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The Role of Prudential Regulation and Supervision as a Determinant of the Financial Risk of Companies Listed On the Nairobi Securities Exchange (NSE) In Kenya

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Abstract: *Effective prudential regulation and supervision eventually leads to a reduction in the financial risk of firms. This study sought to evaluate the role of prudential regulation and supervision on the financial risk of companies listed on the Nairobi Securities Exchange (NSE). The study targeted companies publicly listed in the Nairobi securities Exchange between 2012 and 2013, with the minimal changes of listing on the stock exchange currently being considered. Forty five out of sixty one companies were sampled using a 75% proportion. Primary as well as secondary data was collected from the sampled firms. Data was analysed using both qualitative and quantitative methods using the statistical package for social sciences (SPSS) version 24. Findings are presented using tables. Findings point to a moderate linear relationship ($R= .585.$) between prudential supervision and the financial risk of companies listed on the NSE at 0.001($p<0.05$) level of significance. The study recommendations include improving the enforcement of prudential regulations and enactment of serious penalties for companies which do not follow the regulations.*
Keywords: *Prudential regulation and supervision, shareholder protection, Investor expropriation*

I. Introduction

Prudential regulations are rules and laws put down by the government to supervise and control institutions in order to limit their risk taking. [1] in separate studies show that the presence of these prudential regulations and the level of their enforcement motivate outsider shareholders and protect them from the activities of the insider shareholders, and this is reflected in the performance of the company on the stock market.

By studying the rate of increase of the number of companies listed on the NSE through initial public offers (IPOs), the valuation of the companies relative to their assets, the dividend policy and the dividend pay-out, this will give a picture of the level of legal protection available hence the level of financial risk of listed companies on the NSE.

II. Background

In Kenya there are four key agencies and regimes for prudential regulation: Central Bank of Kenya (CBK) for banks and payments settlement; Insurance Regulatory Authority (IRA) for insurance; the Capital Markets Authority (CMA) for capital markets and the Retirement Benefits Authority (RBA) for pensions. The chief regulator is however considered to be the Ministry of Finance [2]. Despite the existence of these regulators, the shareholders have often found themselves in great challenges as some of the institutions go under while others are placed under receivership. Examples of such institutions are Planters Co-operative Union (KPCU) in 2010; Ngenye Kariuki Stockbrokers in 2010; Standard Assurance in 2009; Invesco Assurance in 2008; Hutchings Beimer in 2010; Discount Securities in 2008; Uchumi Supermarkets in 2006 and Pan Paper Mills in 2009 were put under statutory management [3].There was a turnaround for Uchumi as it was listed again but recently there are indications of financial challenges. Imperial bank is another recent example of an institution placed under receivership, similar to Chase Bank which was later acquired by Kenya commercial bank (KCB). Though only a few of these were publicly listed, the Government has had to step in and give financial assistance to several listed companies to avoid collapse, an indication of financial crisis for these companies.

Additionally, companies require funding at some point. Accessibility to sources of funding such as debt is dependent on the prudential regulation employed on financial institutions. If debt financing is prohibitive due to the loan contract terms [4], the institutions may have challenges accessing funds hence increase financial risk.

Study objective

The objective of the study is to evaluate the effect of prudential regulation and supervision on the financial risk of listed companies on the Nairobi Securities Exchange.

Study hypothesis
The study employs a null hypothesis
Ho: Prudential regulation and supervision does not significantly influence the financial risk of companies listed on the NSE.

III. Empirical Review

The Legal and regulatory environment framework was initiated by [5] in [6] to explain the relationship between financial risk and prudential supervision. They did a study across 49 countries and pointed out that the nature and effectiveness of financial systems are traced partly to differences in investor protection against expropriation by investors. The protection is reflected by the legal rules and quality of their enforcement.

Subsequently, [7] compared external financing as a function of origin of their law and concluded that performance of public and private institutions is less effective in countries exhibiting low levels of trust among citizens. [8] focussed on legal solutions of agency problems, emphasising on cross sector differences of the solutions. [5] employ a model improved from the Becker's model [9] who used a "crime and punishment" framework to show the level of protection of investors.

[10] postulate that openness is correlated with financial development. [11] indicate that more valuable stock and a higher number of listed firms are indicators of better legal protection of outside shareholders. In separate studies, [5] point to higher valuation of a firm relative to their asset and in [5] point to greater dividend pay-out, among other factors as indicators of better legal protection of outsider shareholders. Studies showing the legal framework underlying expropriation of minority shareholders by the controlling shareholders include [11] and [12]. [12], [13] and [14] also show the evidence of expropriation.

In Financial Institutions such as Banks, the rules and regulations of operations intended to minimize financial risk are set in the Basel 1 and Basel 11 Accord [14]. Prudential regulation is widely captured in the Basel Accords (Basel Accord I and Basel Accord II). Basel II code on SME financing is examined by [15]. The implementation of this new code was intended to increase the stability in the banking sector by compelling them to have a risk sensitive amount of equity for each loan outstanding hence reducing financial risk [16]. Basel II does not explicitly demand the implementation of a risk management system, when rating a company the bank will check the existing management instruments and also the risk assessment [17].This helps in assessing the ability of the firm to meet its present and future financial obligations.

High concentration of control and ownership, which is detrimental to shareholder protection is covered by [18], [19] and [20] among others. [21] and [22] show that most countries employ two main secular legal traditions; civil law and common law which finally determine their financial systems include among others, the Company law based on the English common law system that regulates business in Kenya.

There are there are two approaches to prudential supervision of the financial market: Institutional and functional. Under an institutional approach, the legal status of an institution determines its regulatory supervision. On the other hand, the functional approach seeks to regulate financial institutions based on the type of business they undertake, with disregard for how a given institution is defined legally [23].

[24] point out that the board of directors largely affect the final decision and also the implementation of the decisions made that, risk perception plays an important role in the enactment of financial risk management processes. This is determined by personality factors and cognitive biases. Some managers are simply more aggressive than others. Therefore some firms are more inclined to using debt in an effort to boost profits, whereas some managers are very conservative and prefer the capital structure that has always been used, even if it is not optimal [25].

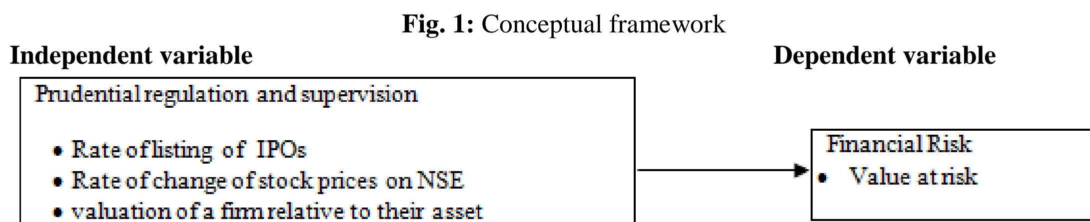
[26] use legal tradition and law enforcement to show the direct implications for how financial contracts are shaped. They showed that investments in high-enforcement and common law nations often use convertible preferred stock with covenants, while investments in low-enforcement and civil law nations tend to use common stock and debt and rely on equity and board control.

In other words, the low-enforcement environments force investors to use less-than-optimal contracts to assure their ownership and control rights, which in turn makes the operations of the businesses less efficient and increasing the financial risk. [27] studied the determinants of mergers and acquisitions around the world by focusing on differences in laws and regulations across countries. They find that mergers and acquisitions activity is significantly larger in countries with better accounting standards and stronger shareholder protection [28]. This finding shows how better regulations improve the degree of investor protection within target firms and hence low financial risk.

IV. Conceptual Framework

The study used the conceptual framework in Fig. 1 to show the relationship between the independent variable prudential regulation and supervision on one hand and dependent variable financial risk on the other hand.

Fig. 1: Conceptual framework



V. Research Methodology

Research Design

The study employed a mixed research design, both qualitative and quantitative. This was suitable since apart from the opinions of the respondents, secondary data which involved the analysis of financial statements was required.

Target population and sample size

The study's target population comprised of sixty one publicly listed companies on the NSE as at 2012. This sampling frame was obtained from the NSE website. A proportion of 75% was used to acquire a sample of fourty five companies which is considered sufficient [29].

Sampling procedure

Stratified random sampling was used to sample companies among the ten sectors on the sampling frame extracted from the NSE website. That also provided the basis of the financial statements used. Purposive sampling was used to select the respondents who answered the questionnaire. This included the Chief Executive Officer (C.E.O), Chief Financial Officer (C.F.O), Risk Management Officer, Financial Manager.

VI. Data Analysis and Presentation

Qualitative Analysis

The study sought to determine the effect of prudential regulation and supervision on the financial risk of firms listed on the NSE. Focus was on effect of the existing prudential regulation and supervision on potential investors, the degree of protection offered to outsider shareholders by the prudential regulation, presence of gaps and overlaps in financial regulation system, availability of adequate supporting infrastructure for prudential regulation enforcement, effect of better protection on minority shareholders on valuation of firms, and finally the consequences of absence of clear measures in prudential supervision.

I. Effect of the Existing Prudential Supervision on Potential Investors

The effect of existing prudential regulation and supervision on potential investors is important since the performance of public and private institutions; hence the level of financial risk is determined by the level of trust among the citizenship. The findings are depicted by table 1.

Table1. Effect of Prudential Supervision on Potential Investors

Response	Frequency	Percent	Cumulative Percent
Strongly agree	12	31.5	31.5
Agree	14	36.8	68.3
Neither Agree nor Disagree	2	5.3	73.6
Disagree	5	13.2	86.8
Strongly Disagree	5	13.2	100
Total	**38**	**100.0**	

The study indicates that 31.5% of the respondents strongly agree that elaborate prudential regulations and supervision do not demotivate potential investors, 36.8% agree, 5.3% neither agree nor disagree, 13.2% disagree while 13.2% strongly disagree. The majority of respondents (68.3%) support elaborate prudential regulation and supervision, and do not consider it as a de-motivation for potential investors.

Ii. The Degree of Protection Offered to Outsider Shareholders by the Prudential Regulation

The degree of protection offered to outsider shareholders is important because it determines the number of firms listed and the value of the stock. The results are depicted by table 2.

Table 2. The degree of protection to outsider shareholders.

Response	Frequency	Percent	Cumulative Percent
Strongly agree	17	44.7	44.7
Agree	15	39.6	84.3
Neither Agree nor Disagree	1	2.6	86.9
Disagree	1	2.6	89.5
Strongly Disagree	4	10.5	100
Total	**38**	**100.0**	

The study indicates that 44.7% strongly agree that the prudential regulation offered in Kenya do not sufficiently protect the interests of outsider shareholders, 39.6% agree, 2.6% neither agree nor disagree, and 2.6% disagree while 10.5% strongly disagree. The majority (84.3%) do not consider the existing prudential regulations sufficient in protecting outsider shareholders.

Iii. Presence of Gaps and Overlaps in Financial Regulation System

The presence of gaps and overlaps in the financial regulation system leads to lack of clear policies and enforcement mechanisms in shareholder protection leading to increased financial risks. Table 3 depicts the results on the presence of gaps and overlaps in financial regulation system.

Table 3. Presence of gaps and overlaps in financial regulation system

Response	Frequency	Percent	Cumulative Percent
Strongly agree	14	36.8	36.8
Agree	9	23.8	60.6
Neither Agree nor Disagree	1	2.6	63.2
Disagree	10	26.8	90.0
Strongly Disagree	4	10.0	100
Total	**38**	**100.0**	

The study indicates that the majority of the respondents (60.6%) agree that there are numerous gaps and overlaps in the financial regulatory system in Kenya. Out of these, 36.8% of the respondents strongly agree, 23.8% agree, 2.6% neither agree nor disagree, 26.8% disagree while 10.0% strongly disagree.

Iv. Availability of Adequate Supporting Infrastructure for Enforcement

Availability of supporting infrastructure for prudential regulation enforcement is important because it makes implementation of the policies more efficient hence lowering the financial risk. Table 4 depicts the research findings.

Table 4. Availability of supporting infrastructure for prudential regulation enforcement

Response	Frequency	Percent	Cumulative Percent
Strongly agree	19	50.0	50.0
Agree	7	18.4	68.4
Neither Agree nor Disagree	0	0	68.4
Disagree	8	22.6	89.5
Strongly Disagree	4	9.0	100
Total	**38**	**100.0**	

The study indicates that the majority of the respondents (68.4%) concur that the prudential regulation enforcement system in Kenya does not have adequate supporting infrastructure to control financial risk. Out of these, 50.0% of the respondents strongly agree 18.4% agree, 26.6% disagree while 10.0% strongly disagree.

V. Effect of Better Protection on Minority Shareholders on Valuation of Firms

Better protection on minority shareholders translates to an increase in valuation of firms. The findings of the study are depicted by table 5.

Table5. Effect of better protection on minority shareholders on valuation of firms

Response	Frequency	Percent	Cumulative Percent
Strongly agree	9	23.7	23.7
Agree	23	60.5	84.2
Neither Agree nor Disagree	0	0	84.2

Disagree	4	10.3	94.7
Strongly Disagree	2	5.5	100
Total	**38**	**100.0**	

The study indicates that 23.7% of the respondents strongly agree that better protection on minority shareholders leads to higher valuation of firms, 60.5% agree, 10.3% disagree while 5.5% strongly disagree. The majority of the respondents (84.2%) agree that better minority shareholder protection minimizes financial risk.

Vi. The Consequences of Absence of Clear Measures in Prudential Supervision.

Absence of clear measures in prudential supervision encourages operations which are not efficient by the firms, and forces investors to use less than optimal contracts to assure ownership and control rights, thus increasing the financial risk of the firm. The findings are demonstrated in table 6.

Table 6. The consequences of absence of clear measures in prudential supervision.

Response	Frequency	Percent	Cumulative Percent
Strongly agree	16	42.1	42.1
Agree	9	23.7	65.8
Neither Agree nor Disagree	2	5.3	71.1
Disagree	4	10.5	81.6
Strongly Disagree	7	18.4	100
Total	**38**	**100.0**	

The study indicates that 42.1% of the respondents strongly agree that the absence of clear penalties for non-compliance leads to increase in financial risk, 23.7% agree, 5.3% neither agree nor disagree, 10.5% disagree while 18.4% strongly disagree. The majority of the respondents (65.8%) concur that absence of clear penalties for non-compliance leads to an increase in financial risk.

VII. Quantitative Analysis

Linear Regression Model of Financial Risk/ Prudential Supervision

The linear regression models the relationship between the dependent variable financial risk and the independent variable prudential supervision. The results in table 7 indicate $\boldsymbol{R^2}$= .342 and ***R*** = .585. ***R*** value points to a strong linear relationship between prudential supervision and the financial risk of companies listed on the NSE. The $\boldsymbol{R^2}$ indicates that explanatory power of the independent variables is 0.342. This means that about 34.2% of the variation in financial risk is explained by the model $\boldsymbol{FR = \beta 0 + \beta 5(PRUD)}$ and 65.8% is unexplained by the model. Adjusted $\boldsymbol{R^2}$ is a modified version of $\boldsymbol{R^2}$ that has been adjusted for the number of predictors in the model by less than chance. The adjusted $\boldsymbol{R^2}$ of 0.339 which is slightly lower than the R^2 value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted $\boldsymbol{R^2}$ of indicates that about 33.9% of the changes in the financial risk is explained by the model and 66.1% is not explained by the model $\boldsymbol{FR = \beta_0 + \beta_5(PRUD)}$. This means that the influence of prudential supervision on the financial risk of listed companies on the NSE is not high. Presence of prudential supervision increases investor confidence but inadequate legal tradition and infrastructure leads to increase in financial risk. This is corroborated by the findings by [31].

Table 7. Model of Financial risk/ Prudential supervision

Model	R	R Square	Adjusted R Square
1	.585	.342	.339

a. Predictors: (Constant), prudential

The ANOVA test in table 8 indicates that prudential supervision has significant effect on financial risk of companies listed on the NSE since the p value is actual 0.001 which is less than 5% level of significance. The linear regression model $\boldsymbol{FR = \beta_0 + \beta_5(PRUD)}$ where FR is Financial Risk and PRUD is prudential regulation and supervision. The actual P value was 0.001 implying that the model was significant. The study therefore rejects the null hypothesis;

Ho: Prudential regulation and supervision does not significantly influence the financial risk of companies listed on the NSE.

Table8. ANOVA of Financial risk/prudential supervision

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.891	1	.891	18.696	.001[a]
	Residual	1.715	36	.048		
	Total	**2.606**	**37**			

b. Dependent Variable: Financial risk

The table 9 indicates there was positive gradient which reveals that an increase in prudential regulation and supervision leads to increased financial risk of companies listed on the NSE. Studies show that increase in prudential regulation and supervision leads to decrease on financial risk [5]. However it is the enforcement that produces the positive results. The results of the study pointed to numerous gaps and overlaps leading to lack of efficiency in enforcement of the regulations hence an increase in financial risk.

Table9. Model of coefficients

Model		Coefficients		Sig.
		B	Std. Error	
1	(Constant)	4.064	.140	.000
	prudential	.143	.033	.000

a. **Dependent Variable: Financial risk**

VIII. Findings and Conclusion

The results indicate that prudential regulation and supervision positively influences financial risk of listed companies on the NSE. Tests on individual constructs indicated that the majority of respondents support elaborate prudential regulation and supervision, this is corroborated by the findings of a study by [31]. The majority of the respondents do not consider the prudential regulations available sufficient in protecting outsider shareholders. This is reflected in the low dividend pay-out by the firms. This is corroborated by the findings by [5]. Findings also show inadequate legal tradition and law enforcement which determine the shaping of financial contracts. This increases financial risk of the listed companies, and the findings are corroborated by the findings by [25].

More specifically, the existing prudential regulation and supervision leads to increase in financial risk of listed companies on the NSE. This is corroborated by [32] who points out that the proposition to limit instability and risk poses the danger of disfiguring the system instead of only regulating it. This is due to the dynamic and complexity nature of financial systems. Furthermore, overregulation has significant costs not only to the private businesses regulated, which will have to devote more time and money to compliance, but also to the regulators and supervisors themselves hence increasing the financial risk.

Despite the slight changes that have taken place on the NSE in terms of listed companies, such as self-listing of the NSE, the composition remains the same and also the challenges are similar to 2012-2013.

IX. Recommendations

The study has the following recommendations

1) Policies should be put in place to ensure that prudential regulation and supervision have very minimal gaps and overlaps in order to make the process efficient and not prohibitive and inhibitive to the Companies being regulated.
2) Proper enforcement rules and measures should be put in place to ensure compliance to the rules which are intended to protect investors. The rules should be enforced and punitive measures put against those who break the rules. The supervisory authorities should have not only the legal power to search for a solution within the financial system but also the legal power to impose them. This will improve investor confidence.

References

[1] R. La Porta, F. L´opez-de-Silanes, A. Shleifer, and R. W. Vishny. Investor protection and corporate valuation. *Journal of Finance 57 (3)*, 2002, 1147–1170.

[2] N. Mutuku, Financial Sector Regulation: The Way Forward (2009) *Presentation in Institute of Investment Professionals East Africa Seminar*

[3] N. Kuria. Investor protection and the capital markets (corporate governance) (market intermediaries) regulations 2011: a critique doctoral diss., University of Nairobi, Kenya, 2012.

[4] Okelo C.A, Namusonge G.S, Iravo M.E (2014) Effect of loan contract terms on the financing of Small and Medium Enterprises (SMEs): A case of Mombasa County, *International Journal of Scientific & Engineering Research, 5 (5)*, 2014.

[5] R. La Porta, F. Lopez-de-Silanes, A. Shleifer, & R. Vishny, (2000). Investor protection and corporate governance. *Journal of financial economics*, 58(1), 2000, 3 – 27.

[6] R. Levine, (2005). Finance and growth: Theory and evidence. *Handbook of economic growth*, 1, 865-934.

[7] J. C. Botero, S. Djankov, R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. The regulation of labor. *The Quarterly Journal of Economics*, 119(4), 2004, 1339-1382.

[8] S. Djankov, C. McLiesh, and A. Shleifer, Private credit in 129 countries. *Journal of financial Economics*, 84(2), 2007, 299-329.

[9] A. De Miguel, J. Pindado, and C. De La Torre, Ownership structure and firm value: New evidence from Spain. *Strategic Management Journal*, 25(12), 2004, 1199-1207.

[10] R. G. Rajan, and L. Zingales, What do we know about capital structure? Some evidence from international data. *The journal of Finance*, 50(5), 2012, 1421-1460.

[11] S. Djankov, R. La Porta, F. Lopez-de-Silanes, and Shleifer, A., The law and economics of self-dealing. *Journal of Financial Economics*, 88(3), 2008, 430-465.

[12] S. L. Christensen, & K. Grime, Transparency and Corporate Governance. *In Proceedings of the International Association for Business and Society*, 17, 2006, 209-212.
[13] B. Maury, & A. Pajuste, Multiple large shareholders and firm value. *Journal of Banking & Finance*, 29(7), 2005, 1813-1834.
[14] D. R. Fraser, H. Zhang, & C. Derashid, Capital structure and political patronage: The case of Malaysia. Journal of Banking & Finance, 30(4), 2006, 1291-1308.
[15] M. Carey, 2001. "Small Business Lending and the New Basel capital Accord." Paper presented at the Global Conference on Credit Scoring, Washington, D. C., 2-3 April.
[16] N. Schonborn, Financial versus operative hedging of currency risk, *Global Finance Journal* 14, 2010, 1-18.
[17] T. Henschel, Risk management practices of SMEs: evaluating and implementing effective risk management systems. Erich Schmidt Verlag GmbH & Co KG, 68, 2008.
[18] E. Benos, and M. S. Weisbach, Private benefits and cross-listings in the United States. *Emerging Markets Review*, 5(2), 2004, 217-240.
[19] D. A. Weisbach, The (Non) Taxation of Risk. U Chicago Law & Economics, *Olin Working Paper*, 203 2004.
[20] S. Rossi, and P. F. Volpin, Cross-country determinants of mergers and acquisitions. Journal of Financial Economics, 74(2), 2004, 277-304.
[21] T. Beck, A. Demirguc-Kunt, and L. Ross, Law and Finance: Why Does Legal Origin Matter*? Journal of Comparative Economics*, 31(4), 2003, 653–75.
[22] P. G. Mahoney, (2001), The Common Law and Economic Growth: Hayek Might Be Right*, Journal of Legal Studies*, 30(2), 2001, 503–525.
[23] J. Raj, Is There a Case for a Super Regulator in India? Issues and Options. *Economic and Political Weekly*, 2005, 3846-3855.
[24] H. Huang and T. V. Thi, The Determinants of Capital Structure in Shipping Companies, Masters Thesis, Göteborg University, 2002.
[25] J. F. Weston, and T. E. Copeland,Managerial Finance, 8th edn. with tax update. The Dryden Press, Chicago, 1989.
[26] S. Claessens, & L. Laeven, Financial dependence, banking sector competition, and economic growth. *Journal of the European Economic Association*, 3(1), 2005, 179-207.
[27] S. Rossi, & P. F. Volpin, Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), 2004, 277-304.
[28] U. Bhattacharya and H. Daouk, The World Price of Insider Trading, The Journal of Finance, 57(1), 2002, 75-108.
[29] O. M. Mugenda, & A. G. Mugenda, Research methods: quantitative and qualitative approaches. Nairobi: Acts press, 2003.
[30] F. L. Pryor, Economic systems of developing nations. *Comparative Economic Studies*, 48(1), 2006, 77-99.
[31] M. M. Prates, 2013, Why Prudential Regulations Will Fail to Prevent Financial Crises. A Legal Approach. Working Papers Brasilia No. 335, 2013, 1-32