

# INTERNAL FINANCING AND SHAREHOLDER WEALTH MAXIMIZATION OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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## ABSTRACT

Internal funds offer firms a unique financing alternative for investments. When a firm retains earnings, it conserves cash flows that can be deployed into available investment opportunities. Similarly, internally generated finances ought to be less costly than externally sourced funds from issuing ordinary shares. When finances are raised internally, firms avoid floatation cost and hence can reduce the overall cost of capital that is used to discount the expected earnings of such firms and consequently earn higher market value. On the contrast, when a firm employs retained earnings in financing, it may reduce the amount available to pay dividends. A reduction in dividends may communicate information to shareholders that the firm's future growth prospects are dwindling. This brings forth information asymmetry to investors and increase uncertainty that could lead to decline in firm market valuation. In the same vein, managers may pursue their own interests using the excess cash resulting from retained earnings and shrink shareholders value. This study set out to explore the effect of internal financing on shareholder wealth maximization of firms listed at the Nairobi Securities Exchange. The study was grounded on pecking order theory, free cash flow theory and information asymmetry hypothesis. The study population consisted of 65 listed firms that yielded 440 firm-year study observations from 2011 to 2018. Panel data analysis was applied to estimate the random effect and fixed regression of internal financing on shareholder wealth maximization. Further, a generalized least square estimator was adopted in attempt to confirm robustness of results. Tests of homoscedasticity and serial correlation as well as the Hausman specification tests were undertaken. The panel data analysis based on random effect model and the generalized least squares estimation findings revealed that internal financing has a negative effect on shareholder wealth. Nevertheless, regardless of the econometric approach employed in the estimation, consistent findings are obtained a sign that the results are robust. The implication of the findings for policy and practice is that internal financing erodes shareholders wealth.

**Keywords:** Listed Firms, Panel Data Regression, Random Effects, Generalized Least Squares

## INTRODUCTION

Since the Modigliani and Miller (1958) seminar paper on financing policies, a substantial number of studies have investigated financing and shareholder wealth maximization. Retained earnings offer firms an alternative to financing for investments. When a firm retains earnings, it conserves cash flows that can be deployed into available investment opportunities; consequently the investment undertaken can maximize shareholders' value in progressive years. Similarly, internally generated finances ought to be less costly than externally sourced funds from issuing ordinary shares (Pandey, 2010). When finances are raised internally, a firm will avoid floatation cost and hence can reduce the overall cost of capital that is used to discount future earnings of such a firm and consequently generate higher market value (Copeland, Weston and Shastri, 2005). In the same vein, the excess cash resulting from retained earnings can be used by managers to pursue their own interests thus shrinking shareholder value.

A firm's dividend policy is synonyms with retention and reinvestment policy. Firms are motivated to

distribute their earnings in dividends when there exist no feasible investment opportunities. Therefore, a firm's corporate policy relating to dividend decision could similarly be its retained earnings policy (Farooq, Rehman, Khan and Bilal, 2017). When firms employ retained earnings in financing, it may reduce the amount available to pay dividends to shareholders. However, a reduction in dividends may communicate information to shareholders that future growth prospects are dwindling. This brings forth asymmetry between firm managers and investors and may lead to decline in firm market valuation. A firm that increases easily their leverage presents lower problems on matter of information asymmetry (Myers, 1984).

Internal financing relates to undistributed earnings that are employed as a firm's alternative source of financing (Copeland et al., 2005). Specifically, the internal financing is a component of shareholder equity which also consists of external share capital, capital reserves and non-controlling interest component. The retained funds are beneficial to a firm when utilized in viable investment opportunities or used to repay debts instead of paying dividends. Likewise, the internal

source of funds provides a cheaper financing alternative than raising external equity. When a firm adopts internal financing, it does not dilute ownership of shareholdings. A firm that retains earnings is perceived to have potential and growth investment opportunities (Pandey, 2010). However, retained earnings are a limited source of financing and uncertainties in growth prospects of a firm increases the opportunity cost of capital for the retained funds.

Shareholders' wealth maximization implies boosting the market price of firms' ordinary shares (Pandey, 2010). Wealth is considered as the present value of expected future cash flows from investment undertaken by a firm. The shareholder wealth maximization is a central objective that firms target to deliver value to its shareholders based on expected cash flows (Copeland, Weston and Shastri, 2005). In an attempt to create value to the shareholders, it is vital to account for the timing and risk of the expected benefits. Colorado (2010) opines that financial decisions result in value to shareholders where funds are invested in opportunities provide a return that compensate for inherent risk and time duration of investment. Wealth maximization goal seeks to maximize shareholders welfare subject to satisfying the welfare of other stake holders. Therefore, managers ought to make investments and financing decisions that preserve long-run shareholder wealth measured by long run market price of ordinary shares relative to that of equally risky investments. In essence it targets to efficiently allocate economic resources and achieve optimum capital formation for benefit of all firm stakeholder and not merely the shareholders.

Corporate finance focuses on decisions that maximize shareholders wealth. According to the pecking order theory, internally generated funds are less costly, contrary to risky debt and particularly equity, which is most expensive (Myers and Majluf, 1984). In this case, managers utilize ploughed back profits to undertake corporate investment in an attempt to maximize shareholders' wealth. However, managers may utilize free cash flow retained in the firms to pursue their own interests as postulated by the free cash flow theory.

Firm size can provide further evidence to the link between internal financing and shareholder wealth maximization. Larger firms may continuously retain revenue reserves and create excess cash flow in a firm if all feasible projects have been implemented (Alves and Silva, 2017). Similarly, debt can influence the nexus between internal financing and shareholder wealth due to the fact that it can reduce free cash flows available to the managers for investing in unfeasible projects (Jensen, 1986). In this case, any retained earnings would be channeled to viable investments or

repayment of regular interest. In order to isolate the effect of firm size and leverage in the link between internal financing and shareholder wealth maximization, the factors are included in the analysis as control variables.

Firms listed at the Nairobi Securities Exchange trade their shares in an organized securities market (Nairobi Securities Exchange, 2018). The firms' share prices are determined by the forces of demand and supply. Investors at the Securities Exchange make informed decisions on which shares to buy or sell. The future prospects of the listed firm based on the investment that the firms are undertaking also provide useful information on the likely value an investor derives by holding the securities of the firms. Past performance by the firms is keenly monitored and acts as a key guideline when making investment decisions. The firms' managers continually undertake financing and investment decisions aimed providing return to the providers of capital. The firm management makes strategic decisions on whether to utilize debt, issue shares or retain earnings so as to finance viable investment opportunities. The listed firms provide a suitable context to establish the link between internal financing and shareholder wealth.

The motivation for this article emanates from the documented reviews showing extensive discussion of external financing compared to internal funding. Incidentally, the capital market exists to provide firms with an avenue for rising long term financing by issuing ordinary shares and debt instruments. Alves and Silva (2017) opine that firms operating in emerging markets retain more earnings than firms from developed countries. Indeed, listed firms in Kenya continually build a reserve of undistributed profits yet there exist a raging debate on whether it adds value to shareholder wealth or not. The conflicting views on the link between internal financing and shareholder wealth maximization could probably be explained by adopting robust econometric regression that account for unobserved firm heterogeneity based on panel data or by including control variables such as firm size and leverage in the estimation models. Further, an empirical test in Kenyan context can provide additional evidence on the link between internal financing and shareholder wealth maximization. Therefore, the objective of this study was to evaluate the nexus between internal financing and shareholder wealth maximization of firms listed at the Nairobi Securities Exchange. The null hypothesis adopted is that the relationship between internal financing and shareholder wealth maximization of firms listed at the Nairobi Securities Exchange is not significant.

The remainder of this paper is structured as follows. Section 2 discusses theoretical and empirical literature underpinning the relationships between internal financing and shareholder wealth maximization. Section 3 details the data and methodology framework. Section 4 describes analysis, findings and discussion. Section 5 presents the conclusions, recommendation and possible future research extensions.

## LITERATURE REVIEW

Internal financing and shareholder wealth maximization are grounded in the pecking order theory, information asymmetry hypothesis and free cash flow theory. The pecking order theory (Myers and Majluf, 1984) argues that there exist a clear financing hierarchy and that firms prefer the use of less costly internal funds in place of external funds that encapsulate debt and equity in an effort to preserve value and firm stability (Gordon, 1963). This theory maintains that profitable firms generate high earnings and are expected to use internal financing first. If internal funds are not sufficient, managers will issue debt next so as to safeguard the existing shareholders against the diluting effect. They (firms) will only issue external equity when it is no longer sensible to issue any more debt and when the market has fully appreciated the firm's potential in which case the external equity would be overvalued.

Information asymmetry hypothesis postulated by Myers and Majluf (1984) suggest that managers generally have more information about the firm's operation, risk profile and prospects than external investors such as debt and equity holders. The existence of information asymmetry between the firm and providers of capital causes the relative cost of funding to vary between the different sources. Firm managers' action provides signal to the investors about the prospects of a firm. If firms managers retain more profit, it may be a signal to the shareholder either there exists feasible investment opportunities or that the future prospects of the firm are dwindling (Copeland et al., 2005). In contrast, firms adopting leverage to finance their investments communicate favorable firm forecasts of expected cash flows. Information asymmetry may therefore increase uncertainty among investors and in essence raise the cost of capital that acts as a discounting factor used to discount expected future cash flows and hence obtain shareholders' wealth. The Information asymmetry hypothesis advocates that firms will prefer sources of finance associated with least information asymmetry (Modigliani and Miller, 1958).

The free cash flow theory of Jensen (1986) provides that management may invest in projects that are not

feasible if a firm has idle cash flows. A free cash flow situation arises where excess cash exists after all appraised projects with positive net present values have been fully funded. Subsequently, firm executive may deploy the excess cash in unnecessary management discretionary expenses. The managers can also pursue their own interests by awarding themselves hefty perks. When firms continuously retain funds or obtain debt, it can result in extra funds. If returns from the excess funds are lower than the cost of financing, it can lead to reduction of shareholder wealth.

Several authors present empirical studies on the nexus between internal financing and shareholder wealth maximization. Yemi and Seriki (2018) investigated the influence of retained earnings on market value of 75 non-financial firms listed on the Nigeria stock Market for the period 2003 to 2014. The study adopted an unbalanced panel data analysis and the results of the study revealed that earnings retention has a positive and significant link with entities market value. A contextual research gap arises to evaluate whether the findings could hold for listed firms in Kenya. Thereafter, a study undertaken by Alves and Silva (2017) investigated retained earnings around the world and economic growth for 50 countries. The study considered 40,917 firms and 336,318 observations for period from 1995 to 2014. The study adopted a panel with random and fixed firm effects and a dynamic panel model through generalized method of moment's estimator. The results indicate that firms located in emerging markets retain more earnings than firms from developed countries. The random and fixed effect and generalized method of moment's estimator model reveal a positive impact of gross domestic product by abnormal retained earnings. This is a sign that as firm retain more cash flows; the economy grows providing a larger set of investment opportunities.

In similar vein, for listed firms in Pakistan, Urooj, Sindhu, Hashmi and Hussain (2017) examined the effect of retained earnings on future profitability and stock returns. The study targeted 100 firms for the period from 2006 to 2015 based on panel data analysis. The study incorporated Leverage, liquidity and firm size as control variables. The study results reveal a have significant and positive relationship of retained earnings and stock returns for the Karachi stock exchange listed firms. In addition, Farooq, Rehman, Khan and Bilal (2017) test the impact of internal financial policy on share holders' wealth and firm value of 438 observations for manufacturing sector firms listed on Pakistan Securities Exchange from 2009 to 2014. The study adopted static panel regression by operationalizing retained earnings as net profit after tax minus dividends divided by the number of outstanding

shares. The study findings reveal that retained earnings per share have a positive and significant impact on stock price. A generalized least square panel regression adopted for this paper provides further insight on the nature of relationship between the internal financing and shareholders wealth maximization for Kenyan context. Javed and Shah (2015) posit the effect of retained earnings on stock returns (stock price) for 7 food and personal care firms listed at the Karachi Stock Exchange in Pakistan between 2009 and 2014. The study was based on a linear regression and established a moderate positive and significant relationship between retained earnings and closing price of stock. However, the study was conducted on only 7 firms drawn from a particular sector. Likewise, a study by Haynes and Brown (2009) investigated the link between internal funds and firm growth for small, private firms in the United States that have fewer than 500 employees. The study targeted small growth firms and used data from the Federal Reserve Board's 1993 and 2003 for 7,352 total firm-year observations. The study employed logistic regression. The findings highlight the significance of programs that effectively shrink borrowing costs and growth nurturing of small businesses. The results show a strong positive relation between the level of internal funds and the likelihood that small firms report positive growth. Nevertheless, the study was based on non-publicly traded firms.

In contrast, Thurairaja (2014) investigated the link between retained earnings and stock returns for 57 firms listed at the Nairobi Securities Exchange from 2009 to 2013. The results of the study unveil an inverse statistically significant relationship between retained earnings and stock returns, a sign that internal financing does not enhance shareholders value probably due to the fact that excess cash from retained earnings is misappropriated by the managers. However, the study methodology was a cross sectional regression analysis. Ugwueze et al. (2019) evaluated the relevance of retained earnings on performance of 11 listed pharmaceutical firms in Nigeria. A cross section regression methodology adopted revealed that retention impacts negatively on the performance. Conversely a sample of 7 firms was used and turnover level was considered as the performance measure.

## METHODOLOGY

**Table 1. Research variable measurement**

Variable	Abbreviation	Proxy
Shareholder wealth	SW	Market value to book value
Internal financing	RE	The ratio of retained earnings to total shareholder equity
Firm Debt	DE	The ratio of firm liabilities to total shareholder funds
Firm Size	FS	The natural logarithm of firm assets

The study population constituted 65 listed firms in Kenya as at 31<sup>st</sup> December 2018 and data was collected from annual reports for the 2011 to 2018 period. The listed firms share market prices was obtained from Nairobi securities exchange price list circulations. Panel data that encompasses same firm observations obtained over multiple time periods was adopted for the study analysis model. Panel data models were preferred for the analysis as it enables to exploit the double dimensionality of multiple observations for each firm unit and thus reveal more accurate and reliable results. The data pools were considered appropriate as it eliminates disturbance term component that is time invariant and unobserved firm heterogeneity from the regression model error term (Wooldridge, 2013). Complete data set was available from 5 to 8 year for 57 firms and resulted in 440 observations of short and unbalanced panels.

Data analysis was based on panel regression of fixed and random effect. Fixed effect model assumes that units are heterogeneous and therefore the model considers a unique intercept term that varies across firm units but it is time invariant (Gujarati and Porter, 2009). In essence, the unobserved individual unit error term is correlated with explanatory variables and therefore, fixed effect model approach is employed to control for time-invariant unobserved heterogeneity. On the other hand, the Random effect model allow the intercept to vary between units and further it decomposes unobserved firm and time effects from the error terms (Baltagi, 2005). Moreover, the estimation assumes that individual specific error term effects are not correlated with independent variables (Wooldridge, 2013). Generalized least square estimator was adopted for analysis to enable achieve robust results. The estimator allows a combination of between groups and between group variations of cross sectional units (Baltagi, 2005). The model resolves auto correlation and panel heteroscedasticity of the error term.

The measurement of the variables was adopted from previous literature. The dependent variable is shareholders wealth while independent variable is internal financing. Firm size and leverage are adopted as firm level control variables in analysis. Table 1 present the summary of variable definitions in incorporated in the regression models.

In estimating the relationship between dependent and independent variables, the fixed and random effect and generalized least square estimator are modelled in a panel regression data analysis framework. The regression model adopted for analysis was:

$$SW_{it} = \beta_0 + \beta_1 + \beta_1 RE_{it} + \beta_2 FS_{it} + \beta_2 DE_{it} + \varepsilon_{it}$$

Where  $SW_{it}$  = Shareholder wealth for  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year

$RE_{it}$  = ratio of internal financing based on retained earnings to total equity for  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year

$FS_{it}$  = firm size based on natural logarithm of total assets for  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year

$DE_{it}$  = ratio of total debt to Shareholders equity for  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year

$\varepsilon_{it}$  = error term

Larger firm may continuously retain revenue reserves and create excess cash flow in a firm if all feasible projects have been executed. Likewise, debt can

influence the internal financing and shareholder wealth nexus due to the fact that it can reduce free cash flows available to the managers for investing in unfeasible projects (Jensen, 1986). In this case, any retained earnings would be channeled to viable investments or repayment of regular interest. In order to mitigate the effect of firm size and leverage, both were included in the analysis as control variables.

## RESULTS AND DISCUSSION

Descriptive and inferential statistics were applied in carrying out study analysis. To start with, the descriptive statistics of mean, standard deviation as well as minimum and maximum variable data points were computed. Table 1 shows the descriptive statistics results for the dependent and independent variables of the study for the study period of 2011 to 2018 summarizing the 440 firm observations.

**Table 2. Descriptive statistics**

	Minimum	Maximum	Mean	Std. Deviation
MB	0.40	543.70	35.98	58.91
RE	(12.40)	45.80	0.68	2.76
DE	(168.30)	30.80	1.46	10.51
FS (Sh. Million)	191.24	714,313	75,122.81	116,755.64

Table 2 reveals that the mean shareholders wealth was 35.98 with a maximum of 543.70 and minimum of 0.40. A market price to book value ratio greater than one is favourable. Accordingly the mean value of 35.98 indicates that the companies on an average did create value for the shareholders during the period under study. Conversely, a less-than-one value as exhibited by the minimum of 0.40 reveals that some firms did not create value for shareholders. Besides, the standard deviation of 58.91 indicates a substantial variation in shareholder wealth among the listed firms. Moreover, the internal financing mean of 0.68 point to the fact that the firms on average apply retained earnings at a significant proportion of the total shareholder equity in financing the investments of the firm. The minimum value of -12.40 reveals a case of accumulated losses by some listed firms. The highest level of retained earnings accumulated by the firms over the study period was 46 percent of shareholder funds. The standard deviation of 2.76 signifies a spread among the firms in the application of retained earnings in financing decisions.

With regard to the control variables of firm size and leverage, the variables also were described as follows.

The leverage level represented by debt to equity ratio had a mean of 1.46 which means that on average the firms has Sh.1.46 in debt for every shilling of equity employed by the firms. The standard deviation of 10.51 was evidence that the firms' debt to equity were extremely dispersed. Equity is obtained as the excess of total liabilities from total assets. The minimum data point of debt to equity ratio of -168.30 means liabilities far outweigh assets thus indicating that the company has been on aggressive usage of debt or has been piling cumulative losses over time.

A low debt-to-equity ratio would imply a case of profitable firm that follow the financing pecking order theory. The firm size is represented in terms of firms' asset value. The mean value denotes that on average firm size was Sh.75 billion worth of assets. Further, the firm size ranges from Sh. 191million to Sh. 714 billion in terms of asset value. The spread in asset value implies a diverse variation in the size for the firms. To obtain robust results, the Pearson's product-moment correlation was adopted to establish the strength of association between the variables of study. The approach adopted a bivariate correlation and the results of the association are displayed in Table 2.

**Table 3. Correlation matrix of variables**

		MB	RE	DE	FS
MB	Pearson Correlation	1			
	Sig. (2-tailed)				
RE	Pearson Correlation	-0.009	1		
	Sig. (2-tailed)	.850			
DE	Pearson Correlation	0.039	-0.901**	1	
	Sig. (2-tailed)	0.410	0.000		
FS	Pearson Correlation	0.121*	0.017*	0.127**	1
	Sig. (2-tailed)	0.02	0.018	0.008	

\*\* Correlation is significant at the 0.01 level (2-tailed)

As evident in Table 3, the correlation coefficient between internal financing and shareholder wealth is negative though not statistically significant. The inverse correlation denotes that companies with large accumulated retained earnings are generally associated with declining shareholder wealth. The statistically significant positive correlation coefficient between firm size and shareholder wealth supports the view that larger firms retain higher revenue reserves and have the potential to maximize shareholders wealth. Nonetheless, the debt ratio coefficient is directly related to shareholder wealth firm.

The subsequent step of the analysis involved performing regression estimation. The panel regression based on random and fixed effect estimator was tested first then followed by the generalized least square estimation. In order to determine the appropriate model between the random and fixed effect estimator, the Hausman specification test that examines whether the firm units (heterogeneous) individual effects were uncorrelated with independent variables in the model was performed. The hypothesis tested to draw conclusion stated that the relationship between internal financing and shareholder wealth maximization of firms listed at the Nairobi Securities Exchange is not significant

Table 4 shows the results of Hausman test of null hypothesis that error terms are correlated with one or more regressors and hence random effect model was appropriate. The result [*Chi-square* (3) = 1.606;  $p = 0.658$ ] inform the decision to fail to reject the null hypothesis at the conventional level of significance. Moreover, Table 4 presents a comparison of the results of the fixed-effect and random-effect regressions.

The random effect regression results show that without controlling for any other factor (s), the coefficient on internal financing variable is negative and statistically insignificant ( $\beta = -0.44024$ ;  $p = 0.4151$ ). The results of the regression fail to reject the null hypothesis of the no effect of internal financing on shareholders' wealth. The

control variables of leverage and firm size displayed a direct relationship with shareholder wealth. The coefficient on log of firm size ( $\beta = 11.269$ ;  $p = 9.811e-05$ ) is statistically significant while leverage coefficient ( $\beta = 0.058$ ;  $p = 0.881$ ) was not statically significant.

Overall, the point estimate -0.138 on internal financing is statistically insignificant at 5% level. This implies that controlling for leverage and firm size, a unit increase in internal financing would reduce the market to book ratio by about 0.138 units. This result does not support the claim that internal financing has significant effect on shareholders' wealth consistent with prior study by Thurairaja (2014). The findings, however, are in contrast to results by Alves and Silva (2017), Urooj et al. (2017) and Haynes and Brown (2009) who observed a direct relationship between internal financing and shareholders' wealth. The random effect estimator model could likely be distorted by the presence of auto correlation and heteroscedasticity.

Therefore, the generalized least square estimation correcting for heteroscedasticity is employed in the next subsection and the results are shown in Table 5. The GLS regression results in Table 5 reveal that without controlling for any factor (s), the coefficient for internal financing is negative and insignificant ( $\beta = -0.01888$ ,  $p = 0.02436$  \*). The control variable firm size is observed to be statistically significant ( $\beta = 7.54746$ ,  $p = 4.84e-05$ ) suggesting a positive link between firm size and shareholders' wealth maximization.

This result is consistent in both the random effect estimation and generalized least squares estimation and similar to that obtained by Alves and Silva (2017). The robust estimation check on GLS model confirms that though a positive link exists ( $\beta = 0.02378$ ,  $p = 0.77392$ ) the estimated coefficient on leverage is indistinguishable from zero.

**Table 4. Random and fixed effects panel regression**

Predictor	Random Effects Model		Fixed Effects Model	
	1	2	1	2
RE	-0.44024 -0.4151	-0.138 (0.022*)	-0.33902 (0.5328)	-0.154 -0.915
DE	-	0.058 (0.881)	-	0.153 (0.696)
Log (FS)	-	11.269 (9.811e-05 ***)	-	10.38 (0.09)
Intercept (Constant)	-	-231.025 (0.00074 ***)	-	-
R-Squared	0.00177	0.034	0.00013	0.01
Adj. R-Squared	-0.16859	0.028	-0.00215	-0.165
F-statistic	0.66553	5.177	-0.12912	1.246
Observations	-0.41513 440	-0.002 440	(1.0000) 440	(0.293) 440
Hausman Test, $\chi^2$ , df = 3	1.606 (0.658)			
Durbin Watson (pdw)	0.803			
	(< 2.2e-16)			

Dependent Variable: Shareholders' Wealth. \*, \*\*, \*\*\* indicate significance levels at 10%, 5%, and 1% respectively

**Table 5: Generalized Least Square regression with auto-correlation and heteroscedasticity correction**

Predictor	Generalized Least Squares Model 1	Generalized Least Squares Model 2
RE	-0.01888 (0.915)	-0.1116 (0.02436 *)
DE	-	0.02378 (0.77392)
Log (FS)	-	7.54746 (4.84e-05 ***)
Intercept (Constant)	35.42351 (1.43e-12 ***)	-143.92324 (0.00013 ***)
R-Squared	0.2068	0.2647
Wald statistic	0.0113	17.3034
Pr(>Chi-square)	0.9153	6.00E-04
Observations	440	440

Dependent Variable: Shareholders' Wealth. \*, \*\*, \*\*\* indicate significance levels at 10%, 5%, and 1% respectively

The study showed that controlling size and leverage, there is an inverse relationship between internal financing and shareholders' wealth maximization ( $\beta = -0.11160$ ,  $P = 0.02436$ ) which is consistent with the findings based on the random effect model estimation.

Indeed, regardless of the econometric approach employed in the estimation, the coefficient on the internal financing variable is insignificant and inversely related to shareholder wealth thereby suggesting that the findings are robust and reliable to make inference. Thus, the negative link internal financing and shareholder wealth maximization is robust across different econometric estimation

techniques. This finding is generally in agreement with Ugwueze et al. (2019), but contrasts with findings of Yemi and Seriki (2018), Farooq et al. (2017) and Javed and Shah (2015).

This empirical evidence thus supports the information asymmetry agency perspective that when firms managers retain more profit, it may be a signal to the shareholder of the existence of viable investment opportunities that creates uncertainty among investors and in essence raise the cost of capital which acts as a discounted factor used to determine the expected future cash flows and hence shareholders wealth.

## CONCLUSION

This paper examines the effects of retained earnings on shareholder wealth maximization of firms listed at the Nairobi Securities. Analysis data set was available from 5 to 8 year for 57 firms and resulted in 440 observations of short and unbalanced panels for a study period from 2011 to 2018. The descriptive statistics of mean, standard deviation as well as minimum and maximum variable data points were summarized to reveal the general data trends and suitability for analysis. Moreover, correlation of data variables were undertaken to establish the strength of association between the variables of study. Panel data analysis was applied to estimate the random effect and fixed regression of internal financing on shareholder wealth maximization. Generalized least square estimator was adopted in attempt to confirm robustness of results.

The findings indicate that profit retained in the business have no potential of boosting future earnings. Consistent with Information asymmetry argument, firms ought to target sources of finance associated with least information asymmetry. In addition, in situations where excess cash exist after all appraised projects with positive net present values have been fully funded, firms can consider distributing the free cash flow to the shareholders. The practitioner firm managers and policy formulators can consider these empirical findings that internal financing erodes shareholders wealth. Therefore, firm owners ought to consider monitoring mechanisms including use of debt against firm executives' utilization of funds in managerial discretionary expenses and viable investment opportunities. This can ensure that the funds are used in generation of cash flows for the firms. Similarly, a strategy to reduce information asymmetry can contain the cost of capital which acts as a discounted factor used to determine present value of the expected future cash flows that influence shareholders wealth.

The article strength lies on methodological application of a panel data and estimation based on random effect model and the generalized least square that is better equipped to handle problems of unobserved individual effects (heterogeneity) and omitted variables problem. The panel data observations that span both time and individuals in a cross-section provide more information that yields regression results of efficient estimates. However, the article can be advanced by analyzing year on year incremental of retained earnings to equity ratio or determining the optimum retained earning lag so as to offer valuable insights into the nexus between internal financing and shareholders wealth. Further, alternative pure market measures of shareholder wealth such as the share prices can be adopted to expand the study findings. Indeed, this dimension of advancement

offers tentative directions for future research in this study area.

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