JEL classification: 21

THE INTERNAL CONTROL OVER FINANCIAL REPORTING AND BANK PERFORMANCE: A PILOT STUDY OF US BANKS

Aigul Kalmetova,
Bang College of Business
KIMEP University
Almaty, Kazakhstan
Balzhan Zhussupova,
PhD, Assistant Professor
Bang College of Business
KIMEP University
Almaty, Kazakhstan

ABSTRACT

Purpose – the purpose of this study is to analyze the relationship between the quality of internal control and performance of commercial banks in the U.S.

Methodology – the paper analyses the reports on internal control over financial reporting of 30 U.S. largest publicly traded banks during the period 2013-2017. The study also examines social media for any news related to the banks internal control issues. The research applies the COSO Internal Control Framework for classifying identified control deficiencies. It uses a regression analysis to investigate whether there is a relationship between identified deficiencies and banks' performance.

Findings – overall, the study finds a negative impact of identified deficiencies in risk management and information and communication components of internal control system on bank performance.

Originality/value – the study contributes to a limited research on the impact of internal control system on bank performance. Moreover, the research focuses on a recent performance period. The majority of existing studies focuses on earlier post-Sarbanes-Oxley Act period. The issue is particular important for Kazakhstan, where a regulatory requirement to report on quality of banks' internal control systems' quality is absent.

Keywords – internal control system effectiveness, bank performance, bank regulation.

INTRODUCTION

The internal control system of the company is an essential component of corporate governance. The purpose of the internal control system is to help firms to achieve their objectives relating to operational efficiency and effectiveness, reliability of financial reporting and compliance with internal and external regulatory standards. Internal control is defined as a process determined by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations [5].

The importance of internal control was highlighted in the Sarbanes-Oxley Act of 2002 enacted by the US Congress after a series of large corporate scandals. These scandals involved the largest US companies by market capitalization like WorldCom and Enron among others that fraudulently falsified the financial results of their performance. This act requires publicly held corporations provide a year-end report on internal control system. The report should contain companies' assessment of the effectiveness of their internal control system and the action plans to remedy identified deficiencies. Reporting on internal control was expected to have a positive impact on fraud prevention and performance [3,4].

This paper analyzes the reports on internal control system of 30 US largest publicly traded banks for the period 2013-2017. The ordinary least squares regression was used to determine the relationship between deficiencies in internal control systems and the financial performance of banks. The study uses the COSO

Internal Control – Integrated Framework [17] to classify deficiencies identified in the banks' reports. This framework is widely used and globally recognized. It suggests the internal control system of a firm consists of five essential elements: control environment, risk assessment, control activities, information and communication, and monitoring. Each of these components itself consists of several principles that the companies are advised to follow in order to establish an adequate internal control system.

In line with existing literature, this study finds that deficiencies in several internal control variables have negative impact on bank performance. Moreover, the results show that larger banks may have more deficiencies in risk assessment and disseminating information about controls than smaller banks. To the contrary, solvency of banks is positively associated with these variables and control activities variable. It suggests that financially stronger banks have more deficiencies in those areas than weaker banks. In addition, the banks with more severe deficiencies in risk assessment and information and communication tend to be more exposed to credit risk.

BACKGROUND

The agency theory states see a firm as a center of contracts between the owners of assets and the managers having fiduciary responsibilities over those assets (Jensen and Meckling, 1976). The theory states that between the owners (the principals) and the managers (the agents) there is an information asymmetry that negatively affect the principals' ability to monitor the agents' actions. This informational asymmetry can be reduced via different contracts through the firm as an organizational form of contractual relationships. The principal-agent relationship can be further improved by the owner employing experts and systems such as auditors and internal control systems (Jussi and Petri, 2004)

In accounting and auditing literature, the concept of "internal control system" is widely illustrated. In accordance with ISA 400 internal control system is a "set of policies and procedures adopted by management to ensure the orderly and efficient conduct of business, including strict compliance with management policies, assets safety, prevention and detection of fraud and error, the accuracy and completeness of accounts" (International standard on auditing 400, "Risk Assessments and Internal Control" [2]).

Another definition of internal control of a company is a process effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance. This definition was suggested by the Committee of Sponsoring Organizations of the Treadway Commission (COSO Committee)[1] in the late 80th. The COSO Committee comprising of representatives of professional accountants, auditors, investors and corporate executives developed a document "Internal Control Integrated Framework" (the Framework) that set main principles for designing effective internal control system of companies [5].

In 1992, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) released a framework called as the "Internal Control – Integrated Framework" to assist companies across all industries and sizes measure the effectiveness of their internal controls. While the COSO model was released in 1992, its real necessity came with a subsequent launch of the Sarbanes-Oxley Act in 2002.

According to the Framework, internal control system of a company comprises of five integrated components, namely: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring activities [5]. Working together these components should operate together to support the risk management mission, strategy and all related business objectives for the company. The control environment establishes the foundation for other components. It is the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization. The board of directors and senior management establish the tone at the top regarding the importance of internal control including expected standards of conduct. Risk assessment component allows management properly to identify

[1] The Committee of Sponsoring Organizations of the Treadway Commission (COSO) consists of five sponsoring organizations jointly formed in 1985. These five organizations include the American Accounting Association, American Institutions of CPAs, Financial Executives International, The Association of Accountants and Financial Professionals in Business and the Institute of Internal Auditors. These organizations have been assigned to generate a framework that would make business operations and governance better, aimed on reducing deficiencies and prevent fraud activities in organizations and ensuring sound leadership in the fields of internal control, enterprise risk identification and management [17].

and evaluate relevant risks of not achieving objectives. For example, risk assessment procedures can help companies identify and evaluate the risk of fraud or technical errors in preparing financial statements. The third component of internal control is control activities that enable to mitigate or reduce identified risks to an acceptable level. Typical control activities include segregation of duties, approval and authorization procedures, and reconciliations. The fourth component is information and communication which emphasizes the necessity to obtain and collect quality information about internal control function and timely disseminate it among internal and external users. In addition, communication is a key tool to motivate and coordinate employees in terms of activities and company's plans. Since it ensures that employees within the company are aware of the company's objectives and their responsibilities with respect to their achievement. Finally, the fifth component is monitoring, whose aim is to assess effectiveness of internal controls and suggest recommendations for their improvement. The company can use continuous or periodic monitoring to evaluate function of internal control system. Often periodic monitoring procedures are implemented through external and internal audits, while continuous monitoring is performed by internal controllers, compliance and risk management functions.

LITERATURE REVIEW

Empirical studies have been extensively discussing the impact of internal controls on performance of different types of companies. Majority of them demonstrate the positive impact of internal controls on firm performance. Several studies specifically analyses the internal reports of publicly traded companies and regress against various independent variables with an aim to assess the impact of the Sarbanes-Oxley Act in US. For example, analyzing the importance of the Sarbanes-Oxley Act of 2002 the research by Patterson and Smith (2007) confirmed that strong internal controls reduce fraud in US companies. Roberts (2006) in his article indicates that in the first year after introduction of the Act, 16 percent of 3,900 internal control reporting companies showed that internal control systems were not effective, including 1,500 companies, which reported material deficiencies in internal control. In the second year, the number of companies with ineffective internal controls diminished twice, only up to 7 percent of the 3,000 companies with 400 companies that reported material deficiencies.

Chan et al. (2008) examined if firms which reported material deficiencies in internal control reports have more efficient management in earnings. The research covered 1, 057 firms within 20 industries listed on New York Stock Exchange, American Stock Exchange, and NASDAQ National Market. Using four-year averages over 2001-2004 the research provides an evidence that firms reporting material deficiencies demonstrated high level of accruals in terms of total assets that allow to manage earnings effectively and influence positively on profitability in further years.

However, analyzing 330 unaudited firms and 383 audited firms Beneish et al. (2008) stated that under the Sarban-Oxley Act firms do not face an increase of cost of capital and there is a low market response to material disclosures made in the reports. The study constitutes that the Act has requirements in terms of firm size, the materiality of weakness disclosures, thus these requirements might create information uncertainty for market participants.

The research by Ashbaugh-Skaife et. al. (2009) found that firms, which report internal control deficiencies have higher cost of equity capital relative to those firms that do not report deficiencies. The study suggests that reporting of internal control deficiencies demonstrate greater information risk to market participants. The research conducted data analysis of 1,053 publicly traded firms operated under the Act.

Wang (2012) carried out assessment of internal control performance over financial reporting. The study asserts that that internal control weakness reporting is positively correlated to the companies' external financing choices and it has an effect on the quality improvement of financial reporting, that enhance investor confidence in the reliability of financial statements. The research proposes a conclusion that internal control reporting decreases the information problems between management and outside investors.

Shanmugam et al. (2012) highlighted the relationship between internal control and financial performance among SMEs in Malaysia is not as strong because of other factors, such as the country's political situation and economic growth. Hence, the study pays attention to the economic opportunities where the firm operates.

Ayom (2013) states that when it comes to matters concerning effectiveness of internal control system in

non-governmental organizations, it is necessary to set up follow-up policy system involving internal auditors and procurement manager. He argues that budgetary control as one of the components of internal control must be in place.

Cheng et al. (2014) examining a sample of firms that reported internal control under the Act during 2004-2011 found that operational efficiency is weaker in firms, that do not disclose weaknesses in internal control reports. With this reference, the authors also provide insights that the Act there is a high compliance costs that cannot be handed by small firms, however the study informs that regulatory affairs are currently considering to extend exemptions from compliance costs for firms with market capitalization between $75 million and $250 million.

According to Channar et al. (2015) findings internal control activities are truly effective in private and public banks in comparison to Islamic banks. In the following research five components of internal control were tested, whereas financial performance was measured by Return on Asset (ROA), Return on Equity (ROE), Profit expense ratio (PER). The components include such components as control environment, risk assessment, control activity, information and communication, monitoring. The research paper proved that mentioned components namely define internal control, which had a strong positive relationship with private banks' performance in Pakistanian private and public banks.

The research conducted by Magu and Kibati (2016) assesses internal control in farmers association and its performance. The research paper concludes that the organization had serious problems with internal control effectiveness in terms of control environment, control activities and risk assessment. The research paper argues that IT adoption, and monitoring process that were necessary to improve its influence on the financial performance. The study identified that weak internal control system enhanced organization's liquidity problem.

It is recommended to set the tone of internal control through obligatory operational, financial, and compliance-related information reports in the publications of Abdullahi and Muturi (2016). The study argues that the quality of internal control must be adequately monitored by management, and staff should be trained periodically to strengthen their competencies. The study demonstrates the significant positive relationship between internal control system (Information and Communication systems, internal audit and monitoring) with financial performance. However, in terms of information and communication, which is one of the components of internal control there was no significant dependence found in relation to financial performance.

Furthermore, the discussions of internal control and performance suggest implications in the study of Muthusi (2017). In consistent with abovementioned main features of internal control it was found that employees ranked their banks' internal control system as uncertain in relation to financial performance, which helps to draw a conclusion that staff does not recognize the given responsibility in performing everyday work, therefore they are uncertain about material harm they could bring.

Ibrahim S. et al. (2017) also found a corresponding relationship of internal control with financial performance among 5 health institutions in the Upper West Region of Ghana. Findings from the study suggest that most of the health institutions faced deficiencies such as, management inability to interpret internal audit reports, small number of internal audit staff and lack of investment in modern technologies. The study discovered that periodic departmental budget reviews of most health institutions were not performed and there were no communication channels established to report suspected deficiencies.

RESEARCH METHODOLOGY

Sample

The main source of data is secondary information – financial statements and reports on internal control of 30 largest publicly traded banks in the U.S. The sample period is 5 years from 2013 till 2017. Since its introduction in 2002, the Sarbanes-Oxley Act requires publicly traded companies to issue reports on internal control system annually. These reports are subjected to assessment of external auditors.

The list of top banks by total assets as of end of 2017 was taken from the US Federal Reserve Statistical Release. Then the study collected the banks' financial statements and reports on internal control from through EDGAR system of the Securities and Exchange Commission. The study also searched for news in social media for serious control violations of the sample banks e.g. issues concerning violations on anti-money-laundering

controls, putting on probation period by the Federal Reserve, opening fake accounts by the employees to meet targets, settling charges on sale of toxic mortgage-backed securities, lawsuits related to manipulations of the foreign exchange market and so on. The search results were also aggregated into a dataset.

Model and Variables

The study uses the Ordinary Least Square Regression to analyze the impact of the internal control quality on banks' performance. The dependent variables are defined as Return on Assets (ROA) and Return on Equity (ROE), measured by dividing banks' annual earnings by year-end total assets and equity, respectively. Independent variables are the components of internal control system. To collect data on the components, the study reads through the reports on internal control system of banks. The banks describe deficiencies in their internal control system in the reports. The research collected the deficiencies and classified them into distinctive categories: 1) control environment, 2) risk assessment, 3) control activities, 4) information and communication, and 5) monitoring. The nature of categories is defined by COSO Internal Control Framework. Depending on severity, a deficiency under each category was given a rating from 1 to 3. A rating 1 was given to less severe deficiency, while rating 3 was given to the most severe deficiency.

To control for other factors that have direct effects on bank performance the study includes the following control variables: the size of banks (log of Total assets), a size of loan portfolio in relation to the total assets (Total loans to total assets) and proxy of capital ratio 9total equity to total assets). The description of the variables is given in Table 1.

Table 1. Description of variables

Variables	Definition / Measurement statements	Measurement scale
ROA	Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings.	ROA = Net Income / Total Assets
ROE	Return on equity (ROE) measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.	ROE = Net Income/Shareholder's Equity
TA	Total assets	Nominal values
TL	Total loans	Nominal values
TE	Total equity	Nominal values
Control environment ($x_{Contenviron}$)	There is a code of ethics / code of conduct	Rating of deficiencies 1-3
	Management demonstrate commitment to integrity and ethical values	
	Management timely corrects identified internal controls deficiencies	
	The company has a risk management framework that is established through written rules and policies	
Risk assessment ($x_{Riskassmnt}$)	Establishment of risk identification policy	
	Running of risk identification policy using measurement tools	
Control activities ($x_{Contactivities}$)	Segregation of duties exists	
	Approvals, Authorizations, and verifications: Management authorizes employees to perform certain activities and manages employee accountability control	
	There is no negative extraordinary events driven by non-material fines	
Information and Communications ($x_{Infor\&Com}$)	New technology implementations	
	E-learning of employees and employees awareness	
Monitoring ($x_{Monitoring}$)	Monitoring systems with further action plans to avoid bad loans	
Note – inserted by authors in accordance with [10] and [14].		

The model is determined as follows;

$$1)\ ROA = \alpha + log\,TA_{t-1} + \left[\frac{TL}{TA}\right]_{t-1} + \left[\frac{TE}{TA}\right]_{t-1} + \beta_1 x_{Contenviron} + \beta_2 x_{Riskassmnt} + \beta_3 x_{Contactivities} + \beta_4 x_{Info\&Com} + \beta_5 x_{Monitoring} + \ldots . \beta_n x_n$$

$$2)\ ROE = \alpha + log\,TA_{t-1} + \left[\frac{TL}{TA}\right]_{t-1} + \left[\frac{TE}{TA}\right]_{t-1} + \beta_1 x_{Contenviron} + \beta_2 x_{Riskassmnt} + \beta_3 x_{Contactivities} + \beta_4 x_{Info\&Com} + \beta_5 x_{Monitoring} + \ldots . \beta_n x_n$$

Hypotheses

The purpose of this study is to analyze the relationship between the quality of internal controls and performance for a sample of US commercial banks. The five-component internal control model of COSO Framework is used to design independent variables. The quality is defined as the nature of deficiencies reported by banks in their respective reports on internal control system. Therefore, the study expects a negative impact of identified deficiencies on banks performance.

FINDINGS AND ANALYSIS

Descriptive statistics

Table 2 provides descriptive statistics for the variables. The statistics show that the banks, on average, during the period had overall good internal control. Information and Communication variable has the highest mean value of 1.39 with the standard deviation of 0.63. Control environment variable component has the smallest mean value of 1.17 with the standard deviation of 0.46.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TA	150	4791.17	2834318.00	680003.7475	842092.70656
TL	150	3314.13	1112135.00	300021.0765	355383.64650
TE	150	632.53	267146.00	64972.1327	76174.68598
Year	150	2013	2017	2015.00	1.419
logTA	120	3.68	6.43	5.4397	.63560
TE (t-1)	120	632.53	266195.00	64026.9490	75491.54809
TE/TA (t-1)	149	.05	.64	.1223	.09947
ROA	150	-2.75	3.52	1.0266	.68152
ROE	150	-15.82	37.55	9.2168	5.50068
Monitoring	150	1.00	3.00	1.1800	.50594
Contenviron	150	1.00	3.00	1.1733	.45974
Infocom	150	1.00	3.00	1.3867	.63231
Controlactivities	150	1.00	3.00	1.3267	.53716
Riskmngmnt	150	1.00	3.00	1.3133	.59231
TL/TA (t-1)	120	.05	.92	.5552	.21206
TA (t-1)	120	4791.17	2671318.00	670906.9573	835759.32338
TL (t-1)	120	3314.13	1112135.00	294594.2137	351072.79408
Valid N (listwise)	120				
Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)					

The results show that the mean of performance measures Return on Equity and Return on Assets of the sample banks are 9.22 and 1.03, respectively. The lowest ROE and ROA are 15.82 and 2.75, while the highest values are 37.55, and 3.52, respectively. The mean for the total equity to total assets is 0.0985.

Correlation analysis

Pearson's coefficient analysis was used to assess relationship between selected variables. Table 3 illustrates correlation of the dependent variable ROA and independent variables. It shows that ROA is negatively correlated

with Control activities and Monitoring variables. However, their relationships are not statistically significant.

In turn, ROA is positively associated with Information and Communication components of internal control at 10% confidence level. It also shows that the size of banks, measure by log of Total assets is negatively correlated with Risk assessment (r=-0.434) and Information and Communication (r=-0.33) variables implying that larger banks may have more deficiencies in risk assessment and disseminating information about controls than smaller banks. To the contrary, Total equity to total assets ratio measuring solvency of banks is positively associated with these variables and Control activities variable. It suggests that financially stronger banks have more deficiencies in those areas than weaker banks. Total loans to total assets measuring the credit risk of banks is positively related to Risk assessment (r=0.27) and Information and communication variables (r=022) suggesting that the banks with more severe deficiencies in those areas tend to be more exposed to credit risk.

In addition, there are also significant correlations found between several internal control variables, such as between Control Environment and Risk Management and Information and Communication, as well as between and Control Activities with Monitoring which is expected under the COSO Internal Control Framework.

Table 3. Pearson Correlation table with ROA

Pearson Correlation										
		ROA	logTA	TETA	TLTA	Conten-viron	Risk-mngmnt	Controlac-tivities	Infocom	Monitoring
Pearson Correlation	ROA	1.000	-.525	.109	.481	.034	.105	-.037	.138	-.009
	logTA	-.525	1.000	-.200	-.584	.009	-.434	.064	-.330	.006
	TETA	.109	-.200	1.000	.175	.135	.631	.198	.080	.685
	TLTA	.481	-.584	.175	1.000	.082	.271	-.033	.217	.089
	Contenviron	.034	.009	.135	.082	1.000	.374	.005	.005	.354
	Riskmngmnt	.105	-.434	.631	.271	.374	1.000	.127	.117	.611
	Controlactivities	-.037	.064	.198	-.033	.005	.127	1.000	.062	.314
	Infocom	.138	-.330	.080	.217	.005	.117	.062	1.000	.076
	Monitoring	-.009	.006	.685	.089	.354	.611	.314	.076	1.000
Sig. (1-tailed)	ROA	.	.000	.119	.000	.356	.128	.344	.066	.460
	logTA	.000	.	.014	.000	.463	.000	.243	.000	.474
	TETA	.119	.014	.	.028	.070	.000	.015	.191	.000
	TLTA	.000	.000	.028	.	.185	.001	.362	.009	.166
	Contenviron	.356	.463	.070	.185	.	.000	.478	.479	.000
	Riskmngmnt	.128	.000	.000	.001	.000	.	.083	.101	.000
	Controlactivities	.344	.243	.015	.362	.478	.083	.	.249	.000
	Infocom	.066	.000	.191	.009	.479	.101	.249	.	.204
	Monitoring	.460	.474	.000	.166	.000	.000	.000	.204	.
Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)										

Correlation between the dependent variable ROE and independent variables is presented in Table 4. It indicates that there are no strong correlations between ROE and internal control variables.

Table 4. Pearson Correlation table with ROA

		ROE	logTA	TETA	TLTA	Conten-viron	Risk-mngmnt	Controlac-tivities	Info-com	Moni-toring
Pearson Corre-lation	ROE	1.000	-.399	-.068	.314	.010	.064	.025	.027	-.016
	logTA	-.399	1.000	-.200	-.584	.009	-.434	.064	-.330	.006
	TETA	-.068	-.200	1.000	.175	.135	.631	.198	.080	.685
	TLTA	.314	-.584	.175	1.000	.082	.271	-.033	.217	.089
	Contenviron	.010	.009	.135	.082	1.000	.374	.005	.005	.354
	Riskmngmnt	.064	-.434	.631	.271	.374	1.000	.127	.117	.611
	Contro-lactivities	.025	.064	.198	-.033	.005	.127	1.000	.062	.314
	Infocom	.027	-.330	.080	.217	.005	.117	.062	1.000	.076
	Monitoring	-.016	.006	.685	.089	.354	.611	.314	.076	1.000
Sig. (1-tailed)	ROE	.	.000	.231	.000	.458	.244	.394	.386	.432
	logTA	.000	.	.014	.000	.463	.000	.243	.000	.474
	TETA	.231	.014	.	.028	.070	.000	.015	.191	.000
	TLTA	.000	.000	.028	.	.185	.001	.362	.009	.166
	Contenviron	.458	.463	.070	.185	.	.000	.478	.479	.000
	Riskmngmnt	.244	.000	.000	.001	.000	.	.083	.101	.000
	Contro-lactivities	.394	.243	.015	.362	.478	.083	.	.249	.000
	Infocom	.386	.000	.191	.009	.479	.101	.249	.	.204
	Monitoring	.432	.474	.000	.166	.000	.000	.000	.204	.

Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)

Testing regression assumptions

The study tested key regression assumptions in order to avoid biased estimates of regression coefficients of a chosen model (Chatterjee & Hadi, 2012). These assumptions include normality, linear relationship, multi-collinearity and homoscedasticity (Cohen et al., 2013; Mason & Perreault Jr, 1991). The tests performed with SPSS software checked the assumptions and confirms no violations.

Regression analysis

The regression results in Table 4 show how the internal control variables influence profitability of banks, measured by ROA ratio. It shows that deficiencies in risk assessment have negative impact on the banks' performance measured by ROA ratio (standardized β= -0.337, p-value = 0.009). It suggests that the more severe the deficiencies in internal control related to risk assessment, the lower ROA ratio of the banks.

Table 5. Coefficients with Dependent Variable: ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.394	.697		4.867	.000
	logTA	-.474	.103	-.528	-4.612	.000
	TETA	.696	.664	.121	1.048	.297
	TLTA	.653	.254	.243	2.568	.012
	Contenviron	.203	.165	.107	1.227	.222
	Riskmngmnt	-.368	.138	-.337	-2.657	.009
	Controlactivities	.009	.086	.008	.102	.919
	Infocom	-.063	.079	-.065	-.797	.427
	Monitoring	.072	.152	.060	.472	.638
Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)						

Table 5 also shows that other control variables do not show statistically significant influence on the bank's performance.

Table 6 illustrates the model regressing ROE against the internal control components. It shows mixed results. Information and Communication has negative significant influence on ROE (β= -1.160 and p=0.095). The more severe the deficiencies in Information and Communication component of internal control, the lower financial performance of banks, measured by ROE ratio. At the same time, the regression coefficient of Monitoring variable is positive and statistically significant (β= 2.252 and p=0.091).

Table 6. Coefficients with Dependent Variable: ROE

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.613	6.056		4.725	.000
	logTA	-3.635	.892	-.511	-4.074	.000
	TETA	-11.061	5.768	-.243	-1.918	.058
	TLTA	2.542	2.206	.119	1.152	.252
	Contenviron	.318	1.435	.021	.222	.825
	Riskmngmnt	-1.554	1.202	-.180	-1.293	.199
	Controlactivities	.571	.743	.068	.768	.444
	Infocom	-1.160	.690	-.149	-1.682	.095
	Monitoring	2.252	1.322	.236	1.704	.091
Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)						

The overall significance of the relationship between ROA, ROE and independent variables are tested using ANOVA table. The results of the tests are presented in Table 7 for ROA and Table 8 for ROE ratios. Tests for both ratios show that the model fits the data well.

Table 7. Return on assets and internal control (ANOVA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.151	8	1.769	8.007	.000[b]
	Residual	24.522	111	.221		
	Total	38.673	119			
Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)						

Table 8. Return on equity and internal control (ANOVA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	584.935	8	73.117	4.388	.000[b]
	Residual	1849.655	111	16.664		
	Total	2434.590	119			

Note – inserted by authors through Statistical Package for the Social Sciences (SPSS)

CONCLUSION AND LIMITATIONS

This study attempted to assess the impact of internal control variables on financial performance of 30 US banks for the period of 2013-1017. Financial performance was measure using accounting ratios namely return on assets and return on equity. Overall, the results are mixed. The research finds a negative effect of Risk assessment and Information and Communication deficiencies and performance and a positive influence of Monitoring deficiencies. The study did not find statistically significant influence of Control environment and Control activities of the sample banks. These tentatively may be explained by the fact that by 2013 the publicly traded companies in US should have established proper internal control systems with strong control environment and control activities. These systems were subjected to assessment by external audit since 2003 after the passage of the Sarbanes-Oxley Act of 2002.

An explanation for mixed results and at the same time the main limitation of the study is a sample size. Further research will apply the same methodology on a larger sample of banks. Moreover, there is need to fine-tune the internal control variables. Finally, the stock market data can be integrated to analyze the impact of internal controls on banks stocks' performance.

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ТҮЙІН

Бұл зерттеу АҚШ-тың 30 банкіндегі 2013-2017 жылдар аралығындағы ішкі бақылау компоненттерін талдайды. Ішкі бақылаудың құрамдас бөліктері АҚШ банктерінің қаржылық көрсеткіштеріне әсер ететін мәселені шешу үшін корреляциялық талдау және ең кіші квадрат үлгісі (OLS) пайдаланылды. Зерттеудің нәтижелері Қазақстандағы банктерге және фирмаларға қолданылуы мүмкін, сондықтан ішкі бақылаудың халықаралық тәжірибеге сүйене отырып, ұйымдардың ішкі бақылаудың қаржылық көрсеткіштеріне әсерін тексеру ұсынылады.

РЕЗЮМЕ

Данное исследование анализирует компоненты внутреннего контроля в 30 банках США за период с 2013 по 2017 годы. Для решения вопроса о том, какие компоненты внутреннего контроля влияют на финансовые показатели банков США, использовались корреляционный анализ и модель наименьших квадратов (OLS). Результаты исследований могут быть применены к банкам и фирмам в Казахстане, в связи с чем предлагается проверить влияние внутреннего контроля на финансовые показатели организаций с точки зрения эффективности на основе международного опыта.