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University of Hertfordshire Business School

MSc Accounting and Financial Management

A Comparative Performance Analysis of the UK and US Bank M&As using Financial Reports

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Abstract

The research was conducted to examine the effects of merger and acquisition activities on the financial performance of the UK and US based banks. The method which were used to measure performance of the chosen banks i.e Bank of America and Barclays PLC after merger and acquisition activities were ROA, ROE, NIM, SE and TA. The analysis was done based on the principles of accounting. The performance of banks was measured over a period of ten years from 2003 to 2013. The data used for this research was extracted from the annual reports. The method used to evaluate the data were ratio analysis and t-test analysis. First, the ratio analysis was done to measure the short-term and long-term performance. The findings were obtained from the ratio analysis indicated that merger and acquisition have negative impact on the financial performance over a five years period. In particular, there was a significant decline in the profitability of the two banks. Secondly, the two-paired t-test was done to observe the changes in financial performance between pre-acquisition and post-acquisition period. The findings revealed a downward trend in the financial performance of banks. Moreover, the results show similarities between ratio analysis and t-test. Additionally, Bank of America and Barclays bank PLC was witnessed a significant deterioration in their financial performance. Finally, the research recommends that alternative strategies and actions must be employed to apply a merger and acquisition activity successfully.

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List of abbreviations

M&As	Mergers and Acquisitions
BoA	Bank of America
ROE	Return on Equity
ROA	Return on Assets
NIM	Net Interest Margin
SE	Shareholders' Equity
TA	Total Assets
UK	United Kingdom
US	United States

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1.0 Introduction

Global financial markets have continuously witnessed an increased number of M&As over the last decade. In particularly, the increasing number of M&As has taken form since the beginning of 1990s (Bertrand and Betschinger, 2011). Numerous reasons have played significant role in financial markets to engage in M&As. Mishkin (1998) considers that different determinants which includes regulatory and technological conditions have driven banks to expand their operations to become more competitive and larger.

A merger can be defined the combination of two or more separate institutions as one institution. An acquisition can be determined as a takeover activity of a company by larger one (Hill and Jones (2001). Moreover, the substantial number of literature examines the mergers and acquisitions in different categories. A vertical merger refers a merger between two companies to involve for a specific goal. The conglomerate merger refers the combination of different types of companies to involve a totally different type of activity. The logic behind the conglomerate merger can be explained as a risk-averse. The horizontal merger is the consolidation two or more companies in the same industry to carry out similar operations and there are greater synergy and potential gains for merging companies Gaughan (1999).

The majority of companies have adopted mergers and acquisitions as a strategic process to improve financial performance and the reduce cost of expenses. However, researchers have separated into two in terms of successfulness and effectiveness of mergers and acquisitions on the company performance. The study of Akhavein, Berger, and Humphrey (1997) examined the bank M&As and they find that there has seen a significant improvement in profitability such as ROA and ROE. Whereas, the research of Lichtenberg et al (1990) on the UK active acquirers revealed that mergers and acquisition has not positive impact on the profitability. Consequently, the lack of consistent views reveals a necessity for further study in mergers and acquisition.

1.1 Overview of the Bank Mergers and Acquisitions

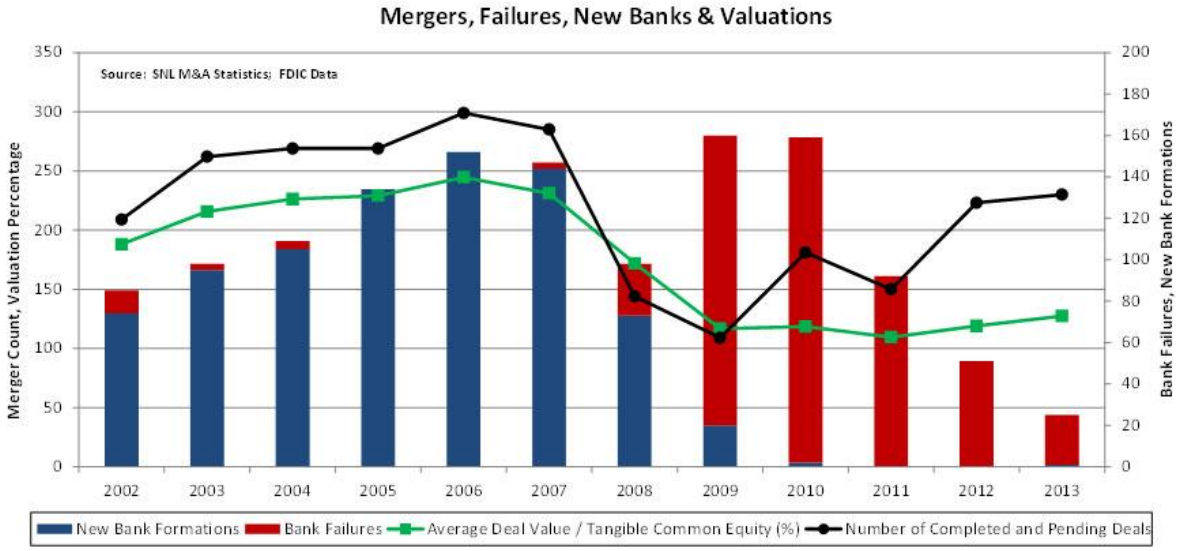
Bank mergers and acquisitions have been a significant strategic trend in US since 1980s. Banks have engaged in M&As to increase the poorly performing bank profits and they maintained this trend even after the industry returned a lucrative view (Mishkin, 1998).

The EU banking industry has been an important factor of bank M&As during the 1990s. According to ECB (2000) data, there has been a significant reduction in EU banks from 12,670 to 8,395 in 1999 due to M&As. Banking industry like other economic sectors engaged in M&As with the similar purposes such as market power, synergy gain and efficiency gain triggered to deal in EU banks. Walkner and Raes (2005) point out some important factors that facilitate the mergers activity in the banking industry. These factors can be determined as globalisation, technological developments and regulatory reforms of the international financial systems and were allowed bank to engage in M&As. Accordingly, with the impact of globalisation cross-border acquisition activities of the EU banks has reached to €682 million across the world (PWC, 2006). However, In the UK, the number of bank M&As are relatively low compared to other EU banks. It can be explained as a globalisation impact, because the number of new entrants to the market particularly international banks were the main reasons of low deals. According to BoE data, with 55% of asset 306 international-based banks were set up in 2000. There foreign-based banks mainly focused on individual banking instead of retail banking and their market share has reached 40% compared to Britain-based bank. In other word, globalisation has been the main reason for low level M&As in the UK banking industry (Ayadi and Pujals, 2005).

However, with the impact of global financial crisis there has been significant M&As in the UK banking industry. In response to the crisis, financial regulators have intervened to the market and arranged fire sales for a substantial number of major banks (Rao-Nicholson, & Salaber, 2016). Additionally, some banks have arranged fire sales for themselves (Beltratti & Stulz, 2012). The M&A of the Bank of America and Merrill Lynch for $50 billion was one of the largest activity and BBVA acquired to Compass Bancshares for $9.87 billion in 2007 (Rao-Nicholson, & Salaber, 2016). Also, in February 2008, Northern Rock has been the first financial institution which was acquired(nationalised) as a last option by the government of the

UK (BBC, 2008). Similarly, Lloyds TBS agreed on a 12£ billion takeovers for HBOS to save the country's largest mortgage lender from a confidence crisis (Financial Times, 2008). The amid the one of the worst financial crisis Barclays agreed a $1.75 billion deal to buy the investment bank of Lehman Brothers (Teather, Clark and Treanor, 2008). Similarly, second important acquisition took place on September 2008 with the acquisition of HBOS by Lloyds TSB for £12 billion (Treanor, 2015). However, one month after the government of the UK has bought up to 43.5% of Lloyds TSB shares for £4 billion (BBC, 2009).

Figure 1.1: Bank M&As across the world.



Source: Federal Reserve Bank of St. Louis (2014)

1.2. Background of the Study

Bank of America

Bank of America (BoA) is the US based multinational company that offers consumer and global banking services. Beside this global wealth and investment management departments plays a significant role in the bank operations. Currently, BoA is the second largest bank of US in by its assets, in addition it has been 26th largest company across the US in terms of its total revenue (Bank of America, 2016).

BoA has continued its operations with the numerous M&A activities in order to achieve its strategic growth goals. Therefore, in 1998 Bank America was acquired by NationBank of

Charlotte for $62 billion, it has received as the world history's largest bank merger. NationsBank has been the survivor one in this merger activity, however well-known bank name has selected as BoA rather than NationsBank (Tribune, 1998). In 2005, BoA was acquired to credit card giant MBNA in return cash and stock for $35 billion (Bauerlein, Sidel, 2005).
Another acquisition of BoA took place in 2006, the asset management giant of The United States Trust Company which was operating more than $100 billion and it was acquired by BoA for $3.3 billion (Lipton, 2006). Additionally, LaSalle Bank Corporation was acquired from ABN AMBRO for $21 billion, this acquisition has provided a huge amount of asset for BoA with the value of $1.7 trillion (Augstums, 2007).

Consequently, BoA determined to its willingness to buy Lehman Brothers, however the poor condition of LB due to financial crisis and lack of government support have changed BoA's decision. In September 2008, BoA announced that it was acquired to Merrill Lynch for $50 billion. Thus, BoA has been the largest financial services provider worldwide (Stempel, 2008).

Barclays PLC

Barclays is the UK based multinational bank that offers financial goods and services in over 40 countries across the world. It mainly serves as retail, commercial, investment banking and wealth management in the its strong markets of the UK and US (Barclays Group, 2017).
For last decades, Barclays has made significant number of bank acquisitions as its strategic growth goal from 1918 to 2008. The acquisitions; (Barclays Group, 2017).

- Provincial and South-Western Bank in 1918
- British Linen Bank in 1919
- Mercantile Credit in 1975
- Woolwich Bank in 2000
- Lehman Brothers in 2008

Furthermore, the acquisition activities of Barclays have continued and in 2003 Juniper Bank has acquired by Barclays. Then, Banco Zaragozano which was the 11th largest bank of Spain acquired in 2003 (Timmons, 2003 and Timmons, 2004). In 2006, HomEq Servicing Corporation acquired from Wachovia for US$469 million (Siegel, 2006). In 2007, ABN

AMRO the largest bank of Netherlands tried to be acquired by Barclays, however this takeover has not been made because of unwillingness of ABN shareholders (BBC, 2007).

Consequently, in 2008 Barclays has acquired the core business of US bank Lehman Brothers for £700 million ($1.35 billion), which including Midtown Manhattan office building with the responsibility of 9000 workers (Teather, D., Treanor, J. and Clark, A. 2008).

In June 2009, International Petroleum Investment Company sold 1.3 billion shares of Barclays, therefore share prices plummeted by 54%. Likewise, Qatar holding sold £10 billion worth of shares Barclays shares (Hofman, 2009). The exchange trade fund business of Barclays bank sold to BlackRock for 13.5 billion (The Guardian, 2009). In 2012, Barclays announced the acquisition of ING Direct's UK operations (BBC News, 2012). However, in 2013 Barclays announced its first loss in two decades with the value of £1.04 billion for 2012. Therefore, it has reduced £1.7 billion work force cost by cutting 3,700 jobs in EU and Asia (Bloomberg, 2013).

1.3. Research Objectives

- To comparatively evaluate successfulness of mergers and acquisitions on the financial performance of two investments bank in the UK and US.
- To examine effectiveness of annual reports on the performance of Bank of America and Barclays plc.
- To examine the financial ratios of Barclays Plc and Bank of America in terms of profitability.
- To determine the successfulness of mergers and acquisitions by using financial ratios.

1.4. Research Questions

- How the financial performance of mergers and acquisitions are measured by comparing in banking industry?
- How to measure a bank performance by examining and interpreting the annual reports?
- What are the roles of financial ratios to determine the profitability of banks?
- How to determine the merger and acquisition successfulness by carrying out a ratio analysis?

2.0 Literature Review

For decades, there has been a considerable number of mergers and acquisitions in the financial markets which include banking industry. The banking industry is very important for an economy in terms of its function to provide financial resources across the world. Empirical studies show that developments in the financial sector has a significant impact on economic growth (Levine, 1997). Similarly, King and Levine (1993) argue that positive developments in the finance industry contributes the economic growth. However, lack of competition, vulnerabilities and risk in the banking sector may cause lower economic growth in GDP (Drakos, K, 2002).

The terms of mergers and acquisitions have always been a complex concept (Sherman & Hart, 2006). Merger is an acquisition structure of a firm instead of separate strategy (Miller, 2008). However, others adopted as a takeover activity (Gaughan, 2002) and he also adds that merger can be identified in narrow and broad ways. In a broad context merger can be determined as a takeover in which two or more are brought together as one to form a new structure (Gole & Morris, 2007). In a narrow context, it can be depicted the combination of equal-sized firms with their resources to form one firm. Fontaine (2007) defines merger in a narrow context as an operation that all the risks and awards are shared by two parties equally. Frantlikh, (2003) explains that in a merger selling firm transfers their all assets and liabilities to the buyer firm and they continue their operations under the control of it.

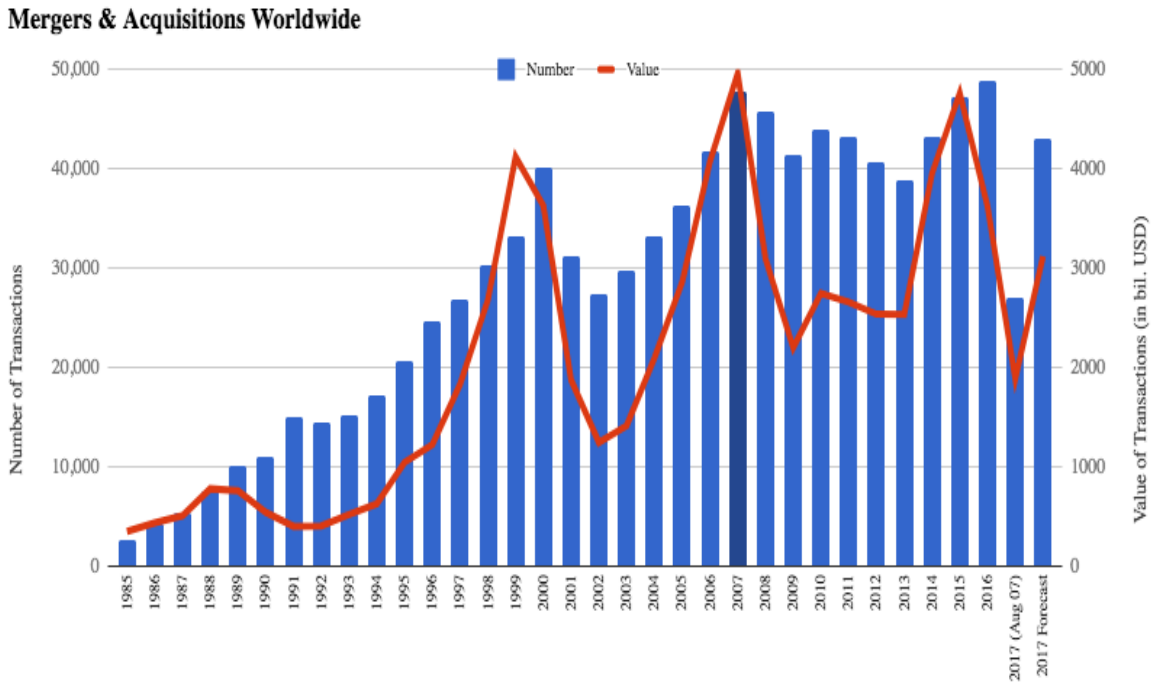
On the other hand, acquisitions can be described as a takeover of a firm all management and ownership controls from another firm (McClure, 2009). The acquisition can be occurred by the buying of target firm with tangible and intangible assets such as, interest in the stock markets, plant or a control of entire management. (European Central Bank, 2000). Additionally, acquisition usually happen when more efficiently and larger firm buys a smaller and less efficient one (Coyle, 2000).

Firms are engaging in mergers and acquisitions for many reasons, (Sudarsanam, 2003) states that firms are engage in M&As for their financial and strategic objectives. Larsson (1999) points out firms are keen for M&As due to expand into new markets, add to new goods and services and benefit from new industries. Other studies explain reasons such as growth and diversification (Walter & Barney, 1990), increase revenue (Rappaport, 1986), changing economic conditions and competitiveness (Croson et al., 2004), economies of scale for an influential cost efficiency (Pilloff, 1996), increasing market power (Trautwein, 1990).

The existing studies on M&A activities demonstrate that synergy, hubris and agency have been one of the main motivations in existing literatures (Berkovitch and Narayanan, 1993). They explain that the synergy motivates the managers of the acquirer and target firms to be able to maximise the shareholder wealth of both of two firms. However, empirical studies demonstrate that takeover does not create value for the acquirer firm's shareholders (Haleblian et al., 2009), because the intentions of firms regarding M&As might have been different than their expectations (Goergen & Renneboog, 2004). Whereas, Bradley et al. (1988) state that combined value of target and acquirer firm creates greater value than their separate values because, with the acquisition acquirer firm might have been combined the all resources of two separate firm into one great firm by gaining the control entire resources.

The hubris may provide positive gains in the short term but, in the long-term firm might be faced with negative total gains for further activities (Haleblian, McNamara, Dykes, 2009). The agency problem reflects managers own personnel interests in M&As and it occurs when the managers willing to pay more than target's actual value to settle on takeover. However, it also occurs a conflict among shareholders' and firm managers (Morck et al., 1990), however paying more than its actual value for an M&As, acquirer faces negative returns in its total gain (Fu, Lin & Officer, 2013).

Figure 2.1: Announced M&As worldwide.



Source: SAP (2015)

2.1 The Financial Effect of M&As

The financial performance indicates that how firms carry out their operations to achieve their financial goals. Additionally, there are some ways to measure the financial performance of firms in the wake of a M&A and financial ratios can be used as a one of the main measures to examine the M&As impact on the performance of banks (Weston, 2001). Therefore, Paul (2001) used financial statements of firms to examine the performance of M&As. Accordingly, it is observed that M&As announcements have increased the shareholders' value of target firm (Schwert, 1996). Similarly, Jensen & Ruback (1983) observed abnormal return in the stock performance of the acquired bank which was ranging between 16.7% and 34.1%. as a result of M&A. In addition, Moeller, et al. (2005) and Dodd and Ruback (1977) suggest a similar view and they emphasize the financial value and synergy gain of M&As for both acquirer and target firm.

2.1.1 Event Study Approach for M&As in the UK

The event study approach is an empirical analysis that mainly focuses on various areas such as accounting and finance, marketing and management (Ball and Brown, 1968). Brunner (1999) suggest that event study approach can be used to as a performance measurement tool to evaluate of financial performance of an announcement or completion in a takeover activity. Haleblian & Finkelstein (1999) identify that event studies (stock market based measures) can be used to evaluate the performance of an M&A in the short and long-term. Therefore, a large number of event studies evaluates the stock prices of firms to evaluate the M&A announcement impact (Andrade et al., 2001), because with the effect of M&A announcements some future prospects occur about the firm then it reflects to the stock prices (Martynova and Renneboog, 2008).

In the short-term, a successful takeover demonstrates positive abnormal returns for the target firm but for the acquirer returns observed as mixed (Papadakis and Thanos, 2010). Therefore, target firm's shareholders obtained substantial gains in the short run as a result of excessive paid (Bertrand and Zitouna, 2008). Whereas, in the long-run event studies show different results, Tuch and O' Sullivan (2007) claim that gains are negative or insignificant in the long run of a deal and these negative gains can be observed from three years after.

Hodgkinson and Partington (2008) carried out a research based on short and long-term return impact of mergers and acquisitions by using Berkovitch and Narayanan (1993) methodology

on 2008 UK firms between 1984-1998. Thus, they have observed the potential total gains in the wake of an M&A. In the short-run they have observed the 5-day's gain, on the contrary, in the long-run 6 months before and 2 years after observed. Consequently, in the short-term with the impact of synergy value-enhancing deals were measured two times more than value-decreasing deals. For the target firms' deals concluded with 79% shareholders gain. When it comes to, long-run returns, they observed that firms received negative total gains compared to short-run returns. The total gains of firms show that firms have underperformed in the long-run in terms of returns.

2.1.2 Event Study Approach for M&As in USA

Prior studies in USA showed the importance of synergy motivate for bank M&As. The substantial numbers of banks and financial institutions in USA are more likely to be acquired because of various determinants such as, low capital, low earnings and high market share (Goddard et al, 2009). Hannan and Pilloff (2007) argue that profitability of banks plays a significant role for acquisitions, therefore less profitable banks have greater chance to be acquired. By the examining the efficiency indicators and stock price performance after merger announcements, findings show that cost efficiency gains of mergers are quite limited in USA banks (DeYoung, 1997).

Pilloff and Santomero (1996) explored the USA bank acquisitions between 1986 and 1995 in terms of productivity and they found that ROA and ROE have not a remarkable gain in value. Similarly, Linder and Crane (1992) consider that bank mergers in USA between 1982 and 1987 have not provided any improvement in banks profitability compared to other banks. Whereas, Pilloff (1999) analysed 48 bank mergers from 1982 to 1991 in order to examine the merger profitability and abnormal returns by using balance sheets. According to his research, there has been an efficiency increase in banks after merger announcement. In addition, a study in the US banks showed there were significant improvement in the post-merger return (Cornett et al. 2006). Furthermore, according to event study of Jensen and Ruback (1993) there has been a significant increase in share prices of target firms between 20-30%. Moreover, 23 real estate firms in USA have witnessed 5.29% abnormal returns in the announcement day of takeover (McIntosh et al. 1989). Consequently, findings demonstrate different results regarding the successfulness of M&As in USA. Berkovitch and Narayanan argue that there is inconsistency between total and target gain in M&As.

Further researches in different sectors in USA also demonstrate mix results in terms of profitability and value creation of M&As. the research implemented by Franks et al (1977) to analyse shareholder returns of 399 takeovers in USA between 1975-1985 and they found -1.02% insignificant negative return for acquiring firm's shareholders. Therefore, Boone & Mulherin's (2000) analysed the acquirer firms in USA over a 9 years and findings showed that negative return for shareholders changed between -0.37% and 0.92%. Likewise, Ravenscraft and Scherer (1987) monitored the performance of acquirer firms between 1950-1977 by using business data and they found a remarkable decrease in profitability.

2.1.3 Empirical Evidence using Accounting-based Measure in the UK

Accounting measures have broadly used by many researchers to define the profitability and cash flow performance of a firm (Healy et al. 1992). Accounting-based measures focus on short and long-term perspective of an acquisition to compare the post-acquisition changes with industry average. Tuch and O'Sullivan (2007) point out that a firm main objective is to generate value and any benefit resulted with a M&As will be observed in its accounting statements. Therefore, these studies use accounting and financial ratios such as accounting rates of return, profit margins and cash flow returns. Kangari (1988) considers that ratio analysis can be used by using financial statements to examine the successfulness of firms after M&As. Similarly, Bertrand and Betschinger (2011) point out that return on asset(ROA) is mainly used to examine the performance of M&As.

Meeks (1977) conducts a research in the UK between 1964 and 1972 to examine the 233 firms' performance after acquisition and observed a profitability increase in the year of deal however, after first year profitability decreased during the 5 subsequent years. He also adds rate of return demonstrate that acquisition has a negative impact on profitability but not in the long-run. Likewise, after M&As firms do not indicate a remarkable evidence regarding the financial success of deal (Ghosh, 2001). Additionally, Meeks (1981) carried out a research and he found that ROA is the most appropriate ratio to measure the performance of M&As. Whereas, Barber and Lyon (1996) take a different view and they add that operating cash flow is a more appropriate method to measure the performance of M&As. Consequently, to measure the performance of M&As different research on accounting based-based measures may vary.

Therefore, there has been a lot of research to evaluate the success of a takeover by using fundamental valuation methods and residual income approach. Accordingly, a study in the UK

that has covered 368 takeovers from 1985 to 1996. Using the traditional accounting study approach, findings showed that mergers have significantly positive effect on ROE. Furthermore, research found that fundamental valuation of takeover is lower after deal than it is before the acquisition. Therefore, the difference is not about the lower ROE, it is about the deduction of goodwill (Guest, Bild & Runsten, M, 2010). Similarly, Bild et al (2010) carry out a research by using accounting studies to assess the M&A deal performance of 303 UK firms between 1985 and 1996, they found that M&As result in a significant improvement in profitability (ROE).

Powell and Stark (2005) observe that takeover improved the operating performance of firms in the UK. Additionally, Martynova and Renneboog (2008) point out that positive returns observed when measuring takeover with cash-flow metrics, however earning based measures concluded with negative returns.

2.1.4 Empirical Evidence using Accounting-based Measure in the USA

In the literatures, there has been done many researches on bank M&As, however studies have not provided a consistent result for the post-merger activities and the majority of studies have failed to show a clear evidence on the performance of M&A. Therefore, the literatures on accounting studies that have been applied for USA concluded with similar result of the UK.

The studies mostly focused on cost efficiency to estimate the performance of deals in USA. However, profit efficiency measures of M&As in US which took place between 1980 and 1990, finding demonstrate (+16%) improvement in profitability efficiency of mega banks compared to other banks (Akhavein et al. 1997). They also add that improvements mostly generated from revenue increase and risk diversification. Accordingly, studies based on profit efficiency from the 1980s and early 1990s shows that mergers improved profit efficiency and these improvements might be generated due to risk diversifications and improved risk-expected return of banks (Akhavein, Berger and Humphrey,1997). The highest efficiency improvements obtained from low efficient target banks during the post-merger. On the other hand, DeYoung (1997) claims that 61% of insolvent bank mergers resulted with cost efficiencies, however 58% banks have generated insignificant cost efficiencies. These gains of insolvent banks might have generated these gains due to the support of Federal Deposit Insurance Corporation (FDIC).

Whereas, Berger and Humphrey (1992) investigate 57 US mega banks and they observe 2 scenarios. First, a merger can be successful in terms of efficiency gain when more efficient banks takeover less efficient banks. Secondly, M&As were not successful in bank industry with regard to improving cost efficiency. Peristiani (1993) points out that bidder banks are more profitable than target banks, but he adds that generally deals have not provided efficiency gains. Likewise, DeLong & DeYoung, (2007) state that banks have not generated profitability and performance improvements as a result of M&A.

2.1.5 Empirical Evidence of M&As on Performance of Banking Industry

Since the early 1990s, M&As in the banking industry have significantly increased with the effect of vigorous competition and deregulation. The figures demonstrate a considerable change in M&A activities from 211 in the 1980s to 561 until 2006. In these figures, mostly domestic M&A operations took place (Focarelli and Pozzolo, 2001), additionally, the cross-border activities also increased due to increasing globalisation (Pozzolo, 2009).

Recently, there has been a significant increase in the number of researches regarding the M&A activities in the banking sector, therefore this area has been a critical field to be investigated because of intense activities (DeYoung et al., 2010). They state that the acquisition of small and less efficient banks provides more profit and efficiency. Likewise, Hannan and Pilloff (2006) consider that larger and more efficient banks tend to buy small and less efficient banks, because acquirers created value by improving the profitability and efficiency of target banks thanks to their superior management skills. Worthigton (2001) emphasise that superior management skills and higher earnings increased the profitability of a bank in M&As. Kwan and Wilcox (1999) found significant reductions in cost of bank M&As in the case of good managerial skills.

On the contrary, Houston et al., (2001) determined that have not created value for shareholders and they emphasised positive effect of a takeover can be evaluated by measuring the profitability and efficiency of corporate performance. According the findings from different countries result regarding bank mergers shown that efficiency gains cannot be guaranteed a value creation for shareholders (Houston and Ryngaert, 1994). They also add that the reactions of stock markets to the large bank mergers were insignificant in terms of value creation.

DeYoung et al. (2009) consider different results regarding the performance of M&As in banking industry may be occurred from different objectives. For instance, in a bank M&A profit maximisation may not be the only motivation. The recent financial crisis demonstrates that there are more important motivates than profit maximisation for bank M&As. For example, financial markets have witnessed with the significant number of bank M&As in the following 3 years after the crisis as a result of bad lending practices (Sharma, V, 2009). The empirical study demonstrates that market capitalisation of BoA after acquisition of Merrill Lynch has reached to $ 129.2 billion and synergy value creation of Merrill Lynch for BoA gain calculated as $14.7 billion (Yulianto, K and Adrian, H. (2017).

2.2 Motives for Mergers and Acquisitions

The considerable number of researches have carried out by researchers to examine the factors that motivates M&As. The researches demonstrate different views regarding the motivations for M&As. Donaldson and Lorsch (1983) argue that growth has been an important factor for acquiring firm to survive in a competitive market environment. Amihud and Lev (1981) posit that corporate diversification and risk reduction allow the firm to meet with more stable operational performance. Shleifer and Vishny (1989) state that mergers help firms to achieve long-term growth for the acquiring firm and improve the job security of managers. Berkovitch and Narayanan (1993) argue that M&As have mostly affected from synergy, hubris, and agency are mostly observed in M&As. According to Arnold and Parker (2009) study of the UK mergers showed that mergers might be related to synergy and market timing motivates. (Mehrotra et al., 2011) state the lack of wealth gains after the takeover announcement in Japan may be involved due to the conflict of motivations. Grinblatt and Titman (2005) observe that operating economies, tax effects, differential efficiency, financial economies, and increased market power are the primary motivations for M&As.

2.2.1 Synergy effects for M&A

Empirical studies demonstrate that synergy is the primary motive in an M&A activity due to its positive total gains (Berkovitch and Narayanan, 1993). The efficiency theory explains three types of synergy for M&As, operational, managerial and financial (Trautwein, 1990).

Sudarsanam (2000) explains that by combining activities, markets and products of merging firms operating synergy (economies of scale and scope) can be achieved. Managerial synergy can be observed when the acquirer firm managers possesses superior planning and monitoring

abilities (Trautwein, 1990). When the cost of capital is lower than pre-merger of the both firm than financial synergy can be achieved (Pasiouras at al. 2005). As another financial synergy are tax advantages may arise when the merged firm use benefit from the tax laws or cover the revenue by using its net operating losses. In the financial sector economies of scale is the second quoted motive for M&As. Amel et al (2004) assert that economies of scope arise when the variety of goods and services in production reduce the cost of per-unit. Therefore, banks can be achieved economies of scale by offering variety of goods and services.

The diversification has used by the substantial number of firms in M&A activity. Through the risk diversification firms are broadening their production portfolios to extend their businesses (Larsson and Wallenberg, 2002). Pasiouras et al, (2001) posit that the integration of firms by merging may cause lower risk and reduce the probability of bank failures when the cash flow of firm is not perfectly correlated.

The agency is a significant culprit in the success of M&A activity, empirical studies show when managers may choice to maximise their wealth instead of shareholders by increasing compensation, power, prestige and wages. However, the hubris hypothesis of Roll (1986) explains managers may incur some mistakes by overestimating the value of target firm and this may cause a failure for M&A.

2.2.2 Motives for Mergers and Acquisitions in the Banking Industry

There are different determinants that have driven to banking industry for mergers and acquisitions. The banking industry carried out merger activity in order to obtain higher income by extending its market share and sales, whereas acquisition activity was implemented by acquiring banks to improve the portfolio quality (Focarelli et al, 2002).

The majority of motivations in the banking sector for mergers and acquisitions have triggered by managers desires to gain more power and personal interest (Kingston University, 2007), to improve the efficiency (Humphrey & Vale, 2003) due to economies of scale (Sufian, 2011). Sufian (2011) also adds that large and efficient banks can be used mergers for economies of scope instead of economies of scale. Focarelli et al. (2002) point out that larger banks most likely acquire small and less efficient banks by using their more diversified incomes, (Altunbas & Ibáñez, 2004) it helps to improve their economies of scope. Generally, banking industry has achieved to economies of scale with small and medium size mergers. According to Morris

(2004) dependence theory to determine the motivates for mergers in the banking industry he claims that health, competitiveness of the economy and uncertainty because of interest rates can be used as an important factor for merging process.

The substantial numbers of researches have been conducted in different countries regarding bank mergers and acquisitions. Sufian (2011) points out that for Korean banks efficiency improvement has been a significant motivation factor. Shanmugam (2003) examined the Malaysian banking industry with regard to M&A process and he found that competitiveness and desire to catch higher efficiency have been main motivations for M&A in the Malaysian banks. Pasiouras and Zopounidis (2008) observe that banks in Greek engaged with M&A activities because of grow, strengthen their position and increase efficiency due to economies of scale.

The larger banks more are likely to target the small banks to extend their operations such as easy access to the national and international money and capital markets. Focarelli et al (2002) analysed Italian banking industry to examine the main motivations for M&As and they observed that banks engaged with M&As to increase; efficient usage of capital, non-interest income and selling more services. Also, acquired banks aimed to increase the quality of loan portfolio. However, the main objective of M&As have always been higher profitability. Morris (2004) examined the 30 years of USA banking industry and he observed that USA banks were involved in M&As with other banks and different types of financial institutions. The study covered the small size USA banks because at that time USA was mainly dominated by small and relatively weak banks due to their size banks. Therefore, these reasons have motivated USA banks to engage with a M&A activity during the time that time.

3.0 Research Methodology

According to Vedic philosophy, methodology can be described as a process of knowing, the knower and the known (Gustavsson, 1992). In a systematic form methodology can be described as a process of planning, executing and investigating of a knowledge by synthesising to come an answer (Ghauri and Gronhaug, 2002).

The research adopted quantitative research design in order to examine the performance of M&As by using financial reports of two investment banks in the UK and US. The data used in this research is collected from annual reports of the two banks for ten years' period. The base years is selected as 2008 and five years' pre-acquisition (2003 to 2008), five years' post-acquisition (2008 to 2013) financial information examined by using data from annual reports of the banks. Afterwards, the post-acquisition performance finding of two investment banks have been compared to make a benchmark between the ultimate performance analysis. Consequently, in order to determine the exact relationships between the variables a t-test analysis has implemented.

3.1 Research Design

Research design can be described as a comprehensive research plan to come a relevant and practicable empirical research by using the conceptual research questions (Ghauri and Gronhaug, 2005). It plays a significant role in terms of data collection and data analysis. Ghauri and Gronhaug (2005) explain three main research design structure; exploratory research, descriptive research, and casual research. Descriptive design is applicable when research well-structured and understood (Kinnear and Taylor, 1996).

This research used descriptive design in order to depict whether M&As do have performance increase in financial reports of the banks. Therefore, the research consists of the use of financial ratios and t-test analysis. First, the accounting-based technique was implemented to examine the short-term performance of the selected banks by using return on equity (ROE), return on asset (ROA), net profit margin (NPM), net interest margin (NIM). The ratio analysis covered 10 years' period and base year chosen as 2008, pre-acquisition took place between 2003- 2008 and post-acquisition took place between 2008 and 2013. Then, the accounting-based performance results of the two selected banks were demonstrated on graphs over the five years. Moreover, the method analysis is the t-test and the data was analysed with the aid of Microsoft

Excel in order to compare the differences of pre-and post-acquisition performance of financial ratios which are ROA, ROE, NIM, SE and TA.

3.2 Model Specifications

Beyond a lot of numerical data in the financial statements, the main aim of the financial management is to create wealth. By doing this, optimal usage of resources plays a significant role to maximise the firm value. Therefore, financial ratios commonly used to assess the financial reports in terms of performance analysis. Drake (2010) defines financial statement analysis as the selection, evolution and interpretation of the financial data. Moreover, financial analysis is an important method that examines the balance sheet and the profit and loss account by establishing relationship between the items and point outs the financial strengths and weaknesses of the firm. The financial ratio analysis is one of the significant tools of the financial statement analysis. Financial statements may not be reflecting the real profitability and financial health of the firm for investors. Therefore, ratio analysis is the most important tool that helps to investors to examine the real performance of the firm (Brigham & Houston, 2009). T-test can be used to determine the difference between the means of two equations. In other words, it helps to understand the changes between two selected data to compare the pre- and post-differences in terms of performance (Etchegaray, Ottenbacher, Sittig, & McCoy, 2012).

Korang, R (2012) conducted a research in USA, which was used 100 acquirers between 1998 and 2011 by using ratio analysis to assess the post-acquisition performance of selected firms. The six ratios have mainly used to assess the operating performance and she found that profitability ratios such as ROA, gross profit and EBITDA have increased insignificantly after acquisitions. Whereas, Fraser and Zhang (2009) analysed 83 acquired banks in USA from 1980 to 2001 by examining the ROE and ROA. The results show significant differences between pre-and post-acquisition periods which were observed between (-0.22% and -2.60%). In other words, bank earnings have decreased significantly compared to post-acquisition period.

Fraser and Zang (2009) show an evidence regarding the operating performance changes of 83 commercial banks in USA during the pre-and post-acquisition periods and they find positive evidences about target firm. The evidences demonstrate that cash flow, portability, ROE and labour utilisation increased for the target firm during the post-acquisition period, in addition to that loan losses remained stable.

Conversely, some studies in the USA found that M&As have adverse impact on the performance of firms. Mueller (1980) carried out a performance analysis by using ROE and ROA as a performance indicator and he found M&As destroy the firm performance remarkably. Additionally, Ravenscraft and Scherer (1987) and Dickerson et al (1997) found similar results. Ravenscraft and Scherer (1987) examined the 471 firms which engaged in M&As between 1950 and 1977 in USA by using different accounting measurements and ratios. The findings demonstrated that target and acquirer firms did not benefited in terms of financial performance improvements and synergy gains. Also, studies about EU banks Vennet (2002) has not observed any enhancement in tangible gains, cost efficiency or ROE except partial profit enhancement in the first years of acquisition. Similarly, in the study of DeLong and DeYoung (2007), there is no positive impact of M&As on return on equity and return on asset for US banks.

According to post-M&A performance assessments based on ratio analysis of Meeks (1977) in the UK, which was included ROA and ROE, he stated that in the year of takeover profitability has increased but after five subsequent years' profitability has decreased. However, Mueller (1980) noted that M&As performance results are more mixed when it comes to asset growth. Martynova (2008) found positive performance improvement by using cash-flow based measurements, while, earning based measurements shown negative performance for mergers.

Furthermore, t-test has used by the substantial number of literatures to examine the pre-and post-acquisition performance impact. For example, Sidharth and Sunil (2009) has used t-test (paired tow samples for means) in order to compare the pre-and post-acquisition performance using financial ratios findings. The study revealed that 55% of the firms reported a significant decrease in their performance after acquisition, whereas 29% of the firms reported moderate performance improvements. Wilson (2010) has implemented a t-test to compare the ratio analysis findings of post-acquisition term and he found that there was not significant performance increase on the contrary of ratios analysis. Similarly, Strong (1992) and Weiss and Hassett (1986) have implemented t-test to examine the financial performance of the UK listed companies during the pre-and post-acquisition.

3.3 Ratio Analysis

Ratio analysis is a kind of financial technique that can be used to measure the relationships among the any components of financial statements (Needles et al. 1996). Ratio analysis also refers the proportional analysis of financial figures and statements. Therefore, Sharma, D.S., Ho J, (2002) used accounting ratios such as ROA and ROE in order to measure the performance of merger and acquisition activities. Moreover, ratio analysis can be used to compare the post- and pre-acquisition performance of banks. For this reason, ratio analysis can play a significant role to examine the bank's financial performance with another ones or industry average by comparing the results year by year. Lasher (1997) considers that ratio analysis is the most appropriate accounting-based method to use for comparison.

3.4 Return on Asset

Return on assets is the ratio that measures the ability of a firm to generate profit by using its total assets over a period of time. The return on asset is also very useful ratio to measure the internal performance of firm to know how the firm effective is (Bull, R. 2008). Meeks and Meeks (1981) state that ROA is the least sensitive performance measurement when it comes to upward and downward estimation bias and it focuses on any changes in leverage and bargaining power in a M&A. In other words, ROA is more reliable performance measurements compared to ROE because of the leverage estimation. Financial leverage demonstrates how much debt(loans) used by banks to acquire additional assets, banks' ability to meet its financial obligations. Additionally, financial leverage also knows as equity ratio that indicates how much banks total asset financed by stockholders. It also measures the bankruptcy risk of banks (Badreldin 2009).

3.5 Return on Equity

Return on equity is a ratio that measures the ability of a firm to generate profit by using shareholders' equity. In other words, it demonstrates how a bank is influential when it comes to generate earnings growth by using shareholders' money. There are three important advantages of ROE: (Bull, R. 2008).

- It allows to examine the total returns made by shareholders.
- It is easy to access from banks' financial report.
- It allows to investors to make comparison amongst to other banks or sectors.

Return on equity has used by the significant number of banks as a performance measurement and took place in banks' strategy statements. However, the reliance of this method mostly

questioned, in particularly after the financial crisis, because ROE can be described as a partial indicator and it excludes any risk assessments. Moreover, it provides unsustainable and unrealistic values but it has commonly used so far (ECB 2010).

3.6 Net Interest Margin

The net interest margin can be used to measure the difference between interest revenue and interest expense relative the amount of asset and plays significant role to measure the bank performance (Demirguc-Kunt and Huizinga, 1999). Moreover, they analysed the determinants of bank profit and net interest margin. The findings demonstrated that well-capitalised banks are more profitable and have higher net interest margin. The financial systems in the developed countries bank profit and net interest margin is not the same in terms of bank and market-based systems. In the developed countries banking system, lower profit and net interest margin generally observed because of greater competition amongst the banks. Similarly, Abreu and Mendes (2001) analysed EU banking system and they found that net interest margin and profitability is not the same, net interest margin and profitability have positively affected by loan to asset and equity to asset ratios.

3.7 Shareholder's Equity

Shareholder's equity ratio measures proportion of total equity held by shareholders of firm as a common and preferred share. It also shows how much shareholders would receive to their assets in case of a liquidation (Collins & McKeith, 2010).

Last two decades, the development of new strategies was often implemented by the significant number of banks. The strategies usually were focused to achieve set of strategic goals to growth, to expand their markets and to increase profitability. Therefore, in 1990s with increasing profitability, shareholder's equity became an important measurement standard for banks (Ayadi, 2007).

3.8 Total Asset

Total asset ratio can be used to measure growth performance of firm in any component of fixed and current assets (Kim & Haleblian, 2011). The investors can be observed firms' growth by examining the yearly growth of firm's asset values (Klapper and Love, 2002). The main purpose of using total asset ratio for this research is to observe and determine the differences between the pre-and post-acquisition period of banks. Thus, total asset performance of the chosen bank examined in terms of wealth creation for banks.

3.9 T-test Model Specification

It is clear from literature above that mergers and acquisitions have mixed impact on the performance of firms. This study has conducted on the Bank of America and Barclays bank to evaluate the impact of acquisitions on the post-acquisitions performance by comparing with pre-acquisition term. Caves (1989) and Brunner (2001) used to t-test as an accounting study in order to examine the M&A performance by comparing the pre-and post-acquisition terms. The study has compared to pre-and post-acquisition of ROA, ROE, NIM, SE and TA. Therefore, t-test was performed in the wake of ratio analysis to determine the difference in the financial ratios of the acquirer firm. Therefore, following hypothesis statements have implemented for this study:

$$t_c = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{{s_p}^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \tag{3.1}$$

$${s_1}^2 = \frac{\sum(x - \bar{x}_1)^2}{n - 1} \tag{3.2}$$

$${s_2}^2 = \frac{\sum(x - \bar{x}_2)^2}{n - 1} \tag{3.3}$$

$${s_p}^2 = \frac{(n_1 - 1){s_1}^2 + (n_2 - 1){s_2}^2}{n_1 + n_2 + 2} \tag{3.4}$$

Where: ${s_2}^1$& ${s_2}^2$ =Variance of the target group and the control group respectively.

$\bar{x}_1$&$\bar{x}_2$= Mean performance of the target group and the control group respectively.

n_1&n_2= Number of banks in the target group and the control group respectively.

${s_p}^2$=Pooled variance of both groups.

t_c=t value calculated,

Decision rule: Reject H_0 if $t_c \geq t^a$ n_1+n_2-2

3.10 Limitations of the Study

The study comparatively examines the pre-and post-acquisition performance of two banks in the UK and US. Despite the substantial improvements, some limitations have existed for this study.

Firstly, one of the main limitation was about the insufficient studies regarding the bank acquisitions during the global recession in the UK and US. Furthermore, existing studies have not revealed a clear result regarding the successfulness of acquisitions. As mentioned in the literature, findings pointed out two mixed results.

Secondly, the absence of financial data between 2003 and 2012 from external resources has been an important limitation for this research, therefore only annual reports have used to carry out this research.

4.0 Data Presentation and Empirical Analysis

This chapter has examined and interpreted the BoA and Barclays Plc annual reports for the 10 years period in order to measure short and long-term acquisition performance. By doing this accounting based measures carried out to calculate the financial ratios such as ROA, ROE, NIM, SE and TA. Additionally, the financial data has interpreted comparatively between two banks and the industry. The presentation of financial ratios and the industry averages have shown on the graphs.

Table 4.1: The acquisition details of BoA and Barclays PLC

Country	Date	Acquired Bank	Acquirer Bank
USA	14/9/2008	Merrill Lynch, New York City	Bank of America, Charlotte, North Carolina
UK	17/9/ 2008	Lehman Brothers, New York City	Barclays PLC

Source: Researcher (2017)

As mentioned in the literature from the different views there is not a clear evidence regarding the successfulness of M&As. According to some literatures M&As have resulted with positive and abnormal returns in the short term, while others support that M&As have not resulted with a significant gain for acquirer. Therefore, ratio analysis enabled this study to demonstrate the 10 years impact of acquisitions on the financial performance of banks. Additionally, t-test analysis demonstrated the performance differences of banks between pre-and post-acquisition term.

Consequently, the study provides a comprehensive insight into the finding which are derived as a result of ratio and t-test analysis by linking with empirical evidences and views of various assumptions that might have caused a failure or success for the banks.

4.1 The pre-and post-performance evaluation of Bank of America

As demonstrated in the figure the acquisition of Merrill Lynch by Bank of America took place in September 14, 2008. The study has evaluated the pre-and post-acquisition of BoA before and after the 2008. This section analysed the BoA performance by measuring the its profitability. Profitability demonstrates the ability of banks to cope with risks and to expand their operations. Therefore, traditional accounting measures; ROA and ROE used to assess the profitability of BoA.

Bank of America

Figure 4.1: The ratio analysis of Bank of America.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ROA	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	1%
ROE	23%	14%	16%	16%	10%	2%	3%	-1%	1%	2%	5%
NIM	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%
SE	7%	9%	8%	9%	9%	10%	10%	10%	11%	11%	11%

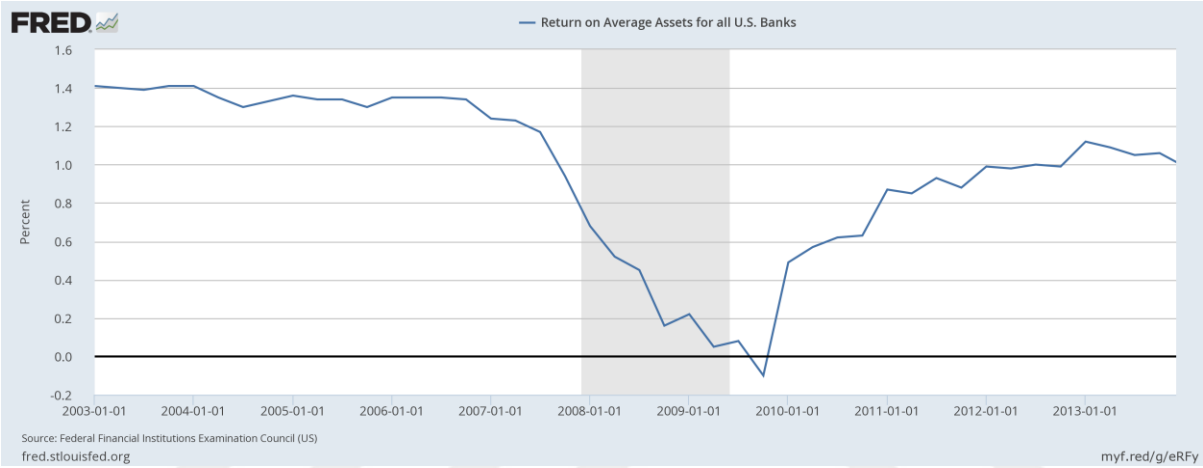
Source: Researcher (2017)

Evaluation of Return on Asset

In the broadest sense, ROA demonstrates how effective BoA is at using its combined assets in generating profit after acquisition of Merrill Lynch. The assets of banks mainly occur from its loans to businesses, individuals, securities and other organisations. Whereas, liabilities occur from deposits, money that it borrows or commercial papers as a result of selling in the money market. Accordingly, the usage of this ratio may be more appropriate in some industries than in a bank, because there are some industries which are mainly have tied up their money in assets such as manufacturing and services industry. However, when ROA is higher than a particular percentage for a bank then it may show that bank is not eligible to renew its assets for the future. In other words, the bank may not be investing and this may damage long-term performance prospects. Therefore, banks mainly aim to have about 1% of ROA. The ratio

analysis indicates that Bank of America has continued to sustain its ROA of 0.01 from 2003 to 2008, however in 2008 the year of acquisition there has been a decrease to 0.002. Actually, banks are highly leveraged companies, so 1% of ROA demonstrates a significant profit for banks. However, ratio analysis indicates that BoA had difficulties after acquisition of Merrill Lynch in generating profit from its total combined assets compared to pre-acquisition term. Moreover, this insignificant ROA has continued during the four annual years for BoA, but the company was able to increase back to its performance of 0.01 in 2013.

Figure 4.2: The industry average of return on assets among the US banks.



Source: Federal Reserve Economic Data (2017)

As figure illustrate that banks had high ROA before 2008 compared to data of BoA because of using highly dangerous leverage levels and it also allowed them to trigger tremendous crisis. However, it is clear from evidence above that BoA has experienced better ROA than its peers in US banking industry. Consequently, data analysis indicates that there has been a decrease in the performance of Bank of America after the acquisition of Merrill Lynch in terms of ROA.

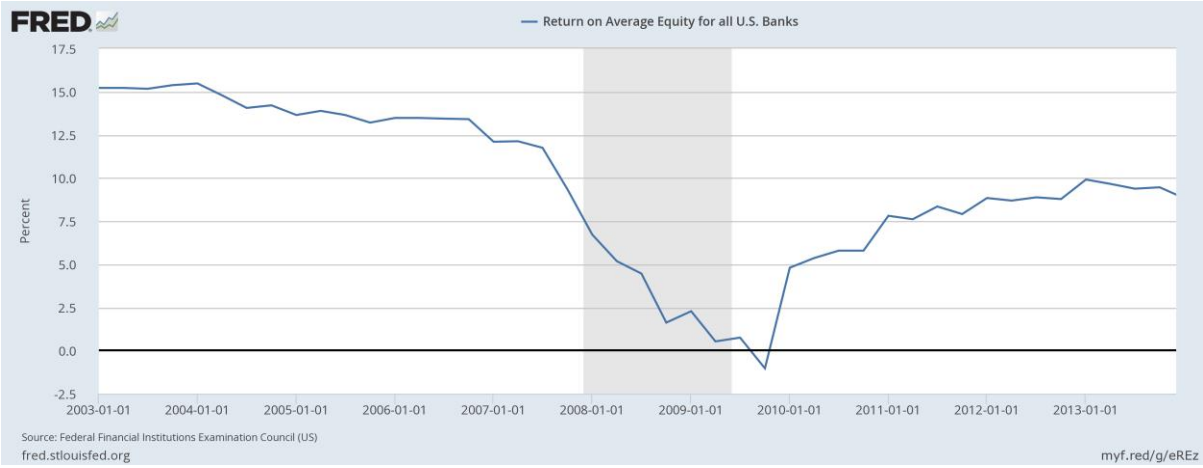
Evaluation of Return on Equity

Despite the appropriate measurements of ROA regarding the bank profitability, equity holders mainly take into consideration of how much bank is earning on their equity investments in a company. In particular, banks collets deposits from businesses, individuals and organisations as can they collect and then loan these deposits out at a higher return. This generates significant profits and returns and allows banks to attract more investment from investors. Therefore, this ratio shows how effectively BoA is at generating profit from its equity holders' investments. Therefore, ROE plays more important role than ROA for equity holders to calculate their

returns for some businesses. Additionally, ROE can be used effectively to evaluate and compare similar industries by clearly determining the earning performance. However, ROE may not be an appropriate method for comparison of different industries in cross-border deals. Whereas, analysts are mainly considered that ROE is ranging from 15% to 20% is favourable for investors to invest in a bank.

Bank of America had favourable percentage of ROE ratio which was ranging between 23% and 10% until the year of 2008. The ROE in 2003 was relatively very high compared to other years but it has decreased drastically in 2003 from 0.23 to 0.14 in 2004 but in 2005 it has increased slightly to 0.16 and continued in 2006. However, there have been also a considerable decrease by 0.06 in 2007.Similarly, it has decreased drastically in the base year of 2008 to 0.02, but despite the slightly improvement in 2009 improvement by 0.01, ROE has decreased significantly in 2009 from 0.03 to -0.01 in 2010. However, after 2010 there has been a gradual increase in 2011 from 0.01 to 0.05 in 2013. Accordingly, BoA has failed to achieve its pre-acquisitions performance which was recorded between 2003 and 2007. The Bank of America has faced a remarkable decrease in its ROE in the year of acquisition of 2008. This Indicated that BoA had difficulties to generate adequate profit from the equity holders combined investments of Merrill Lynch. Moreover, with the effect of unfavourable portfolio of Merrill Lynch ROE has dramatically decreased compared to pre-acquisition term.

Figure 4.3: The industry average of return on equity among the US banks.



Source: Federal Reserve Economic Data (2017)

The figure demonstrates that US banks relatively had favourable ratios between 1990 and 2004. Likewise, the study indicates BoA has performed similarly except a few years with its peers in the industry. However, it is evident from the post-acquisition performance, BoA has

experienced lower ROE after the acquisition of Merrill Lynch. In particularly, after the year of 2010 the figures have observed below of industry average. This indicates that the acquisition of Merrill Lynch has resulted as unsuccessfully.

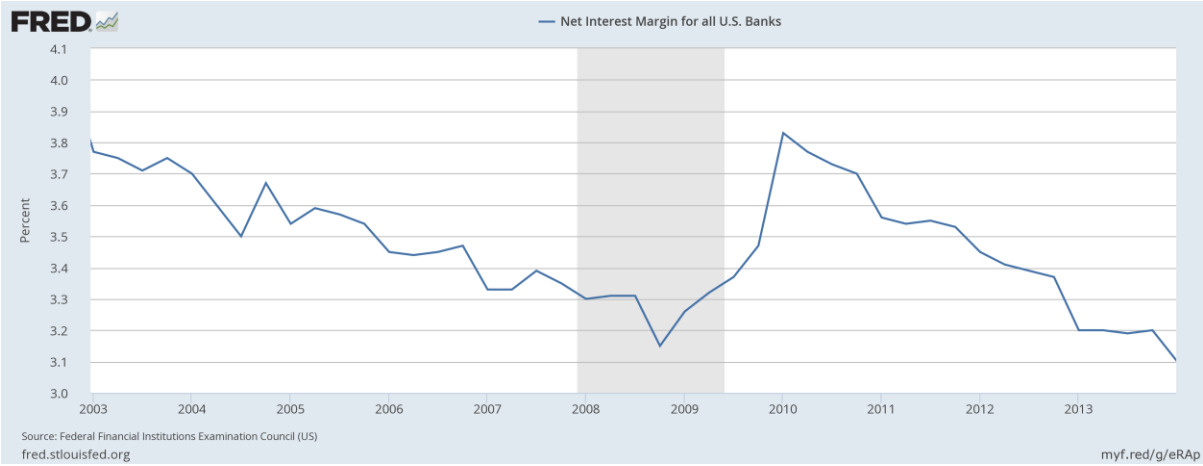
Evaluation of Net Interest Margin

Net interest margin (NIM) is another commonly used performance measurement tool for banks to assess the difference between interest income and interest expenses with regard to their total assets. But, there are some factors that can be changed the NIM of banks. For instance, interest rates of financial markets can be determined as a result of supply and demand of loanable funds. Accordingly, demands for the deposits and loans can change by the implementation of new monetary policies and banking regulations. When the demand of savings goes up relative the demands of loans, then the net interest margin is likely will decrease.

Furthermore, the net interest margin can fluctuate dramatically in the small size banks, whereas in the large size banks such as Bank of America, it generally indicates a stable view. For instance, in the acquisition year of Merrill Lynch, the NIM for the average US bank were recorded as 0.03, whereas the ratio analysis demonstrate that BoA has 0.02 NIM in the same period compared with its peers and it has continued on a steady basis throughout the next five-year period.

The ratio analysis of Bank of America provides positive NIM in the subsequent financial years for ten-year period. This can be determined that BoA is making optimal decision. Furthermore, there has been minimal changes in the percentage of NIM ratio of the bank and this mostly reflects that bank returns generated from investments are more than its interest expenses. However, after the 2005 there has been a decrease in NIM of BoA by 0.01. This might be linked to deterioration in the interest revenue of the bank. Therefore, BoA has to obtain more interest revenue rather than it pays out in order to rise back to its NIM performance in 2005. Moreover, in the year of acquisition of Merrill Lynch there has not been a change on the NIM. This implies that combined net interest incomes, expenses and assets have not affected to the performance of BoA in a positive or negative way. Also, low interest rates might be affected the profitability of both banks in terms of interest revenue. Therefore, NIM ratios of Bank of America has been around 0.03 and 0.02 throughout the ten-year period. But, BoA may able to increase back its interest margin with the increase of interest rates.

Figure 4.4: The industry average of net interest margin among the US banks.



Source: Federal Reserve Economic Data (2017)

The average net interest margin for US banks were recoded around 0.03 throughout the 2008. However, this was the lowest average NIM ratio before the acquisition of Merrill Lynch in more than 5 years. Whereas, the NIM of the Bank of America was measured as 0.02 end of the 2008. This demonstrates that the average NIM of BoA in the year of acquisition is lower than its peers. Overall, The NIM analysis and the industry average prove that there has not been a remarkable change in the performance of BoA after the acquisition of Merrill Lynch. Also, it is obvious that acquisition has not caused a negative impact on NIM of BoA.

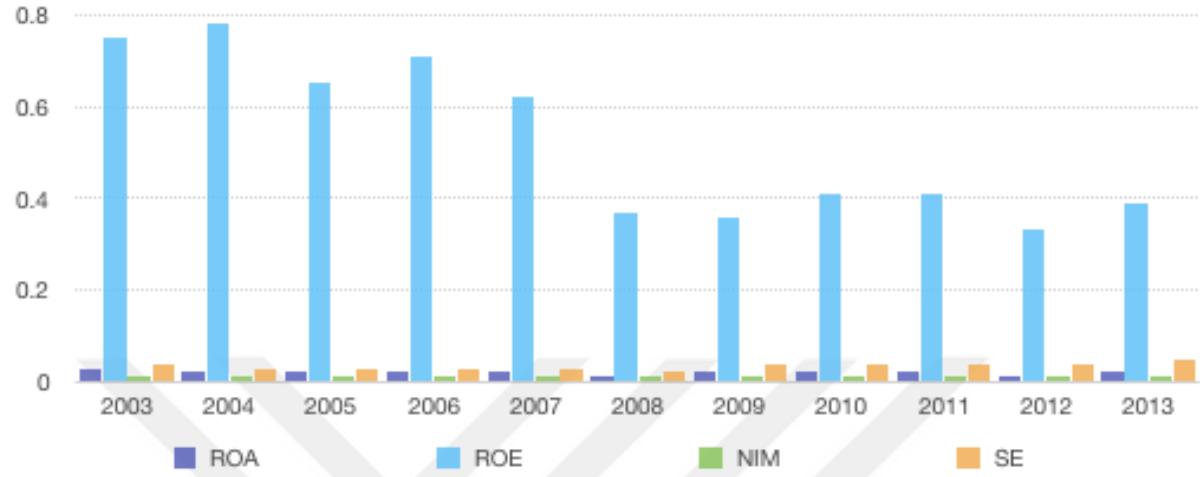
Evaluation of Shareholders' Equity

Shareholders' equity demonstrates how much investors or owners have contributed to the company's operations by buying shares. This also increases the cash flow of the company. The percentage of shareholders' equity of BoA has increased from 0.07 in 2003 to 0.11 in 2013. This may imply that, shareholders' enabled bank to perform actions such as acquisitions of Merrill Lynch or for some other operations. Similarly, the ratio analysis also points out that in the acquisition year, shareholders' equity of BoA went up by 0.01. Moreover, after the two subsequent years it has increased by 0.01. This might be occurred an increase in the cash flow of BoA with the acquisition of Merrill Lynch.

4.2 The pre-and post-performance evaluation of Barclays PLC

Barclays PLC

Figure 4.5: The ratio analysis of Barclays PLC.



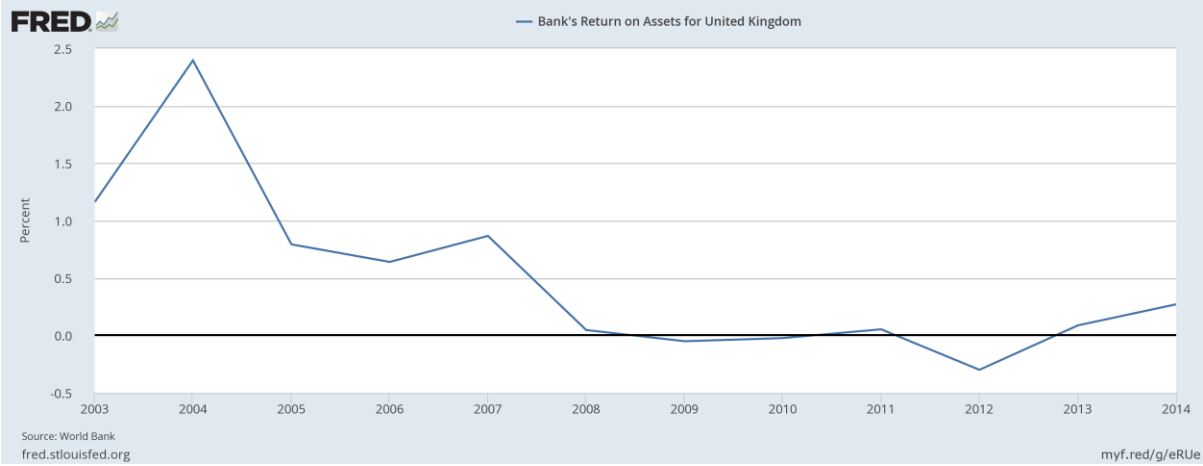
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ROA	3%	2%	2%	2%	2%	1%	2%	2%	2%	1%	2%
ROE	75%	78%	65%	71%	62%	37%	36%	41%	41%	33%	39%
NIM	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
SE	4%	3%	3%	3%	3%	2%	4%	4%	4%	4%	5%

Source: Researcher (2017)

Evaluation of Return on Asset

The figure demonstrates Barclays has strong ROA in 2003, but in the next four subsequent years it was able to maintain its ROA by 0.02 until year of acquisition of Lehman Brothers. Nevertheless, the ROA has decreased by 0.01 in the base year of acquisition. In fact, it indicates the standard ratio for a bank, however one year after it went down by 0.01 until the 2012. Consequently, the analysis indicates that Barclays bank has relatively strong ROA. Although the lowest level ROA observed in the acquisition year, it has performed a favourable percentage ratio. On the other hand, particularly in 2003 Barclays can be messed with its balance sheet because of strong ROA.

Figure 4.6: The industry average return on assets among the UK banks.



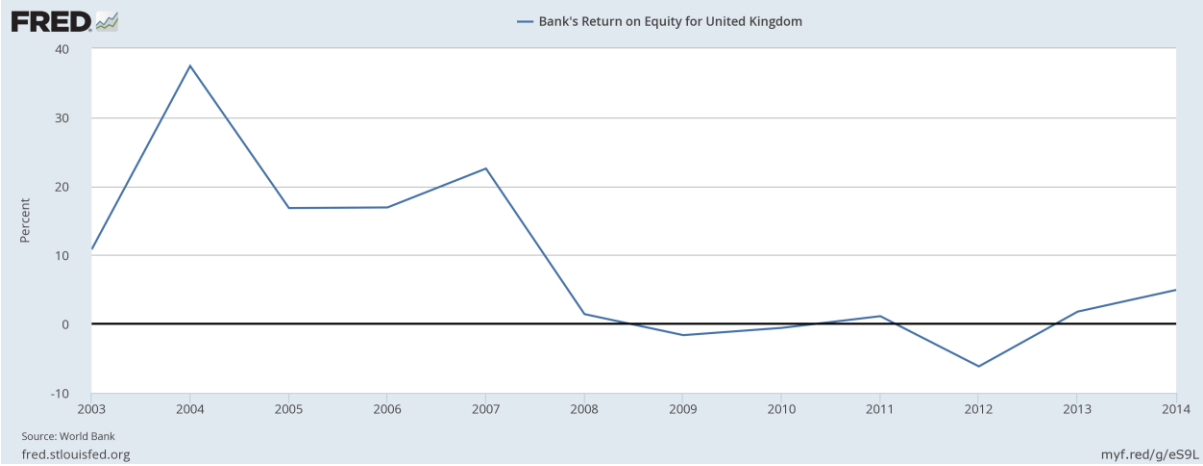
Source: Federal Reserve Economic Data (2017)

The figure reveals that Barclays bank has higher ROA compared to its peers in the UK. However, in 2008 minus a rate has observed in the peers of Barclays, whereas it seems that with the acquisition of Lehman Brothers it has performed a favourable percentage of ROA. But, during the post-acquisition period it has maintained remarkably strong ROA.

Evaluation of Return on Equity

The analysis indicates a considerable fluctuation in the ROE ratio of Barclays bank from 2003 to 2013. Nevertheless, it performed far above the standard rates. For instance, the ROE has decreased significantly in 2012 from 0.78 recorded in 2004 to 0.33. Moreover, one year after and before the acquisition of Lehman Brothers three has been remarkable changes in the ROE. In advance of acquisition ROE has measured as 0.62, however in the base years it has dropped drastically to 0.37 and continued to decrease insignificantly until 2010. It may has occurred as a result of unfavourable financial position of Lehman Brothers.

Figure 4.7: The industry average return on equity among the UK banks.



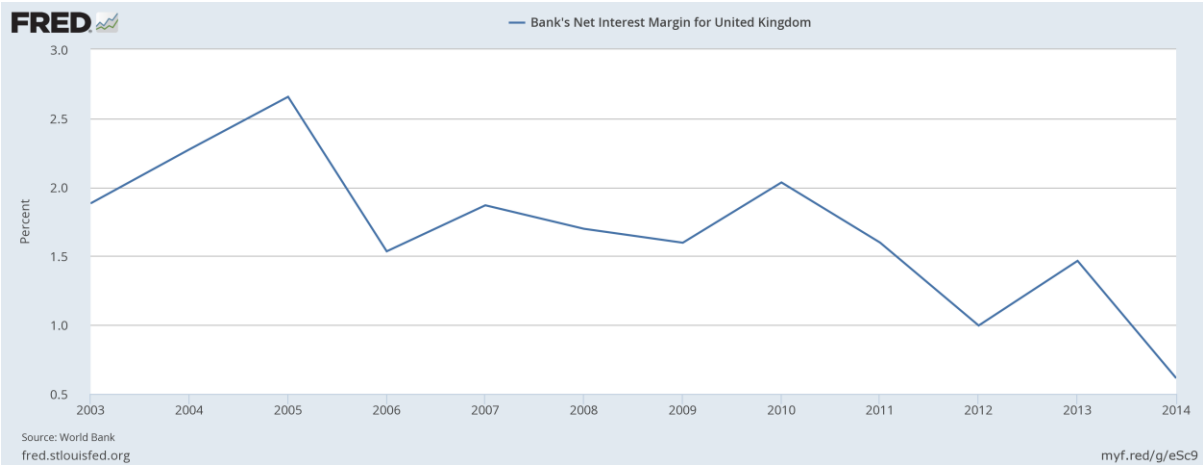
Source: Federal Reserve Economic Data (2017)

The comparison between industry average and the bank ratios demonstrate that there has been a huge difference in ROE. Despite the parallel movements in ROE between Barclays and its peers, Barclays has performed far higher than industry average during the pre-and-post acquisition term. Nevertheless, the ROE has decreased in the base year of acquisition.

Evaluation of Net Interest Margin

According to ratio analysis NIM ratio of Barclays accounted for 0.01 in the year of acquisition of Lehman Brothers. Additionally, it has showed a constant performance throughout the subsequent ten-years period. This indicates that acquisition has not provided a considerable impact on the Barclays performance, therefore it was not able to increase its interest revenues.

Figure 4.8: The industry average of net interest margin among the UK banks.



Source: Federal Reserve Economic Data (2017)

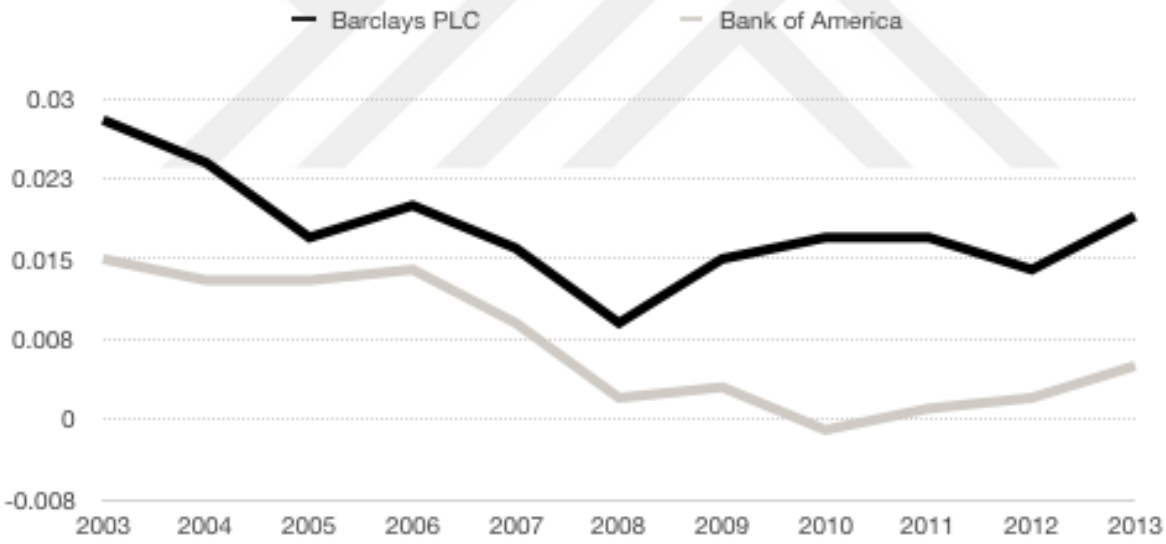
The figure demonstrates that the net interest margin of the UK banks went up from 2003 to 2005, then decreased by 0.01 until 2006. Throughout the next 6 years it performed between 0.02 and 0.01, but after 2012 it decreased under of 0.01. Whereas, after 2008 the bank has performed less than its peers despite the takeover of Lehman Brothers. Overall, this acquisition did not affect interest revenue performance of Barclays in a positive manner.

Evaluation of Shareholders' Equity

The ratio analysis indicates that during the pre-acquisition of Lehman Brothers, Barclays generally performed around 0.03 NIM, However, the shareholders' equity of Barclays has decreased to 0.02 from 0.03 in the end of 2008. Then, in 2009 it increased to 0.04 until the 2012. Consequently, the acquisition of Lehman Brothers can be caused a decrease in the cash flow of Barclays in 2008.

4.3 The comparative evaluation of Band of America and Barclays PLC

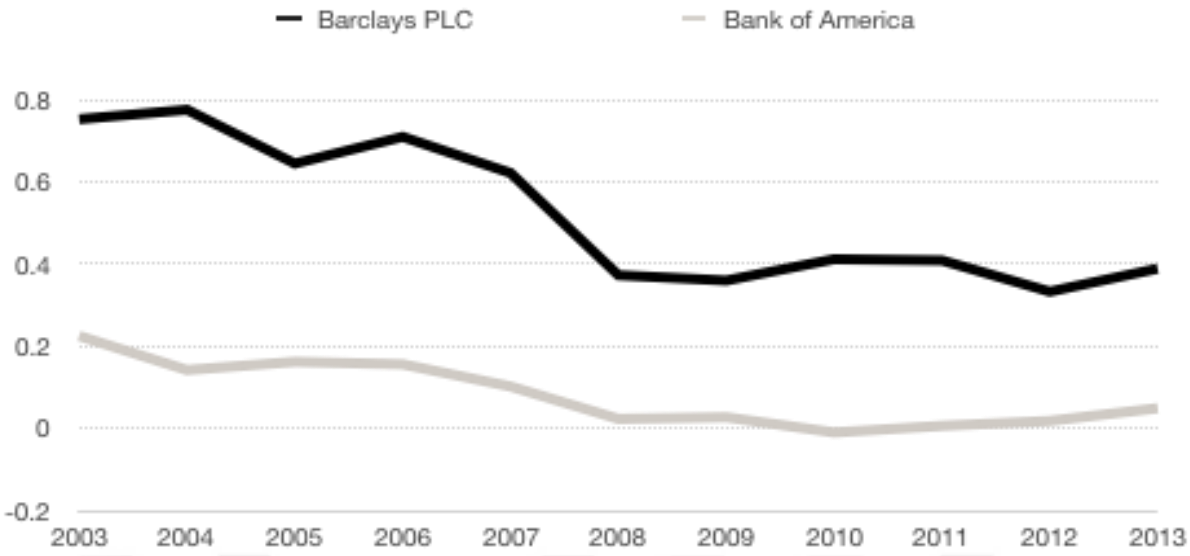
Figure 4. 9: The comparison of Return on Assets



Source: Researcher (2017)

The statistical data in figure 9 demonstrates the decreasing trend in ROA for both banks from 2003 to 2013. Additionally, Barclays and BoA have witnessed a decrease in their ROAs in the acquisition year of 2008. The average ROA of Barclays bank during the 5 pre-acquisition years were recorded by 0.02, however post-acquisition average accounted for 0.01. Similarly, BoA has seen a lower trend in ROA compared to Barclays bank. The average figures during the pre-acquisition was recorded 0.01, whereas post-acquisition figures accounted for 0.002.

Figure 4.10: The comparison of Return on Equity

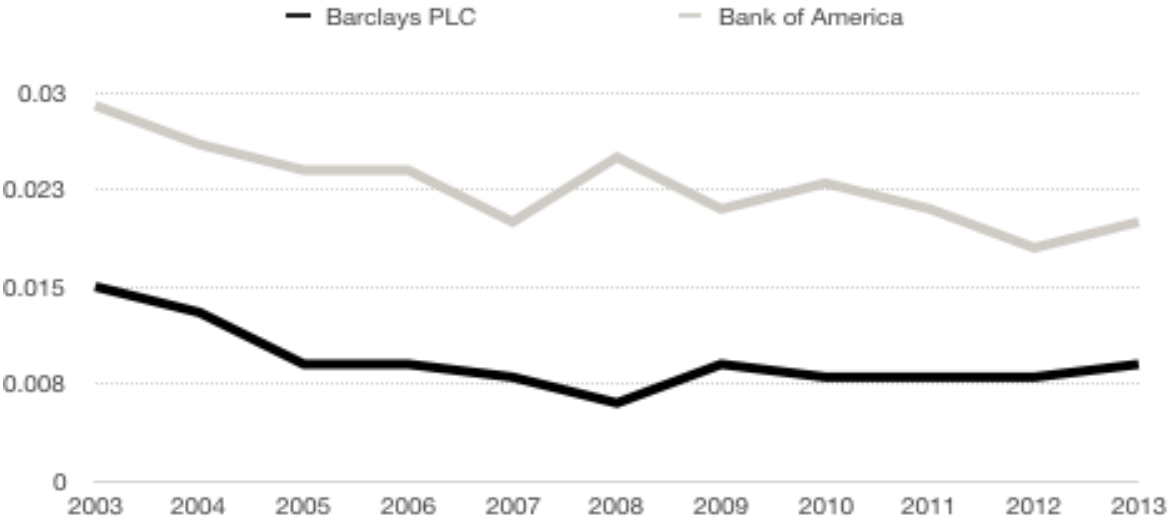


Source: Researcher (2017)

The comparative figure 10 for two banks indicates a decreasing trend during the period of 2003 to 2013. Furthermore, both banks have witnessed a decrease in their ROEs in their acquisition year. But, Barclays has seen a sharp decrease by 0.41 compared to BoA's 0.10.

The pre-acquisition average of Barclays during the 5 years was about 0.70, however, post-acquisition average was recorded by 0.38. Similarly, BoA has witnessed a decrease trend in its ROE. The while the pre-acquisition average was about 0.15, post-acquisition accounted for 0.02.

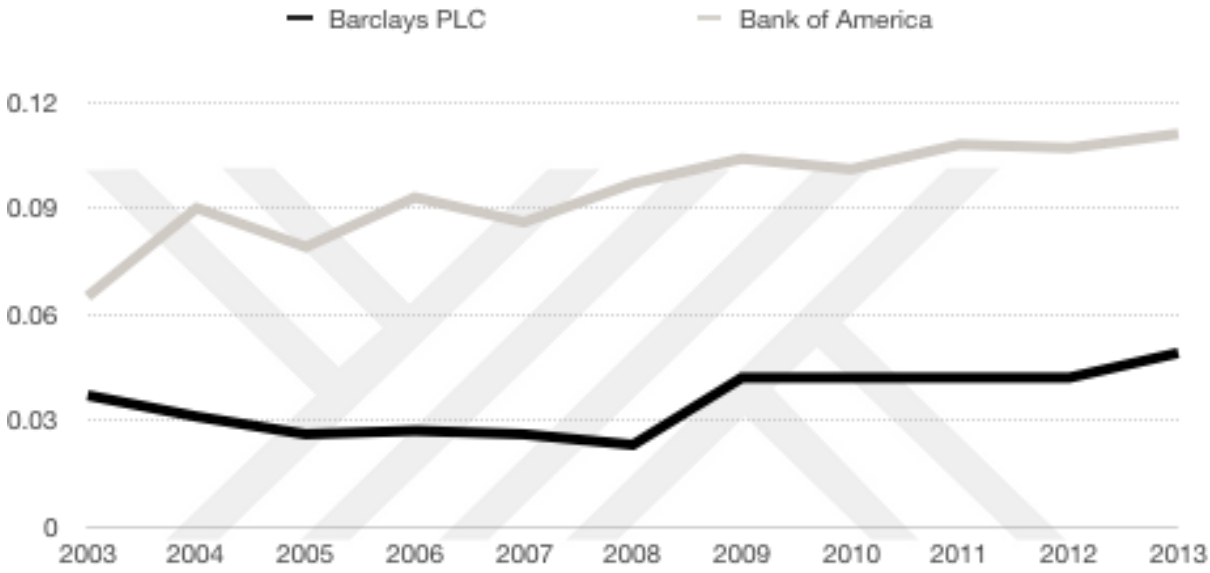
Figure 4.11: The comparison of Net Interest Margin



Source: Researcher (2017)

The data observed in figure 11 determines a slight decline in NIM for two banks from 2003 to 2013.In the acquisition year, BoA and Barclays have witnessed a different trend. While, BoA performs an increase, Barclays has seen a decrease. The pre-and-post acquisition average of Barclays was about 0.01 and the difference was insignificant. Similarly, BoA has witnessed insignificant difference by 0.02 in its pre-and-post acquisition NIM trend.

Figure 4.12: The comparison of Shareholders' Equity



Source: Researcher (2017)

The figure 12 indicates an increase for two banks on the contrary of other ratios from 2003 to 2013. Moreover, this trend has observed in the acquisition year. The pre-acquisition average of Barclays was recorded as 0.03, whereas it has increased to 0.04 for the post-acquisition period. Likewise, BoA has strengthened its Shareholders' equity after acquisition activity. While the pre-acquisition average ratio was 0.08 during the post-acquisition, but it increased to 0.10.

4.4. The Empirical Discussion of Ratio Analysis

The ratio analysis proposes to judge the financial performance of BoA and Barclays bank over a period of ten years (2003-2013). The performance of these banks has been evaluated and interpreted in terms of profitability by using different ratios such as ROA, ROE and NIM. The

outcomes indicate that BoA and Barclays have witnessed a downturn performance in terms of ROA and ROE as a result of acquisition activity in 2008. Whereas, a moderate increase has recorded in the both banks' Shareholders Equity. On the other hand, NIM has been stable for two banks over the ten years' period.

The outcomes demonstrate a consistency with the substantial number of literatures. For instance, Fraser and Zhang (2009) and DeLong and DeYoung (2007) found a significant difference between pre-and post-acquisition performance of return equity. Similarly, Mueller (1980) witnessed a destructive impact of acquisitions on the performance of ROE. Moreover, Ravenscraft and Scherer (1987) and Dickerson et al (1997) found negative impact of acquisition on the financial performance of acquirer firms. Also, Vennet (2002) found that acquisition has not positive impact on ROA and ROE except moderate enhancement in net interest margin and shareholders' equity. Likewise, Martynova (2008) found positive performance improvement in shareholders' equity. Similarly, the shareholders' equity of BoA went up and this might be linked to support of its shareholders to carry out the acquisition activity in boosting the investments.

Similarly, Barclays banks has recorded a slightly increase trend in return on equity for the short-term period but, in the long-term there has been a decrease. Thus, Barclays shows a consistent result with Tuch and O' Sullivan (2007). They witnessed an efficiency gain in the short-term performance on ROE, but after three years later they recorded negative gains. This might be linked to synergy gains, however in the long-term a downward trend was recorded (Hodgkinson and Partington, 2008). Furthermore, with the impact of financial crisis financial regulators have put pressure on banks to decrease risky investments to reduce the detrimental impact of crisis. Therefore, banks went some changes in their risk understandings. Akhavein et al. (1997) argue that short-term improvements mostly generated from revenue increase and risk diversification. They also underlined the relationship between risk-diversification and profit efficiency. Therefore, it is clear the evidence from annual reports, Barclays has recorded a profit increase during the subsequent three years in the wake of acquisition. On the other hand, study of DeYoung (1997) revealed that 61% of insolvent bank acquisitions resulted with cost efficiencies. The acquisition of Lehman Brothers (solvent) supports this view in terms of cost and profit efficiency, because Barclays banks has generated a cost efficiency in the short-term performance of Barclays. However, the decrease in interest expenses did not reflect to the

NIM performance of bank. Similarly, the increase of net income during the subsequent three years did not generate adequate increase in ROE.

Bank of America could not perform well as it records ROA of 0.01 during the five-cumulative year period before the acquisition and 0.002 during post-acquisition period. Moreover, in the year 2008, BoA has acquired Merrill Lynch which means that the assets of BoA have increased significantly but the profits have decreased in line with these assets due to which the ROA has dropped. Whereas, Barclays has experienced an insignificant decrease in its ROA during the 5 cumulative post-acquisition periods. In 2008, with the acquisition of Lehman Brothers there has been a considerable increase in total assets of Barclays, however, the downward trend in profitability pulled down the ROA. In other words, the acquisition has affected the profitability adversely.

The ROE plays an important role for investors because it also shows how effectively the Bank of America and Barclays management uses the investors' money. The assets of BOA and Barclays were might be financed by some form of liabilities which could be loans or issuing loan notes to be able to perform the acquisition activities. However, the net income for BoA and Barclays for 2008 dropped which could be a result of debt-laden portfolios of acquired banks. Therefore, there has been a sharp decrease in ROE of BoA and Barclays. The highest decline was observed in Barclays by 0.32, whereas the Bank of America's decrease accounted for 0.14 during the five cumulative post-acquisition years. Thus, BoA and Barclays could be evaluated as an unhealthy company from the investors point of view.

From what has been explored above, it is evident that BoA and Barclays have experienced downtrend trends in terms of profitability during the post-acquisition term. Arguably, the profitability ratios are the key factors for investors to evaluate the successfulness of M&As. After the detailed financial analysis, findings have revealed a clear picture with regard to successfulness of acquisitions. Overall, ratio analysis indicates that mergers and acquisitions have destroyed the bank profitability in the short and long-term compared to pre-acquisition term.

4.5 T-test analysis and Discussions

The comparative performance has analysed with the help of paired sample t-test. The paired sample t-test has used to evaluate the changes in pre-and post-acquisition performance in BoA and Barclays bank.

4.5.1 Hypotheses Statements

- Testing the significant difference between pre-and post-acquisition Return on Assets.

  H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Return on Assets.

  H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Return on Assets.
- Testing the significant difference between pre-and post-acquisition Return on Equity.

  H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Return on Equity.

  H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Return on Equity.
- Testing the significant difference between pre-and post-acquisition Net Interest Margin.

  H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Net Interest Margin.

  H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Net Interest Margin.
- Testing the significant difference between pre-and post-acquisition Shareholders' Equity.

  H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Shareholders' Equity.

  H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Shareholders' Equity.
- Testing the significant difference between pre-and post-acquisition Total Assets.

  H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Total Assets.

  H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Total Assets.

4.5.2 T-test Data Analysis of Bank of America

Table 4.2: Mean and standard deviation of pre-and post- acquisition ratios of Bank of America.

		Mean	Std. Deviation	P-Value	T-Value
ROA	Pre	0.013	0.002	0.000	2.306
	Post	0.002	0.002		
ROE	Pre	0.158	0.045	0.001	2.447
	Post	0.018	0.022		
NIM	Pre	0.025	0.003	0.059	2.447
	Post	0.021	0.002		
SE	Pre	0.082	0.011	0.006	2.571
	Post	0.106	0.004		
TA	Pre	0.046	0.005	0.949	2.306
	Post	0.045	0.006		

The t-test findings of the Bank of America have separately listed in table 3 to illustrates the changes in financial ratios and values during pre-and post-acquisition term. In the wake of a ratios analysis, the financial and accounting performance of Bank of America has been computed with the help of Microsoft Excel to measure the differences in performance and it has been compared on the basis of ROA, ROE, NIM, SE and TA during the pre-and post-acquisition term.

It has been shown that there has been a reduction in the mean of return on assets from 0.013 to 0.002 and P-value of Bank of America recorded 0.000. This indicates that P-value (0.000) < 0.05, therefore the mean of return on assets of BoA has decreased after acquisition of Merrill Lynch so performance deteriorated in the post-acquisition term.

-H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Return on Assets.

The results of paired t-test also demonstrate that there has been a considerable decrease in the mean of return on equity of BoA from 0.158 to 0.018, therefore H0 has rejected because P-value (0.001) < 0.05, therefore the value of this mean paired t-test indicates a significant performance decrease in ROE after acquisition.

-H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Return on Equity.

The mean value of net interest margin of Bank of America has decreased insignificantly from 0.003 to 0.002, therefore it reveals that there has not been a deterioration in the net interest

margin of bank with the acquisition of Merrill Lynch. Moreover, P-value (0.059) > 0.05, therefore it can be determined that acquisition has not impacted the performance of BoA in terms of net interest margin and H0 hypothesis has not rejected.

-H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Net Interest Margin.

The mean value of Shareholders' equity has increased slightly from 0.082 to 0.106. This indicates an improvement in Shareholders' equity of BoA in the wake of acquisition activity. Additionally, the evaluation of P-value demonstrated that there has been an upward impact of acquisition activity on the performance of BoA. The P-value was 0.006 < 0.05, therefore, H0 hypothesis has rejected.

-H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Shareholders' Equity.

Lastly, the mean ratios of Total assets of BoA has decreased insignificantly from 0.046 to 0.045. Additionally, P-value of BoA supports the mean ratio and it indicates that there has not been an adverse impact of acquisition on the performance of the bank. The p-value (0.949) > 0.05, thus it can be indicated bank has not performed a downward trend during post-acquisition period and H0 hypothesis has not rejected.

-H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Total Assets.

4.5.3 T-test Data Analysis of Barclays PLC

Table 4.3: Mean and standard deviation of pre-and post- acquisition ratios of Barclays PLC.

		Mean	Std. Deviation	P-Value	T-Value
ROA	Pre	0.021	0.005	0.115	2.571
	Post	0.017	0.002		
ROE	Pre	0.701	0.067	0.000	2.447
	Post	0.380	0.034		
NIM	Pre	0.011	0.003	0.156	2.776
	Post	0.008	0.000		
SE	Pre	0.030	0.005	0.001	2.365
	Post	0.043	0.003		
TA	Pre	0.018	0.008	0.591	2.571
	Post	0.021	0.002		

Table 3 demonstrates the paired t-test findings values on the impact of financial performance for the Barclays bank. The mean value of return on assets for Barclays bank has seen a slight reduction from 0.0021 to 0.0017 between pre-and post-acquisition term. Therefore, p-value of banks recorded relatively and accounted for 0.115. This indicates that there has not been a significant change in return on asset performance of the bank after acquisition of Lehman Brothers because p-value (0.115) > 0.05. Therefore, H0 hypothesis has accepted.

-H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Return on Assets.

The findings demonstrate that return on equity has seen a sharp decrease in the mean value of Barclays bank from 0.701 to 0.380. The mean value indicates a negative change in the performance of BoA after acquisition. It refers that there has been an almost 50% drop in the performance with Lehman Brothers. Moreover, the p-value of (0.000) < 0.05, thus it can be evaluated that there has been a crucial change in the return on equity performance of banks. Therefore, H0 hypothesis has rejected.

-H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Return on Equity.

The mean value of net interest margin of Barclays bank has witnessed a slight decrease from 0.011 to 0.008. It implies that there has not been a significant performance reduction in the net interest margin with the acquisition. Additionally, p-value (0.156) > 0.05, it is therefore a slightly negative change in NIM has not deteriorated the performance of bank significantly. Thus, H0 hypothesis has accepted.

-H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Return on Assets.

The table 3 indicates that there has been a remarkable increase in the mean of shareholders' equity from 0.030 to 0.043. This emphasises that Barclays bank has witnessed a significant improvement in its shareholders' equity by acquiring Lehman Brothers. Accordingly, p-value

indicated an insignificant value and accounted for 0.001< 0.05. Therefore, H0 hypothesis has rejected.

-H1 (Alternative Hypothesis): There is a significant difference between pre- and post-acquisition Shareholders' Equity.

The mean of total assets also has witnessed an upward trend during the post-acquisition term of Barclays bank. The mean has increased slightly from 0.018 to 0.021it is therefore, Barclays has improvement its total assets performance in the wake of acquisition. Additionally, p-value of the bank also supports the mean ratio and it proves an improvement in performance. The p-value of bank accounted for 0.591 > 0.05, thus it can be evaluated that the acquisition has been successful in terms of total assets.

-H0 (Null Hypothesis): There is no significant difference between pre-and post-acquisition Total Assets.

From what has been explored above, it is evident that there are differences in absolute terms of values. The majority of findings which has obtained from t-test demonstrate that there has been a downward trend in the performance of Bank of America and Barclays bank. The biggest drop has observed from the finding of return on equity. These drops for Bank of America accounted for around 14% and for Barclays accounted for 32%. These two banks have closely related each other in terms of acquisition performance. The fact that findings from the ratio analysis demonstrated similar results with t-test. The performance of post-acquisition term has decreased remarkable compared to pre-acquisition term. Both bank have witnessed a similar trend in their performance. The study also demonstrated that mergers and acquisitions have resulted a decline in profitability in the long term. The decline in profitability can be attributed to the acquisition activities because, utilisation of total assets by acquiring firms might not be provided a higher operating profit. It has been identified that positive t-value refers some problems regarding the expenses, sales, labour-related costs, general and administration expenses.

For Bank of America it is obvious from the evidences above that Bank of America's performance has been deteriorated with the acquisition of Merrill Lynch. The findings of t-test demonstrate that significant parameters of profitability have showed a downward trend such as ROA, ROE, NIM and TA. In particularly, there has been a remarkable decrease in the mean of ROE. Moreover, there has been significant differences in the ROA, ROE and SE with regard

to p-value, therefore H1 has accepted, which means that there have been significant differences among the pre-and post-acquisition performance of Bank of America. On the other hand, the standard deviations of ROE, NIM and SE has decreased with the impact of acquisition. The biggest decline recorded in ROE from 0.045 to 0.022, however the standard deviation of NIM and SE has decreased slightly. Arguably, the decline of standard deviation demonstrates a less volatility for a bank. Therefore, this might be an advantage for the post-acquisition term for Bank of America because falling trend in standard deviation might be helped to bank to diminish the risk in its operations.

For Barclays Bank, findings revealed that it has not performed well in terms of return on assets but at an insignificant level. However, in respect of return on equity, the performance has been sharp decreased after the acquisition of Lehman Brothers. These reductions imply that there are some important factors that have not carefully considered by the Barclays bank with the acquisition of Lehman Brothers. These factors might be linked to poor execution of acquisition process, global financial crisis and general downtrend in financial industry. Additionally, the standard deviations of the all ratios has witnessed a reduction after the acquisition. Similarly, the biggest drop was recorded in return on equity.

As mentioned for the Bank of America, standard deviation has played a key role to measure the risk of the banks. Therefore, it can be observed from the t-test analysis above that the volatility of Barclays bank has significantly decreased as a result of acquisition. This points out that Barclays bank has diminished its risky operations after acquisition and that might be an advantage for the future operations after the challenged acquisition process. Overall, t-test confirms that the acquisitions have resulted in performance decrease for the selected banks during the post-acquisition term.

5.0 Conclusion

This study has explored the bank M&As in the UK and US in terms of successfulness in the short and long-term periods by implementing ratio and t-test analysis. The study was carried out using existing literatures regarding the performance on the bank mergers and acquisitions. However, the majority of the existing literatures have depicted an unclear picture for the successfulness of deals. Therefore, the objective of this study was to reveal a clear picture regarding the financial performance of Bank of America and Barclays bank in the short and long-term. In order to achieve this, the research firstly has carried out a ratio analysis to determine the performance of banks in the short and long-term. Afterwards, the findings that has obtained as a result of ratio analysis computed in Microsoft Excel by carrying out a t-test in order to determine the performance differences between pre-and post-acquisitions.

The empirical evidences from ratio analysis have been demonstrated that Bank of America and Barclays bank witnessed a significant decline in their financial performance. The financial ratio analysis indicated that in the five cumulative years in the wake of acquisition, there has been a slight decline in ROA of 1% and NIM of less than 1% of Bank of America. However, the biggest drop has recorded in ROE of 13%. Whereas, shareholders' equity has witnessed a slightly upward trend about 2%. On the other hand, the empirical analysis of Barclays bank has revealed a slight decline in ROA of 1%. The NIM has been stable during the five cumulative years and SE has been slight increase around 1%. However, there has been a drastic decrease in ROE of 34%. It has been shown that acquisition has an adverse impact on the financial performance of banks during the five-cumulative year in respect to accounting approach. Moreover, the findings have revealed a consistency with Chatterjee and Meeks (1996), Sharma and Ho (2002) and Ravenscraft and Scherer (1989) they also found an adverse impact of M&As in post-acquisition performance.

Additionally, the t-test has comparatively analysed the differences between pre-acquisition and post-acquisition and findings revealed a significant consistency with the ratio analysis. The mean values of Bank of America and Barclays bank indicated a downward trend except shareholders' equity. Accordingly, there has been a significant difference between pre- and post-acquisition performance of banks as a result of hypothesis findings. The findings of t-test demonstrated that financial performance has been deteriorated for the post-acquisition term compared to pre-acquisition term. The analyses have matched with the results of Sidharth and

Sunil (2009), Wilson (2010), Strong (1992) and Weiss and Hassett (1986). They argue the pre- and post-acquisition terms to determine the changes in financial performance of firms and they found that with the acquisition there has been a significant decline in the profitability performance of the firms.

Overall, it has been derived from the evidences above that mergers and acquisitions in the UK and US banks have failed in terms of performance improvement. The combined findings from ratio analysis and t-test consistently proved that Bank of America and Barclays bank have witnessed a significant deterioration in their financial performance. The results have matched with the studies of Haynes & Thompson (1999).

5.1 Recommendations

It is clear from evidence above that there is a negative relationship between acquisitions and financial performance of Bank of America and Barclays bank. It has been argued that various factors might have been affected the financial performance adversely in the wake of an acquisition activity. This study has provided an insight picture which involved in M&As activity in the UK and US bank to consider the use of acquisition activity as a strategic objective to achieve financial gains. It can be recommended that stakeholder and shareholders should prudently consider the possible impact of acquisition activity on the performance of banks. According to ECB (2000) data, there has been a significant decline in the number of banks because of M&As. In particularly, the majority of managers have been invested in risky investments because of higher risk and higher gain and it has triggered a detrimental global crisis across the world. Therefore, the significant number of larger banks have decided to acquire solvent banks by paying lower value to expand their assets and market shares. However, they have faced the problematic portfolios of solvent or less-performing banks. For instance, the empirical analysis has revealed that solvent bank of Lehman Brothers affected the financial performance of Barclays adversely and caused a significant decline in profitability. Therefore, banks should have been considered to focus on less risky and profitable targets rather than solvent and poor-performed banks.

Moreover, it can be observed from the financial reports of the acquirer banks, they have absorbed the acquired banks with high gearing ratio and Merrill Lynch and Lehman Brothers were illiquid banks. Thus, acquisition of these banks caused a reduction in financial performance, therefore larger banks should merge with each other in order to achieve expected

financial gains from an acquisition activity. Overall, alternative corporate strategies and reforms should be considered by financial regulators to guide entire financial systems in order to maintain sustainable and competitive strategies in domestic and international markets. Thus, banks can avoid themselves from risky and unprofitable acquisitions. Furthermore, external and internal audit should be carried out by the banks on a regular basis. Thus, bank can detect their problematic issues in advance of a strategic actions such as mergers and acquisitions.

6.0 Personal Reflection

To write an applied project has been a long and challenging journey for me. However, aims and objectives of this research have been accomplished properly as a result of hardworking process. The research has evaluated the financial impact of mergers and acquisitions on the performance of chosen bank. The main objective of this research was to understand why firm are involving in mergers and acquisitions. Therefore, a deeply research has been done for this applied in order to examine the potential impact of mergers and acquisitions. However, the significant number of existing literatures indicated that there was not clear picture to judge successfulness of mergers and acquisitions. According to, I have decided to work in this field but, there was also another culprit for me. The financial crisis took place during the 2008 and this was making my prior investigations a bit questionable because, there was a general downward in all sectors across the world.

Firstly, methodology was another culprit for me because I could not decide how I will reflect my findings to my applied project. Therefore, I had to determine an appropriate method in order to carry out my research properly. In the light of methodological approach, I have decided to use Mixed Method analysis in my applied project. Because, mixed method was combining the qualitative data and quantitative data into a single study, therefore I thought that it was fit for my research. However, I was not thinking to apply primary research, therefore I have met with my supervisor to get a useful idea regarding my methodology part. Accordingly, my supervisor Dr Edna Stan-Maduka advise me to use quantitative method. Because, quantitative method approach was based on secondary data.

Secondly, there have been a lot of changes in my database after the submission of proposal. Therefore, initial developments have not taken place on my proposal. I have developed a database of 2 banks to comparatively examine the financial performance in the UK and US. However, there were a lot of researches that have been done regarding M&As and they were using different kinds of methods to evaluate the financial performance. This makes me confused but with the help of my supervisor I have also dealt with this culprit and I have chosen ratio analysis to evaluate the short-run and long-run performance of banks.
Thirdly, in the wake of ratio analysis I had to choose a statistical test to continue my research, but choosing a statistical test also was a challenging process for me because it had to be fit my purpose in this research. The samples of researches were using different kinds of statistical

tests such as regression, descriptive, correlation and t-test. Therefore, I have decided to implement a two-paired t-test analysis to compare the pre-and post-acquisition financial performance of banks by using the ratio analysis findings. Arguably, t-test was an appropriate analysis after ratio analysis to maintain a consistent research.

Consequently, English not being my first language was one of the major obstacles that I faced during the time I was writing my dissertation, but I took it as a challenge and work harder to improve my vocabulary and grammar. Overall, it was quite a ride for me but, in the end I would say that the dissertation has well equipped me with critical and analytical skills and it will influence my life for quite a long time.

7.0 References

Abreu, M. and Mendes, V. (2001) 'Commercial Bank Interest Margins and Prof-inability: Evidence for Some EU Countries'. Paper Presented at the Proceedings of the Pan-European Conference, Jointly Organized by the IEFS–UK and the University of Macedonia Economic and Social Sciences, Thessaloniki, Greece, in May 2001

Abul-Rahman, O. A. & Ayorinde, A. O. (2013). Post-Merger Performance of Nigerian Selected Deposit Money Banks- An Econometric Prospective. International Journal of Management and Sciences, 2(8), pp. 49-59.

Akhavein, J. D., A. N. Berger and D. B. Humphrey (1997). 'The Effects of Mega Mergers on Efficiency and Prices: Evidence from a Bank Profit Function', Review of Industrial Organization, Vol. 12, pp. 95–139.

Altunbas, Y., & Ibanez, D. M. (2004). Mergers and Acquisitions and Bank Performance in Europe: The Role of Strategic Similarities. European Central Bank. Working Paper Series No. 398, October 2004. [Online] Available at: http://ssrn.com/abstract_id=587265 [Accessed 4 Jul. 2017].

Amel, D., Colleen, C., Panetta, F., Salleo, C (2004), 'Consolidation and Efficiency in the Financial Sector': A Review of the International Evidence. Journal of banking and finance, vol.28, pp.10. pp. 2493-2519.

Amihud, K. and B. Lev (1981), 'Risk Reduction as a Managerial Motive for Conglomerate Mergers', Bell Journal of Economics, Vol. 12, pp. 605–17.

Arnold, M. and D. Parker (2009), 'Stock Market Perceptions of the Motives for Mergers in Augstums, I. (2007). Bank of America to Acquire LaSalle Bank. [Online] Washington post. Available at: http://www.washingtonpost.com/wp-dyn/content/article/2007/04/23/AR2007042300529_pf.html [Accessed 14 Jul. 2017].

Ayadi, R. (2007). Assessing the Performance of Banking M&As in Europe. [Online] Brookings. Available at: https://www.brookings.edu/book/assessing-the-performance-of-banking-mas-in-europe/ [Accessed 17 Jul. 2017].

Ayadi, Rym, and Georges Pujals. (2005), "Banking mergers and acquisitions in the EU: Overview, assessment and prospects." SUERF Studies. The European Money and Finance Forum. No. 2005/3.

Ball, R. & Brown, P. (1968) An Empirical Evaluation of Accounting Income Numbers. Journal of Accounting Research, 6, pp 159-178

Bank of America (2016). Bank of America Corporation. [Online] United States Securities and Exchange Commission. Available at: https://www.sec.gov/Archives/edgar/data/70858/000007085817000013/bac-1231201610xk.htm [Accessed 7 Jul. 2017].

Bank of America (2017). Bank of America | Investor Relations | Annual Reports & Proxy Statements. [Online] Bank of America Investor Relations. Available at: http://investor.bankofamerica.com/phoenix.zhtml?c=71595&p=irol-reportsannual [Accessed 5 Aug. 2017].

Baradin, H. (2009). The Effect of Mergers and Acquisitions on Bank Performance in Egypt. [Online] Available at: https://www.researchgate.net/publication/46437835_The_Effect_of_Mergers_and_Acquisitions_on_Bank_Performance_in_Egypt [Accessed 13 Aug. 2017].

Barber, B.M. and Lyon J.D. (1996). 'Detecting abnormal operating performance: The empirical power and specification of test statistics'. Journal of Financial Economics41 (3): pp 359–399

Barclays Group (2017). Barclays - a quick history | Barclays Group Archives. [Online] Archive.barclays.com. Available at: https://www.archive.barclays.com/items/show/5419 [Accessed 3 Jul. 2017].

Bauerlein, Sidel, V. (2005). Bank of America Makes Deal For Credit-Card Issuer MBNA. [Online] Wall Street Journal. Available at: https://www.wsj.com/articles/SB112012881708573942 [Accessed 14 Jul. 2017].

BBC (2007). BBC NEWS | Business | Barclays abandons ABN Amro offer. [Online] News.bbc.co.uk. Available at: http://news.bbc.co.uk/1/hi/business/7029297.stm [Accessed 13 Jul. 2017].

BBC (2008). BBC NEWS | Business | Northern Rock to be nationalised. [Online] News.bbc.co.uk. Available at: http://news.bbc.co.uk/1/hi/business/7249575.stm [Accessed 14 Jul. 2017].

BBC News. (2012). Barclays to acquire ING Direct UK - BBC News. [Online] Available at: http://www.bbc.co.uk/news/business-19880659 [Accessed 13 Jul. 2017].

Beltratti, A. & Stulz, R.M. (2012) "The credit crisis around the globe: Why did some banks perform better?" Journal of Financial Economics, vol. 105, no. 1, pp. 1-17.
Beltratti, A., & Stulz, R. M. (2012). 'The credit crisis around the globe: Why did some banks perform better'? *Journal of Financial Economics*, 105(1), pp. 1–17.

Berger, A. and D. Humphrey (1992). 'Megamergers in Banking and the Use of Cost Efficiency as an Antitrust Defence', the Antitrust Bulletin 37, 541-600.

Berger, A. N. and D. B. Humphrey (1992). 'Megamergers in Banking and the Use of Cost Efficiency as Antitrust Defense', the Antitrust Bulletin, Vol. 37, pp. 541–600.

Berger, A., Saunders, A., Scalise, J., Udell, G., (1998). 'The effects of bank mergers and acquisitions on small business lending'. Journal of Financial Economics 50, pp 187-229.

Berger, A.N., (1998). 'The efficiency effects of bank mergers and acquisition: A preliminary look at the 1990s data'. In Bank Mergers & Acquisitions (pp. 79- 111). Springer US.

Berkovitch, E. and M. Narayanan (1993). 'Motives for Takeovers: An Empirical Investigation', Journal of Financial and Quantitative Analysis, Vol. 28, pp. 347–62.

Bertrand O. and Zitouna H. (2008). 'Domestic versus cross-border acquisition: which impact on the target firms' performance'? Applied economics, 40(17): pp 2221-2238.

Bertrand, Betschinger, O. (2011). Performance of domestic and cross-border acquisitions: [online] Available at: http://www.ebrd.com/downloads/research/economics/workingpapers/WP0129.pdf [Accessed 11 Aug. 2017].

Bertrand, O. and M. A. Betschinger. (2011). 'Performance of domestic and cross-border acquisitions': Empirical evidence from Russian acquirers. Journal of Comparative Economics: pp. 1-41.

Blonigen, B. A., & Taylor, C. T. (2000). 'R&D Intensity and Acquisitions in High Technology Industries': Evidence from the U.S. Journal of Industrial Economics, 48 (1), 47-70.
Bloomberg (2013). Barclays to Cut 3,700 Jobs after Full-Year Loss. [Online] Bloomberg. Available at: https://www.bloomberg.com/news/articles/2013-02-12/barclays-to-cut-3-700-jobs-after-full-year-loss [Accessed 13 Jul. 2017].

Bouwman, C.H.S., K. Fuller and A.S. Nain (2009), 'Market valuation and acquisition quality: Empirical evidence', Review of Financial Studies, 22, pp 633-679.

Bower, J. (2002). When We Study M&A What Are We Learning? Keynote address, M&A Summit 2002 Conference, Calgary, Alberta, Canada.

Bradley, M., A. Desai, and E.H. Kim, (1988) "Synergistic Gains from Corporate Acquisitions and Their Division between the Stockholders of Target and Acquiring Firms," Journal of Financial Economics, 21(1), 3-40.

Brigham, E., & Houston, J. (2009). Fundamentals of Financial Management. Mason: Cengage Learning. Cases Reviewed by the UK Competition Authorities: An Empirical Analysis', Managerial and Decision Economics, Vol. 30, pp. 211–33

Bruner, R. F. (1999). 'An analysis of value destruction and recovery in the alliance.

Bruner, R.F. (2001). Does M&A Pay? A Survey of Evidence for the Decision-Maker. Batten Institute, Darden Graduate School of Business, University of Virginia.

Bruner, R.F. (2002). Does M&A pay? A survey of evidence for the decision-maker. Journal of Applied Finance, 12: pp 48-68.

Bull, R., (2008) 'Financial Ratios: How to Use Financial Ratios to Maximise Value and Success for Your Business, Elsevier Science, 1st edn, Elsevier, Burlington.

Campbell, D. and Campbell, S., 2008, October. Introduction to regression and data analysis. In *StatLap Workshop Series* (pp. 1-15).

Caves, R. (1989). 'Mergers, Takeovers, and Economic Efficiency. International Journal of Industrial Organization', 7, pp 151-174.

Cigola, M., & Modesti, P. (2008). A note on mergers and acquisitions, Managerial Finance, 34 (4), 221-238.

Collins, B. & McKeith, J. (2010). 'Financial accounting and reporting', McGraw-Hill Higher Education, London.

Corner, G. (2014). Is High Tide Approaching for Bank Mergers and Acquisitions? [Online] Stlouisfed.org. Available at: https://www.stlouisfed.org/bank-supervision/supervision-and-regulation/banking-insights/is-high-tide-approaching-for-bank-mergers-and-acquisitions [Accessed 1 Sep. 2017].

Cornett, M.M., McNutt, J.J. and Tehranian, H. (2006), "Performance changes around bank mergers: Revenue enhancements versus cost reductions", Journal of Money, Credit and Banking, 38: pp 1013-1050.

Coyle, B. (2000). Corporate Finance: Mergers and Acquisitions. Chicago: Glenlake Publishing Company.

Croson, T. A., Gomes, A., Mcginn, K. L. and Noth M. (2004), Mergers and Acquisitions: An Experimental Analysis of Synergies, Externalities and Dynamics, Review of Finance, 8, pp. 481–514

D. R. Fraser and H. Zang (2009) "Mergers and long-term corporate performance: Evidence from cross-border bank acquisitions?" Journal of Money, Credit, and Banking, vol. 41(7), pp. 1504-1513.

DeLong, G. and DeYoung, R., 2007. Learning by observing: Information spill overs in the execution and valuation of commercial bank M&As. The journal of Finance, 62(1), pp.181-216.

Delvat, J. (2015). How SAP Simple Finance as Central Journal supports Mergers and Acquisitions | SAP Blogs. [Online] Blogs.sap.com. Available at: https://blogs.sap.com/2015/08/27/how-sap-simple-finance-as-central-journal-supports-merger-and-acquisitions/ [Accessed 1 Sep. 2017].

Demirguc-Kunt, A. and Huizinga, H. (1999). 'Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence', the World Bank Economic Review, 13, pp 379–408.

DeYoung, P, Molyneux, Evanoff. (2009). [online] Available at: https://www.researchgate.net/publication/227359331_Mergers_and_Acquisitions_of_Financial_Institutions_A_Review_of_the_Post-2000_Literature [Accessed 12 Aug. 2017].
DeYoung, R., (1997). 'Bank mergers, X-efficiency, and the market for corporate control'. Managerial finance, 23(1), pp.32-47.

Dickerson, A., P., Gibson, H., D., & Tsakalotos E. (1997). The Impact of Acquisitions on Company Performance: Evidence from a Large Panel of UK Firms. Oxford Economic Papers, 49, pp. 344-361
Dodd, P. and Ruback, R. (1977), 'Tender Offers and Stockholder Returns', Journal of Financial Economics, Vol.5, pp. 351 - 373.

Donaldson, G. and G. Lorsch (1983), Decision Making at the Top, (Basic Books, New York).

Drake, P. (2010). http://educ.jmu.edu/~drakepp/principles/module2/fin_rat.pdf. [Online] Available at: http://educ.jmu.edu/~drakepp/principles/module2/fin_rat.pdf [Accessed 7 Aug. 2017].

Drakos, K. (2002). 'Imperfect competition in banking and macroeconomic performance: Evidence from the transition economies'. Paper presented at the Bank of Finland, World Bank.

ECB (2000). MERGERS AND ACQUISITIONS INVOLVING THE EU BANKING INDUSTRY FACTS AND IMPLICATIONS. [Online] Ecb.europa.eu. Available at: https://www.ecb.europa.eu/pub/pdf/other/eubkmergersen.pdf?fe566e8c53c5d597c33e90a48a1b33c3 [Accessed 7 Aug. 2017].

Etchegaray, J.M., Ottenbacher, A.J., Sittig, F. & McCoy, A.B. (2012). "Understanding Evidence-Based Research Methods: Survey Analysis, t-Tests, and Odds Ratios", HERD: Health Environments Research & Design Journal, vol. 6(1), pp. 143-147.

European Central Bank (2000). 'Mergers and acquisitions involving in the EU banking industry-Facts and implications.' European Central Bank Publication.

European Central Bank, 2010, Beyond RoE – How to Measure Bank Performance, Appendix to the Report on EU Banking Structures, September.

Federal Deposit Insurance Corporation (2017). FDIC: Statistics at a Glance. [Online] Fdic.gov. Available at: https://www.fdic.gov/bank/statistical/stats/ [Accessed 10 Aug. 2017].

Focarelli, D., Panetta, F., & Salleo, C. (2002). Why Do Banks Merge? Journal of Money, Credit and Banking, 34 (4), 1047-1066.

Focarelli, D., Pozzolo, A.F., (2001). The patterns of cross-border bank mergers and shareholdings in OECD countries. *Journal of Banking and Finance* 25, pp. 2305-2337.
Fontaine, C. W. (2007). Mergers & Acquisitions: Understanding the Role of HRM. Boston: Northeastern University.

Franks, J.R., J.E. Broyles and M.J. Hecht (1977), `An Industry Study of the Profitability of Mergers in the United Kingdom, Journal of Finance, Vol. XXXII, No. 5(12), pp. 1513-1525.

Frantlikh (2013). DEFINITION OF MERGERS AND ACQUISITIONS. [Online] Available at: http://studentsrepo.um.edu.my/3938/3/2_LITERATURE_REVIEW.pdf [Accessed 7 Aug. 2017].

Fraser, D. and Zhang, H. (2009). Mergers and Long-Term Corporate Performance: Evidence from Cross-Border Bank Acquisitions. [Online] Papers.ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1729065 [Accessed 9 Jul. 2017].

Fu, Lin & Officer (2013). Acquisitions Driven by Stock Overvaluation: Are They Good Deals? [Online] Available at: http://schwert.ssb.rochester.edu/f423/f423ass313a.pdf [Accessed 2 Aug. 2017].

G. DeLong and R. DeYoung (2007). "Learning by observing: Information spill overs in the execution and valuation of commercial bank M&As," The Journal of Finance, vol. 62(1), pp. 181–216.

Gaughan, P. (2002). Wiley: Mergers, Acquisitions, and Corporate Restructurings, 3rd Edition, University Edition - Patrick A. Gaughan. [Online] Eu.wiley.com. Available at: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471237299.html [Accessed 7 Sep. 2017].

Gaughan, P. A. (1999). Mergers, Acquisitions, and Corporate Restructurings. 2nd ed. New York: John Wiley & Sons.

Ghauri, Pervez N., and Grønhaug, K. (2002). 'Research Methods in Business Studies': A Practical Guide (2nd edition), London: FT Prentice Hall Europe.

Ghauri, Pervez N., and Grønhaug, K. (2005). 'Research Methods in Business Studies' (3rd Edition), Prentice Hall: London.

Ghosh, A. (2001). 'Does operating performance really improve following corporate acquisition?' Journal of Corporate Finance, 7(2), pp. 151–178.

Ghoshal, S. (1987). 'Global Strategy: An Organizing Framework'. Strategic Management Journal, 8 (5), pp. 425-440.

Goddard, J., McKillop, D.G., and Wilson, J.O.S. 2009. Which credit unions are acquired? Journal of Financial Services Research 36, pp. 231-252.

Goergen, M. and Renneboog, L. (2004). Shareholder Wealth Effects of European Domestic and Cross-border Takeover Bids. [Online] Wiley Online Library. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-036X.2004.00239.x/abstract [Accessed 11 Aug. 2017].
Gole, W. J., & Morris, J. M. (2007). Mergers and acquisitions: Business strategies for accountants (3rd ed.). Hoboken, NJ: John Wiley & Sons.

Grinblatt, M. & Titman, S. (2005), Financial markets and corporate strategy, 2nd end, McGraw-Hill, Boston, [Mass.]; London.

Guest, P.M., Bild, M. & Runsten, M. (2010). "The effect of takeovers on the wendamental value of acquirers", Accounting and Business Research, vol. 40(4), pp. 333-352.

Gustavsson, Bengt (1992). 'The Transcendent Organization: A Treatise on Consciousness in Organizations: Theoretical Discussion, Conceptual Development, and Empirical Studies. University of Stockholm, Department of Business Administration.

Haleblian J. and Finkelstein S. (1999). 'The Influence of Organizational Acquisition Experience on Acquisition Performance'. Administrative Science Quarterly, 44(1): pp. 29-56.

Haleblian, C. (2009). Taking Stock of What We KnowAbout Mergers and Acquisitions: A Review and Research Agenda. [Online] Available at: https://www.researchgate.net/publication/228319127_Taking_Stock_of_What_We_Know_About_Mergers_and_Acquisitions_A_Review_and_Research_Agenda [Accessed 12 Aug. 2017].

Haleblian, J., Devers, C.E., McNamara, G., Carpenter, M.A. & Davison, R.B. 2009, "Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda", Journal of Management, vol. 35(3), pp. 469.

Hall, Inc.Zappa M., (2008). The Fundamentals of Strategic Logic and Integration for Merger and Acquisition Projects.

Hannan, T., Pilloff, S. (2007). Acquisition targets and motives in the banking industry, Board of Governors of the Federal Reserve System, Unpublished Working Paper.

Hannan, T.H., Pilloff, S.J., (2006). Acquisition targets and motives in the banking industry. Federal Reserve Board Finance and Economics Discussion Series 2006-40.
Healy P. M., Palepu, K. G. and Ruback, R. S. (1992). "Does Corporate Performance Improve After Mergers?" Journal of Financial Economics, 31, pp. 135- 175.

Healy, P., Palepu, K., Ruback, R., (1992). 'Does corporate performance improve after mergers?' Journal of Financial Economics. 31: pp. 135– 175.

Hill, C.W.L., Jones, G.R. & Means Business 2001, Strategic management theory: an integrated approach, 5th end, Houghton Mifflin, Boston, Mass.

Hodgkinson, L. and Partington, G.H., (2008). 'The Motivation for Takeovers in the UK.' Journal of Business Finance & Accounting, 35(1-2), pp. 102-126.

Hofman, A. (2009). Barclays' tea leaves. [Online] Euromoney. Available at: https://www.euromoney.com/article/b1322mtnp7y2hd/abigail-with-attitude-barclays-tea-leaves [Accessed 13 Aug. 2017].

Houston, J.F., James, C.M., Ryngaert, M.D., (2001). Where do merger gains come from? Bank mergers from the perspective of insiders and outsiders. Journal of Financial Economics 60 (2– 3), pp. 285–331.
Houston, J.F., Ryngaert, M.D., 1994. The overall gains from large bank mergers. Journal of Banking and Finance 18, 1155–1176.
Huang, C., & Kleiner, B. H. (2004), 'New Developments Concerning Managing Mergers and Acquisitions.' Management Research News, 27 (4-5), pp. 54-62.

Humphrey, D., & Vale, B. (2004). 'Scale economies, bank mergers, and electronic payments: a spline function approach.' Journal of Banking and Finance, 28 (7), pp. 1671-1696.

Ingham, H., Kran I. and Lovestam A. (1992). 'Mergers and profitability: a managerial success story?' Journal of Management Studies, 29:195–208. Investigation. The Journal of Financial and Quantitative Analysis, 28(3), pp. 347-362.

Jarrel, G., and Poulsen, A. (1989), 'Stock Trading before the Announcement of Tender Offers: Insider Trading or Market Anticipation', Journal of Law, Economics & organization, Vol.5 (2), pp. 225-248.

Jensen, R, Ruback. (1993). The Market for Corporate Control: The Scientific Evidence. [Online] Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=244158 [Accessed 1 Aug. 2017].
Kangari, R. (1988). "Business Failure in Construction Industry". Journal of Construction Engineering and Management 114 (2), pp. 172-190.

King, R., & Levine, R. (1993). 'Finance and growth. Schumpeter might be right.' Policy research. (Working papers, 1083).

Kingston University, School of Business Technology (2007). 'Business Ethics. Online MBA program.'

Kinnear Thomas, C., and James R. Taylor. (1996). "Marketing Research: an Applied Approach."

Klapper, Love, L. (2002). Corporate Governance, Investor Protection and Performance in Emerging Markets. [Online] Openknowledge.worldbank.org. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/14319/multi0page.pdf?sequence=1&isAllowed=y [Accessed 13 Aug. 2017].

Korang, R. (2012). Evaluation of the financial performance of American bidding companies. [Online] Available at: http://eprints.nottingham.ac.uk/12828/1/Dissertation_full_%28references%29pdf.pdf [Accessed 6 Aug. 2017].

Korang, R. (2017). Evaluation of the financial performance of American bidding companies. [Online] Available at: http://eprints.nottingham.ac.uk/12828/1/Dissertation_full_%28references%29pdf.pdf [Accessed 8 Jul. 2017].

Kwan SH, Wilcox JA (1999) Hidden cost reductions in bank mergers: accounting for more productive banks. In: Working papers in applied economic theory, Federal Reserve Bank of San Francisco.

Larsson, R. & Finkelstein, S. (1999), "Integrating Strategic, Organizational, and Human Resource Perspectives on Mergers and Acquisitions: A Case Survey of Synergy Realization", Organization Science, vol. 10(1), pp. 1-26.

Larsson, Wallenberg, S. (2002). Motives for and Evaluation Criteria of Mergers and Acquisitions. [Online] Available at: http://www.diva-portal.org/smash/get/diva2:17329/FULLTEXT01.pdf [Accessed 14 Aug. 2017].
Lasher, William R. (1997). 'Advanced financial Accounting.' 5th ed. London: pitman publishing co.

Levine, R. (1997). 'Financial development and economic growth:' Views and agenda. Journal of Economic Literature, XXXV, pp. 688–726.

Levine, R. (2005). 'Finance and growth: Theory and evidence.'
In P. Aghion& S. Durlauf (Eds.), Handbook of economic growth Vol. 1, (pp. 865–934). 10.

Lichtenberg, F.R., Siegel, D., Jorgenson, D. & Mansfield, E. (1990), "Productivity and Changes in Ownership of Manufacturing Plants", Brookings Papers on Economic Activity, vol. 1987, no. 3, pp. 643-683.

Linder, J.C., Crane, D.B. (1993), 'Bank mergers: Integration and profitability, Journal of Financial Services Research,' 7: pp. 35-55.

Lipton, J. (2006). Bank of America to Buy U.S. Trust. [Online] Forbes. Available at: https://web.archive.org/web/20080415165218/http://www.forbes.com:80/markets/2006/11/20/bank-of-america-markets-equity-cx_jl_1120markets12.html [Accessed 14 Jul. 2017].

Lirnmack, R.L (1990)" Takeover Activity and Differential Returns to Shareholders of Bidding Companies", Hume Occasional Paper No. 19, the David Hume Institute.

Mallikarjunappa, T. and P. Nayak, (2007), "Why do Mergers and Acquisitions quite often fail?" AIMS International, 1(1), pp. 53-69.

Mantravadi, P. and A. Reddy, (2007). "Relative Size in Mergers and Operating Performance: Indian Experience", Economic and Political Weekly, 3936.

Martynova M. and Renneboog L. (2008). A century of corporate takeovers: What have we learned and where do we stand? Journal of Banking & Finance. 32(10): pp. 2148-2177

Martynova M. and Renneboog L., 2011, The Performance of the European Market for Corporate Control: Evidence from the Fifth Takeover Wave, European Financial Management, Vol. 17(2), pp. 208- 259.

Martynova, M. and Renneboog, L. (2008). A Century of Corporate Takeovers: What Have We Learned and Where Do We Stand? (Previous title: The History of M&A Activity around the World: A Survey of Literature). [Online] Papers.ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=820984 [Accessed 3 Aug. 2017].

Mcclure, B. (2009). Mergers and Acquisitions: Introduction. Investopedia, February 25. [Online] Available at: http://www.investopedia.com/university/mergers/ [Accessed 4 Jul. 2017].

McIntosh, W., Officer, D.T. and Born, J.A. (1989), "The wealth effects of merger activities: further evidence from real estate investment trusts", Journal of Real Estate Research, Vol. 4 No. 3, pp. 141-55.

McNamara G., Haleblian J. and Dykes B., (2008), 'The Performance Impayadiations of Participating in an Acquisition Wave:' Early Mover Advantages, Bandwagon Effects, and the Moderating Influence of Industry Characteristics and Acquirer Characteristics, Academy of Management Journal, Vol. 51(1), pp. 113-130.

Meeks, G. (1977). Disappointing Marriage: Gains from Mergers. Cambridge University Press.

Meeks, G. and J. Meeks (1981). 'Profitability Measures as Indicators of Post-Merger Efficiency', Journal of Industrial Economics, 29, pp. 335-344.
Mehrotra, V., D. Schaik, J. Spronk and O. Steenbeek (2011), 'Creditor-Focused Corporate Governance: Evidence from Mergers and Acquisitions in Japan', Journal of Financial and Quantitative Analysis, Vol. 46, pp. 1051–72.

Michelle Haynes, Steve Thompson. (1999). 'The productivity effects of bank mergers: Evidence from the UK building societies. Journal of Banking & Finance.

Miller, E. L. (2008). Mergers and acquisitions: a step-by-step legal and practical guide. New Jersey: John Wiley and Sons.

Mishkin, F.S., (1998). 'Bank consolidation: a central banker's perspective. In: Amihud, Y., Miller, G. (Eds.), Bank Mergers and Acquisitions. Kluwer Academic Publishers, Norwell, MA, pp. 3-20.

Moeller, S. B., Schlingemann, F. P. and Stulz, R. M. (2005), 'Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave', the Journal of Finance, vol. 60(2), pp. 757-782.

Mohammad Faisal Ahammad, Keith W. Glaister, (2008) "Recent trends in UK cross-border mergers and acquisitions", Management Research News, Vol. 31(2), pp.86-98.

Morck, R. (1990). Do Managerial Objectives Drive Bad Acquisition? [Online] Research Gate. Available at: https://www.researchgate.net/publication/4767965_Do_Managerial_Objectives_Drive_Bad_Acquisition [Accessed 18 Aug. 2017].
Morris, T. (2004). 'Bank Mergers under a Changing Regulatory Environment.' Sociological Forum, 19 (3), 435-463.

Mueller, D.C., (1980), The Determinants and Effects of Mergers: An International Comparison. Cambridge, Mass.: Oelgeschlager, Gunn and Hain.
Mulherin, H, and A. L. Boone, (2000). 'Comparing acquisitions and divestitures,' Journal of Corporate Finance 6, pp. 117-139.

Needles, Belverd E. et al. (1996). Principles of Accounting. 6th ed. Boston: Houghton Miffin Company.

Papadakis,V. M. and Thanos, I.C.(2010). Measuring the Performance of Acquisitions: An Empirical Investigation Using Multiple Criteria, British Journal of Management, 21(4): pp. 859–873.

Pasiouras, F., & Zopounidis, C. (2008). 'Consolidation in the Greek banking industry: which banks are acquired?' Managerial Finance, 34 (3), 198-213.

Pasiouras, F., Tanna, S., Zopoundis, C. (2005). 'Application of Quantitative Techniques for the Prediction of Bank Acquisition Targets.' World Scientific.

Paul A., (2001). Evidence on Mergers and Acquisitions.

Pautler, P. A. (2001). Evidence on Mergers and Acquisitions. Bureau of Economics, Federal Trade Commission. Working Paper No. 243, 25 September. [Online] Available at: http://www.ftc.gov/be/workpapers/wp243.pdf [Accessed 4 Jul. 2017].

Pawaskar, V. (2001). 'Effect of mergers on corporate performance in India.' Vikalpa, 26(1), pp. 19 32.

Peristiani, S. (1993), 'The Effects of Mergers on Bank Performance. Federal Reserve of New York Studies on Excess Capacity in the Financial Sector.

Pillo!, S., Santomero, A., (1998). 'The value effects of bank mergers and acquisitions. In: Amihud, Y., Miller, G. (Eds.), Bank Mergers and Acquisitions. Kluwer Academic Publishers, Norwell, MA, pp. 59-78.

Pilloff, S. (2004). Bank Merger Activity in the United States, 1994–2003. [Online] Board of Governors of the Federal Reserve System. Available at: https://www.federalreserve.gov/pubs/staffstudies/2000-present/ss176.pdf [Accessed 2 Aug. 2017].

Powell, R. and Stark, A. (2005). Does operating performance increase post-takeover for UK takeovers? A comparison of performance measures and benchmarks. [Online] Available at: https://www.research.manchester.ac.uk/portal/en/publications/does-operating-performance-increase-posttakeover-for-uk-takeovers-a-comparison-of-performance-measures-and-benchmarks(69c1134b-395b-424a-a3d0-ae01a635befd)/export.html [Accessed 4 Aug. 2017].

Pozzolo, A. (2009). Do domestic and cross-border M&As differ? Cross-country evidence from the banking sector. [Online] Available at: http://ftp://ftp.repec.org/opt/ReDIF/RePEc/mol/ecsdps/ESDP11061.pdf [Accessed 10 Aug. 2017].

PricewaterhouseCooper. "European banking consolidation." PwC analysis. 2006.

R. V. Vennet (2002) "Cross-border mergers in European banking and bank efficiency," University of Gent Working Paper 152

Rao-Nicholson, R. & Salaber, J. (2016), 'Impact of the Financial Crisis on Cross-Border Mergers and Acquisitions and Concentration in the Global Banking Industry', Thunderbird International Business Review, vol. 58(2), pp. 161-173.

Rappaport, A. (2005), "The Economics of Short-Term Performance Obsession", Financial Analysts Journal, vol. 61(3), pp. 65-79.
Ravenscraft and Scherer (1987). 'Mergers and Managerial Performance. [Online] Available at: http://www.ssc.wisc.edu/~munia/590/scherermergers.pdf [Accessed 4 Aug. 2017].

Roberts, G. S, Brean, D. J. & Kryzanowski, L. (2011). 'Canada and the United States: Different roots, different routes to financial sector regulation'. Business History, 53(2), pp. 249–269.

Roll R., (1986). 'The Hubris Hypothesis of Corporate Takeovers, Journal of Business,' Vol. 59(2), pp. 197- 216.

Schoenberg, R. (2006). Measuring the performance of corporate acquisitions: an empirical comparison of alternative metrics. British Journal of Management, 17: 361–370.

Schwert, W. (1996), 'Markup pricing in mergers and acquisitions', Journal of Financial Economics, Vol.41, pp.153-192.

Shanmugam, B. (2003). 'Mergers and Acquisitions of Banks in Malaysia.' Journal of Financial Services Research, 30 (4), pp. 1-18.

Sharma, D.S., Ho J, (2002). 'The impact of acquisitions on operating performance: some Australian evidence', Journal of Business Finance & Accounting, vol. 29(1&2), pp. 155-200.

Sharma, V. (2009). Do Bank Mergers Create Shareholder Value? An Event Study Analysis. USA: Macalester College (Publishing Authority).
Sherman, A. J., & Hart, M. A. (2006). 'Mergers and Acquisitions from A to Z. 2nd Ed.' New York: Amacom.

Shleifer, A. and R. Vishny (1989), 'Management Entrenchment: The Case of Manager-specific Investments', Journal of Financial Economics, Vol. 25, pp. 123–39.

Sidharth, S., and G. Sunil. (2009). 'Comparison of post-merger performance of acquiring firms (India) involved in domestic and cross-border acquisitions. Munich Personal Repec Archive (MPRA) Paper No. 19274(13), pp. 1-10.

Siegel, A. (2006). Barclays buys Wachovia unit for $469M. [Online] Investmentnews.com. Available at: http://www.investmentnews.com/article/20060623/REG/606230708/1094/INDaily03 [Accessed 6 Jul. 2017].

Stahl, G. K., & MendenhallL, M. E. (2005). Mergers and Acquisitions: Managing Culture and Human Resources. California: Stanford University Press.

Stempel, J. (2008). Bank of America completes Merrill Lynch purchase. [Online] Reuters. Available at: http://www.reuters.com/article/businesspro-us-bankofamerica-merrill-idUSTRE5001EA20090101 [Accessed 14 Jul. 2017].

Steven J. Pilloff & Anthony M. Santomero, (1996). "The Value Effects of Bank Mergers and Acquisitions," Center for Financial Institutions Working Papers 97-07, Wharton School Center for Financial Institutions, University of Pennsylvania.

Strong, N.C. (1992), 'Modelling Abnormal Returns: A Review Article', Journal of Business Finance & Accounting, Vol. 19(4), pp. 533-553.

Sudarsanam, S. (2003). Creating Value from Mergers and Acquisitions. [Online] Google Books. Available at: https://books.google.co.uk/books/about/Creating_Value_from_Mergers_and_Acquisit.html?id=ycxPOp2UuUwC&redir_esc=y [Accessed 2 Aug. 2017].
Sudarsanam, S., Holl, P., Salami, Ayo (2000). 'Shareholder wealth gains in mergers: Effect of synergy and ownership structure.' Journal of Business Finance & Accounting, Jul96, Vol. 23(5/6), pp. 673-698,
Sufian, F. (2011). 'Benchmarking the efficiency of the Korean banking sector:' a DEA approach. Benchmarking, 18 (1), pp. 107-127.

Teather, D., Clark, A. and Treanor, J. (2017). Barclays agrees $1.75bn deal for core Lehman Brothers business. [online] The Guardian. Available at: https://www.theguardian.com/business/2008/sep/17/barclay.lehmanbrothers1 [Accessed 2 Jun. 2017].

Teather, D., Treanor, J. and Clark, A. (2008). Barclays to buy Lehman Brothers assets. [Online] the Guardian. Available at: https://www.theguardian.com/business/2008/sep/16/barclay.lehmanbrothers1 [Accessed 13 Jul. 2017].

The Guardian (2009). US giant BlackRock buys arm of Barclays bank. [Online] the Guardian. Available at: https://www.theguardian.com/business/2009/jun/12/blackrock-to-buy-barclays-bank-arm [Accessed 13 Jul. 2017].

Timmons, H. (2003). Barclays Agrees to Buy Spanish Bank in Cash Deal. [Online] Nytimes.com. Available at: http://www.nytimes.com/2003/05/09/business/barclays-agrees-to-buy-spanish-bank-in-cash-deal.html [Accessed 13 Aug. 2017].
Timmons, H. (2004). Barclays Pays $293 Million For U.S. Credit Card Issuer. [Online] Nytimes.com. Available at: http://www.nytimes.com/2004/08/19/business/barclays-pays-293-million-for-us-credit-card-issuer.html [Accessed 4 Aug. 2017].

Trautwein, F. (1990). 'Merger Motives and Merger Prescriptions.' Strategic Management Journal, 11, pp. 283-95

Treanor, J. (2015). HBOS timeline: the countdown to collapse. [Online] The Guardian. Available at: https://www.theguardian.com/business/2015/nov/19/hbos-timeline-countdown-collapse-lloyds-takeover [Accessed 14 Jul. 2017].

Tribune, M. (1998). Nations Bank Drives $62 Billion Merger: A New BankAmerica: Biggest of U.S. Banks. [Online] Nytimes.com. Available at: http://www.nytimes.com/1998/04/14/news/nations-bank-drives-62-billion-merger-a-new-bankamericabiggest-of-us.html [Accessed 7 Jul. 2017].

Tuch, C. and N. O'Sullivan (2007). 'The impact of acquisitions on firm performance: a review of the evidence.' International Journal of Management Reviews, 9: pp. 141–170.

Wachtel, P. (2001). 'Growth and finance –What do we know and how do we know it?' International Finance, 4, pp. 335–362.

Walkner, Christoph, and Jean-Pierre Raes. (2005). "Integration and consolidation on EU banking and unfinished business." European Commission Economic Papers. The European Economy. No. 226.

Walter, G. A., & Barney, J. B. (1990). 'Management Objectives in Mergers and Acquisitions.' Strategic Management Journal, 11 (1), pp. 79-86.

Weiss, N.A. and Hassett, M.J. (1986), 'Introductory Statistics', Second Edition (Addison-Wesley Company).

Weston, J.F., (2001). Takeovers, restructuring & corporate finance. Third Edition-Prentice-

William, J. C. (2009). 'Mergers and Acquisitions: The Essentials.' New York, NY: Aspen Publishers.

Wilson, S. (2010). 'Performance impact of mergers and acquisitions in Ghana – The case of Guinness Ghana breweries group.' International Academy of African Business and Development, Proceedings of the 11th Annual Conference, (May): pp. 174-9.

Worthington, A. (2001). Efficiency in pre-merger and post-merger non-bank financial institutions. [Online] Available at: http://onlinelibrary.wiley.com/doi/10.1002/mde.1033/abstract [Accessed 7 Aug. 2017].

Yulianto, K and Adrian, H. (2017). Bank of America – Merrill Lynch Acquisition during Global Financial Crisis. [Online] Available at: https://agent909.files.wordpress.com/2017/03/bank-of-america-e28093-merrill-lynch-acquisition.pdf [Accessed 4 Jul. 2017].

8.0 Appendices

The Ratio Analysis Findings

	Bank of America				
	ROA	ROE	NIM	SE	TA
2003	0.015	0.225	0.029	0.065	0.051
2004	0.013	0.142	0.026	0.090	0.044
2005	0.013	0.162	0.024	0.079	0.043
2006	0.014	0.156	0.024	0.093	0.050
2007	0.009	0.102	0.020	0.086	0.039
2008	0.002	0.023	0.025	0.097	0.040
2009	0.003	0.027	0.021	0.104	0.054
2010	-0.001	-0.010	0.023	0.101	0.049
2011	0.001	0.006	0.021	0.108	0.044
2012	0.002	0.018	0.018	0.107	0.038
2013	0.005	0.049	0.020	0.111	0.042

	Barclays PLC				
	ROA	ROE	NIM	SE	TA
2003	0.03	0.75	0.01	0.04	0.01
2004	0.02	0.78	0.01	0.03	0.03
2005	0.02	0.65	0.01	0.03	0.02
2006	0.02	0.71	0.01	0.03	0.02
2007	0.02	0.62	0.01	0.03	0.02
2008	0.01	0.37	0.01	0.02	0.01
2009	0.02	0.36	0.01	0.04	0.02
2010	0.02	0.41	0.01	0.04	0.02
2011	0.02	0.41	0.01	0.04	0.02
2012	0.01	0.33	0.01	0.04	0.02
2013	0.02	0.39	0.01	0.05	0.02

T-test Findings of Bank of America

t-Test: Two-Sample Assuming Unequal Variances

	ROA	*0.00220469*
Mean	0.01267398	0.00196928
Variance	0.00000570	0.00000579
Observations	5.00000000	5.00000000
Hypothesized	0.00000000	
df	8.00000000	
t Stat	7.05916259	
P(T<=t) one-t	0.00005310	
t Critical one-	1.85954804	
P(T<=t) two-t	0.00010620	
t Critical two-	2.30600414	

Standard Deviation	
Before	After
0.00238842	0.00240691

t-Test: Two-Sample Assuming Unequal Variances

	ROE	*0.02263742*
Mean	0.15753624	0.01807929
Variance	0.00198424	0.00049061
Observations	5.00000000	5.00000000
Hypothesized	0.00000000	
df	6.00000000	
t Stat	6.26832008	
P(T<=t) one-t	0.00038288	
t Critical one-	1.94318028	
P(T<=t) two-t	0.00076577	
t Critical two-	2.44691185	

Standard Deviation	
Before	After
0.04454477	0.02214968

t-Test: Two-Sample Assuming Unequal Variances

	NIM	*0.02495128*
Mean	0.02452748	0.02067881
Variance	0.00001110	0.00000254
Observations	5.00000000	5.00000000
Hypothesized	0.00000000	
df	6.00000000	
t Stat	2.33005023	
P(T<=t) one-t	0.02931835	
t Critical one-	1.94318028	
P(T<=t) two-t	0.05863670	
t Critical two-	2.44691185	

Standard Deviation	
Before	After
0.00333195	0.00159361

t-Test: Two-Sample Assuming Unequal Variances

	SE	*0.09739139*
Mean	0.08234260	0.10617119
Variance	0.00012030	0.00001462
Observations	5.00000000	5.00000000
Hypothesized	0.00000000	
df	5.00000000	
t Stat	-4.58713950	
P(T<=t) one-t	0.00295448	
t Critical one-	2.01504837	
P(T<=t) two-t	0.00590896	
t Critical two-	2.57058184	

Standard Deviation	
Before	After
0.01096811	0.00382394

t-Test: Two-Sample Assuming Unequal Variances

	TA	*0.04003536*	Standard Deviation	
Mean	0.04551472	0.04527759	Before	After
Variance	0.00002729	0.00003809	0.00522424	0.00617165
Observations	5.00000000	5.00000000		
Hypothesized	0.00000000			
df	8.00000000			
t Stat	0.06557585			
P(T<=t) one-t	0.47466231			
t Critical one-	1.85954804			
P(T<=t) two-t	0.94932462			
t Critical two-	2.30600414			

T-test Findings of Barclays PLC

t-Test: Two-Sample Assuming Unequal Variances

	TA	*0.01135228*	Standard Deviation	
Mean	0.01847959	0.02060166	Before	After
Variance	6.4048E-05	4.4242E-06	0.00800297	0.00210339
Observations	5	5		
Hypothesized	0			
df	5			
t Stat	-0.5734411			
P(T<=t) one-t	0.29558651			
t Critical one-	2.01504837			
P(T<=t) two-t	0.59117302			
t Critical two-	2.57058184			

t-Test: Two-Sample Assuming Unequal Variances

	ROA	*0.00861967*
Mean	0.02103879	0.01652251
Variance	2.4362E-05	3.6337E-06
Observations	5	5
Hypothesized	0	
df	5	
t Stat	1.90863864	
P(T<=t) one-t	0.0572931	
t Critical one-	2.01504837	
P(T<=t) two-t	0.1145862	
t Critical two-	2.57058184	

Standard Deviation	
Before	After
0.00493576	0.00190621

t-Test: Two-Sample Assuming Unequal Variances

	ROE	*0.37324671*
Mean	0.70138148	0.38044039
Variance	0.00445889	0.00114089
Observations	5	5
Hypothesized	0	
df	6	
t Stat	9.59014182	
P(T<=t) one-t	3.6747E-05	
t Critical one-	1.94318028	
P(T<=t) two-t	7.3493E-05	
t Critical two-	2.44691185	

Standard Deviation	
Before	After
0.06677489	0.03377705

t-Test: Two-Sample Assuming Unequal Variances

	NIM	*0.00558651*
Mean	0.01066597	0.0082979
Variance	9.0025E-06	2.2833E-07
Observations	5	5
Hypothesized	0	
df	4	
t Stat	1.74284732	
P(T<=t) one-t	0.0781585	
t Critical one-	2.13184679	
P(T<=t) two-t	0.15631701	
t Critical two-	2.77644511	

Standard Deviation	
Before	After
0.00300042	0.00047784

t-Test: Two-Sample Assuming Unequal Variances

	SE	*0.02309375*
Mean	0.02973434	0.04341349
Variance	2.095E-05	8.9053E-06
Observations	5	5
Hypothesized	0	
df	7	
t Stat	-5.5979833	
P(T<=t) one-t	0.00040884	
t Critical one-	1.89457861	
P(T<=t) two-t	0.00081767	
t Critical two-	2.36462425	

Standard Deviation	
Before	After
0.00457714	0.00298418

Proposal for Applied Project

1. Applied Project Topic

A Comparative Performance Analysis of the UK and US Bank M&As using Financial Reports

2. Background

There have been considerable changes over the past 40 years in the global banking industry because of globalisation, consolidation, regulation and financial crisis (Rao-Nicholson, & Salaber, 2016). For decades' globalisation rose significantly across the world and that caused national and multinational corporates. For many reasons corporations engaged in an M&A activity but three common reasons mainly used for efficiency improvements, resource acquisition and market expansion (World Investment Report, 1998). Mergers and acquisitions is a corporate strategy in various respects dealing with the buying, selling, combining and dividing of similar and different companies in order to grow efficiently in a field or a sector (Gaughan, 2010). Similarly, Jensen and Ruback (1983) state that M&A important for an efficient financial capital market because it enables to provide appropriate environment to change the control of a corporate resources. Most recently, the global financial crisis has affected the market shares of banks across the world, in US banks have failed and banks from gulf countries, Asia and Latin America have acquired financial institutions in western countries (Rao-Nicholson, & Salaber, 2016). The crisis has begun beginning in December 2007, after that followed by the UK (Billings & Capie, 2011). The researches have demonstrated that financial crises have a significant impact on bank concentration in terms of M&A activity (Beltratti & Stulz, 2012; Mihai Yiannaki, 2013).

3. Aims and Objectives

3.1. Research Questions

- How far does financial reports allow us to judge whether M&A activity is successful in the UK and USA banks?
- What are the causes and consequences of banking crisis in terms of M&As?
- What are the effectiveness of accounting and market based measures in examining the performance of M&As.

3.2. Aim

- To evaluate the successfulness of M&As using financial reports by gauging the performance of three banks in the UK and USA after financial crisis.

3.3. Objectives

- To examine the causes and consequences of banking crisis in terms of M&As.
- To analyse the financial performance of Bank of America, Lloyds TBS and Barclays by using financial ratios such as profitability ratios, liquidity ratios and financial leverage ratios.

- To analyse the market performance of BoA, Lloyds TBS and Barclays by using market based measures after M&A activity.
- To examine the income statements of the chosen banks by using accounting based measures such as ROA, ROE, ROI and NIM.
- To compare the performance of pre-M&As and post-M&As in terms of acquirer and target banks.

3.4 Deliverables

The research aims to analyse the successfulness of M&A activities after the great recession. The crisis has adversely affected notable financial institutions worldwide. Hence, the significant number of major banks in the UK and USA went M&A activities for a number of reasons. This research intends to assess the performance of BoA, Lloyds TBS and Barclays after M&A activities. By doing this, financial reports will be analysed in assessing the successfulness of M&A activities for these banks. Moreover, Ratio analysis and accounting based measures will play a significant role to find out remarkable outcomes in terms of M&As.

4. Literature Review

Researches state that banking crisis in specific countries and regions have often concluded with a national or international level M&A activity (Berger, DeYoung, Genay, & Udell, 2000; Soussa, 2004). For instance, in the early 1990s, there have been substantial M&As activities as a result of Scandinavian banking crisis (Sigurjonsson & Mixa, 2011). The banking crisis that has started between 2007 and 2008 was a systemic problem for the entire financial institutions and mainly banks was under a serious threat across the world (Schwartz, 1987). The banking crisis has demonstrated critical signs of financial distress; therefore, governments have taken important measures against the crisis as bail-out programs and policy interventions (Beck, Demirgüç-Kunt, & Levine, 2006; Beltratti & Stulz, 2009; Laeven & Valencia, 2010, 2013). The acquisition of Bear Stearns by JPMorgan Chase in March 2008 and the failure of Lehman Brothers caused a global banking crisis (Bao, Olson, & Yuan, 2011). Moreover, EU counties have also faced with a debt crisis and structural weaknesses in their banking sector (Arezki, Candelon, & Sy, 2011).

In response to the crisis, financial regulators have intervened to the market and arranged fire sales for a substantial number of major banks (Rao-Nicholson, & Salaber, 2016). Additionally, some banks have arranged fire sales for themselves (Beltratti & Stulz, 2012; Mihai Yiannaki, 2013). Between 2004 and 2009, there have been a considerable decline in the number of USA banks from 8,000 to 7,000 (Brean, Kryzanowski, & Roberts, 2011). The M&A of the Bank of America and Merrill Lynch for $50 billion was one of the largest activity and BBVA acquired to Compass Bancshares for $9.87 billion in 2007 (Rao-Nicholson, & Salaber, 2016). Similarly, Lloyds TBS agreed on a 12£ billion takeovers for HBOS to save the country's largest mortgage lender from a confidence crisis (Financial Times, 2008). The amid the one of the worst financial crisis Barclays agreed a $1.75 billion deal to buy the investment bank of Lehman Brothers (Teather, Clark and Treanor, 2008).

Hannan and Pilloff (2006) take a different view to analyse the features of acquired banks and they add that ineffective banks have often been a target of cost-efficient banks.

Aftermath the financial crisis, banks with capital over $10 billion were reluctant for merger activities, whereas 90 per cent of the bank mergers were 1,500 with the capital less than $1 billion (Micu, A & Micu, I, 2016). Micu, A & Micu (2016) also add that the successfulness of the mergers activities has decreased by 25 per cent in 2009, however the number of successful mergers never had been under the failures.

DeYoung et al (2009) point out that business-related causes and opportunities were one of the important merger factor for banks to increase the total value of their individual structures. Dargenidou et al. (2016) suggest that M&A creates synergy and value for companies. Researches on bank mergers during the 1990s in USA demonstrated that according to merger accounting rules, there has been significant cost reductions for banks (Kwan and Wilcox, 2002). Knapp et al. (2006) point out that bank mergers between 1987 and 1988 have resulted with substantial profit gains for USA banks up to five years post-mergers. Similarly, Cornett et al. (2006) state that large mergers in banking industry generates revenue efficiency improvements. Whereas, The comparison of USA and EU bank M&As between 1996 and 2004 demonstrated that desired revenue generation have not been provided by bank (Hagendorff and Keasey, 2009). Morover, the overall success rate of M&A is about 50% (Forbes, 2012). M&A is failing because banks cannot adopt new reporting requirements, rules and regulations (Murphy, 2010).

5. Motivation

Through the substantial researches that have been done so far there are still some gaps to judge the successfulness of M&As. In particularly, the literature review demonstrates that there are some remarkable issues to determine the real success of M&As after financial crisis. The lack of actual and adequate information and some inconsistencies between the views unable to carry out a certain judgement of M&As. Therefore, this research intends to address the current issues regarding M&As, then it will provide appropriate assessments by using financial reports of BoA, Lloyds TBS and Barclays in terms of post-M&As.

6. Research Methodology

The mixed method approach will be the main methodology for this applied project. This research will mainly focus on accounting based measures and market based measures in order to assess the success of M&As of the BoA, Lloyds TBS and Barclays. In order to collect these information financial reports of the banks will be analysed over the period of 5 years. By doing this, qualitative and qualitative method will be combined to analyse accounting based measures (ROA, ROE, ROI and NIM) and market based measures (market to book value and market return). Accounting standards determine that qualitative disclosures and quantitative measurements are the significant parts of an analysis (Davis-Friday & Skaife, 2009). In light of accounting based methods and market based methods, the success of M&As of BoA, Lloyds TBS and Barclays will be analysed. The following M&As will be examined in the UK and USA: M&A activity of Merrill Lynch and BoA in 2008, HBOS was acquired by Lloyds TBS in 2008 and Lehman Brothers was acquired by Barclays in 2008. The financial reports of Merrill Lynch and BoA will we analysed for both banks, on the

contrary, only acquired companies' (Lloyds TBS and Barclays) financial reports and performance will be analysed.

6.1 Data Collection and Sampling

Data will be covered on yearly time periods after financial crisis over 5 years. Financial reports of the banks will be acquired from their own annual reports and LSE, NYSE in order to do quantitative analysis. On the other hand, actual academic journals, financial reports and books (Financial Times, Online Library) will be analysed for qualitative analysis. By doing this, secondary data best suited to carry out this project because it is more accessible than primary data.

6.2 Horizontal Analysis

This analysis will examine the financial statements by comparison financial ratios or line items of the BoA, Lloyds TBS and Barclays over a five years' period of time. Additionally, this analysis will be used to determine how a bank has grown after M&A over 5 years' in a comparative way with other banks. By doing this analysis, the following ratios will be carried out:

- Debt Ratio
- Debt / Equity Ratio
- Acid-Test Ratio
- Interest Coverage
- Working Capital

Furthermore, balance sheets and income statements will be analysed through horizontal analysis to make a comparison between the years.

7.0 Appropriateness for MSc Accounting and Financial Management

This project is appropriate for MSc Accounting and Financial Management because the analysis of accounting based measures, market based measures and ratio analysis are totally fit for this programme. This program enables to research project to implement these financial theories on financial statements of the chosen banks to examine the success of M&As. Moreover, the project requires to have good understanding and critically analysis of the financial findings which are obtained from different sources in a researcher manner. Then, it requires a critically examination of financial statements and findings in order to make a judgement regarding the success of M&As. Consequently, this programme allows a researcher to carry out this applied project properly.

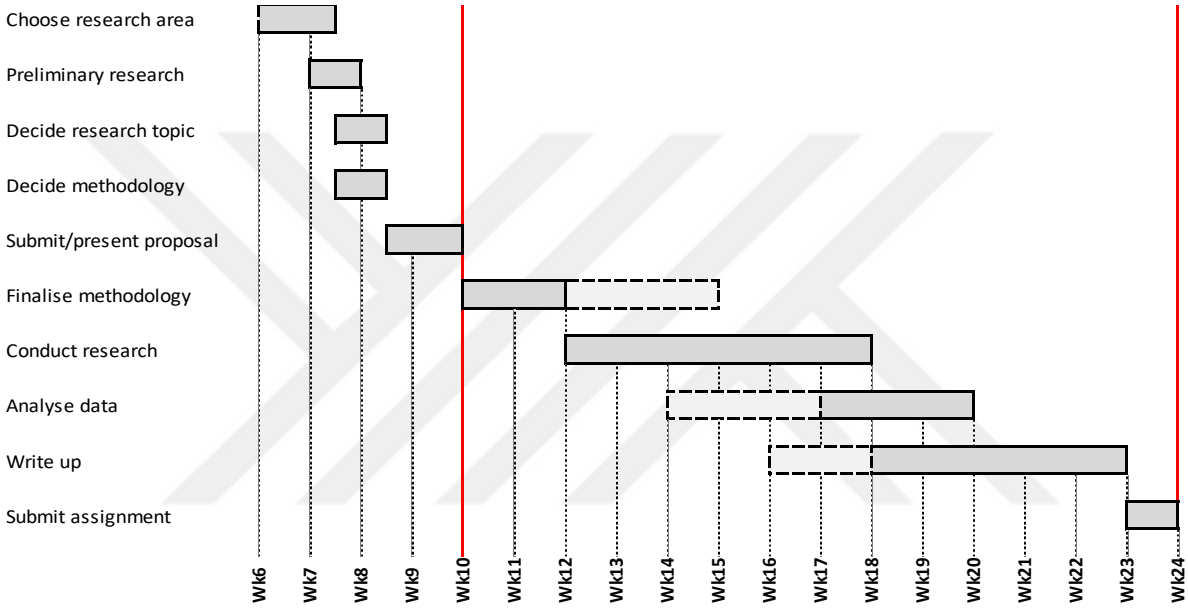
8. Competence for this Project

The adequate competencies have been acquired from the lecturers of MSc Accounting and Financial Management. These lecturers are appropriate to undertake this project through the substantial information. For instance, assignments regarding Finance and Accounting were crucial to learn the ways of analysis of theories, financial statements and ratios. In particular,

the preparation of a detailed report for a case study was very important to critically examine the ratio analysis of the chosen company. Moreover, the report was carrying out a horizontal analysis of balance sheet and income statement. Furthermore, Professional and Research Skills for Financial Managers has helped in terms of methodology and research skills to carry out this project appropriately.

9. Gantt Chart

The following Gantt chart will help me to actualise my objectives regarding this research. The project will be carried out over a period of 6 months.



10. Conclusion

The main objective of this proposal is to demonstrate how far does M&A activity allow us to judge the successfulness of chosen banks in the UK and USA after global financial crisis by using financial reports. The preliminary researches demonstrate that financial reports have considerable impact on the evaluation of M&As. However, there are still remarkable gaps that limits the research to make a definite examination. However, further researches will be provided more detailed information for this area.

Secondary Research Declaration

SECONDARY RESEARCH DECLARATION

I declare that my research involves ONLY secondary sources that any member of the public is legitimately free to access and use without obtaining permission.

I understand that should I wish to amend my study and collect data from human participants, I am required to apply for and receive UH ethics approval prior to recruiting participants and collecting data.

I understand that failure to obtain UH ethics approval for the collection of primary data constitutes a breach of ethics and academic penalties may apply.

Student's name (print)	Student's signature
Turgay Kanoglan	T.Kanoglan
Student's ID number 15033898	Dissertation module leader signature
Supervisor's name Dr. Edna Stan-Maduka	Supervisor's signature
Date 06/09/2017	Date 06/9/17

Record of Meetings

SECTION B: ETHICS

Ethics form protocol number (Primary Research Only): _____

SECTION C: RECORD OF MEETINGS

The expectation is that students will meet their supervisors up to seven times and these meetings should be recorded.

Meeting 1

Date of Meeting	**09/03/2017**
Progress Made	**A critical discussion has done to determine the background of the topic and further meetings have arranged.**
Agreed Action	**To prepare draft objectives for the next meeting.**
Student Signature	T.Kanoglan
Supervisor's Signature	

Meeting 2

Date of Meeting	**23/03/2017**
Progress Made	**An evaluation has made regarding the dissertation objectives and draft proposal were analysed.**
Agreed Action	**Make the required changes to the dissertation objectives**
Student Signature	T.Kanoglan
Supervisor's Signature	

Meeting 3

Date of Meeting	**27/04/2017**
Progress Made	**A feedback has received for the draft submission of my proposal.**
Agreed Action	**Make adjustment according to the draft proposal feedbacks.**
Student Signature	T.Kanoğlan
Supervisor's Signature	

Meeting 4

Date of Meeting	**07/05/2017**
Progress Made	**A critical discussion has made regarding the literature review.**
Agreed Action	**We agreed on some changes regarding the literature review section.**
Student Signature	T.Kanoğlan
Supervisor's Signature	

Meeting 5

Date of Meeting	**08/06/2017**
Progress Made	**The methodology section and possible methods have discussed.**
Agreed Action	**We agreed to use quantitative method instead of mixed method approach and use of data methods.**
Student Signature	T.Kanoğlan
Supervisor's Signature	

Meeting 6

Date of Meeting	
Progress Made	
Agreed Action	
Student Signature	
Supervisor's Signature	

Meeting 7

Date of Meeting	**06/09/2017**
Progress Made	**Final meeting to sign of forms and documents for the dissertation.**
Agreed Action	
Student Signature	T.Karaoglan
Supervisor's Signature	

SECTION D: COMMENTS ON MANAGEMENT OF PROJECT
(Optional - to be completed at the end of the Dissertation process)

Signature of Student	T.Karaoglan	**Date**	06/09/2017