact of capital adequacy, asset quality, management quality, earnings quality, liquidity quality, and sensitivity to market risk on the return on assets. The hypothesis, extracted results, interpretation and comparison of previous research results are presented as follows.

According to the test indicators, the capital adequacy has a significant impact on the return on assets of Iranian banking industry. This index indicates that the increase or decrease of capital adequacy will lead to the significant changes in the return on assets of the Iranian banking industry. Therefore, the capital adequacy is a strong explanatory variable for return on assets of the Iranian banking industry. The result of this hypothesis is consistent with findings of research by Siti Nurain Muhmad & Hafiza Hashim [20]. Siti Nurain Muhmad and Hafiza Hashim investigated the impact of CAMELS indicators on the return on assets of Malaysian banking industry.

According to the test indicators, the asset quality has a significant

Type model	remaining distribution Test		Durbin-Watson Test		linear relationship Test	
	Prob.	Jarque-Bera Test	Expected	Statistic	Prob.	F statistic
Regression model	0.088149	4.855744	2.5-1.5	1.817248	0.000819	2.5211

Table 5: Results of model remnants.

Dependent variable: financial performance, number of course: 9, number of sections: 17, number of healthy observed: 153					
Prob.	t-Statistic	Std. Error	Coefficient	Variable	
0.0036	2.990809	0.105348	0.315075	C	Constant coefficient
0.0710	1.822185	0.270011	0.492009	CA	Capital adequacy
0.0592	1.911295	0.004483	0.008569	AQ	Asset quality
0.0000	4.304041	0.038388	0.165222	MQ	Management quality
0.1205	1.567829	0.146054	0.228987	EQ	Earnings quality
0.0011	3.372592	0.204222	0.688758	LQ	Liquidity quality
0.0802	1.769943	0.003921	0.006939	SM	Sensitivity to market risk
1.817248	Durbin-Watson stat		0.329236	R-squared	
			0.318645	Adjusted R-squared	
			0.014128	S.D. dependent var	
			2.521120	F-statistic	

Table 6: The results of CAMELS indicators on financial performance.

impact on the return on assets of the Iranian banking industry. This index indicates that the increase or decrease in the asset quality will lead to the significant changes in the return on assets of the Iranian banking industry. Therefore, the asset quality is a strong predictor for return on assets of the Iranian banking industry. The result of this hypothesis is consistent with findings of research by Siti Nurain Muhmad and Hafiza Hashim [20]. Siti Nurain Muhmad and Hafiza Hashim investigated the impact of CAMELS indicators on the return on assets of Malaysian banking industry.

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According to the test indicators, the earnings quality does not have any significant impact on the return on assets of the Iranian banking industry. This index indicates that the increase or decrease in the earnings quality will not lead to the significant changes in the return on assets of the Iranian banking industry. Therefore, the earnings quality is not a strong predictor for return on assets of the Iranian banking industry. The result of this hypothesis is inconsistent with findings of research by Siti Nurain Muhmad & Hafiza Hashim [20]. Siti Nurain Muhmad & Hafiza Hashim investigated the impact of CAMELS indicators on the return on assets of Malaysian banking industry.

According to the test indicators, the liquidity quality has a significant impact on the return on assets of the Iranian banking industry. This index indicates that the increase or decrease in the liquidity quality will lead to the significant changes in the return on assets of the Iranian banking industry. Therefore, the liquidity quality is a strong predictor for return on assets of the Iranian banking industry. The result of this hypothesis is consistent with findings of research by Siti Nurain Muhmad & Hafiza Hashim [20]. Siti Nurain Muhmad & Hafiza Hashim investigated the impact of CAMELS indicators on the return on assets of Malaysian banking industry.

According to the test indicators, the sensitivity to market risk has a significant impact on the return on assets of the Iranian banking industry. This index indicates that the increase or decrease in the sensitivity to market risk will lead to the significant changes in the return on assets of the Iranian banking industry. Therefore, the sensitivity to market risk is a strong predictor for return on assets of the Iranian banking industry. The result of this hypothesis is consistent with findings of research by Siti Nurain Muhmad & Hafiza Hashim [20]. Siti Nurain Muhmad & Hafiza Hashim investigated the impact of CAMELS indicators on the return on assets of Malaysian banking industry.

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