



THE INFLUENCE OF CORPORATE GOVERNANCE MECHANISMS ON PROBABILITY OF FRAUD OCCURRENCE: EVIDENCE FROM RUSSIAN COMPANIES

Oksana Soboleva, Elena Makeeva, Gayane Aslanyan Higher School of Economics, Moscow, Russia

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FRAUD STATISTICS

Crimes: frequency of overall experience





RESEARCH QUESTION AND MOTIVATION

Research question

Do the board structure, audit, and nomination committee presence influence the probability of fraud occurrence?

Aims

The aim of the study is to find key determinants to optimise corporate governance in Russia, which would decrease the likelihood of fraud in a company.

We evaluate the effect of gender diversity, number of members, degree of independence, and frequency of meetings for the board and its committees.



LITERATURE REVIEW [1/2]

Influence of the board and its committees on the likelihood of fraud

Authors	Area	Period	Results		
Beasley M.S. (1996)	The US	1980-1991	Probability of fraud negatively related to large proportion of outsiders		
			board; Audit committee has insignificant influence on likelihood of fraud		
Brazel & Schmidt (2019)	The US	2007-2009	The presence of audit committee members with longer tenure seem to decrease fraud probability.		
Johl, Johl, Subramaniam & Cooper (2013)	Malaysia	2009-2010	Unexpected positive relationship between FRQ and internal audit quality		
Yiu, Wan, & Xu (2019)	China	1997-2005	Fraud can occur because of strategic alliances, business group affiliat		
			non-tradable state shares, local government ownership, use of foreign		
			auditors, and foreign listing		
Ghafoor, Zainudin, & Mahdzan (2019)	Malaysia	1996-2016	Negative significant effect on probability of fraudulent financial reporting in case of board independence, effective audit committee, women share in the board and institutional investors present		
Marzuki, Haji-Abdullah, Othman, Wahab, & Harymawan (2019)	Malaysia	2002-2014	Limited evidence to suggest that audit committee characteristics matters		
Nasir, Ali, & Ahmed (2019)	Malaysia	2001-2008	Significant positive relationship between the proportion of Malay directors on the board and the financial statement fraud		



LITERATURE REVIEW [2/2]

Gender diversity as a factor in decreasing the likelihood of fraud

Authors	Area	Period	Results
Liao, Smith, & Liu (2019)	China	2003-2015	Lower probability of accounting fraud in the presence of female CFOs than with male CFOs
Liao, Chen, & Zheng (2019)	China	2009-2014	Higher CSR scores lead to less frequent occurrence of financial fraud
Marzuki, et al (2019)	Malaysia	2002-2014	The probability of fraud decreases as the percentage of female directors on the board increases.
Wahid (2019)	The US	2000-2010	Increasing number of women on the board leads to fewer financial reporting mistakes, but at the diminishing rate

Board members' independence

Authors	Area	Period	Results	
Labelle, Thornton, He, & Piot (2009)	US, UK, and Continental Europe countries	-	Board independence is the most effective in FRQ improvement	
Oba, Musa, & Fodio (2012)	Nigeria	2005-2007	Board independence improved financial quality, whereas the remaining factors influenced a decrease in financial quality	
Al-Matari & Mgammal (2019)	Saudi Arabia	2012-2014	Corporate governance effectiveness is significantly positively related to independent board members, audit committee size, audit committee independence.	



HYPOTHESES

H1: The number of board / audit committee /nomination and remuneration committee meetings is positively correlated to fraud probability.

H2: There is a negative relationship between the gender diversity of the board and fraud probability.

H3: The degree of board / audit committee /nomination committee independence decreases the probability of fraud.

H4: The independence of the nomination and remuneration committee chairman decreases the probability of fraud.

H5: The influence of nomination and remuneration committee meetings to the board meetings frequency leads to a lower probability of fraud if the chairman is independent.

H6: The influence of the board / audit committee /nomination size on the level of fraud rate is insignificant.



DATA

Sample

Public listed Russian companies

- 1.Number of observations: 160.
- 2.Number of fraud cases observed: 32
- 3.Sample period: 2014 2018, five years

Data sources

- 1. Thomson Reuters Eikon terminal
- 2.Published companies' information (e.g., reports) is retrieved from www.e- disclosure.ru

News about financial reporting scandals, corruption, asset misappropriation, conflict of interests and local fraud are retrieved from:

- 1.Leading Russian news sources (e.g., Kommersant, Interfax, RIA (Russian Information Agency))
- 2.Specialised sites (e.g., Pravo (pravo.ru), Banki (banki.ru))



METHODOLOGY

We do not use absolute values in the dependent variable like Johl, Johl, Subramaniam, & Cooper (2013)

We use binary model, particularly a logit one, following the experience of many researchers (e.g., Pucheta-Martínez & García- Meca (2014); Labelle, Thornton, He, & Piot (2009))

Model

$$Fraud(t) = \frac{e^Z}{1+e^Z}$$

Model 1 (for the board):

 $Z = \beta_0 + \beta_1 ln(market \, cap)_i + \beta_2 gender_i + \beta_3 board_i freq_i + \beta_4 board \quad ind_i + \beta_5 board \, size_i + \varepsilon$

Model 2 (for the Audit committee):

 $Z = \beta_0 + \beta_1 ln(market \, cap)_i + \beta_2 audit \, freq_i + \beta_3 audit \, ind_i + \beta_4 audit \, size_i + \varepsilon$

Model 3 (for the Compensation & Nomination committees)

$$Z = \beta_0 + \beta_1 ln(market \ cap)_i + \beta_2 nc \ freq_i + \beta_3 nc \ ind_i + \beta_4 nc \ size_i + \beta_5 nc \ chair \ ind_i + \varepsilon$$



Dependent variable

fraud Dummy variable (1 – the fraud case is detected; 0 – otherwise) The firm

In_size The natural logarithm of the firm's market capitalization at the end of the year

VARIABLES

The interaction effect				
nc_freq_chair	nc_freq_chair = nc_share_freq * nc_chair_ind			
nc_share_freq	$nc_share_freq = \frac{nc_freq}{b_freq}$			

The board	
gender	The share of women among Board members
b_size	The number of members in the Board
b_ind	The share of the independent directors in the Board
b_freq	The number of meetings for the Board per fiscal year
Audit committ	ee
a_size	The number of members in the Audit committee
a_ind	The share of independent directors in the Audit committee
a_freq	The number of meetings for the Audit committee per fiscal year
a_chair_ind	Dummy variable (1 – the chair of the audit committee is independent; 0 – otherwise)
Nominating &	Compensation committees
nc_size	The number of members in the Nominating and compensation committee
nc_ind	The share of the independent directors in the Nominating and compensation committee
nc_freq	The number of meetings for the Nominating and Compensation committees per fiscal year
nc_ind_chair	Dummy variable (1 – the chair of the nominating and compensation committee is independent; 0 – otherwise)



8,38

No-Fraud

7,43

6.07

Nomination Committee

DESCRIPTIVE STATISTICS

Mean Fraud Mean No-Fraud



Mean Fraud Mean No-Fraud

EMPIRICAL RESULTS

N=160



Independent variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Insize	0,433***	0,376**	0,255	0,364**	0,362**	0,303*
	-0,153	-0,161	-0,176	-0,151	-0,153	-0,177
gender	-8,026**			-8,998**	-8,975**	-8,711**
	-3,58			-3,54	-3,558	-3,883
b_ind	-2,166					
	-1,524					
b_size	0,004					
	-0,086					
b_freq	0,02					
	-0,013					
a_size		-0,314				
		-0,366				
a_freq		-0,042				
		-0,041				
a_ind		-1,745**		-1,044		
		-0,873		-0,919		
nc_size			0,298			
			-0,295			
nc_freq			-0,08			
			-0,057			
nc_ind			-0,531			
			-1,06			
nc_chair_ind			-1,489**	-1,133*	-1,453**	-4,854***
			-0,681	-0,672	-0,628	-1,728
nc_share_freq						-6,691*
						-3,497
nc_freq_chair						7,918**
						-3,756
const	-3,285**	-0,825	-1,621	-1,35	-1,892	1,279
	-1,388	-1,666	-1,955	-1,205	-1,161	-1,848
Pseudo R2	0,143	0,097	0,107	0,132	0,123	0,166



CONCLUSIONS

- 1. Women's share significantly negatively affects fraud probability
- 2. The degree of the board of directors and committees independence is insignificant
- 3.In the presence of an independent director of the remuneration committee, the frequency of meetings of the board of directors and committees (effort level) reduces the fraud rate to a lesser extent
- 4. The size of the board of directors and committees does not affect the likelihood of fraud occurrence

Limitations and further development

- 1.To replicate results in a larger sample and to include evidence from other countries providing comparison analysis with Russia
- 2. Focus on financial accounting fraud in Russian companies
- 3. Consider various types of fraud (from employee and top management fraud)



emakeeva@hse.ru osoboleva@hse.ru gkaslanyan@edu.hse.ru