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Board Characteristics and Short Run Cumulative Abnormal Return from Mergers and Acquisitions of Listed Firms Eastern Africa Securities Markets

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Abstract:- This study investigated the impact of board characteristics on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. A sample of thirty (30) listed firms in Eastern Africa securities markets involved in mergers and acquisitions for a period of twenty (20) years between 1996 and 2015 was used. The study was guided by Myers and Majluf (1984) world of asymmetric information and the signaling model of Leland and Pyle (1977). Event study approach was used in computation of shot run cumulative abnormal return. Using cross sectional regression analysis, the study findings show that board size had a positive and significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. The research findings however indicated that neither CEO / Chairman duality nor board independence had a significant impact on short run cumulative abnormal return from mergers and acquisitions of firms listed in Eastern Africa securities markets. The study concludes that firms that have small /optimum board size since they are associated with higher cumulative abnormal return from mergers and acquisitions.

Keywords:- *Mergers And Acquisitions, Short Run Cumulative Abnormal Return, Board Characteristics*

I. INTRODUCTION

Mergers and acquisition constitutes the largest observable form of corporate investments over time worldwide (Masulis, wang and Xie, 2007). Synergy creation, business growth, market expansion and business risk diversification are some of the documented primary drivers behind corporate mergers and acquisitions (Alexandris, Petmezas and Travos, 2010: Eurelich, Kopp and Fligge; 2022). This explain why mergers and acquisitions are seen as the most effective strategies for achieving enhanced profitability and shareholder wealth accumulation. These investment strategies albeit good somehow aggrandizes the inherent conflict of interest between managers and shareholders of listed corporations (Berle and Means, 1933; Jensen and Meckling, 1976). In light of this, researchers have conducted numerous studies on mergers and acquisitions to test this hypothesis. Research evidence indicates that in most cases managers make mergers and acquisitions decisions that destroy shareholders' wealth or at its best deliver insignificant abnormal returns for the acquirer (Andred Mitchell and Stafford, 2004; Masulis, wang and Xie, 2007; Alexandris, Petmezas and Travos, 2013; Mateev and Andonov, 2016). That notwithstanding, it is important to mention that a few studies have reported that mergers and acquisitions decisions are value enhancing (Francis, Hasan and Sun; 2008). Managers often derive private benefits at the expense of shareholders when pursuing mergers and acquisitions deals. The free cash flow hypothesis articulated by Jensen's (1986) argues that managers realize large personal gains from empire building activities. To support this Lang, Stulz, and Walkling, (1991) study provide evidence managers of highly liquid corporate entities with few investment opportunities indulge in empire building mergers and acquisitions activities that destroy shareholders.

Mergers and acquisitions activities are continuously plagued by substantial agency conflict between management and shareholders. Fortunately, there are a variety of corporate control mechanisms available to assist in resolving conflict of interest between managers and shareholders. A significant body of has research examined corporate governance mechanism as a crucial factor in achieving successful mergers and acquisitions decision. Cremers and Nair (2005) documented that the market for corporate control is effective only when a firm's internal corporate governance is strong. In a different study, Dahya and McConnell (2005) noted that board composition influences the manner in which firm make decisions as well as how they respond to mergers and hostile takeovers. From the research evidence some studies argue that smaller board sizes are effective in communication and coordination compared to the oversized ones (Khorana, Tufano and Wegde, 2007; Nerantzidis, and Tsamis,2017). Others studies advocated large board size (Abidin, Kamal & Jusoff, 2009; Sulong & Nor, 2010). Further, there is a considerable number of studies that have documented a negative relationship between board size and firm value (De Andres, Azofra, and Lopez, 2005).

Masulis, Wang and Xie (2007) using a sample of U.S mergers and acquisitions looked at three main characteristics that influences a board ability to function effectively; Chief executive officer /chairman duality, board size and board independence. The objective was to find out their possible effect on acquirer's return. The study documented that CEO /

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chairman duality had significant negative effect on acquirer's return. This implied that having separate positions of CEO and chairman lead higher abnormal announcement returns. However, neither the board size nor board independence was significantly related to bidder's announcement returns. Song and Lei (2008) reported a strong positive relationship between ownership levels and performance while no strong connection was found between the inside directors or level of managerial ownership and profitability for European firms. Chan and Emanuel (2011) failed to find evidence to link relationship between board governance and acquirer's return using a sample of eighty (80) Australian acquisitions.

Triki and Chun (2011) used sample of US acquisitions in Africa to assessed the long term performance of international acquisitions in Africa and the impact of firm and country level governance characteristics on reported performance. Their findings showed that US acquirers did not benefit from these transactions. Board size had a negative and significant coefficient at the 90% level. A study Liu and Wang (2013) investigated the impact of board size and duality on corporate performance using thirty-six (36) M&A cases of China's listed real estate companies in Shanghai and Shenzhen Stock Exchanges from 2008 to 2009. Empirical analysis revealed that large board size had a significant negative effect on the performance. The results also showed that the CEO-Chairman duality has a significant impact on the long-term performance. Thorough analysis shows that most of the research work on board characteristics and short run return from mergers and acquisitions activities is majorly conducted in the developed countries. Therefore, this study intends to address the existing research gap by conducting a study on impact of board characteristics on short run cumulative abnormal returns from mergers and acquisitions of listed firms in Eastern Africa securities markets thereby providing evidence from emerging markets.

- *Objective of the Study*

To determine the impact of board characteristics on short run cumulative abnormal return from mergers and acquisitions of listed firms in firms in Eastern Africa securities markets.

- *Research Hypothesis*

Board characteristics does not have significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets

II. RESEARCH METHODOLOGY

This study employed event study approach to determine short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. Event studies examine stock returns for corporations experiencing a specific event. The aim is to measure the effect of the event on the value of a corporation (Kothari and Warner, 2007). Studies similar to the current study that has used event study design include (Arx and Zeigler, 2008; Selcuk and Yilmaz, 2011). The event study period considered 20 days before and 20 days after the merger or acquisition activity. Date zero represented the date when the merger or the acquisition activity occurred for a particular firm and it implied different calendar dates for different firms in the sample. The event period was considered long enough to capture all the effect of the merger or of the acquisition, albeit subjecting abnormal return estimates to more noise. Actual returns were computed for all the firms included in the sample. This was followed by estimation of the predicted returns for each day t in the event period for each firm j. In line with other studies standard event methodology was used to compute the predicted returns for the sample firms involved in mergers and acquisitions over the event window (-20, +20) around the announcement date (Golubov, Petmezas & Travos, 2012).

Abnormal returns were estimated by subtracting predicted returns from the actual returns (Golubov, Yawson and Zhang, 2015). This was followed by determining cumulative abnormal returns (CAR) for each firm. This involved cumulating abnormal return for each firm over the window period (-20, +20). Finally, to cancel out noise effect from the results average abnormal return (AAR) was computed by averaging abnormal returns across the firms. Average abnormal return (AAR) for each day over the entire event period (-20, +20) are then cumulated for each day over the entire event period to determine cumulative average abnormal return (CAAR). For each performance measure that is CAR and CAAR test statistics was computed and compared to its assumed distribution under the null hypothesis that mean abnormal return equals zero.

The null hypothesis is rejected if the test statistics exceed a critical value typically correspond to 5% or 1% tail region (Kothari & Warner, 2007). Further, the study used correlation research design determine the impact of board characteristics on short run cumulative abnormal returns from mergers and acquisitions of listed firms in Eastern Africa securities markets. Correlation research design examines the relation between two or more non-manipulated variables and the theoretical model that might be developed and tested to explain the resultant correlation (Miles & Shevlin, 2010). Uysal (2011) employed correlation study design while conducting a study on M&A.

The target population for the study included all the firms listed in the security markets in the three Eastern Africa countries involved in mergers and acquisitions. The study employed multi-stage sampling technique to select the final sample (Cooper and Schindler, 2011). The initial stage involved determining the number of the listed firms involved in mergers and acquisitions. Secondly, the M&A activity must have occurred between year 1998 and 2015. Appendix (1) presents all the listed firms that have been involved in mergers or in acquisitions for the period under study. In addition, all the firms selected must have all the information regarding the operationalization of the variables. Alexandridis, Petmezas and Travos (2010) and Halfar (2011) used multi-stage sampling while studying gains from acquisitions around the world and effect of mergers and acquisition on long run financial performance of acquiring companies in South Africa respectively. The final sample

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included only the mergers and acquisitions made by firms listed in the security markets in the three Eastern Africa countries including Kenya, Uganda and Tanzania which merger with or acquired either a public or a private target in the same countries for the period 1998 through 2015. Issue of confounding effect in the final sample were properly addressed (McWilliams & Siegel, 1997). The final sample comprised of thirty (30) completed mergers and acquisitions firms publicly trading in Eastern Africa securities markets merging with or acquiring either a private or a public target firm for the period between 1998 through 2015. The base year (1998) coincided with the liberalization of financial service sector in many Eastern Africa countries (Kodongo, Makoteli & Maina, 2014).

Secondary data was collected from audited annual company reports and central bank reports and publications. In addition, reports from Capital Market Authority and Nairobi Securities Exchange were utilized. The study relied on secondary data collected using secondary data collection sheet. Most studies on M&A rely secondary data (Moeller, Schlingemann, and Stulz, 2005: Alexandridis *et al.* 2010). Table 1 presents the summary of how all the variables were measured. Data required for event study analysis included daily securities prices; that is, the maximum and the minimum prices for the firms involved in mergers and acquisitions and the daily index for the NSE 20share which was used as a proxy for the market for the period under study. Short run study data was collected twenty (20) days before and 20 days after M&A announcement. The independent variable of the study was board characteristics. Board characteristics had three constructs, these included board size, CEO duality and board independence. Board size was measured by the number of the board of directors on board. CEO Duality was measured using a nominal scale that took a value of one (1) if the position of CEO and Chairman of the board are held by different individuals and zero (0) otherwise. Board independence was measured by a percentage of independent directors on a board against the total board size.

Table 1: Summary of the Measurement of the Study Variables

Board Characteristics	**Data type**	**Measurement**
Board size	Quantitative	Number of board of directors.
CEO duality	Qualitative (Nominal scale)	Indicator variable of one (1) if the position of CEO and Chairman of the board are held by different individuals and zero (0) otherwise.
Board independence	Quantitative	Percentage of independent directors on a board against the total board size.
Dependent Variable		
Cumulative abnormal return from mergers and acquisitions	Quantitative	Daily securities for firms selected, Daily NSE 20 Share index

Source (Masulis, Wang & Xie, 2007; Moeller, Schlingemann & Stulz, 2005).

Descriptive statistics such as measures of central tendency; mean, mode and measure of variation; standard deviation were generated. Presentation was done using tables and interpretation done accordingly. Before subjecting data to inferential analysis, necessary diagnostic tests were carried out. Data was checked for normality, independence assumption or lack of autocorrelation, multi-collinearity and linearity. Normality of the dependent variable was checked using Kolmogorov-Smirnov (K-S) and Shapiro-Wilk tests (Shapiro and Wilk 1965; Miles and Shevlin, 2010). Durbin Watson coefficient was used to test autocorrelation. Durbin Watson statistics ranges between 0 and 4 (Gujarat, 2009). For independent observation, statistics range between 1.5 and 2.5, a value closer to 0 indicates positive correlation while a value closer to 4 indicates negative correlation (Tabachnick and Fidell, 2014).

Multi-collinearity in the data was tested using Variance inflation statistics. Multi-collinearity is an undesirable situation that occurs where two or more predictors in a multiple linear regression are highly correlated (Argyrous, 2011). Finally, linearity assumption was checked using graphical analysis. Data was then subjected to inferential analysis. To determine the impact of board characteristics on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets multivariate regression analysis was carried out. The model specification that guided the study is stated as follows in equation one (1)

$$Y_t = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_t \quad (1)$$

Where:
$Y_t$is the short run cumulative abnormal return from mergers and acquisitions in time *t*.
X_1 is the board size.
X_2 represents CEO/Chairman duality.
X_3 is the board independence.
α is the model intercept.
$\beta_1, \beta_2, \beta_3$, are the beta coefficients for the board size, CEO Duality and board independence respectively.
$\varepsilon_{i,t}$ is the error term of the model.

III. STUDY FINDINGS AND DISCUSSION

A. Descriptive Results

Table 1 presents the summary of the descriptive statistics. Short run cumulative abnormal return from mergers and acquisitions minimum value was -8% while maximum value was 11% considering CAR$[-1 + 1]$. The average short run cumulative abnormal return from mergers

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and acquisitions was 2% while the dispersion was 5%. Data spread was measured using both skewness and kurtosis coefficient and the results indicated data was normally distributed. Average number of board members was nine (9) among the companies which had exercised M&A. Overall the board members fall within the range of optimal board size which is between seven (7) and nine (9) (Liu & Wang, 2013). It is important to manage board size in order to minimize the agency costs associated with a large board size. Moreover, the average number of board independence was 52% this depicted that there was a possibility of benefiting from diversified pool of experts within the board.

Table 2: Descriptive Analysis for Short Run Return

	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
CAR -1, +1	-0.08	0.11	0.02	0.05	-0.12	0.43	-0.79	0.83
Board size	5.00	13.00	8.93	2.20	0.15	0.43	-0.51	0.83
Board independence	0.33	0.73	0.52	0.13	-0.16	0.43	-0.96	0.83

B. Diagnostic Test

➢ *Normality Test*

Normality for the dependent variable data was tested using both Kolmogorov Smirnova (K-S) test and Shapiro Wilk (1965). Both test the null hypothesis that the data is normally distributed against an alternative which assumes that the data is not normally distributed. Using the p-value, we ought to reject the null hypothesis if the p value is less than 0.05 and accept it if otherwise (Porter & Gujarat, 2009). Table 3 presents the numerical normality test. The results reveal that the normality test statistics computed for CAR (-1, +1) were insignificant. The p value when using the Kolmogorov Smirnova (K-S) test is 0.2 while Shapiro Wilk p value 0.67 both of which are greater than 0.05. This indicated that the dependent variable was normally distributed (Shapiro & Wilk 1965; Miles and Shevlin, 2010).

Table 3: KolmogorovSmirnova (K-S) and Shapiro Wilk Normality Test for the Dependent Variable

		Kolmogorov-Smirnova		Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
CAR -1, +1	0.093	30	0.200*	0.975	30	0.676
a. Lilliefors Significance Correction *. This is a lower bound of the true significance.						

➢ *Linearity Test*

Linearity test was conducted on the two quantitative variables; that is, board size and board independence. The findings are presented in figure 1. From the figure there exist a positive relationship between board size and short run cumulative abnormal return from mergers and acquisitions. Moreover, 22.6% of variation in short run cumulative abnormal return from mergers and acquisitions can be attributed to board size.

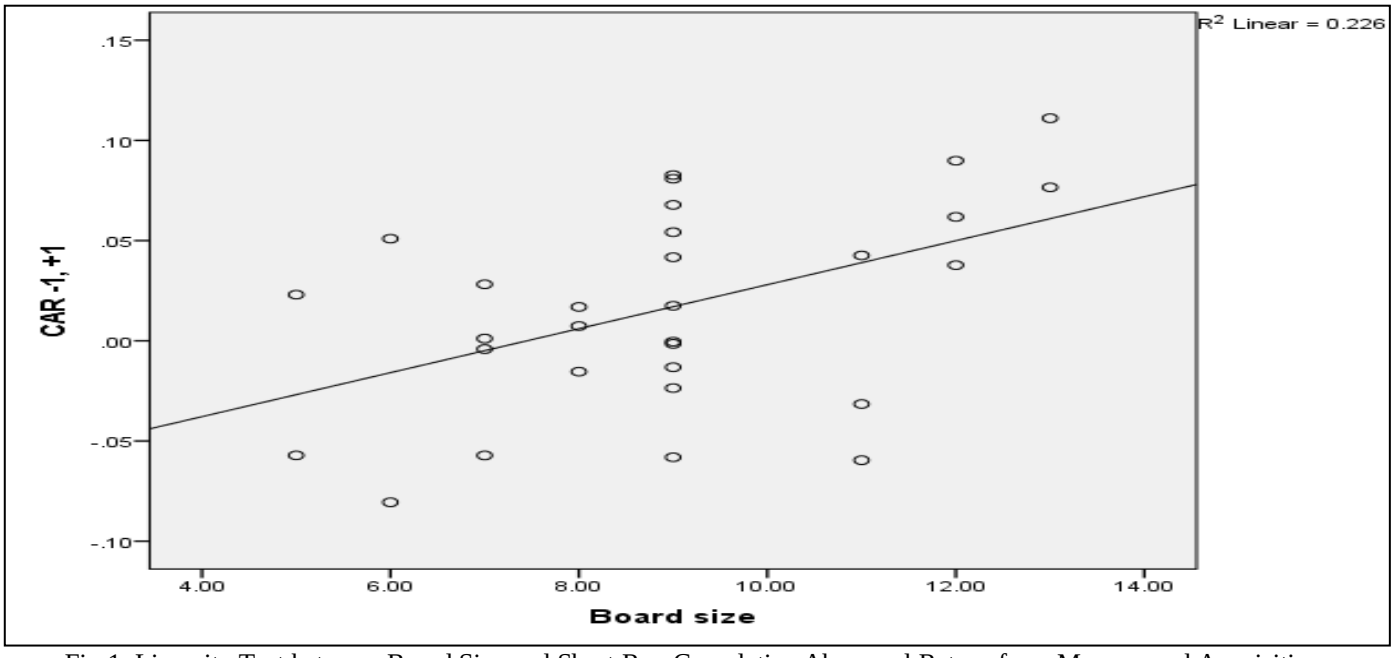

Fig 1: Linearity Test between Board Size and Short Run Cumulative Abnormal Return from Mergers and Acquisitions

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The next variable subjected to linearity test was board independence. The findings are presented in Figure 2 and they indicate an inverse linear relationship between board independence and short run cumulative abnormal return from mergers and acquisitions. In addition, 6.3 % of variations in short run cumulative abnormal return from mergers and acquisitions can be attributed to board independence.

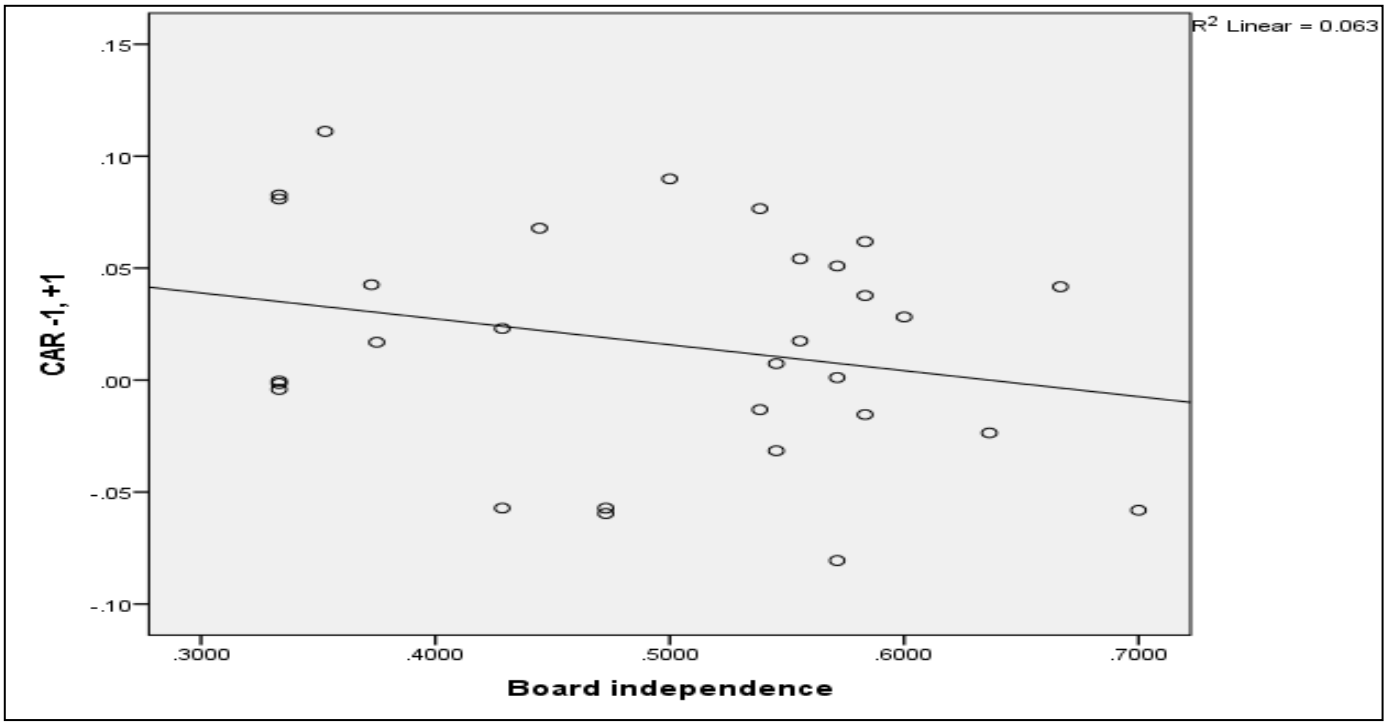

Fig 2: Linearity Test between Board Independence and Short Run Cumulative Abnormal Return from Mergers and Acquisitions

➢ *Multi-Collinearity Test*

The study used variance inflation factor and tolerance limits to check the presence of multi-collinearity in the data. Porter & Gujarat (2009) suggest that if the VIF is greater than 10 or tolerance is less than 0.1 then there is multi-collinearity. The results are presented in Table 4. From the results duality had a VIF of 2.45 and a tolerance of 0.41. Board independence had VIF of 2.26 and a tolerance of 0.44 while board size had VIF of 1.65 and a tolerance of 0.61. It was noted that none of the coefficients exceeded the acceptable threshold of 10 for VIF or were less than 0.1 for tolerance as suggested by Hamilton (2006). It was concluded that there was no collinearity among the independent variables.

Table 4: Multi-Collinearity Test Using VIF and Tolerance for the Study Variables

Variable	VIF	1/VIF (Tolerance)
Duality	2.45	0.41
Board independence	2.26	0.44
Board size	1.65	0.61

➢ *Autocorrelation Test*

Gujarat (2009) explains that autocorrelation occurs when the error terms are correlated with each other. To detect the presence of autocorrelation in our data Durbin Watson test statistics was used. The test assumes that the data has no autocorrelation if the DW coefficient ranges between 1.5 and 2.5 (Garson, 2012; Porter & Gujarat, 2009).

Since none of the regression model coefficient was outside the recommended ranges then it was concluded that there was no autocorrelation. The results are presented in Table 5.

Table 5: Durbin Watson Test Results

Independent Variable	DW (Durbin Watson)
Board size	2.13
Board independence	2.19
Board characteristics	2.06

C. Inferential Analysis Results

➢ *Model Summary*

Table 6 presents the model summary for the impact of board characteristics; that is, board size, board independence and CEO duality on short run cumulative abnormal return from mergers and acquisitions. The results show that 30% of the variation in short run cumulative abnormal return from mergers and acquisitions can be jointly accounted for by board size, CEO duality and board independence. The remaining percentage can be explained by other factors excluded from the model.

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Table 6: Model Summary of Effect of Board Characteristics on Short Run Cumulative Abnormal Return from Mergers and Acquisitions

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.551a	0.30	0.22	0.04	2.06
a. Predictors: (Constant), Board independence, Board size, Duality b. Dependent Variable: CAR -1, +1					

➢ *ANOVA Results*

Table 7 presents analysis of variance results for the hypothesized relationship between board characteristics and short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. Regression analysis shows that the linear relationship among the three variables namely board size, board independence, CEO /Chairman duality with short run cumulative abnormal return from mergers and acquisitions have an F-value of 3.78 which is statistically significant since the p value equals 0.022. Thus at least one of the beta coefficients is not zero. This shows that the overall model is significant in predicting short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. Thus, the null hypothesis was rejected and the conclusion was made that board characteristics: board size, CEO /Chairman duality and board independence jointly had a significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets.

Table 7: ANOVA Results for The Impact of Board Characteristics Short Run Cumulative Abnormal Return from Mergers and Acquisitions of Listed Firms in Eastern Africa Securities Markets

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.023	3	0.008	3.784	.022a
	Residual	0.052	26	0.002		
	Total	0.075	29			

a. Predictors: (Constant), Board independence, Board size, Duality
b. Dependent Variable: CAR -1, +1

➢ *Coefficient for the Regression between Board Characteristics and Short Run Cumulative Abnormal Return from Mergers and Acquisitions of Listed Firms in Eastern Africa Securities Markets*

Results for the regression coefficients are presented in Table 8. The findings show that coefficient for the constant $\propto$ was -0.045 and it is insignificant at 5%; p-value = 0.448. Further, the results show that of the three board characteristics only board size coefficients was significant, the others; duality and board independence were insignificant. Board size coefficient was significant; β = 0.010 with a p-value of 0.017. Further, the beta value of 0.01 implies that a unit change in board size increases short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets by 0.01 units. Secondly, a positive though insignificant relationship was reported between CEO duality and short run cumulative abnormal return from mergers and acquisitions was found (β = 0.025, p-value =0.48) the p-value was greater than 0.05. Lastly, the findings indicate that board independence had an insignificant impact on short run cumulative abnormal return from mergers and acquisitions. This is evidenced by the beta coefficient value of -0.106 with a p-value of 0.181. The findings of the study exhibited that short run cumulative abnormal return from mergers and acquisitions were significantly explained by board size of the firm.

Table 8: Regression Coefficient for the Impact of Board Characteristics on Short Run Cumulative Abnormal Return from Mergers and Acquisitions of Listed Firms in Eastern Africa Securities Markets

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	-0.045	0.059		-0.770	0.448
	Board size	0.010	0.004	0.438	2.550	0.017
	CEO Duality	0.025	0.035	0.126	0.717	0.480
	Board independence	-0.106	0.077	-0.229	-1.375	0.181
a. Dependent Variable: CAR -1, +1						

The results in Table 8 indicate that board size had a significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. Null hypothesis was rejected and a conclusion made that board size had a significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. CEO /Chairman duality had an insignificant impact implying that separating the positions of CEO of the company and Chairman of the board had a positive insignificant effect on short run cumulative abnormal return from mergers and acquisitions. Consequently, null hypothesis that CEO / Chairman duality has no significant impact on short run cumulative abnormal return from mergers and acquisitions run of listed firms in Eastern Africa securities markets could not be rejected. Therefore, it was concluded CEO/Chairman

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duality does not significantly impact short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets.

Finally, the findings on board independence did not have a significant impact on short run cumulative abnormal return from mergers and acquisitions. The null hypothesis therefore could not be rejected. Conclusion was drawn that board independence did not significantly impact short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. The findings of this study on impact of board size on short rum cumulative abnormal return resonates with the existing work that advocate for small or optimum board size (Haniffa and Hudaib, 2006; Garg, 2007; Khorana, Tufano and Wegde, 2007; Nerantzidis, and Tsamis, 2017). The study findings however disagreed the findings of Ampakoudis, Nerantzidis, Soubeniotis and Soutsas, (2018) who reported negative and significant relationship between board size and acquirers return. Bhagat and Black (1999) documented that there is no consensus as to whether board independence affects firm performance. The study findings are in tandem with the findings of Masulis et al. (2007) who reported an insignificant relationship between board independence and acquirer returns. Finally, an insignificant relationship between CEO/ Chairman duality and short run cumulative abnormal return from mergers and acquisitions was reported. These findings contradict the work of Masulis et al. (2007) reported that separating the two positions results in improved firm performance and shareholders' wealth creation. They supported their findings by stating that separating the two positions can help rein in empire building by CEOs, cause them exercise caution and consultative widely when mergers acquisition investment decisions thereby creating shareholder wealth.

IV. SUMMARY, CONCLUSION AND RECOMMENDATION

The objective of the study was to investigate the impact of board characteristics on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. The variable had three constructs; namely, board size, CEO / Chairman duality and board independence. The analysis of the results show that board size had a positive and significant impact on short run cumulative abnormal return from mergers and acquisitions of listed firms in Eastern Africa securities markets. Secondly, the research findings indicated that neither CEO / Chairman duality nor board independence had a significant impact on short run cumulative abnormal return from mergers and acquisitions of firms listed in Eastern Africa securities markets. The study concludes that board size is a key determinant of short run cumulative abnormal return from mergers and acquisitions of firms listed in Eastern Africa securities markets. Based on the findings the study recommend M&A firms should endevour to maintain an optimum board size, this is because optimum /small board size are associated with higher financial returns.

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APPENDICES

Appendix I. Study Population

- *Listed Financial and Non -Financial Institutions Involved in Mergers*

	Institution	Merged with	Current name	Date
1	Stanbic Bank (K) Ltd	Stanbic Finance (K) Ltd	Stanbic Bank of Kenya Ltd	1996
2	National Industrial Credit Bank Ltd	African Mercantile Bank Corp	NIC Bank	1997
3	Standard Chartered Bank of Kenya	Standard Chartered Financial Services	Standard Chartered Bank of Kenya	1999
4	Diamond Trust Bank (K) ltd	Premier Saving and Finance ltd	Diamond Trust (K) Bank	1999
5	Barclays Bank of Kenya Ltd	Barclays Merchant Finance Ltd	Barclays Bank of Kenya Ltd	1999
6	Kenya Commercial Bank	Kenya Commercial Finance Co	Kenya Commercial Bank Ltd	1999
7	Cooperative Bank Ltd	Cooperative Merchant Bank Ltd	Cooperative Bank of Kenya	2002
8	CFC Bank Ltd	Stanbic Bank Ltd	CFC Stanbic Bank Ltd	2008
9	Saving and Loan (K) Ltd	Kenya Commercial Bank Ltd	Kenya Commercial Bank Ltd	2010
10	Biashara Bank Ltd	Investment & Mortgage Bank Ltd	I&M Ltd	2002
11	Pan African Insurance	Apollo Insurance Co Ltd	APA Insurance	2003
12	Kobil Kenya	Kenya Oil	Kenol Kobin	2014
13	Safaricom Ltd	Essar Telecommunication	Safaricom ltd	2014

Source: Competition Authority of Kenya

- *Listed Financial and Non Financial Institutions Acquisition Firms in Eastern Africa Securities Market*

S/n	Acquisition Companies	Year
14	Kenya oil Acquisition of kobil oil	2007
15	Acquisition of Uganda Telecom by Lap Green company	2006
16	Equity Bank of Kenya Acquires Housing Finance	2007
17	Equity Bank of Kenya Acquires Microfinance Institution (MFI) of Uganda	2008
18	Safaricom Kenya Acquires One Com (Kenya IT Firm).	2008
19	Total Kenya acquistion of Chevron Kenya	2009
20	East African Breweries Acquistion of Serengeti Breweris of Tanzania	2010
21	East African Breweries Acquisition of Kenya Breweries	2011
22	TPS Serena group of Hotels acquires Hotel Movenpick Dareesalam	2012
23	Acquistion of Crown Berger (Crown Paint Kenya Acquisition of Crown Paint Tanzania)	2012
24	Tps Eastern Africa (Serena) Acquistion of TPS Uganda	2012
25	I&M Bank Acquisition by City Trust	2012
26	Pan African Insurance Acquisition by Hubris Holding Ltd	2012
27	Centum Inestment acquisition of Genesis Kenya Investment Management	2013
28	Scan group and Cavendish Squareholdings	2013
29	Acquisition of Getaway Insurance Company by Pan Africa Insurance Holding ltd	2014
30	Britam Acquisition of Real Insurance	2014
31	British American Investment (Britam) Kenya Acquisition of Housing Finance	2014
32	Acquistion of Phoenix Uganda by Kenol Kobil	2014
33	Barclays Bank acquires First Assurance Company	2015
34	Equity Investment Bank acquires 250,000of Thuo and Partners Brokerage Firm	2013
35	Standard Chartered private Equity (SCPE) and ETC group.	2013
36	I&M Bank Acquisition of Giro Bank	2015
37	Equity Bank of Kenya Acquires Pro-credit Bank of Congo	2015
38	Unga Group Ltd Acquisition of Enns Valley Bakery Ltd	2014

Source: Competition Authority of Kenya,

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Appendix 2. Cumulative Abnormal Returns for Different Holding Periods in the Short Run

S/N	Company Code	CAR -20, +20	CAR -10, +10	CAR -5, +5	CAR -2,+2	CAR -1, +1
1	C01	0.074	0.071	0.047	0.078	0.023
2	C02	0.018	-0.010	0.024	0.031	-0.004
3	C03	0.020	0.017	0.010	0.047	-0.001
4	C04	0.853	0.395	0.169	0.036	0.111
5	C05	0.009	0.029	0.076	0.019	0.083
6	C06	0.045	0.076	0.049	0.043	0.043
7	C07	0.208	0.325	0.158	0.104	0.081
8	C08	0.130	0.010	0.016	-0.091	-0.058
9	C09	-0.049	-0.914	-0.475	-0.872	-0.482
10	C10	-0.027	0.102	-0.059	0.045	0.077
11	C11	-0.050	-0.020	-0.091	-0.022	-0.024
12	C12	0.039	0.071	-0.079	-0.032	-0.015
13	C13	0.025	-0.028	0.009	0.065	0.0618
14	C14	0.045	0.076	0.077	0.028	0.028
15	C15	-0.116	-0.109	-0.155	-0.012	0.090
16	C16	0.024	-0.042	0.035	-0.043	-0.060
17	C17	0.021	0.007	0.044	0.134	-0.057
18	C18	-0.038	0.006	-0.023	-0.107	-0.057
19	C19	-0.010	-0.016	-0.017	0.021	0.017
20	C20	0.010	0.021	0.0158	0.017	-0.013
21	C21	0.034	-0.051	-0.030	0.027	0.017
22	C22	0.011	-0.028	0.037	0.0041	0.001
23	C23	0.050	-0.008	-0.042	0.003	0.038
24	C24	0.016	-0.004	-0.081	-0.089	0.068
25	C25	-0.053	0.132	0.152	-0.020	0.054
26	C26	0.013	0.070	0.060	-0.002	0.007
27	C27	-0.062	0.028	-0.028	0.008	-0.001
28	C28	0.270	-0.558	0.048	0.057	0.042
29	C29	0.233	2.116	0.650	1.605	-0.032
30	C30	0.050	0.051	0.087	0.054	0.051