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Determinants of Bear Market Performance at the Nairobi Securities Exchange in Kenya

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Abstract:
This study sought to establish the determinants of bear market performance by taking a survey of investors at the Nairobi Securities Exchange. Convenient sampling technique was used to administer questionnaires to 500 retail investors as they conducted business through stock brokers. Data was analyzed by the use of descriptive statistics and correlation analysis was carried out to determine the relationship between the variables. ANOVA test at five percent level of significance was used to determine the relationship between the dependent and independent variables. A multiple regression model was employed to analyze the independent variables and their effect on bear market performance. The Pearson Moment correlation analysis showed that bear market performance was weakly associated with transaction costs and mobilization of resources by retail investors. The study recommends that further research should be carried out on the economic cycle and its influence on bear market performance.

Keywords: Bear Market, Transaction cost, Mobilization of resources by Retail Investors

1. Introduction

The concept of bear market can be traced back to the time of Charles Dow (1851-1929) when he made an analysis of trends in the Dow Jones Stock Market. The security trend may either be increasing or decreasing. Gann (2010) explained the concept of bear market as a situation when the stock prices exhibit a continuous downward trend, the opposite of the bear market is a bull market whereby the stock prices exhibits a continuous increasing trend. Gann (2010) noted that the bear market shows three clear cut peaks: Each peak is lower than the previous peak; the bottoms are also lower than the previous bottoms. In vindicating this concept, Robert and Pretcher (2009) also in an analysis of Dow Theory noted that there are three principal phases of a bear market. They are: the abandonment of hopes, selling due to decreased business and earnings, and finally, distress selling of sound securities regardless of value.

Gomez and Perez (2011) by basing their argument on technical analysis theory found out that stock market volatility is higher during bear markets. Jones (2012) provided two possible explanations for the higher volatility during bear markets. First, the increased uncertainty and risk observed in the bear market may generate a decline in equity values. Also in the context of increased uncertainty investors react to bad news more quickly, adding then more volatility to the market. Further, Chordia (2011) also suggest that the different behaviour observed in the stock market liquidity in bear markets may be related with volatility. Thus, bear markets could be subject to falling liquidity.

Ramos (2007) found out that bear market corresponds to periods of a generalized downward trend (negative returns). Dukes *et al*. (2011) vindicated this by using the Standard and Poor's 500 index and found out that bear markets are periods in which the index decreased by at least 20% from a peak to a trough. Chauvet and Potter (2008) explained that a stock market moves to a bear state if prices have declined for a substantial period since their previous (local) peak. Gonzalez *et al*. (2008) found out that the opposite of the bear market is the bull market which is associated with persistently rising share prices, strong investor interest and raised financial well being. Aroa and Buza (2009) established that bull markets are usually associated with a period of prosperity; when the future seems bright and investors have easy access to money. From the above reasoning, it can be observed that while bull markets involve an enhancement of the investors' financial well being, the opposite takes place when there is a bearish market.

Sossounov and Pagan (2010) extended the required minimum duration of a financial cycle to be sixteen months rather than fifteen months, such that each phase is defined to last at least four months. Gonzalez *et al*. (2008) adds that sharp stock price movements are accounted for by disregarding the minimum phase length if the stock index falls by more than twenty percent in a single month. On the other hand, Lunde and Timmermann (2010) investigated the duration dependence in bull and bear markets and found out that the average duration of bull and bear markets to be twenty one months and nine months respectively. However, they found out that the shortest bull and bear markets lasted one week only, whereas the longest durations are estimated to be one hundred and thirteen and thirty four months respectively.

Shiller *et al*. (2008) found out that volatility is a general concept of variation in stock prices and therefore a function of the bull and bear market; this is because, within a bull run, stocks will still experience volatility (though to a small scale). Stocks also experience volatility in a bearish run in a large scale as compared to a bull run (Shiller *et al*., 2008).

1.1. Research Objectives
The general objective of the study was to investigate the determinants of bear market performance at the Nairobi Securities Exchange in Kenya.

1.1.2. Specific Objectives
The following were the specific objectives in line with the research problem:
    1. To determine the influence of transaction cost on bear market performance at the Nairobi   Securities Exchange in Kenya.
    2. To establish the influence of mobilization of resources by retail investors on bear market   performance   at   the   Nairobi Securities Exchange in Kenya.

1.1.3. Research Questions
The following were the research questions that were used to achieve the research objectives:
    1.   Does the transaction cost determine bear market performance at the Nairobi Securities Exchange in Kenya?
    2.   Does mobilization of resources by retail investors determine bear market performance at the Nairobi Securities Exchange in Kenya?

1.1.4. Research Hypotheses
This study was guided by the following research hypotheses:
   $H_0 1$: Transaction cost has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya.
   $H_0 2$: Mobilization of resources by retail investors has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya.

2. Conceptual Framework
The variables that were investigated consisted of; transaction cost and mobilization of resources by retail investors. Transaction cost had sub-variables; commission by brokerage firms, fees by regulating authorities, inflation rate, incorporation of information technology and interest rate charged by mutual funds. Mobilization of resources by retail investors had sub-variables: Interest rates on bank loans, levels of dependants, prices of consumable commodities, taxation of capital gains, levels of remittances and per capita income. Bear market performance had sub-variables: Fluctuating share prices, consistent declining primary trend and lack of trading activity, insolvency and bankruptcy risk.
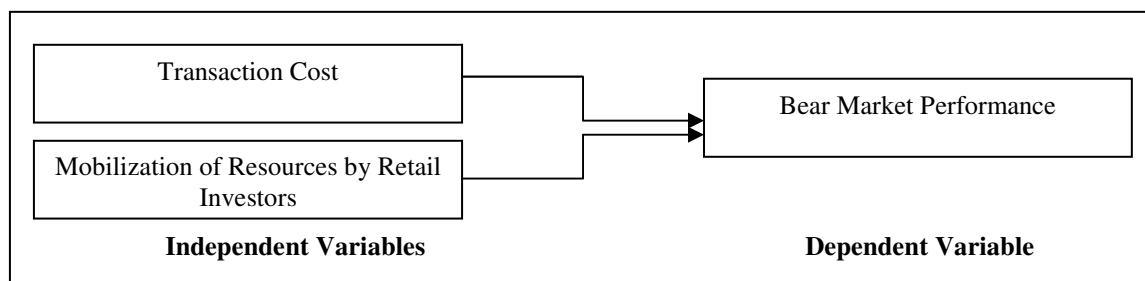

Figure 1: Conceptual Framework

3. Methods
This research used cross-sectional survey method to conduct the study. The study relied on findings from questionnaires distributed through five purposively sampled stock brokers who are registered to trade at the Nairobi Securities Exchange. One hundred questionnaires were dropped in each stock brokerage firm and were filled by retail investors doing business through stock brokerage firms. The sampling technique which was adopted for the study was purposive in that there are stock brokerage firms under statutory management which do not conduct frequent business so it was advisable to rely on stock brokerage firms which are not under statutory management. In administering the questionnaires, the study adopted convenient sampling technique since retail investors were accessed as they transacted business in the stock brokers' offices. Convenient sampling technique was used to administer questionnaires to 500 retail investors for the study. Desired size of 500 retail investors was informed by the need to reduce sampling error; some respondents were not able to completely fill all the details lowering the number to a valid response and also the target population was highly heterogeneous with respect to a number of internal variables under study.

3.1. Model Specification
A regression analysis was preferred:
Y = $\beta_0 + \beta_1 COST + \beta_2 RES + \varepsilon$
Y = represents Bear market performance
β_0 = Constant term
$\beta_1 COST$ = Sensitivity of bear market performance to transaction cost.
$\beta_2 RES$ = Sensitivity of bear market performance to mobilization of resources by retail investors.
ε = Disturbance term with an expected value of zero.
The factor model was based on the assumption that the disturbance terms are uncorrelated across various portfolios; implying that bear market performance change only as a reaction to a specific factor.

4. Results and Discussions

4.1. Test of Null Hypothesis H_01
H_01: Transaction cost has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya.
Using the factor scores, a Pearson's Product Moment Correlation (PPMC) analysis was conducted to determine the direction and magnitude of the relationship between the two factors of transaction costs (brokerage costs and agency costs) and the bear market performance factors (firm dissolution risks and declining primary trend). The correlation results were as presented in Table 1

		Brokerage costs	Agency costs	Firm dissolution risks	Declining Primary trend
Brokerage costs	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	490			
Agency costs	Pearson Correlation	.241**	1		
	Sig. (2-tailed)	.000			
	N	490	490		
Firm dissolution risks	Pearson Correlation	-.116*	-.069	1	
	Sig. (2-tailed)	.010	.125		
	N	490	490	490	
Declining Primary trend	Pearson Correlation	-.220**	-.171**	.199**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	490	490	490	490
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Table 1: Correlation between Transaction Cost Factors and Bear Market Performance Factors

The PPMC results revealed that transaction cost factor; brokerage costs had significant but negative relationships with bear market performance in relation to risks of firm dissolution (r = -.116; ρ = .01; n = 490) and declining primary trend (r = -.220; ρ = .000; n = 490). On the other hand the second factor of transaction cost (Agency costs) was a significant and negative correlate of bear market performance in relation to declining primary trend (r = -.171; ρ =.000; n = 490), but its relationship with risks of firm dissolution remained insignificant. In addition, the bear market performance variables significantly correlated with a positive coefficient of correlation (r =.199; ρ =.000; n = 490) while at the same time, brokerage costs and agency costs also significantly and positively correlated with each other (r = .241; ρ =.000; n = 490).
These findings implied that retail investors who perceived brokerage costs as being determinants of bear market performance were less likely to report that both risks of firm dissolution and declining primary trend affected bear market performance. Similarly, retail investors who perceived agency costs as a determinant of bear market performance were less likely to report that declining primary trend had an effect on bear market performance. The significant, positive correlation between risks of firm dissolution and declining primary trend shows that as the effect of consistently declining primary trend on bear market performance became acute, the same was the case with the effect of the risks of firms trading on the NSE becoming dissolved or becoming insolvent. Equally important, the more the retail investors perceived brokerage costs as a determinant of bear market performance, the more they also perceived agency costs as a determinant of bear market performance too.
The factor scores were used to run multivariate regression analyses with the two factors of transaction cost as predictors and as the bear market performance factors as the response variables in two separate models using the regression model below:
$Y_i = \alpha + \beta 1 X_i 1 + \beta 2 X_i 2 + \varepsilon$
Where:
Y_i = Bear Market Performance (risks of firm dissolution and declining primary trend);
α = Constant/Intercept;
$\beta 1$ and $\beta 2$ are regression coefficients of the independent variables;

X_i1 = Brokerage costs;
X_i2 = Agency costs and;
ε= Error term

When risks of firm dissolution was regressed against brokerage costs and agency costs, the regression model had an R^2 of 0.011, implying that the two independent variables explained only 1.1% of the variance in the perceived effect of firm dissolution risks on bear market performance. The ANOVA results shown in Table 2 indicate that the regression model was significant ($p < 0.05$).

ANOVA[a]					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	16.300	2	8.150	3.779	.024[b]
Residual	1050.409	487	2.157		
Total	1066.709	489			
a. Dependent Variable: Firm dissolution risks					
b. Predictors: (Constant), Agency costs, Brokerage					

Table 2: ANOVA Results for Regression Model for Risks of Firm Dissolution on Brokerage Costs and Agency Costs

The regression model coefficient results for the independent variables (brokerage costs and agency costs) were as shown in Table 3.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.014E-013	.066		.000	1.000
Brokerage costs	-.093	.041	-.105	-2.275	.023
Agency costs	-.037	.039	-.044	-.950	.343
a. Dependent Variable: Firm dissolution risks					

Table 4.4: Regression Model Coefficients of Brokerage Costs and Agency Costs against Firm Dissolution Risks

The multivariate correlation and regression analysis of the model revealed that at $p < 0.05$, brokerage costs negatively influences bear market performance in relation to firm dissolution risks. However, agency costs did not contribute significantly to firm dissolution risks. Thus, the resulting regression model would be:

4.1.1. Firm Dissolution Risks= 0 -0.093 (Brokerage Costs)

When declining primary trend was regressed against brokerage costs and agency costs, the regression model produced an R^2 of 0.059, implying that the two independent variables explained5.9% of the variance in the perceived effect of declining primary trend on bear market performance. The ANOVA results shown in Table 5 indicate that the regression model was significant ($p < 0.01$).

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	91.366	2	45.683	16.398	.000[b]
Residual	1356.746	487	2.786		
Total	1448.112	489			
a. Dependent Variable: Declining Primary trend					
b. Predictors: (Constant), Agency costs, Brokerage					

Table 5: ANOVA Results for Regression Model for Declining Primary Trend on Brokerage Costs and Agency Costs

The regression model coefficient results when declining primary trend was regressed against brokerage costs and agency costs were as shown in Table 6.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.141E-013	.075		.000	1.000
Brokerage costs	-.195	.047	-.189	-4.187	.000
Agency costs	-.122	.044	-.126	-2.784	.006
a. Dependent Variable: Declining Primary trend					

Table 6: Regression Model Coefficients of Brokerage Costs and Agency Costs against Declining Primary Trend

The bivariate correlation and regression analysis conducted using brokerage costs and agency costs as predictors of declining primary trend revealed that at $\rho < 0.01$, both brokerage costs and agency costs negatively affected bear market performance in relation to declining primary trend. The resulting linear regression equation was:

4.1.2. Declining Primary Trend = 0 - 0.195(Brokerage Costs)- 0.122(Agency Costs)

Thus, based on the ANOVA results in the two models highlighted by the foregoing results which revealed that all the models were statistically significant, indicating that there were significant relationships between the transaction cost variables and bear market performance variables in the two models at $p < .05$ and $p < .01$ respectively augmented by the significant effects of the variables at about 75% points, the null hypothesis ($H_0 1$) which stated that: Transaction cost has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya was therefore rejected at this point.

4.2. Test of Null Hypothesis $H_0 2$

$H_0 2$: Mobilization of resources by retail investors has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya.

The factor scores for mobilization of resources by retail investors' resource factors (household resource dynamics, taxation of capital gains and national wealth) and bear market performance factors (farm dissolution risks and declining primary trend) were used to conduct the Pearson's Product Moment Correlation analysis to determine the direction and magnitude of the relationship between the two factor groups. Two of the three factors for mobilization of resources by retail investor (taxation of capital gains and national wealth) had statistically significant relationships with both farm dissolution risks and declining primary trend factors of bear market performance. Taxation of capital gains had significant, positive correlations with risks of firm dissolution (r = .123; ρ = .007; n = 490) and also a significant positive correlation with declining primary trend (r = .163; ρ = .000; n = 490). On the other hand, National wealth significantly but negatively correlated with both declining primary trend (r = -.138; ρ = .002; n = 490) and declining primary trend (r = -.142; ρ = .002; n = 490) in relation to bear market performance. The relationships between household resource dynamics factor of the resource mobilization scale and both factors of bear market performance remained insignificant, while National wealth and Taxation of capital gains correlated among themselves significantly and positively (r = .114; ρ = .012; n = 490). The correlation results were as presented in Table 7.

		Firm dissolution risks	Declining Primary trend	Household resource dynamics	Taxation of capital gains	National wealth
Declining Primary trend	Pearson's (r)	**.199****	1			
	p-value	.000				
	N	490	490			
Household resource dynamics	Pearson's (r)	-.027	.006	1		
	p-value	.545	.892			
	N	490	490	490		
Taxation of capital gains	Pearson's (r)	**.123****	**.163****	.061	1	
	p-value	.007	.000	.178		
	N	490	490	490	490	
National wealth	Pearson's (r)	**-.138****	**-.142****	.045	**.114***	1
	p-value	.002	.002	.319	.012	
	N	490	490	490	490	490
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 7: Correlation between Mobilization of Resources by Retail Investors Factors and Bear Market Performance Factors

The implications of these correlations are that retail investors who perceived Taxation of capital gains as a determinant of bear market performance were more likely to report that risks of firm dissolution and declining primary trend affected bear market performance. Conversely, retail retailers who perceived National wealth as a determinant of bear market performance were less likely to attribute the performance of bear market to risks of firm dissolution and declining primary trend. In addition, the positive correlation among the two factors of resource mobilization, National wealth and Taxation of capital gains, implied that retail investors who perceived national wealth as a determinant of bear market performance equally associated taxation of capital gains with bear market performance.

The factor scores were used to run multivariate regression analyses with the three factors of mobilization of resources by retail investors as predictors and the bear market performance factors as the response variables in two separate models using the regression model below:

$Y_i = \alpha + \beta 1 X_i 1 + \beta 2 X_i 2 + \beta 3 X_i 3 + \varepsilon$

The ANOVA results of regressing risks of firm dissolution against household resource dynamics, taxation of capital gains and national wealth indicated that the model was statistically significant, indicating that there were significant relationships between the independent and dependent variables in the models at p = .000. The R^2 for the model of 0.033, indicating that 3.3% of the variance in the perceived effect of firm dissolution risks on bear market performance was explained by the independent variables. The ANOVA results were as shown in Table 8.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.998	3	13.999	6.640	.000[b]
Residual	1024.711	486	2.108		
Total	**1066.709**	**489**			
a. Dependent Variable: Firm dissolution risks					
b. Predictors: (Constant), National wealth, Household resource dynamics, Taxation of capital gains					

Table 8: ANOVA Results for Regression Model for Risks of Firm Dissolution on Mobilization of Resources by Retail Investors

The regression model coefficient results for the independent variables (household resource dynamics, taxation of capital gains and national wealth) were as shown in Table 9.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.022E-013	.066		.000	1.000
Household resource dynamics	-.014	.021	-.029	-.653	.514
Taxation of capital gains	.210	.066	.142	3.167	.002
National wealth	-.138	.040	-.153	-3.418	.001
a. Dependent Variable: Firm dissolution risks					

Table 9: Regression Model Coefficients of Household Resource Dynamics, Taxation of Capital Gains and National Wealth against Firm Dissolution Risks

The multivariate correlation and regression results in the table revealed that at $p < 0.01$, Taxation of capital gains positively influenced bear market performance in relation to retail investors' perceived effect of firm dissolution risks while National wealth negatively influenced the retail investors' perceived effects of firm dissolution risks on bear market performance. Household resource dynamics did not contribute significantly to perceived effects of firm dissolution risks on bear market performance. Thus, the resulting regression model would be:

4.2.1. Firm Dissolution Risks = 0 .210 (Taxation Of Capital Gains) - 0.138(National Wealth)
The regression model of declining primary trend against household resource dynamics, taxation of capital gains and national wealth produced an R^2 of 0.047, meaning that the independent variables explained 4.7% of the variance in the perceived effect of declining primary trend on bear market performance. The ANOVA results revealed that the model was statistically significant at p = .000, thus relationships existed between the variables in the model. The ANOVA results were as shown in Table 10.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	76.214	3	25.405	9.000	.000[b]
Residual	1371.898	486	2.823		
Total	1448.112	489			
a. Dependent Variable: Declining Primary trend					
b. Predictors: (Constant), National wealth, Household resource dynamics, Taxation of capital gains					

Table 10: ANOVA Results for Regression Model for Declining Primary Trend on Household Resource Dynamics, Taxation of Capital Gains and National Wealth

The regression model coefficient results when declining primary trend was regressed against household resource dynamics, taxation of capital gains and national wealth were as shown in Table 11.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.128E-013	.076		.000	1.000
Household resource dynamics	.001	.025	.002	.055	.956
Taxation of capital gains	.312	.077	.181	4.075	.000
National wealth	-.171	.047	-.163	-3.655	.000
a. Dependent Variable: Declining Primary trend					

Table 11: Regression Model Coefficients of Household Resource Dynamics, Taxation of Capital Gains and National Wealth against Declining Primary Trend

Multivariate regression analysis revealed that at p = 0.000, Taxation of capital gains positively influenced bear market performance in relation to retail investors' perceived effect of declining primary trend while National wealth negatively influenced the retail investors' perceived effects of declining primary trend on bear market performance. Household resource dynamics did not contribute significantly to perceived effects of declining primary trend on bear market performance. Thus, the resulting regression model would be:

4.2.2. Declining Primary Trend= 0 .310 (Taxation Of Capital Gains) - 0.171(National Wealth)
Thus, based on the foregoing ANOVA results in the two models which revealed that all the models were statistically significant indicating that there were significant relationships between the mobilization of resources by resource investors' factors and bear market performance variables in the two models at *p* = .000 supported by the significant effects of two out of the three factors of the mobilization of resources variables on perceived effect of declining primary trend on bear market performance, the second null hypothesis (H_02) which stated that: Mobilization of resources by retail investors has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya was rejected at this point.

5. Discussion of Findings

5.1. Transaction Cost and Bear Market Performance
Transaction costs were operationalized as commission by brokerage firms, inflation rate, extent of incorporation of information technology in doing business, agency cost and interest rate on mutual funds. On the other hand, bear market performance comprised fluctuating share prices, declining primary trend, lack of trading activity at the bourse and insolvency and bankruptcy risk of firms.
The PPMC results from table 1 revealed that brokerage correlated negatively with the two bear market performance factors derived from the 4-item bear market performance measurement scale (risks of firm dissolution and declining primary trend). Retail investors who perceived brokerage costs as being determinant of bear market performance were less likely to report that risks of firm dissolution and declining primary trend affected bear market performance. On the other hand Agency cost was found to be a negative correlate of declining primary trend, but its relationship with risks of firm dissolution remained insignificant. Thus, retail investors who perceived agency cost as a determinant of bear market performance were less likely to report that declining primary trend had an effect on bear market performance. The significant, positive correlation between risks of firm dissolution and declining primary trend shows that as the effect of consistently declining primary trend on bear market performance became acute, the same was the case with the effect of the risks of firms trading on the NSE becoming dissolved or becoming insolvent.
Multivariate correlation and regression analysis of two separate models employing firm dissolution risks and declining primary trends as response variables and brokerage costs and agency costs as predictors (table 4) showed that brokerage costs negatively influences firm dissolution risks. On the other hand declining primary trend as a measure of bear market performance was negatively affected by both brokerage costs and agency costs. Therefore, based on ANOVA results from table 2 that showed that there were significant relationships between the transaction cost variables and bear market performance variables the first null hypothesis (H_01) which stated that: Transaction cost has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya was rejected at this point.

5.1.1. Mobilization of Resources by Retail Investors and Bear Market Performance
The mobilization of resources by retail investors' scale comprise the items: interest rates on bank loans; levels of dependants; prices of consumable commodities; level of disposable income; taxation of capital gains; level of remittances and; level of per capita income. Pearson's Chi-square tests of independence revealed that there were relationships between the respondents' ratings of the influence of all the items of mobilization of resources by retail investors' scale and bear market performance measurement scale items at varying degrees of freedom and p-values < 0.05.
PPMC analysis from table 7 revealed that taxation of capital gains had significant, positive correlations with risks of firm dissolution and also a significant positive correlation with declining primary trend. On the other hand, National wealth significantly but negatively correlated with both declining primary trend and declining primary trend. The relationships between household resource dynamics

factor of the resource mobilization scale and both factors of bear market performance remained insignificant. These findings implied that retail investors who perceived taxation of capital gains as a determinant of bear market performance were more likely to report that risks of firm dissolution and declining primary trend affected bear market performance. Conversely, retail retailers who perceived National wealth as a determinant of bear market performance were less likely to attribute the performance of bear market to risks of firm dissolution and declining primary trend.

Multivariate regression analyses (table 11) employing household resource dynamics, national wealth and taxation of capital gains as predictors and firm dissolution risks and declining primary trend as response variables showed that when risks of firm dissolution was regressed on household resource dynamics, taxation of capital gains and national wealth, the model was statistically significant, indicating that there were significant relationships between the independent and dependent variables in the models at $p = .000$. Taxation of capital gains positively influenced bear market performance in relation to retail investors' perceived effect of firm dissolution risks while National wealth negatively influenced the retail investors' perceived effects of firm dissolution risks on bear market performance. Household resource dynamics did not contribute significantly to perceived effects of firm dissolution risks on bear market performance. When bear market performance in relation to declining primary trend was regressed on household resource dynamics, taxation of capital gains and national, the ANOVA results revealed that the model was statistically significant at $p = .000$. The model further revealed that taxation of capital gains positively influenced retail investors' perceived effect of declining primary trend while National wealth negatively influenced the retail investors' perceived effects of declining primary trend on bear market performance. Household resource dynamics did not contribute significantly to perceived effects of declining primary trend on bear market performance. Overall, based on ANOVA results from table 10 in the two models augmented by the significant effects of two out of the three factors of the mobilization of resources variables on perceived effect of declining primary trend on bear market performance, the second null hypothesis (H_02) which stated that: Mobilization of resources by retail investors has no significant influence on bear market performance at the Nairobi Securities Exchange in Kenya was rejected.

5.2. Conclusions

Based on the findings of this study, it is concluded that various manifest variables of transaction cost as conceptualized by this study (commission by brokerage firms, inflation rate, agency cost and interest rate on mutual funds) influence bear market performance on the NSE. However, the variable extent of incorporation of information technology in doing business has no relationship with bear market performance with respect to lack of trading activity at the bourse. These manifest variables on the other hand define two main latent factors, which this study has labeled; "brokerage costs" and "agency costs". Whereas brokerage costs negatively influence bear market performance variables conceptualized risks of firm dissolution and declining primary trend, agency cost was found to be a negative correlate of declining primary trend, but its relationship with risks of firm dissolution remained insignificant. Generally, it is concluded that brokerage costs negatively influence firm dissolution risks while declining primary trend as a measure of bear market performance is negatively affected by both brokerage costs and agency costs.

The study concludes that all the manifest variables of the main construct; "mobilization of resources by retail investors" (interest rates on bank loans; levels of dependants; prices of consumable commodities; level of disposable income; taxation of capital gains; level of remittances and; level of per capita income) have influence of varying degrees on bear market performance. The 7 manifest variables define three main latent variables named in this study "Household resource dynamics", "National wealth" and "Taxation of capital gains". Taxation of capital gains is a positive correlate of bear market performance with respect to risks of firm dissolution and declining primary trend. On the other hand, National wealth significantly but negatively correlates with both declining primary trend and declining primary trend. The relationship between household resource dynamics factor of the resource mobilization scale and both factors of bear market performance is concluded to be largely insignificant. Thus, mobilization of resources by retail investors when looked at from the perspective of National wealth" and taxation of capital gains is a determinant of bear market performance.

5.3. Recommendations and Suggestions for Further Research

Investors need to have an idea about the determinants of bear market and how it affects performance of share prices at the bourse. Most of the variables that determine bear market performance are normal occurrence of cycles in economic performance of a country such as inflation. Investors should therefore not be in a haste to dispose of their investment in a consistent bear market but they should hold on to their investment since markets always corrects themselves if they are efficient.

Policy formulators and implementers such as the Capital Markets Authorities should take it upon themselves to educate investors on the occurrence of bear market as a normal market situation and that after sometime an efficient market will always change from a bear market to a bull market depending on prevailing economic situation. They should also encourage investors to purchase stocks during a bear market since this action will in the long run create demand for stock in the secondary market and therefore alter the situation. Further research should also be carried out on the general effect of economic cycles on bear market performance so as to enhance the knowledge on bear market performance and improve on the literature. Though the study established that other sub-variables within the major variables did not have an influence on bear market performance, further research should be done in such areas so as to ascertain their influence.

6. References

i.   Aora, H. & Buza, M. (2009). United States Economy &The Stock market. Journal of Business and Economics Research, 1(1), 107 – 116.

ii.   Barsky, R. (2009). Why Does the Stock market fluctuate? Quarterly Journal of Economics, 18(6), 815 – 815.

iii.   Burke, T. (2012). Risks and Reputation: The Economic Transaction Costs. Journal of Corporate

iv.   Chordia, M. (2007). Trading Activity and Expected Stock Returns. Journal of Financial   Economics, 59(3), 3 – 32.

v.   Creswell, J. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rded.). New York, NY: Sage Publications.

vi.   Fiona, M. (2010).The Impact of Partisan Changes and Electoral Institutions on Stock Market Outcomes in Advanced Democracies. Journal of Applied Economics, 22(3), 109 – 126.

vii. Gann, G. (2010). Market Making and reversal on the Stock Exchanges. Journal of the American Statistical Association, 61(4), 897 – 916.

viii. Gomez, K. & Perez, M. (2011). Trading Volume and Autocorrelation: Empirical Evidence. American Journal of Economics, 5(2), 1320 – 1351.

ix.   Gonzalez, C. (2011). Credit Rationing behavior of Agricultural lenders. The Iron Law of Interest   rate restrictions. Journal of Money, Credit and Banking, 10(4), 464 – 475.

x.   Hardouvalis, G. (2010). The Asymmetric Relation between Initial margin requirements and Stock market   Volatility   across Bull and Bear markets. The Review of Financial Studies,   15(2),   1525 – 1559.

xi.   Lunde, A. & Timmermann, G. (2010). Duration Dependence in Stock Prices: An Analysis of Bull & Bear markets. Journal of Business & Economics Statistics, 2(1), 717 – 796.

xii. Michael, A. (2010). Remittances, Savings and Relative Rates of return. The Journal of   Developing Areas, 38(3), 1- 23.

xiii. Moak, S., Siregar, D. &Qun, W. (2012).Effect of Keeping Up with the Joneses preference on investment behavior. Journal of Financial Economics, 21(50), 825 – 852.

xiv. Ramos, K. (2007). Mean Reversion in Stock Prices: Evidence and Implications. Journal of Financial Economics, 22(1), 26 – 59.

xv.   Richard, R. Charles, C. & Paul, S. (2009). Dow Theory Unplugged: Charles Dow's Original Editorials and their Relevance Today (2nded.). New York, NY: Wasendorf & Associates   Inc.

xvi. Robert, R. & Prechter, J. (2009). Does the Wave Principle Subsume all Valid Technical Chart Patterns? Journal of Technical Analysis, 66(1), 27 – 50.

xvii. Rogers, R. (2008). Relationship between Regression and Volatility tests of Market Efficiency.Econometrica, 49(2), 555 – 574.

xviii. Sarbapriya, R. (2012). Revisiting the Strength of Dow Theory in Assessing Stock Price   movement. Advances in Applied Economics and Finance, 591(3), 2167-6348.

xix. Savita, S. (2011). Transaction costs in group Microcredit in India. Journal of Management History, 45(2), 1331 – 1342.

xx.   Schannep, J. (2008). Dow Theory for the 21st Century. Technical Indicators for Improving Your Investment Results (4thedn.).New York: John Wiley & Sons Inc.

xxi. Shiller,R., LeRoy, M. & Porter, J. (2008). Measuring Bubble Expectation and Investor Confidence. Journal of Finance, 23(2), 465 – 490.