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## EFFECT OF BOARD SIZE ON THE FINANCIAL PERFORMANCE OF MERGED INSTITUTIONS

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### Abstract

**Purpose:** The purpose of this study was establishing the effect of board size on the financial performance of merged institutions.

**Methodology:** The study adopted a mixed methodology research design. The study population included all the 51 merged financial service institutions in Kenya. Purposive sampling was used. Primary data was obtained from questionnaires and a secondary data collection template was also used. The researcher used quantitative techniques in analyzing the data. Descriptive analysis for the study included the use of means, frequencies and percentages. Inferential statistics such as correlation analysis was also used. Panel data analysis was also applied. Further, a pre and post merger analysis was used.

**Results:** Board size had a significant relationship with financial performance of merged institution.

**Unique contribution to theory, practice and policy:** It was recommended that, firms are place a remarkable degree of emphasis on the area of corporate governance and to some extent embark on eliminating CEO duality. The study also recommends a board size (6 and 8) for better financial performance. This will reduce the problem of free rider and enhance effective monitoring and decision making. It will also bring about cohesion among the board members.

**Keywords:** Board size, Financial performance, Merged institutions.

## 1.0 INTRODUCTION

### 1.1 Background of the Study

A merger or an acquisition is a strategy that is carefully planned to achieve a synergistic effect (Akinsulire, 2012). The synergistic effect of mergers and acquisitions includes economies of scale through greater output, avoidance of duplication of facilities and staff services and stronger financial base. The economic benefits as a reason for pursuing a merger or an acquisition include income enhancement, cost reduction and growth (Amedu, 2014). Some of the reasons for mergers and acquisitions are to: purchase a company having competent management; improve earnings per share, inject fresh ideas for better prospects and enhancement of shareholders' wealth, gain access to the financial market, eliminate duplicate and competing facilities, secure scarce raw materials, diversify into other products or markets or to complete a product range,

greater asset backing; and enhance economy of scale and corporate growth (Akinsulire, 2012; Amedu, 2014).

Grinblatt, Mark & Titman, Sheridan (2012) identified three different categories of M&A; strategic acquisitions, financial acquisitions and conglomerate acquisitions. Strategic mergers take place between two companies in the same line of business; thus between former competitors (Brealey, Myers, & Marcus, 2011& Grinblatt *et al.*, 2012). Financial acquisitions are marked by no operating synergies; instead companies engage in financial acquisitions because the acquirer believes that the target company is undervalued relative to its assets. Another motive for engaging in financial acquisitions is the tax gain sometimes associated with the acquisition (Brealey *et al.*, 2011& Grinblatt *et al.*, 2012). In a conglomerate acquisition no clear potential for operating synergies exist, since the two companies operate in unrelated lines of business (Brealey *et al.*, 2011& Grinblatt *et al.*, 2012). This type of acquisition according (Brealey *et al.*, 2011& Grinblatt *et al.*, 2012) is often motivated by financial synergies, which enables a company to lower cost of capital there by creating value

Due to changes in the operating environment, several licensed institutions have had to merge or one institution takes over another's operations (Hitt, Ireland & Hoskissn, 2009;Fluck and Lynch, 2011). Some of the reasons put forward for mergers and acquisitions are: to gain greater market power, gain access to innovative capabilities thus reducing the risks associated with the development of a new product or service, maximize efficiency through economies of scale and scope and finally in some cases, reshape a firm's competitive scope (Hitt *et al.*, 2009;Fluck *et al.*,2011; Vermeulen and Bakerma, 2011; Vaara, 2012). Other reasons include short-term solution to finance problems that companies face due to information asymmetries (Fluck *et al.*2011), revitalize the company by bringing in new knowledge to foster long-term survival (Vermeulen *et al.* 2011) and to achieve synergy effects (Lubatkin, 2007; Vaara, 2012).

Mergers & Acquisitions (M&A)play major roles in shaping activities of enterprises. Once a phenomenon seen primarily in the US, M&As are now taking place in countries throughout the world. Continental Europe has experienced M&A bursts coupled with relative inactivity both domestically and across national borders since the stock market bull run from the recession of 1980- 81, the deregulation of the financial services sector, and development of new financial instruments and markets, labeled the first European merger wave (Hitt,*et al.* 2001). The first real increase in M&A activity in the UK, on the other hand, can be traced back to the 1920's when the development of mass production techniques created an increase in the vertical integration through scale of production, while the second M &As wave came in the 1960s as a response to the internationalization of the world economy. There was need for M&As to create larger firms that would be capable of being effective in international competition especially from countries like the US and Japan (Sundarsanam, 2003).

According to (Ross *et.al* 2003), "One important reason for a merger or acquisition is that the combined firm may generate greater revenues than two separate firms". Enhancing the revenue of companies can be done by market gains, strategic benefits, and market power. It is perfectly obvious that mergers and acquisitions can produce greater operating revenues from improved marketing. For example, "when Microsoft purchased Tiny Vermeer in 1996, Vermeer's front-page software used to create webpage that was selling at a snail's pace. But, when the software was superimposed on the Microsoft front page, the sales took off reflecting Microsoft marketing

muscle” (Ross *et.al* 2003). Some merger and acquisition produces strategic benefits when companies enter into another line of business to enhance management flexibility with regard to the future operations. For example, according to (Ross *et.al* 2003), a motor company from the original business can provide opportunities to begin manufacturing electric motors and generators

Many merger and acquisition are undertaken with the belief that a merged firm may operate more efficiently than two separate firms. A firm can obtain cost reductions in several ways through a merger or an acquisition (Ross *et.al* 2003). According to Motis (2007), a firm can obtain cost advantage when its average cost per unit decreases as the total level of output increases. Economies of vertical integration can be gained by combining the companies operating in the same industry. For example, airline companies have purchased hotels and car rental companies. Vertical integration of companies may have a significant impact on companies to reduce cost, to improve supply chain operations, and in increase the profit margin. Some companies may acquire another company for the sake of complementary resources which makes the products commercially viable. For example, according to (Motis 2007) winter clothing store could merge with a summer clothing store to produce more sales over both the winter and summer seasons.

There are various ways that companies may lower their taxes through merger and acquisition activity. In many cases, a state government and its corporate bodies encourage companies opting for merger by imposing a flexible tax rate system. Some firms choose to merge with another company that has net operating losses. The combined firm will have lower tax liabilities than the two firms operating separately. In another case, whenever there is an acquisition of assets rather than shares, the assets of the acquired company will be revalued; and as (Ross *et.al* 2003; Motis 2007) assert, if the value of the assets are increased, the tax deductions for depreciation will be a benefit.

## 1.2 Problem Statement

The resultant benefits and costs of mergers and acquisitions is a strategic issue which may impact positively or negatively on financial performance (Healy, Palepu and Ruback 2012). Shareholders and their agents are therefore faced with a problem of trying to ascertain whether this strategic decision and activity will result in improvement of better financial performance (Katu, 2003). Mergers and acquisitions could also concern policy makers because they may have negative consequences on the competitive environment by creating monopolies (Wang 2007). Several economic theories and M&A literature support the idea that shareholders experience positive abnormal returns arising from expected value creation post-merger (Halebian, 2009; Cartwright *et al*, 2013; Moeller *et al.*, 2015). Thus, M&As are expected to create value as a result of firms exploiting economic resources that are both available and implementable but, the general result is that the shareholders of target firms earn positive and significant returns, whereas returns for acquiring firms are much lower and possibly negative (Cartwright *et al*, 2013). This is the practical gap that necessitates this study.

Many studies in M&As have been done in developed markets globally mainly in Asia, Europe and the USA. Healy, *et al* (1992) examined post-acquisition performance for 50 largest U.S. mergers between 1979 and 1984 by measuring cash flow performance, and concluded that performance of merging firms improved significantly following acquisitions, when compared to

their respective industries. Lubatkin (1983) reviewed the findings of studies that investigated either directly or indirectly the question, “Do mergers provide real benefits to the combined firm?” The review suggested that combined firms might benefit from merging because of technical, and diversification synergies. Ghosh (2001) examined the operating cash flow performance improvement after corporate acquisitions; and the results showed that merging firms did not show evidence of improvements in the operating cash flow performance of post-merger and acquisition. Wang (2007) investigated the wealth effect of investment banks and fairness opinions they provide in corporate mergers and acquisitions. The study found that firms undertaking opinioned mergers under-perform firms with non-opinioned matching mergers in short windows around the announcement date. Lack of conclusiveness of studies linking merging activity to performance is a distinct knowledge gap.

Limited studies have been carried out on the M & As in the Kenyan market. These studies’ findings have not shown that M & A activities positively affect financial performance. Some of them even give contradictory findings. Chesang (2002) carried out a studied on implications of merger restructuring on performance of commercial banks in Kenya. She used ratio analysis on this study and concluded that there was improved performance in some cases though; the extent of the contribution was not significant. Korir (2006) researched on the merger effects of companies listed in the NSE and found out that mergers improve performance of companies listed at the NSE. Ochieng (2006) did research on the merger between CBA & FABK and the results showed a decline in earnings and lower ratios arising out of the deal. Marangu (2007) studied effects of mergers on financial performance of non-listed banks in Kenya from 1994-2001 and using the ratio analysis, he concluded that there was significant improvement in performance for the non-listed banks that merged compared to the non-listed banks that did not merge within the same period. The empirical studies conducted in Kenya including; (Maranga, 2010; Katuu, 2003; Muya, 2006; Kiplagat, 2006; Wesonga, 2006; Nyagah, 2007; Njoroge, 2007; Kithinji, 2007, Ndura 2010, Ndung’u 2011, and Ileri 2011) have all failed to treat mergers and acquisitions as a strategic activity. Despite these M&As activities continue to take place in the Kenyan economy; this presents a conceptual knowledge gap. In light of these inconclusiveness and conceptual gaps poised from these past studies, this study sought to establish if board size affected financial performance of financial services institutions in Kenya.

### **1.3 Research Objective**

The study sought to establish the effect of board size on the financial performance of merged institutions.

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Review**

#### **2.1.1 Agency Theory**

Agency theory is concerned with the separation of interests between company owners and managers (Jensen and Meckling, 1976; Shapiro, 2005; Carpenter et al., 2009; Heracleous and Lan, 2010). The main assumption of agency theory is that principals and agents are all rational and wealth seeking individuals who are trying to maximize their own utility functions. In the context of corporate governance, the principal is the shareholder and the agent is the director or senior

management (Shapiro, 2005;Carpenter et al., 2009). Agency theory explains this relationship as a contract, but there are two problems: *first*; the problem occurs when there is conflict of interest between the principals and the agents; and it becomes very difficult and expensive for the principals to verify the agents' actions. *Second*; is how to share the risk as both parties have different risk preferences (Jensen and Meckling, 1976;Shapiro, 2005;Carpenter et al., 2009;Heracleous and Lan, 2010;Berger and Bonaccorsi di Patti, 2011; Aggarwal and Kyaw, 2012)

Agency theory is based on the following assumptions concerning “people; self-interest, bounded rational, and risk aversion. Assumptions concerning the organizations are; goal conflicts among members, and assumptions concerning information are such that, information is a commodity which can be purchased”. Eisenhardt (1989) describes the two lines of the theory as positivist agency theory, and the principal-agent research. The first line identifies the circumstances leading to the conflict and explains the possibilities of reducing the management's self-interest behavior. In this line of theory, the board of directors are included in the agency theory as the monitoring instrument of the shareholders over the management. The second line of theory focuses on searching for the best solution contractually that can align these positions. Shapiro (2005) review of agency theory which is partly based on Eisenhardt (1989) also explains the theory in similar lines. Economic studies generally focus on the relationship between stockholders and managers and includes *first*; principals must always ensure that the selected agents act on their behalf, however; because managers have their own personal interest and often act opportunistically this cannot be assumed. *Second*; to solve this conflict of interest and information asymmetry between the parties the principal has several options of monitoring the agents' actions including; boards of directors, auditors, supervisors (and) structural arrangements (Heracleous *et al*, 2010;Berger and Bonaccorsi di Patti, 2011; Aggarwal and Kyaw, 2012). Further, agents can also be compensated in terms of behavior-oriented contract thus salary or performance (output) oriented contract, which includes commissions, bonuses, piece rates, stock grants, stock options and profit sharing. Eisenhardt (1989) asserts that the second alternative is best suited to align both positions thus ensuring that the agent acts in the principal's interest.All these alternatives however come with costs; and these costs include cost of compensation, monitoring costs and costs that may arise from the agents' actions that are not in line with the principals' best interests. It has also been stated that agents are risk averse while principals are risk neutral, and this is because agents are not able to diversify their risks (Heracleous *et al*, 2010;Berger and Bonaccorsi di Patti, 2011; Aggarwal *et al*, 2012).

Some of the critiques put forward towards the agency theory include those of Shapiro (2005), Heracleous et al (2010), who disputed the assumption that complex organizational structures and networks can be reduced to dyads of individuals. They say that agents are capable of serving several principals with multiple goals and even they themselves can be principals in a long chain of principal-agent relationships both inside and outside the organization (Shapiro, 2005; Heracleous *et al*, 2010). Secondly, on the assumption of self-interest and agents' own profit maximization goals, (Heracleous *et al*, 2010) introduce a new perspective on the theory and recommend the adoption of ways in which to cope with current ideas of corporate social responsibility and team production. These ways include; redefining the principal from shareholders to the corporation, redefining the status of the board from stockholders' agents to autonomous fiduciaries and redefining the role of the board from monitors to mediating

hierarchy (Heracleous *et al*, 2010; Berger and Bonaccorsi di Patti, 2011; Aggarwal *et al*, 2012). The shareholders are in production unit team that also includes other stakeholders such as employees and management. Despite the critiques, the benefit of this theory is that it is applicable in different areas of research. One such area is M&As, in which it is generally assumed that resistance to takeover bids is not in the interest of stockholders, but that of managers because of the managers' fear that they may lose their jobs during a takeover (Eisenhardt, 1989; Shapiro, 2005; Heracleous *et al*, 2010).

A Carpenter *et al.* (2009) support this line of thinking and uses the theory in his current M&A research model mentioning that majority of M&A researches operate on this basis. For example it is used in the description of the market for corporate control; thus if companies are managed by ineffective agents, this will definitely be reflected in the company's share price as this will be lower as compared to a company that is managed by effective managers. These ineffectively managed companies are often targets of takeovers, because of the expected possible gains for the acquirer. Therefore, "acquisitions can be seen to be value enhancing when they are used to discipline ineffective managers".

Agency theory can also be approached from the perspective of free cash flow; accordingly it is expected that agents who have a lot of free cash at their disposal usually act opportunistically instead of investing in projects that are beneficial for their principals. Hence a reduction of such free cash flow reduces such behavior, which can be achieved by decreasing the amount of available cash by paying out dividends to the shareholders or by paying interest for a debt (Berger *et al*, 2006; Aggarwal *et al*, 2010). "Payouts to shareholders reduce the resources under managers' control, thereby reducing managers' power, [...]" and their possibility to be involved in wasteful activities. The other way of reducing the amount of free cash flow that differs significantly from the first one is to cut payments of dividends in the future as dividends are merely a "promise" to the shareholders and not a legal obligation as interest payments for debts are. Holders of debt can file for bankruptcy if a company fails to meet its obligation in terms of payment of interest and principal, which may result into loss of control for the management (Jensen, 1986). Therefore, "greater financial leverage; thus increasing the amount of borrowed funds in relation to capital may affect managers and reduce agency costs through the threat of liquidation, which causes personal losses to managers of salaries, reputational perquisites, and through pressure to generate cash flow to pay interest expenses" (Berger *et al*, 2006). Hence, "the threat caused by failure to make debt service payments is an effective motivating force to make [...] organizations more effective" (Jensen, 1986).

(Carpenter *et al.* 2009; DeYoung *et al.* 2009) try to explain the circumstances, in which managers use acquisitions to satisfy their self-interest. Based on (Shapiro 2005, Eisenhardt, 1989) description of agency theory it can be concluded that problems to do with managers' contracts and lack of adequate monitoring lead to such behavior. Ownership effects are also considered relevant in this context; high and low levels of manager ownership in a company are indicative of misalignment of management's interest with shareholders' interests. Large shareholders fulfill external monitoring roles better and might trigger mergers to counter poor management (Carpenter *et al.*, 2009).

These are supported by Collins *et al.* (2007) in their research model that links bank governance with acquisition performance. Researchers premise that empirical M&As research show that

target shareholders often benefit and that “very few studies have detected positive returns to acquiring firm shareholders particularly in the US.” They state that the poor results “point to poor governance arrangement” and suggest the counter-measures in terms of executive compensation and managerial ownership incentives (fixed salary as opposed to performance related incentives; high against low level of stock ownership), board composition (number of independent directors in relation to the overall number of directors) and board diversity in terms of gender or ethnic diversity).

It is therefore possible that one merger can be used simultaneously to discipline ineffective managers and satisfy the self-interests of others, depending on the point of view. In this case the agents of the target company are disciplined or replaced by the agents of the bidder company, at the same time; the managers of the bidder company can fulfill their own opportunistic goals like increased job security. When this happens, the former owners of the target company may now benefit from increased agent performance, but they will still be dealing with a set of agents that act opportunistically, although their performance level may be higher than the level of the previous agents. Agency theory therefore explains why firms diversify, and also explain why diversification does not create value for companies. The idea is that diversification is often undertaken to gain efficiencies and to ensure benefits to all stakeholders; that organization's activities are run in a professional manner and free from any conflict of interest. This should therefore lead to increased value for the firm. Rationally, it is a diversified company that should address the agency conflicts within firm. Diversification can provide incentives for agents through investment and ownership, therefore the emphasis is not only based on performance evaluation of financial outcomes, but more on optimizing behavior (Jensen & Meckling, 1976; Jensen, 1986; Adams, 2014).

Generally agency theory explains the relationship between principals and agents and the instruments that align both positions. In the context of M&A the theory is used to explain changes in the financial performance of a company. M&As lead to performance enhancement, if they are used to discipline ineffective managers (Carpenter et al., 2009). It is also possible that M&As are misused by managers to satisfy their own self-interest, if the principals' interests are not aligned with the agents' interests by instruments like monitoring, management ownership and compensation (Collins et al., 2007). Further it is intimated that lower levels of free cash reduces the possibilities of agents getting involved in wasteful activities.

## 2.2 Empirical Review

Mohamed (2009) investigated the relationship between board size and performance in a sample of 174 bank and savings and loan holding companies, over the period 1995-2002. The study used panel univariate analyses and panel data techniques. Results indicated a positive relationship between board size and performance, as measured by Tobin's  $Q$  and the return on assets. The paper investigated whether this positive association was due to the fact that banks reduced the number of their directors in the aftermath of poor performance by testing for the relationship between board size and performance. The findings show that the number of directors leaving the board and the number of those joining the board for the first time increased following a poor performance, but the net change in board size was not affected by past performance.

Guest (2008) examined the impact of board size on firm performance for a large sample of 2,746 UK listed firms over 1981-2002. The UK provides an interesting institutional setting,



because UK boards play a weak monitoring role and therefore any negative effect of large board size is likely to reflect the malfunction of the board's advisory rather than monitoring role. The researcher found that board size has a strong negative impact on profitability, Tobin's Q and share returns. This result is robust across econometric models that control for different types of endogeneity. The findings showed no evidence that firm characteristics that determine board size in the UK lead to a more positive board size firm performance relation. In contrast, the author found that the negative relation was strongest for large firms, which tend to have larger boards. Overall, the evidence supports the argument that problems of poor communication and decision-making undermine the effectiveness of large boards.

Adams and Mehran (2005) examined the relationship between board structure (size and composition) and firm performance using a sample of banking firms during 1959-1999. Contrary to the evidence for non-financial firms, they found that banking firms with larger boards do not underperform their peers in terms of Tobin's Q. They argued that Mergers and Acquisition activity and features of the bank holding company organizational form may make a larger board more desirable for these firms and documented that board size is significantly related to characteristics of the sample firms' structures. Even after accounting for these potential sources of endogeneity, the study did not find a negative relationship between board size and Tobin's Q. Findings suggest that constraints on board size in the banking industry may be counter-productive. Consistent with the negative relationship found between Tobin's Q and board size for non-financial firms, institutional investors often advocate that firms decrease the size of their board.

Given that boards meet infrequently, the monitoring role of the board is most likely to be detectable in specific, discrete corporate decisions, rather than in the day-to-day operations that contribute to long-run stock and operating performance. Indeed, the existing literature does deliver a much clearer message when examining the effect of the boards on top management turnover and M&As. Paul (2007) finds that independent bidder boards deter the completion of value-decreasing bids and increase the likelihood of corrective post-bid asset downsizing for bids that are completed. However, Bange and Mazzeo (2004) find that targets in which CEOs are also board chairmen and targets with larger boards are more likely to receive a bypass offer (rather than a negotiated merger). These offers are more likely to be successful and generate higher target shareholder gains, while targets with independent boards are less likely to receive a high premium and the offer is less likely to succeed. In summary, the existing studies have shown boards dominated by independent directors to be more likely to make decisions that are in the interest of shareholders.

Hagendorff, et al, (2008) focused on the CEOs' benefits from mergers by analyzing in their research the relationship between the CEOs' or agents' incentives and the principals' anticipated gains in terms of cumulative abnormal returns around the event. Contradicting the widespread assumption that "boards of directors naively follow a policy of benchmarking CEO compensation according to firm size and award CEOs of recently merged banks an undeserved compensation windfall", Hagendorff, et al, (2008) found a positive relation between anticipated gains and CEO compensation. The relationship between "increases in asset size due to merger and post-merger changes in CEO compensation" however is not supported. Additionally, it is noticeable that the amount of long-term CEO compensation in relation to the total amount of

compensation increased, which may be explained as a supporting argument for using outcome oriented contracts to align the interests of principals and agents.

### 3.0 RESEARCH METHODOLOGY

The study adopted a mixed methodology research design where qualitative and quantitative research approaches were used to answer the research questions. The study population included all the 51 merged financial service institutions in Kenya which had completed their merger process by 31 December 2013. Purposive sampling was used. Primary data was obtained from questionnaires and a secondary data collection template was used to collect data on Return on Assets, Return on Equity and mergers and acquisitions aspects. The researcher used quantitative techniques in analyzing the data. Descriptive analysis for the study included the use of means, frequencies and percentages to describe the primary and secondary data collected. Inferential statistics such as correlation analysis was also used to test for the relationship of the variables from the secondary data. Panel data analysis was also applied to describe change in the study variables over time and trends over a period of five years from 2009 to 2013. A pre and post merger analysis was used to test whether the merger and acquisitions had brought any significant difference in the merged firms.

### 4.0 RESULTS AND DISCUSSIONS

#### 4.1 Response Rate

One hundred and twenty (120) questionnaires were administered to the respondents.

**Table 1: Response Rate**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Returned	83	69.2%
Unreturned	37	30.8%
<b>Total</b>	<b>120</b>	<b>100%</b>

Out of which 83 were properly filled and returned, representing a response rate of 69.2% as shown on table 1 According to Mugenda and Mugenda (2013) and also Kothari (2010) a response rate of 50% is adequate for a study. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

#### 4.2 Demographic Characteristics of Respondents who participated in the Primary Study.

Table 2 presents the demographic characteristics of the respondents.

**Table 2: Demographics Demography**

	Category	Frequency	Percent
Gender	Female	36	43.4
	Male	47	56.6
	<b>Total</b>	<b>83</b>	<b>100</b>
Age	20-30	17	20.5
	31-40	22	26.5
	41-50	23	27.7
	Above 51	21	25.3
	<b>Total</b>	<b>83</b>	<b>100</b>
department	Accounts/Finance	25	30.1
	HR	6	7.2
	Customerservice/Business		
	Development/Relationship Management	11	13.3
	Operations/strategy/planning	17	20.5
	Credit/risk/debt recovery	18	21.7
	Asset Finance	6	7.2
	<b>Total</b>	<b>83</b>	<b>100</b>
Position	Top Manager	15	18.1
	Senior Manager	25	30.1
	Middle Manager	43	51.8
	<b>Total</b>	<b>83</b>	<b>100</b>
Academic Qualification	College	14	16.8
	Undergraduate	37	44.6
	Masters	32	38.6
	<b>Total</b>	<b>83</b>	<b>100</b>
Number of Employees	11-50 employees	29	34.9
	over 50 employees	54	65.1
	<b>Total</b>	<b>83</b>	<b>100</b>

Majority of the respondents were male who represented 56.6 % of the sample while 43.4% were female. On the question of age, 20.5% the respondents were in the age bracket of between 20-30years, 25.5 % were between 31-40 years, 27.7% were between 41-50 years while 25.3% were

above 51 years. On the question on department, 30.1% of the respondents worked in the finance/account departments, 7.2% were from the HR department, 13.3% of were from the Customer service/Business Development/Relationship Management departments, 20.5% were from the operations, strategy and planning departments, 21.7% of the respondents were from the Credit, risk and debt recovery departments and 7.2% were from asset finance department.

The respondents were also requested to indicate their current position they held in the different departments 51.8% which was the majority indicated that they were in middle management position, 30.1% were in senior management position while 18.1% of the respondents indicated that they held top management positions.

On the question of academic qualification 44.6% had undergraduate qualification, 38.6% had masters qualification, while only 16.89% had a college qualification. Lastly the respondents were requested to indicate the number of employees in their institutions, 65.1s% who were the majority indicated that their institution had over 50 employees

The respondents stated that the mergers took place through the replacement of inefficient managers of the acquired firms and amalgamations. The respondents cited gaining market share, competitive advantage, increasing revenues, risk and product diversification and improving shareholder value were stated as the most important motivating factors behind the merger and acquisition. The most obvious motive to engage in M&A was to obtain synergy effects. These were attained through cost savings gained from economies of scale and scope.

On the question of the critical strategies that the management put in place to enhance success of the merger and acquisition, respondents stated size of merging partners, number of bidders and methods of financing. Stocks were preferred as a financing method.

### 4.3 Effect of Board Size on Financial Performance (secondary)

#### 4.3.1 Correlation Analysis

Table 3 presents the results of the correlation analysis between board size, ROA and ROE.

**Table 3: Correlation Analysis for Board Size and Financial performance**

		ROA	ROE	Board Size
ROA	Pearson Correlation	1	.410**	.345**
	Sig. (2-tailed)		0.00	0.00
ROE	Pearson Correlation	.410**	1	.256**
	Sig. (2-tailed)	0.00		0.00
Board Size	Pearson Correlation	.345**	.256**	1
	Sig. (2-tailed)	0.00	0.00	

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

The results show that there is a positive and significant relationship between ROA, ROE and board size ( $r=.345$ ,  $p=0.000$ ), ( $r=.256$ ,  $p=0.000$ ).

### 4.3.2 Regression Analysis

Regression analysis was conducted to empirically determine whether board size was a significant determinant of performance which is measured in ROA and ROE.

**Table 4: Regression Analysis for Board Size and Financial Performance (Secondary)**

	ROA	ROE
Parameter estimate	Coefficient(P value)	Coefficient(P value)
<b>Constant</b>	-1.144(0.000)	0.78(0.00)
<b>Board Size</b>	0.183(0.000)	0.009(0.00)
<b>R Squared</b>	0.119	0.65
<b>F statistic (ANOVA)</b>	32.546(0.000)	0.80(0.00)

Regression results in Table 4 indicated the goodness of fit for the regression between board size and ROA is 0.119. An R squared of 0.119 indicates that 11.9% of the variations in ROA are explained by board size. The overall model of ROA was significant with an F statistic of 32.546. The overall model of ROE was significant with an F statistic of 11.199.

The regression therefore is:

$$\text{ROA} = -1.144 + 0.183 \text{ Board Size}$$

$$\text{ROE} = 0.78 + 0.009 \text{ Board Size}$$

### 4.3.3 Hypothesis Testing

To determine whether board size had an impact on the performance of merged financial institutions, the hypothesis that there is no significant relationship between board size and financial performance of merged institutions was tested.

**Decision rule:** reject hypothesis if calculated p value is less than the critical p value of 0.05

Regression results in Table 4 indicate that the null hypothesis is rejected since the calculated p value (0.000) is less than the critical p value (0.05). Therefore, there is a significant relationship between board size and financial performance of merged institutions.

### 4.3.4 Pre and Post Merger Analysis

To test whether there is a statistical difference in board size mean before and after merger, an event window analysis was carried out.

**Table 5: Board size Pre and Post Merger Analysis**

	Merger period	N	Mean	T	Sig. (2-tailed)	Std. Deviation	Std. Error Mean
<b>Board Size</b>	1	23	9.96	5.65	0	2.44	0.509
	0	45	6.64	5.467	0	2.207	0.329

Results in Table 5 indicate that, there is a significant statistical difference in board size mean before and after merging. This implies that merging increased the number of members in the board of directors governing the merged financial services institutions.

#### 4.3.5 Effect of Board Size on Financial Performance (Primary)

The study used primary data to explain the effect of board size on financial performance of merged institutions. The responses were rated on a likert scale and the results presented in Table 6.

**Table 6: Descriptive analysis for Board Size (primary data)**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Dvtn
The overall board size has increased as a result of the merger	3.6%	21.7%	10.8%	47.0%	16.9%	3.5	1.1
The total number of independent directors have increased as a result of the merger	2.4%	26.5%	18.1%	31.3%	21.7%	3.4	1.2
An increase in board size has resulted in an improvement in the skills of the board	8.4%	13.3%	10.8%	41.0%	26.5%	3.6	1.2
An increase in board size due to merger activity also resulted in an increase in institutional share holding	7.2%	18.1%	12.0%	39.8%	22.9%	3.5	1.2
<b>Average</b>						<b>3.5</b>	<b>1.2</b>

Majority (63.9%) of the respondents agreed that overall board size has increased as a result of the merger, 25.3% disagreed while 10.8% were neutral. Another 53% of the respondents agreed that the total number of independent directors had increased as a result of the merger, 18.1% reserved their comments while 28.9 disagreed. On the question of whether an increase in board size has resulted in an improvement in the skills of the board, 67.5% of the respondents agreed, 21.7% disagreed while 10.8% reserved their opinion. Finally, 62.7% of the respondents agreed that an increase in board size due to merger activity also resulted in an increase in institutional share holding, 12.0% reserved their comment while 25.3% agreed. On a five point scale, the average mean of the responses was 3.5 which means that majority of the respondents were

agreeing to the statements in the questionnaire; however the answers were varied as shown by a standard deviation of 1.2.

#### 4.3.6 Comparative Analysis of Effect of Board Size on Financial Performance

Table 7 shows the results of the comparative analysis of board size on financial analysis.

**Table 7: Effect of Board Size on ROE**

	<b>Banks</b>	<b>Insurance</b>
Parameter estimate	Coefficient(P value)	Coefficient(P value)
<b>Constant</b>	0.049(0.023)	0.113(0.001)
<b>Board Size</b>	0.013(0.000)	0.005(0.251)
<b>R Squared</b>	0.147	0.016
<b>F statistic (ANOVA)</b>	19.915(0.000)	1.338(0.251)

Board size was found to be statistically significant in determining ROE in the banking sector ( $r=0.013$ ,  $p=0.000$ ) but not in the insurance sector ( $r=0.005$ ,  $p=0.251$ ). 14.7% of the variations in ROE in the banking sector are explained by board size as indicated by an R squared of 0.417.

The regression equation for the banking sector is therefore:

$$\text{ROE} = 0.049 + 0.013 \text{ board size}$$

**Table 8: Effect of Board Size on ROA**

Table 8 shows the results for the effect of board size on ROA.

	<b>Banks</b>	<b>Insurance</b>
Parameter estimate	Coefficient(P value)	Coefficient(P value)
<b>Constant</b>	2.549(0.000)	0.042(0.111)
<b>Board Size</b>	0.418(0.000)	0.011(0.001)
<b>R Squared</b>	0.290	0.118
<b>F statistic (ANOVA)</b>	47.299(0.000)	11.274(0.001)

Board size was found to be statistically significant in determining ROA in both the banking sector ( $r=0.418$ ,  $p=0.000$ ) and in the insurance sector ( $r=0.011$ ,  $p=0.001$ ). 29% of the variations in ROA in the banking sector are explained by board size as indicated by an R squared of 0.29 while 11.8% of the variations in ROA in the insurance sector are explained by board size as indicated by an R squared of 0.118

The regression equation for the banking sector:

$$\text{ROA} = 2.549 + 0.418 \text{ board size}$$

The regression equation for the insurance sector:

$$\text{ROA} = 0.042 + 0.011 \text{ board size}$$

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Conclusions

A test was conducted on the effect of board size on financial performance. There is significant relationship between board size and financial performance of merged institutions. The implication is that a high number of board members seem to improve performance in terms of profitability. This is due to the fact that the overall board size has increased as a result of the merger, the total number of independent directors have increased as a result of the merger, an increase in board size due to merger activity also resulted in an increase in institutional shareholding and that an increase in board size has resulted in an improvement in the skills of the board. Based on the findings of the study, it can be concluded that board size affects financial performance of merged institutions positively. Board size was found to have a statistical significance on financial performance.

### 5.2 Recommendations

Firms were recommended to place a remarkable degree of emphasis on the area of corporate governance and to some extent embark on eliminating CEO duality. The study also recommends a board size (6 and 8) for better financial performance. This will reduce the problem of free rider and enhance effective monitoring and decision making. It will also bring about cohesion among the board members.

Management should instill discipline upon itself by ensuring good corporate governance; promote technological progress and increase its paid up capital regardless of the statutory requirements so that the continued existence of the firm is not jeopardized after undergoing mergers and acquisition. Management should not only undertake mergers and acquisitions in order to improve operation and sustain failing businesses but also improve their competitiveness and financial standing. Management should come up with a sound strategy towards asset and liability management so as to avert the problem of mismatching investments and also the quality of assets should be enhanced. Management should put into consideration the degree of transferability and marketability of assets invested in so that these assets can provide liquidity to the firm with ease.

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