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EARNINGS OPACITY ON SHARE PRICE ANNUALIZED VOLATILITY AMONG QUOTED NON-FINANCIAL COMPANIES AT NAIROBI SECURITIES EXCHANGE

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Abstract
The study examined the effect of earnings opacity on share price annualized volatility among non-financial companies quoted at Nairobi Securities Exchange. Earnings opacity is a measure that reflects how little information there is in a firm's earnings number about its true, but unobservable, economic performance. The study was guided by pragmatic research philosophy and adopted a quantitative research design to evaluate earnings opacity and share price annualized volatility among quoted non-financial firms at Nairobi securities exchange. A census study of 39 non -financial companies quoted at the NSE was employed, of which 33 met data requirements. The study used secondary data from audited annual financial reports of the quoted firms for twenty years, from January 2003 through December 2022. The data collected was analysed using descriptive and inferential statistics. The hypothesis that there is no significant effect of earnings opacity on share price annualized volatility among quoted non-financial companies at Nairobi Securities was tested at a 95% confidence interval using t-statistic and p-value. The study used panel data Ordinary Least Square method technique for research analysis. Panel regression analysis using random effects model was conducted after necessary normality, model specification, homoscedasticity, linearity and autocorrelation diagnostic tests. Weighted Least Squares (WLS) is the preferred model for correcting heteroscedasticity and improving model fit. Findings show that earnings opacity had a significant effect ($p = 0.00014$, $R^2 \approx 0.022$) on share price annualized volatility, among quoted non-financial firms at the Nairobi Securities Exchange. The findings provide critical insights for investors, regulators, and policymakers seeking to enhance market transparency and reduce informational risk in emerging capital markets.

Keywords: Earnings Opacity, Share Price Annualized Volatility, Nairobi Securities Exchange, Quoted Non-Financial Companies

1. Introduction

Earnings opacity is a measure that reflects how little information there is in a firm's earnings number about its true, but unobservable, economic performance (Bryan & Mason, 2022). Due to various factors ranging from: management motivation, accounting policy, and compliance with accounting standards, recorded earnings may not be transparent or may be opaque. The secret to a firm's earnings can result from an incident in which managers are motivated to maximize profits. This could be attributed, in particular, to the flexibility in the application of accounting standards, which do not explicitly prescribe rules for multiple business operations and do not follow consistent

criteria. In some cases, by voluntary delivering detailed earnings report (Hyndman & McConville, 2016), management has no interest or cannot resolve the inefficiency of this model. Earnings opacity tests how little knowledge a company has about its real yet non-observable economic performance in its earnings number (Licerán-Gutiérrez & Cano-Rodríguez, 2020). There is a gap in literature on measures of earnings opacity namely earnings opacity index, earnings aggressiveness, earnings smoothness and loss avoidance impact share price annualized volatility. Thus, an evaluation of earnings opacity and share price volatility focusing on the quoted non-financial firms is an important matter for developing countries like Kenya. Therefore, this study sought to examine the effect of earnings opacity on share price annualized volatility among non-financial companies listed at Nairobi Securities Exchange.

Nairobi securities exchange has been performing well since the automation of NSE activities in 2004 as evidenced by the NSE 20 share index which increased from 2,738 in 2004 to 5,444 in 2007 before the decline in 2009 and bouncing back to better performance in 2012 at 6,173(NSE,2023) This has been brought about by the increase in companies issuing initial public offers and rights issues, which has given investors more opportunities to invest. The trading experts and specialists in the companies whose stocks are listed have been concentrating on building the markets for their securities. Stability in the stock's performance is highly desirable in all companies.

However, the shares prices at the Nairobi securities exchange have proved so versatile and non-stable. The investments in securities are too risky and hard to predict their future directions. According to behavioral theory of rational expectations, investors prefer low risk-low returns to high risk-high returns investments. This could be the reason behind unpopularity of securities market in Kenya. This study seeks to establish the effect of earnings opacity on share price annualized volatility among non-financial Companies listed at the Nairobi Securities Exchange. Scanty information is available in Kenya on the factors that influence the stock prices in the NSE, and how to interpret them and maybe the possible reactions to shield the investors and the market players from losses.

2. Theoretical Background

The study is anchored on free cash flow (FCF) theory to explain the hypothesis of the study. FCF theory, introduced by Jensen (1986), posits that firms with cash exceeding what is needed for positive NPV projects face increased agency problems, as managers may misuse this excess cash for unprofitable investments or value-decreasing takeovers. This misuse stems from conflicts between shareholders and managers, where shareholders prefer excess cash to be returned via dividends, thus raising stock prices, while managers may seek to retain control. High FCF often leads to higher market valuation but may come at the cost of long-term growth. According to Iriyadi (2019) and Ali et al. (2018), FCF is a key indicator of financial health, reflecting the cash available after operational and capital expenses, and it helps assess a firm's ability to generate real profits, unlike earnings that can be manipulated. Empirical studies, such as those by Shubita (2021) and Al-Attar & Maali (2017). support Jensen's theory by showing that FCF positively impacts market value and may influence earnings quality and management practices. The free cash flow theory is relevant to this study and linked with earnings opacity in that the excess cash flows are at the heart of the interest between the stakeholders and the stewards of the non-financial firms as whether to reinvest them in shares or issue them as dividends and there-in they affect the earnings on share prices.

From an empirical perspective earnings opacity is the extent to which the distribution of reported earnings of firms fails to present information about true distribution of (unobservable) economic earnings of firms (Barigou & Delong, 2022). Studies on earnings opacity and share price annualized volatility provided mixed results. These results are attributed to many factors, including a firm's fundamental value and noise trading that influence a firm's stock return. Earning opacity is also influenced by the speed and diffusion of new information in the capital market, market risk and industry factors. Few studies have examined the relationship between the different measures of earnings opacity and share price annualized volatility in Kenya, where little information is available about the association between earnings opacity and a firm's stock return variation. The foregoing theoretical and empirical literature review culminates in a conceptual framework as shown in figure 1 below:

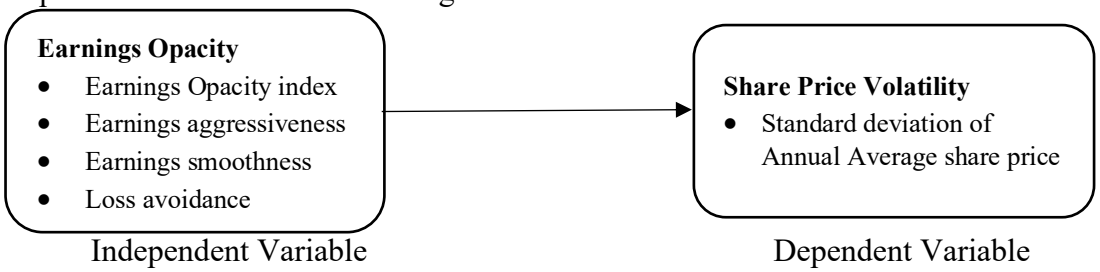

Figure 1. Conceptual Framework (Source, Author, 2025)

3. Methods

The study was guided by pragmatic research philosophy and adopted a quantitative research design to evaluate earnings opacity and share price annualized volatility among quoted non-financial firms at Nairobi securities exchange. A census study of 39 non - financial companies quoted at the NSE was employed, of which 33 met data requirements. The study used secondary data from audited annual financial reports of the quoted firms for twenty years, from January 2003 through December 2022. The data collected using a data collection schedule was analysed using descriptive and inferential statistics.

A panel regression model was employed to test the effect of earnings opacity on share price annualized volatility among quoted non-financial companies at Nairobi Securities Exchange as follows:

$$SPAV\ i,\ t = \alpha i,\ t + \beta 1\ X1i,\ t + \varepsilon\ i,\ t$$

Where:

SPAV i,t = Share Price Annualized Volatility
α = Constant Term
X1i, t = Earnings Opacity (EO) for firm i at time t
β1 = Regression coefficient
i = 1,2,3….33 Firms listed at Nairobi Securities Exchange
t = Refers to the time in years from the year 2003 to 2022
ε i,t = Error term.

The study tested the hypothesis that earnings opacity had no significant effect on share price annualized volatility among quoted non-financial companies at Nairobi Securities Exchange at a 95% confidence interval using t-statistic and p-value.

4. Results and Discussion

The study examined the effect of earnings opacity on share price annualized volatility for non-financial firms quoted on NSE. The study used panel data Ordinary Least Square

method technique for analysis for a twenty-year period (2003 to 2022) to evaluate the effect of earnings quality on share price annualized volatility among quoted non-financial firms at Nairobi Securities Exchange. To ensure that enough degrees of freedom in the models to be estimated are available, yearly data covering the entire study period was collected. The study used balanced panel models.

4.1 Summary of Descriptive Statistics for Earnings Opacity

The table 1 below shows summary statistics for earnings opacity. It contains the basic features of the data trends which comprised the means, standard deviation, standard errors, maximum and minimum values computed for earnings opacity variable.

Table 1. Summary Statistics for Earning Opacity

EO							
Year	Mean	Std	Min	25%	50%	75%	Max
2003	0.0605	0.0764	-0.0027	0.0099	0.0224	0.0617	0.2158
2004	0.0364	0.0418	-0.0016	0.0126	0.0197	0.0473	0.2035
2005	0.0540	0.0970	-0.0210	0.0070	0.0267	0.0498	0.5029
2006	0.0356	0.0425	-0.0022	0.0104	0.0198	0.0430	0.1824
2007	0.0333	0.0444	-0.0470	0.0059	0.0224	0.0411	0.1860
2008	0.0412	0.0744	-0.0027	0.0077	0.0179	0.0446	0.3856
2009	0.0543	0.0803	-0.0035	0.0068	0.0254	0.0591	0.3809
2010	0.0592	0.0915	-0.0132	0.0104	0.0201	0.0587	0.4251
2011	0.0604	0.1072	-0.0640	0.0092	0.0215	0.0538	0.5415
2012	0.0885	0.2292	-0.0009	0.0079	0.0187	0.0747	1.3524
2013	0.0877	0.2392	-0.0017	0.0118	0.0208	0.0736	1.4147
2014	0.0847	0.2192	-0.0008	0.0097	0.0182	0.0516	1.2752
2015	0.0753	0.2048	-0.0130	0.0046	0.0161	0.0441	1.1784
2016	0.0725	0.1664	-0.0270	0.0080	0.0158	0.0434	0.8830
2017	0.0716	0.1760	-0.0307	0.0064	0.0142	0.0344	0.9090
2018	0.0826	0.2316	-0.0125	0.0043	0.0107	0.0399	1.2298
2019	0.1129	0.3456	-0.0091	0.0063	0.0160	0.0570	1.8967
2020	0.0897	0.2489	-0.0165	0.0033	0.0129	0.0422	1.3174
2021	0.0898	0.2589	-0.0143	0.0048	0.0150	0.0439	1.4071
2022	0.0868	0.2565	-0.0181	0.0052	0.0158	0.0385	1.4130

EO						
Year	Skewness	Kurtosis	Variance	CI Lower	CI Upper	Range
2003	1.3075	0.0766	0.0058	0.0320	0.0890	0.2185
2004	2.3553	6.6353	0.0017	0.0208	0.0520	0.2051
2005	3.5685	13.5992	0.0094	0.0178	0.0903	0.5239
2006	2.0130	3.7194	0.0018	0.0205	0.0507	0.1846
2007	1.7289	3.5933	0.0020	0.0176	0.0491	0.2330
2008	3.5093	12.7947	0.0055	0.0149	0.0676	0.3883
2009	2.4874	6.6399	0.0064	0.0263	0.0823	0.3844
2010	2.3887	6.0415	0.0084	0.0267	0.0916	0.4382
2011	3.0078	10.2958	0.0115	0.0230	0.0978	0.6055
2012	4.9949	25.0168	0.0525	0.0098	0.1673	1.3533
2013	5.0867	25.6744	0.0572	0.0055	0.1699	1.4164
2014	4.8026	23.3892	0.0481	0.0094	0.1600	1.2760

2015	4.7176	22.6046	0.0419	0.0049	0.1456	1.1914
2016	3.7328	14.9252	0.0277	0.0144	0.1306	0.9100
2017	3.7321	14.2613	0.0310	0.0092	0.1340	0.9396
2018	4.1645	17.4421	0.0536	-0.0009	0.1660	1.2424
2019	4.6785	21.4843	0.1195	-0.0139	0.2397	1.9058
2020	4.2646	18.2211	0.0620	-0.0032	0.1827	1.3340
2021	4.4965	20.1476	0.0670	-0.0052	0.1848	1.4213
2022	4.6801	21.6146	0.0658	-0.0073	0.1809	1.4310

4.2 Summary of Descriptive Statistics for Share Price Annualized Volatility

Table 2. Summary Statistics for share price annualized volatility

	SPAV						
Year	Mean	Std	Min	25%	50%	75%	Max
2003	0.51079	0.42960	0.01935	0.10258	0.50326	0.80027	1.44322
2004	0.42069	0.29949	0.02175	0.12882	0.44186	0.61810	1.02317
2005	0.31817	0.26333	0.01596	0.09658	0.25868	0.49196	0.92264
2006	0.44519	0.40200	0.02057	0.12891	0.37022	0.53812	1.72132
2007	0.46142	0.30541	0.01917	0.25494	0.45565	0.63679	1.31712
2008	0.49539	0.31721	0.01478	0.22553	0.42484	0.63668	1.22734
2009	0.50284	0.29012	0.01011	0.30251	0.49628	0.67814	1.10638
2010	0.34483	0.38112	0.01482	0.04845	0.12492	0.53562	1.14286
2011	0.34288	0.36474	0.00448	0.04226	0.09924	0.67758	1.14081
2012	0.31280	0.33343	0.01401	0.03397	0.11446	0.53435	1.05688
2013	0.29824	0.33293	0.00889	0.03976	0.10491	0.49810	1.09795
2014	0.33843	0.36334	0.01650	0.05145	0.11602	0.53460	1.09672
2015	0.32643	0.35045	0.01334	0.04054	0.09029	0.61156	1.09987
2016	0.30039	0.37816	0.00771	0.02328	0.04836	0.51269	1.16667
2017	0.28125	0.31492	0.00639	0.02321	0.07038	0.56757	1.09571
2018	0.24304	0.38863	0.00265	0.02604	0.07784	0.22010	1.85779
2019	0.25544	0.35982	0.00265	0.01497	0.04701	0.39503	1.68860
2020	0.67484	0.37005	0.07249	0.48036	0.59959	0.79027	1.68932
2021	0.389653	0.328384	0.004826	0.234259	0.298429	0.436355	1.68932
2022	0.342609	0.25405	0.011041	0.175837	0.345358	0.471737	1.380282

	SPAV					
Year	Skewness	Kurtosis	Variance	CI Lower	CI Upper	Range
2003	0.5753	-0.8238	0.1846	0.3504	0.6712	1.4239
2004	0.2632	-1.0471	0.0897	0.3089	0.5325	1.0014
2005	0.7065	-0.5129	0.0693	0.2198	0.4165	0.9067
2006	1.6142	2.6229	0.1616	0.3026	0.5877	1.7008
2007	0.5967	0.3821	0.0933	0.3531	0.5697	1.2980
2008	0.4877	-0.5350	0.1006	0.3829	0.6079	1.2126
2009	0.1859	-0.4655	0.0842	0.4016	0.6041	1.0963
2010	0.9600	-0.4741	0.1453	0.2097	0.4800	1.1280
2011	0.7271	-0.9093	0.1330	0.2156	0.4701	1.1363
2012	0.8458	-0.5760	0.1112	0.1983	0.4273	1.0429
2013	0.9605	-0.4423	0.1108	0.1839	0.4126	1.0891
2014	0.8867	-0.6698	0.1320	0.2136	0.4632	1.0802
2015	0.7671	-0.8584	0.1228	0.2060	0.4468	1.0865

2016	1.0535	-0.2645	0.1430	0.1684	0.4323	1.1590
2017	0.8619	-0.4162	0.0992	0.1696	0.3929	1.0893
2018	2.6429	7.5806	0.1510	0.1029	0.3832	1.8551
2019	2.2617	6.1492	0.1295	0.1235	0.3874	1.6860
2020	0.9490	1.0626	0.1369	0.5367	0.8130	1.6168
2021	2.4056	6.5312	0.1078	0.2692	0.5101	1.6845
2022	2.1284	6.9874	0.0645	0.2494	0.4358	1.3692

4.3 Correlation Analysis

The data was subjected to correlation analysis to test for highly correlated variables.

Table 3. Correlation coefficients results

	SPAV	EO
SPV	1.0000	0.1486
EO	0.1486	1.0000

Table 3 shows the correlation coefficient of earnings opacity was 0.1486 which implied that there was a strong positive relationship between earnings opacity and share price annualized volatility among quoted non-financial companies at Nairobi Securities Exchange. These align with the regression results, suggesting the variable is the most relevant predictors.

4.4 Diagnostic Tests

4.4.1 Test of Normality

Table 4. Normality Test

ADF Test Results (Measure of Unit Root Test)						
	ADF Statistic	p-value	1% Critical Value	5% Critical Value	10% Critical Value	Stationary
EO	-5.2250	0.0000	-3.4407	-2.8661	-2.5692	Yes
SPV	-4.8996	0.0000	-3.4408	-2.8661	-2.5692	Yes

Table 4 shows the results of the Augmented Dickey-Fuller (ADF) test which indicate whether the data in each column is stationary or non-stationary. For EO the ADF Statistic was -5.2250, while the p-value was 7.82×10−67.82 \times 10^ {-6}7.82×10−6. Implying that the data was stationary at all significance levels, meaning that data fluctuates around a stable value.

4.4.2 Multicollinearity Test

The tolerance and variance inflation factor (VIF) values were calculated to assess the multicollinearity among the independent variables. Table 5 below presents the results of the analysis.

Table 5. Bivariate Regression

Bivariate Regression Results with SPAV as the Dependent Variable:				
Independent Variable	Coefficient	Intercept	R-squared	P-value
EO	0.2888	0.3584	0.0221	0.0001

Table 5 shows that there was no multicollinearity in the regression model of the study as the earnings opacity variable one has statistically significant relationships with SPV (p-values < 0.05).

The Variance Inflation Factor (VIF) results are as follows:

Table 6. The Variance Inflation Factor (VIF)

Variable	VIF
EO	2.1841
SPAV	1.9413

Table 6 shows the results of the Variance Inflation Factor (VIF) which measures the degree of multicollinearity among independent variables in a dataset. A VIF value provides insight into how much the variance of a regression coefficient is inflated due to multicollinearity with other variables. Table 7 below shows the interpretation of the results:

Table 7. An interpretation of the results:

Variable	VIF	Interpretation
EO	2.18	Low multicollinearity. No concerns.
SPV	1.94	Low multicollinearity. No issues with this variable.

Typically, a VIF value of 5 or above indicates significant multicollinearity that could affect the stability of the regression model. Earnings opacity VIF values are below 5, indicating low multicollinearity.

4.4.3 Test for Stationarity - Unit Root Test

The study tested stationarity to establish whether the models contained spurious regression.

Table 8. Unit Root Test

ADF Test Results (Measure of Unit Root Test)						
	ADF Statistic	p-value	1% Critical Value	5% Critical Value	10% Critical Value	Stationary
EO	-5.2250	0.0000	-3.4407	-2.8661	-2.5692	Yes
SPV	-4.8996	0.0000	-3.4408	-2.8661	-2.5692	Yes

Table 8 earnings opacity ADF Statistic is -5.2250, with a p-value of 7.82×10^-6. This result means the data is stationary at all significance levels, suggesting it fluctuates around a stable value

Table 9. Granger causality test

	Lag 1 P-value	Lag 2 P-value	Granger Causal?
EO	0.4215	0.7640	False

Table 9 the Granger causality test results show that earnings opacity does not predict SPAV because p-values are greater than 0.05. This means that looking at past values of these variable does not help in forecasting future SPV. It's possible that other factors not included in this analysis are affecting SPV

Table 10. Bivariate model

	R-squared	Adjusted R-squared	F-statistic	P-value	Breusch-Pagan P-value	Durbin-Watson	VIF
EO	0.0221	0.0206	14.6740	0.0001	0.8833	0.8257	1.0

Table 10 bivariate model analysis can be summarized in terms of model fit, specifically the R-squared and adjusted R-squared values. Earnings opacity has an R^2 of 0.0221 and an adjusted R^2 of 0.0206 indicating that this variable explains most of the variance in the dependent variable (DV). Significance tests, including the F-statistic and p-values, reveal that earnings opacity variable ($p = 0.00014$) is a significant predictor of the DV. Residual

diagnostics for heteroskedasticity, assessed through the Breusch-Pagan test, indicate that only earnings opacity does not presents a heteroskedasticity issue, with a p-value of 0.8833. Autocorrelation was evaluated using the Durbin-Watson test, where the models exhibited low Durbin-Watson values (~0.8). This suggests strong positive autocorrelation among the residuals. A multicollinearity check was performed using Variance Inflation Factor (VIF) values, with earnings opacity VIF value equal to 1.0, indicating no multicollinearity concerns in the bivariate model.

4.4.4 Co-integration Test

Table 11. Co-integration test Engle-Granger Test

Cointegration Test Results (Engle-Granger Test)					
Independent Variable	Test Statistic	P-value	10% Critical Value	5% Critical Value	1% Critical Value
Earnings Opacity	-5.01	0.00016	-3.051	-3.346	-3.913

Table 11 shows that earnings capacity exhibits significant cointegration relationship with SPAV, with a test statistic of -5.01. This finding suggests that long-term equilibrium relationships exist between SPAV and each of the EO variable. Long-term effects are examined using the Vector Error Correction Model (VECM) to identify the equilibrium relationship, while short-term effects are analysed through the Error Correction Model (ECM) to evaluate how SPAV adjusts to deviations from the long-run equilibrium.

4.4.5 Hausman Test for Model Suitability

The study used panel data to carry out the research analysis for 20 years starting from 2003 to 2022. Table 12 summarizes the results of the Hausman test: Based on the outcome of the Hausman specification test, the study therefore used the random effects model.

Table 12. Hausman Test – effect of earnings opacity on share price annualized volatility

Hausman Statistic (HHH)			
	Fixed Effects Coefficients	Std. Error	P-Value
EO	0.345355649	0.102791605	0.000825997

4.4.6 Homoscedasticity Test

The outcome of the test as shown in Table 10 was based on the pooled unstructured/undated data loading option.

Table 13. Homoscedasticity Test Results

Model	Adjusted R^2	EO (p-value)	Condition Number
Robust Standard Errors (HC3)	0.03	0.01	531067928.7
Weighted Least Squares (WLS)	0.74	0.00	267244260.3

Table 13 Homoscedasticity test results for the Breusch-pagan test p-value = 0.0037 and since the p-value is less than 0.05, we reject the null hypothesis of homoscedasticity. This suggests that heteroscedasticity is present in the data. The results of the white's test p-value = 1.0. Since the p-value is very high (greater than 0.05), we fail to reject the null hypothesis of homoscedasticity. This suggests no strong evidence of heteroscedasticity under white's test. The Breusch-Pagan test suggests heteroscedasticity (variance of residuals is not constant). However, White's test does not confirm this, indicating mixed evidence. Robust standard errors were applied to correct for heteroscedasticity in the regression model. For the robust standard errors (HC3) model, the adjusted R^2 was 0.032,

indicating that the model explains only 3.2% of the variance in the dependent variable. EO variable whose (p = 0.006) was statistically significant implying EO strongly impacts the SPAV.

4.4.7 Testing for Autocorrelation

Table 14. The Durbin-Watson results presented in a Data Frame:

EO	0.262306
SPV	0.374503

Table 14 results obtained shows earnings opacity has 0.26 which indicate strong positive autocorrelation, suggesting that residuals are not independent.

4.5 Panel Regression Results and Test for Hypothesis

Multivariate regression analysis was used to determine the influence of the earnings opacity as specified by multiple regression model specified.

Table 15. Multi Regression Analysis

OLS Regression Results			
Dep. Variable:	SPV	R-squared:	0.039
Model:	OLS	Adj.R-squared:	0.032
Method:	Least Squares	F-statistic:	5.236
Date:	Wed, 05 Mar 2025	Prob (F-statistic):	0.000101
Time:	19:58:25	Log-Likelihood:	-235.78
No. Observations:	652	AIC:	483.6
Df Residuals:	646	BIC:	510.4
Df Model:	5		
Covariance Type:	nonrobust		
Coef	Std	Err	P>|t|
Const	0.2810	0.029	0.000
EO	0.3454	0.103	0.001
Omnibus:	96.140	Durbin-Watson:	
Prob(Omnibus):	0.000	Jarque-Bera (JB):	
Skew:	1.017	Prob(JB):	
Kurtosis:	4.012	Cond.No.	

Notes:

1) Standard Errors assume that the covariance matrix of the errors is correctly specified.
2) The condition number is large, 5.31e+08. This might indicate that there are strong multicollinearity or other numerical problems.

The multivariate linear regression analysis in Table 15 shows that the model R- was 0.O39, which suggests that approximately 3.9% of the variance in share price annualized volatility among quoted non-financial companies at Nairobi Securities Exchange can be explained by the earnings opacity. Adjusted R-Square: 0.039, meaning the model explains only 3.9% of the variance in share price annualized volatility and accounts for the number of predictors and indicates that the model is reasonably fit for prediction. The F-statistic = 5.236 (p = 0.000101), indicating the overall model is statistically significant, indicating that the variance explained by the model is not due to random chance and that the model is statistically significant, therefore, the model fits. This finding, therefore, confirms the predictive power of the model and, therefore, valid interpretations can be obtained from

it showing the relationships between the variables. The earnings opacity variable (p = 0.001, coef = 0.3454) indicates a significant positive effect on the dependent variable.

4.5.1 Hypotheses Testing of Earnings Variability on Share Price Annualized Volatility

Table 16. Regression Analysis

Variable	R-squared	Adj R-squared	p-value (Overall)
EO	0.022	0.021	0.000140
Multivariate Model	0.0389514	0.031512944	0.000100883

The hypothesis of this study H01 stated that there is no significant effect of earnings opacity on share price annualized volatility among quoted non-financial companies at the Nairobi securities exchange. The results in Table 16 show that earnings opacity had a R^2 = 0.022 which signifies a weak relationship and a p-value = 0.00014 implying that it is statistically significant, while a positive coefficient meant that higher EO increases share price annualized volatility. This means that earnings opacity had a significant weak relationship with share prices annualized volatility among quoted non-financial companies at Nairobi securities exchange during the 20-year period under investigation implying it led to significant share price annualized volatility of quoted non-financial companies at Nairobi securities exchange. Therefore, earnings opacity, has a significant effect on share price annualized volatility for non-financial firms quoted on NSE in Kenya.

5. Conclusion

This study sought to establish the effect of earnings opacity on share price annualized volatility among quoted non-financial firms at the Nairobi Securities Exchange. As it is widely accepted in earnings opacity measurement, opacity is measured through earnings aggressiveness, loss avoidance, and earnings smoothness were used as a proxy indicator of the willingness of the firm managers to share important firm performance information with the investors in their reporting. The earnings opacity (EO) index is a vital tool for evaluating the transparency and reliability of financial reporting over time. Earnings opacity index predictors were found to significantly predict share price annualized volatility among quoted non-financial companies at the Nairobi Securities Exchange. Therefore, the evidence of earnings opacity significantly predicting share price annualized volatility among quoted non-financial companies at Nairobi Securities Exchange confirms the hypothesized relationship for the study in the Nairobi Securities Exchange context. In this study therefore it signifies that as earnings opacity increases, share price annualized volatility tends to decrease. This therefore places a critical emphasis on the need for not only the existence of efficient information flow to support investor decisions but also access to firm performance information.

Drawing from the findings and the conclusions arrived at, several recommendations are made. With a substantial number of Nairobi Securities Exchange listed firms exhibiting potential of failing to accurately report their performance information, it increases the probability of moral hazards in investor decision making and could contribute to higher share price annualized volatility. Since share price annualized volatility adversely affects the performance of stock markets, this study recommends to policy institutions like the Capital Markets Authority of Kenya to develop effective policies on share trading rules to reduce high share volatility. Further, the study established that an increase in interest rates negatively affects the stock market performance. Therefore, the finding of the study recommends to the Central Bank of

Kenya to come up with an effective policy on interest rates to ensure that their rise and fall does not adversely impact the Kenyan economy.

Future research could apply alternative models such as Granger causality tests or ARIMA to examine the causal relationship between earnings quality and share price volatility. Additional variables like earnings management, earnings smoothness, and earnings announcements could also be explored. Qualitative studies focusing on disclosure practices in relation to earnings quality dimensions such as earnings opacity, persistence, and accruals quality are recommended. Moreover, future studies could use alternative measures of earnings quality, including historical restatements, abnormal accruals, or e-loadings, and examine their impact on the cost of capital. This study assumed homogeneity among firms within the same segment, yet firm-specific characteristics like internal controls, governance, debt structure, and auditor type may influence accruals quality and should be investigated. Research could also extend to small and medium enterprises (SMEs), governmental organizations, and firms in other East African Community countries to provide comparative insights beyond large, listed companies in Kenya.

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