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The Failure of Lehman Brothers: Causes, Preventive Measures and Recommendations

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Abstract
The 2008 global financial meltdown witnessed most of the top global financial institutions crumble into liquidation and bankruptcy. The incident culminated in most of these firms either liquidated or experienced plummetion in returns. The failure of Lehman Brothers in the midst of the global financial crisis was the largest catastrophe to hit the financial industry in the United States. Notably, the leading US investment bank suffered huge losses within the month of September. Lehman's stock price plummeted by 73% of its value in the first half of September alone and by the mid of September 2008, lost $3.9 billion in their attempt to dispose of a majority of their shares in one of their subsidiaries. To contribute to the body of knowledge, this paper investigated and reviewed the activities or transactions that resulted in the failure of Lehman Brothers. The findings revealed multiplicity of factors ranging from dubious accounting practices, unethical management practices, over investment in risky unsecured investments, laxity on the part of regulators. External auditors also played a major part in this failure by not detecting these financial statement malpractices by the Lehman managers. Policy makers such as the International Financial Reporting Standards (IFRS), Security and Exchange Commission (SEC), the Basel Accord etc, ought to initiate stringent policies to address Lehman failure to avert any future occurrence.
Keywords: Financial meltdown, Liquidation, Bankruptcy, IFRS, SEC, Basel Accord.

1. Introductions

The 2008 global financial meltdown saw most of the top global financial institutions crumble into liquidation and bankruptcy (Murphy, 2008; Mensah, 2012). Those which were not liquidated either experienced plummetion in returns and their respective operations or filed for voluntary bankruptcy (ISSER, 2008). The bankruptcy of Lehman Brothers in the midst of the global financial crisis was the largest catastrophe to hit the financial industry in the United States (Morin & Muax, 2011). Lehman Brothers was the leading US investment bank worth $600 billion (D'Arcy, 2009). Apart from the famous Enron failure in the early 2000, the failure of Lehman Brothers was described as the largest unit financial institution to have collapsed with assets worth $600 billion in 2008 (Jeffers, 2011). Particularly, the leading US investment bank suffered huge losses within the month of September. Lehman's stock price plummeted by 73% of its value in the first half of September alone and by the mid of September 2008, lost $3.9 billion in their attempt to dispose of a majority of their shares in one of their subsidiaries (West, 2009). Prior to their liquidation, the global crisis prompted Lehman to close its leading subprime lender (BNC Mortgages) in 23 locations (Wilchins and DaSilva, 2010). The losses were so successive such that by September 15th 2008, Lehman Brothers filed for voluntary bankruptcy at the US Bankruptcy Court, Southern District of New York (Murphy, 2008). The voluntary bankruptcy was necessitated by the unsuccessful attempt for a possible government bail-out and mergers coupled with a number of acquisition attempt by companies such as Barclays bank and many others.

To account for the possible causes of the Lehman's failure, various financial analysts have advanced series of academic and practical arguments aimed at unearthing the exact causes of the melt-down. Others have also conducted series of research purposely to account for Lehman's failure (Manum & Johnson, 2012).

This study aims at investigating and reviewing the activities or transactions that resulted in the failure of Lehman Brothers. The paper will review the background of Lehman Brothers; the rippling impact on the company, the US economy and the world as a whole; the causes of the failure and the necessary recommendation to curb any future occurrence in the financial market.

1.1 Profile of Lehman Brothers

The formation of Lehman Brothers dates back to 1844 when Henry Lehman and his two brothers (Emmanuel and Mayer, n.d.) established a small shop in Alabama (US) to sell groceries, local cotton farmers, utensils and other commodities. As the cotton industry grew, Lehman Brothers envisaged the need to enhance their liquidity; apparently, they joined the Cotton exchange and later the New York exchange market where they underwrote some of the bigger public offering in the early 1900's (D'Arcy, 2000). The company was run as a family business for so many decades until they formed a partnership with retail giants; Goldman and Sachs in the early1900's (Wilks, 2008). The main purpose of the partnership was to build a strong team to fund the emerging retail business in the early days of 1900 (D'Arcy, 2009). The alliance saw the fortunes of the company growing very fast to the extent that Lehman Brothers were designated by the Alabama government to sell the State's bond. Their fortunes were further enhanced when the US decided to transform the economy from agrarian to an industrialized economy by developing their railway system. This offered new opportunities for Lehman Brothers to enter the financial market and subsequently raised funds for firms engaged in the railway industry. Chicago railways, North Western railways, the Pennsylvania Railroads, the Baltimore and Ohio railways were some of the firms that Lehman raised funds for (Johnson et. al., 2012). In pursuance of their aggressive need for the underwriting industry, the firm further established a special unit aimed at underwriting businesses in the 1900's (Lartey, 2012).

According to D'Arcy (2009), the company continued their operations in the financial market until 1975 when they merged with Kuhn, Loeb and Company to become the 4th largest investment bank in the US however, the merger did not meet its aspiration, culminating into a takeover by American Express which later merged with Shearson to form Shearson Lehman Brothers in 1984. The new firm diversified its operations into banking and brokerage by acquiring a number of subsidiaries such as Neuberger Bremen, Lincolm capital in the early 1990s. The firm finally had their brand name reverted to Lehman Brothers in 1993. In view of the new line of business and arrangement, Lehman Brothers experienced a steady growth apparently increasing their revenue base and saw their workforce increase from 8,500 to approximately 28,000 in 1994 (Kimberly, 2011; D'Arcy, 2009; New Financial Times. 2008). A year after celebrating the 150th anniversary in the year 2000, Lehman Brothers suffered a huge loss as a result of the terrorist attack on the company's office in the World Trade Centre in September 2001. After this unfortunate calamity, Lehman Brothers moved into their new head-office in midtown Manhattan in 2002 (Valukas, 2010). Lehman Brothers ended their 158 years existence in September 2008 when they filed for chapter 11 bankruptcy petitions in the federal Court which saw the company's assets disposed to several firms.

2. Causes of Lehman's failure

Following the fall of Lehman Brothers, a number of reasons have been attributed to the failure after thorough investigations were conducted by financial and non-financial analysts (Kimberly, 2011). None of these analysts gave a single cause to this failure (Azadinmin, 2012); however,; a number of factors were discovered for their failure. The factors that accounted for this failure were poor management choices coupled with unethical actions; repeal of the Glass- Steagall Act of 1933; liquidity crisis; financial leverage; excessive losses; Repos 105, massive credit default swaps, subprime mortgage crisis, complex capital structure, unsuccessful bail-out and take-overs (Kimberly, 2011; Morin & Maux, 2011; D'Arcy, 2009).

2.1 Repeal of the Glass-Steagall Act

The advocates of the Glass-Steagall Act of 1933 blamed the entire US financial crisis on the enactment of the Gramm-Leach-Biley Act of 1999 to replace the Glass-Steagall Act (LaRoche, n.d). To reduce and eradicate possible conflict of interest, the Glass-Steagall Act of 1933 was enacted to separate commercial banking from investment banking after the great depression years of 1930-1993 (Tabarrok, n.d). During the great depression, 9,000 banks were reported to have failed (Lartey, 2012). This Act was amended and replaced in 1999 to allow commercial banks carry investment banking activities. The replacement of the Glass-Steagal Act of 1933 saw many commercial banks merging with investment banks. Financial analysts blamed this change on the failure of Lehman. In their quest to compete with commercial banks which has high leverage positions, Lehman merged and acquired many commercial and investment banks (Valukas, 2008). The unethical merging activities by Lehman exposed them to several risks leading to their bankruptcy (Boot, 2008).

2.3 Unethical Management practices

In their quest to achieve their expansion strategy and other specific objectives, managers of Lehman decided to use a number of dubious mechanisms, unacceptable accounting practice coupled with their blatant disregard for prudent corporate governance practices (Caplan et al, 2012). According to Gasaparino (2008), Lehman employed ―window dressing presentation facilitating the manipulation of their financial statement aimed at attracting investments and showing a different picture of the firm. This was corroborated by the application of charges against their auditors ―Ernst &Young‖ by the Attorney General for assisting Lehman Brothers in perpetrating a number of financial statement fraud (Valukas, 2010). Lehman further used Repos 105 transactions to enhance the firm's financial health at the year end. Lehman's managers blatantly violated the Sarbenes-Oxely Act which was enacted after the collapse of Enron and WorldCom in 2002 as a result, numerous accounting scandals were discovered (Kourabi et al, 2011). The Sarbenes Oxely Act was enacted to strengthen external auditing practices and independence, provide timely disclosure, restore customers' confidence, enhance internal control practice and strengthen the roles and actions of directors, enhance sound securities practices (Valukas, 2010). Lehman violated most of these provisions when they used Repos 105 to misled financial statements (Jeffers, 2011). This action was further corroborated by the subpoena of Lehman's CFO and CEO and other executives for a possible financial penalties and imprisonment by the US House of Representatives' Committee on Oversight and Government Reforms (Valukas, 2012). In October 2008, most of Lehman's executives

including Richard Fuld, the CEO were subpoenaed for questioning as a result of purported securities fraud practices.
Lehman was also caught in the web of Executives' conflict of interest culminating into the payment of excessive bonuses to Directors prior to the failure of firm (Murphy, 2008). Within eight years, Fuld was said to have paid himself $300 million dollars in pay and bonuses making him one of the highly paid CEO's in the US (NYT, 2008). Despite the challenges faced prior to bankruptcy, Lehman's executives were reported to have increased their bonuses significantly to $480 million (CNBC, 2008). Many financial experts blamed Lehman's failure on the unethical actions of most executives. The involvement of senior management executives of Lehman Brothers' in the bankruptcy was further confirmed by the breach of its own risk thresholds on its commercial real estate investments (Kimberly, 2011; Valukas, 2010). In July 2007 for instance, the bank's senior managers were reported to have violated thirty (30) real estate specific transactions risks established by the firm (Kimberly, 2011). Specific evidence also shows that five days before filing the bank's bankruptcy, Lehman's liquidity pool indicated $41 billion; apparently, this figure was massaged with deposits of clearing houses. This action was a clear violation of regulatory guidelines. In testifying to the Committee on Financial Services, Valukas reported that the Security and Exchange Commission (SEC) were aware of these breaches but simply ignored them. Timely rectification of these breaches would have prevented the massive loss reported in the real estate market (Murphy, 2008).
In addition to the clear demonstration of unethical behaviour by management regarding specific transactions, Lehman employed repurchase agreement (Repos 105) to manipulate the financial statement of the company (Morin & Maux, 2011). According to Kimberly (2011), the Lehman balance sheet in June 2008 was fabricated with window-dressing technique popularly referred to as Repos 105. This action led to the removal of $50 billion in commitment from their financial statement (Morin & Maux, 2011). Notwithstanding the unethical employment of Repos 105 by Lehman, it is legal for banks to engage in Repos 105 transactions (Wilchins & DaSilva, 2010). Essentially, repurchase agreement has been historically used by banks to manage their short-term cash liquidity (Mensah, 2012). This involves the pledging of government bonds or some short- term low-risk instruments in return for short-term funds (Casu et al, 2006). Traditional repurchase agreement (Repos) involves the agreement between two or more financial institutions where one of these institutions decides to dispose of its short-term security for cash with the condition that after a period of time, the seller will buy it back at a predetermined date and rates (Agyemang, 2012; Mensah, 2012). The purported security disposed by the seller only serves as collateral (Jeffers, 2011). These short-term securities will then revert back to the seller after paying the cash received in addition to the interest thereon (usually 2 percent). In case the seller defaults in payment on the due date, the buyer may dispose of the pledged securities for reimbursement (Casu et al, 2006). In a nutshell, Repos 105 is simply a measure employed by firms to raise short-term funds at a wholesale rate by pledging their long-term financial assets to improve their liquidity position. To account for Repos 105, the bank pledging its securities for cash reports it as a loan with collateral (Jeffers, 2011). To support/back-up their unethical practices, Lehman instead failed to use the right accounting system to report Repos 105 thereby failing to disclose it to the government,, credit agencies investors and its own board of directors (Morin & Maux, 2011). According to Wilchins and DaSilva (2010), Lehman perpetuated this practice by acquiring government bond from another bank using one of its special units in the United States. Just before the predetermined dates for settlement or the end of the quarter, Lehman's special unit then transfers these bonds to their affiliates in London (Lehman Brothers International). Their London affiliate then transfers the bonds to another bank for cash with a pledge to buy it back at a higher rate (usually 105 percent of the price). The cash received is then transferred to the Lehman Brothers US to pay off a large amount of liabilities thereby reducing the firm's liabilities to show healthier quarterly reports and enhance corresponding ratios, investors' confidence, regulators and the general public. Prior to the subsequent quarter, Lehman Brothers will then borrow more at other lending institutions to buy back the securities from their London affiliates at 105% of the initial price. The financial statement will then revert back to its initial unhealthy position after such practices making Lehman worse-off just because they want their financial position to look sound and healthy in the eyes of investors, regulators and the government. This practices amount to financial statement fraud (COSO, 2005) and one of the factors that led to the collapse of Lehman (Valukas, 2010). By extension, the external auditors of Lehman cannot be exonerated from this heinous crime (Carcello and Hermanson, 2008).

2.4 Liquidity crisis

Central to the failure of Lehman was their inability to meet short term obligation (Valukas, 2011). Despite its high asset base, Lehman was experiencing intermittent liquidity problems. As a result, Lehman was losing its market confidence; apparently, most banks withdrew their services and credit lines to Lehman Brothers (D'Arcy, 2009). At this point, the confidence level of lenders and customers weaned; rendering Lehman unattractive in the eyes of investors and prospective investors (Mensah, 2012). To address this challenge, Lehman reduced their gross asset base $147 billion to boost their liquidity position$45 billion (Valukas, 2011). Their liquidity redemption strategy further saw the reduction in their commercial mortgage exposure by 20%

and leverage from a factor of 32 to approximately 25 (Lartey, 2012). Unlike their rivals ―Bear Beach Stearns‖ which suffered the same fate in March 2008, Lehman's liquidity crisis was not rescued by their proposed strategy and bailout. Bear Beach Stearns was rescued by JPMorgan Chase to erode their liquidity crisis (D'Arcy, 2009).

2.5 Collateralized Debt obligation and Derivative crisis

In their quest to increase to take advantage of opportunities in the real estate market, Lehman Brothers prior to collapse were reported to have ventured into several risky and unnecessary investments (Murphy, 2008). According to Kimberly (2011), Residential Whole Loans (RWL's) was also reported to have accounted to the failure of Lehman Brothers. RWL's are residential mortgages that is usually traded and pooled during the process of securitization and consequently metamorphose into Residential-Mortgaged Backed Securities (RMBS) (Lartey, 2012). As at May 2008, Lehman's consolidated market value of RWL's among its subsidiaries amounted to approximately $8.3 billion (Valukas, 2010). According to Murphy (2008), Lehman lacked a robust product control process to account for residential whole loans coupled with misstatement in assets further aggravating their position. To capitalize on speculative opportunities as well as reducing its exposure to credit risk in the financial market, Lehman entered the derivative market. This is aimed at managing the volatility of their assets and exposure. As at the time of filling their bankruptcy, Lehman had in its books an estimated notional derivative to the tune of $35 trillion in their portfolio (Kimberly, 2011) and held over 900,000 derivative positions globally (Valukas, 2010). These derivative instruments enable firms to derive the value of investment from the changes in the price and value of other underlying assets such as stocks or commodities (Buchanan, 2000). Most of these derivatives were credit default swaps; evidently, the property prices crashed in the financial market during the global economic crisis leading to repossession of assets, Lehman was reported to have written its credit default swaps (CDS) by $2.5 billion (D'Arcy, 2009). Credit derivatives such as loans, mortgages and other forms of loans are the main underlying assets CDS. Collateralized Debt Obligations (CDOs) also accounted for the losses in the securities market during the global financial crisis of 2007 (Lang & Jagtiani, 2010). CDOs are derivative instruments which involves the conglomeration of both prime and subprime securities intended to be sold to a special purpose vehicle in a low-tax jurisdiction (Wilks, 2008). The buyer then repackages the loans and issues them as equity or bonds to other interested investor. Between the period 2006 and 2007 , half of Lehman's CDOs estimated at $431 billion had experienced defaults by November 2008 (Valukas, 2010). Financial analyst argued that the decline in the values of CDOs significantly contributed to the collapse of Lehman Brothers.

2.6 Leveraging

The high borrowing attitude of Lehman to finance their assets culminated into high leverage position (Lartey, 2012). A firm's financial leverage is the firm's capability to finance a portion of its assets with securities bearing fixed rate of interest with the hope of increasing the ultimate returns to the equity shareholders (Keown et al, 2005). As at 2007, Lehman's high leverage ratio has increased from 20 in 2004 to 44 to 1 shareholders' equity (D'Arcy, 2008). By implication, for every $1 of cash and other available financial resources, Lehman would lend $44 which was too high a leverage ratio to maintain (Valukas, 2010). The consequence of the global financial crisis that saw prices sliding coupled with increased interest rates, Lehman's financial position was adversely impacted leading to their bankruptcy (D'Arcy, 2009).

2.7 Complex Capital Structure

As a result of having to cope with conducting business in over 3,000 different legal entities, Lehman Brothers was confronted with issues regarding capital structure (Steinberg & Snowdon, 2009). As difficulties arose/arise due to their expansion strategy culminating into a significant growth. The growth was purported to have contributed to the high degree of capital structure complexity. A hand-full of financial analysts identified this phenomenon as a possible factor that contributed to the failure of Lehman.

2.8 Unsuccessful bail-out and takeover attempts

Recounting the events prior to their liquidation, Lehman Brothers tried a number of measures to redeem their operations. This was necessitated by the massive losses recorded in 2008 and their unsuccessful attempt to dispose of some of their subsidiaries. In their second financial quarter alone, the firm reported losses of $2.8 billion which precipitated the disposal of $6 billion worth of their assets due to the low rated mortgage tranches in their subprime position (Anderson, 2008). By September 10, 2008, Lehman announced a loss of $3.9 billion in their attempt to sell-off their majority shares in most of their subsidiaries including Neuberger Bremen. Consequently, investors' confidence continued to erode when their stock prices lost almost half of its value, as a result, S&P 500 dipped by 3.4%. This occurrence further saw the Dow Jones losing approximately 300 points the same time on investors' perception about the security of the bank (Yandel, 2009). Their situation was worsened by the US government's announcement plan not to assist any financial crisis that emerged at Lehman (Anderson, 2009). In their pursuance to turn-around the fortunes of Lehman after the government's announcement; Lehman Brothers reported a possible take-over deal with the Bank of America and Barclays bank (Caplan et al, 2012). These take-over arrangements also failed to materialize when the UK financial service authority and the Bank of England was alleged to have vetoed the deal to rescue Lehman from collapse; consequently, the federal regulators in the US also resisted a possible involvement of the Bank of America in their quest for a possible take-over (NYT, 2008). The last-minute break down in these re-organization attempts finally saw the liquidation of Lehman Brothers culminating into the application for Chapter 11 bankruptcy protection on September 15, 2008 .

3. Impact of Lehman's failure

The collapse of Lehman Brothers revealed adversity in the operation of several organizations in the US and the world as a whole. In the US alone, Lehman's failure led to depreciation in price of commercial real estates, an extinguishing of 70% of $48 billion of receivables from derivatives, and the extinguishing of $46 billion of its market value (Valukas, 2010; McCracken, 2008 & Investopedia, 2008). The hedge market was not spurred since over 1000 hedge funds used Lehman as the main broker and mostly relied on the firm for funding. Freddie Mac's exposure to Lehman in relation to single-family home loans was estimated at $400 million (Murphy, 2008). Lehman's demise also led to the writing-off of $48 million debts owed to the Federal Agricultural Corporation or Farmer Mac in September (Bryce, 2008). Constellation Energy was also reported to have its stock going down by 56 percent on the New York Stock Exchange halting trading of Constellation Energy culminating into it buy-out by Mid American Energy (Maurna, 2008). The international community was not entirely exonerated from the adverse impact of Lehman's failure. Japanese banks and insurers reported a potential loss of 249 billion yen ($2.4 billion) whereas a counsel from the Royal Bank of Scotland Group is reported to be facing claims between $1.5 billion and $1.8 billion with respect to an unsecured guarantee from Lehman Brothers (Emily, 2008). In England, approximately 5,600 investors had invested in Lehman's backed-structured product amounting to $160 million (Ross, 2009). In Germany, a state-owned bank lost about 500,000 euros (Kirchfeld & Simmons, 2008) whilst hedge funds amounting to over $12 million were frozen in England as a result of Lehman's bankruptcy (Spector, 2009). The corroboration of these losses in the US and the international business community depicts the severity of Lehman's failure on businesses.

4. Preventive measures

The severity of Lehman's failure in global business has been described by financial analysts as ―second to none‖ of an individual firm bankruptcy impacting on a large spectrum of businesses globally (Aversa, 2008). Some believe Lehman's failure partially caused the 2007 economic meltdown (Murphy, 2008). An avalanche of preventive measures has been ascribed by various analysts who if adhered to, would have prevented the collapse of Lehman Brothers. According to Kimberly (2011), the collapse would have being prevented supposing management had taken more proactive risk management actions than their reactive measures at a time the company was almost down. The indicators were written all over but management couldn't find the right solution to curtail the crisis (Valukas, 2010; Emily, 2009). Significantly, regulators and credit agencies cannot be exonerated from these failures. Company regulators were the right agencies to have cautioned and guided Lehman to engage and operate within the confines of business jurisdiction however, the regulators were reported on several occasions to have kept a blank eye on the of illegal and unethical activities of Lehman's executives.

In an attempt to predict the failure or sustainability of firms, Lehman's failure has exposed the weaknesses in various models employed for this purpose. For instance, in analyzing the financial health of firms, areas of performance such as profitability, liquidity, solvency and efficiency indicators are considered (Mensah, 2012) however, much emphasis are not placed on the cash flows of those firms. A careful consideration of cash flow indicators could have prevented the liquidity problems of the firm. In view of the above measures, the inefficiencies inherent the auditing processes partly accounted for this failure. The assurance of a full disclosure by external auditors in relation to the purported financial statement fraud perpetuated by Lehman's management could have aided in avoiding this huge catastrophe (Kimberly, 2011). Notwithstanding the numerous preventive measure ascribed by analyst, a bail-out or take- over coupled with good corporate governance practices, Lehman's failure could have being predicted and prevented (D'Arcy, 2009).

5. Recommendation

The demise of Lehman clearly shows the linkage between regulations and actions management set-ups. The failures exposed the deficiency in the regulatory system thereby requiring urgent need for strict supervision of specific performance indicators such as a firm's liquidity position, solvency and profitability. Policy makers such as the International Financial Reporting Standards, SEC, the Basel Accord et al, must initiate stringent policies to address Lehman failure to avert any future occurrence. Firms must also be compelled to adhere to good corporate governance practice to restore investors' confidence. Sound ethical practices and standards must adhere to and replicated in every organization.

6. Conclusion

The recent competition in the banking industry has led to most banks engaging in risky exposures (Raghavan, 2003). The collapse of Lehman is a clear indication of this phenomenon. The failure could be attributed to a multiplicity of factors ranging from dubious accounting practices, unethical management practices, over investment in risky unsecured investments, laxity on the part of regulators (Morin & Maus, 2011). External auditors also played a major part in this failure by not detecting these financial statement malpractices by the Lehman managers. According to Greenfield (2010), the main indicators of fraud could be detected in the financial statement apparently; the external auditors could not discover this activity. It must however be noted that the demise of Lehman had not impacted on the US economy alone but the world as a whole hence; firms ought to eschew unnecessary business strategies, stringent supervision of existing regulations, amended of the reporting standards to prevent dubious accounting practices, formulation of alternative and practical financial failure prediction models and regulations of the derivative market. The international business community must ensure that businesses hold high standards and ethical culture which to a large extent essential in avoiding collapse of firms in the global business world.

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