CHAPTER-I
INTRODUCTION

1.1 Background of the Study

Mergers and Acquisitions are most widely used strategy by firms to strengthen and maintain their position in the market place. Mergers and Acquisitions are considered as a relatively fast and efficient way to expand into new markets and incorporate new technologies.

Mergers and Acquisitions are now a normal way of life within the business world. In today's global, competitive environment, mergers are sometimes only means for long term survival. In other cases, such as Cisca systems, mergers are a strategic component for generating long term growth. Additionally, many entrepreneurs no longer build companies for the long term; they build companies for the short term, hoping to sell the company for huge profits.

Historically mergers have occurred between companies that are of a similar size that have had related interests. Acquisitions gravitate towards larger organizations acquiring smaller businesses. The overarching goal behind mergers and acquisitions is to create long-term shareholder value, obtain a larger market share and achieve greater efficiency. In contrary what we often find is that many such mergers fail to create efficiency's, achieve synergistic benefits or increase long term shareholder value. Mainly in circumstances where the underlying motivations and conditions surrounding the restructuring are with the purpose of taking advantage of factors such as perceived market reaction of the M&A as a sole motivation, then usually the foundations on the acquisition or merger may not be sufficient to create true shareholder wealth.

Companies use mergers and acquisitions for a variety of reasons. This is a result of the present day dynamic environment in which companies are faced with dealing with constantly changing on going technological advancement, market globalization, global competition and the drive to leverage advantage. It is clear that mergers and

acquisitions have become one of the most important corporate level strategies in the new millennium (Hitt, et al., 2001)

The main motive behind mergers and acquisitions is that they create value for both shareholders of the target and acquiring companies indicating that mergers and acquisitions result in the creation of shareholder value. However, as we shall see, empirical evidence suggests that not all mergers and acquisitions lead to the creation of shareholder value. Some mergers and acquisitions simply occur because managers of the acquiring firm may want to see their corporations grow bigger so as to increase their bonuses or control of the company. In addition, some mergers occur simply because some firms want to gain monopolistic power. Acquired company shareholders typically do very well especially in cases where the acquirer pays a premium to forestall competitive bidding. The acquirers frequently experience share price underperformance in months following an acquisition with negligible long term gains.

1.1.1 Mergers and Acquisitions

Mergers and Acquisitions is an important financial tool that enables companies to grow faster and provide returns to owners and investors. Mergers and Acquisitions (M&A), in the broad sense, may imply a number of different transactions ranging from the purchase and sales of undertakings, concentration between undertakings, alliances, cooperation and joint ventures to the formation of companies, corporate succession/ ensuring the independence of businesses, management buy-out and buy-in, change of legal form, initial public offerings and even restructuring.

Merger is an act or process of purchasing equity shares of one or more companies by single existing company. Merger is done on a permanent basis. Generally, it is done between two companies. However, it can also be done among more than two companies. It is a combination of two or more companies into a single company where one survive and other lose their corporate existence. According to the Halsubury's laws of England "Merger is blending of two or more existing undertakings into one undertaking, the shareholders of each blending company becoming substantially the shareholders in the company which is to carry on the blended undertaking."

A merger is a corporate strategy usually done between two or more than two companies where acquiring firm and acquired firm stand on a merger agreement. The terms merger and consolidation have been used synonymously. However, the two have different legal identities after the merger deal. In a consolidation, two firms come together to create an entirely new firm. Both the acquiring firm and the acquired firm dissolve their previous names and identity (Ross et.al 2003a, 843).

An Acquisition is the act of one company taking over or acquiring a controlling interest of another company by means of an asset purchase or a stock purchase. "An acquisition is a transaction in which an individual or company, known as the offeror (or acquirer) gains control of the management and assets of another company, known as the offeree (or target), either by becoming the owner of these assets or indirectly by obtaining control of the management of the company, or by acquiring the shares(Firer-Ross-Westerfield-Jordan 2004). Acquisition can be done either by purchasing the stock and/or assets of the target company.

According to Umar (2009), a merger is transaction involving two or more companies in which shares are exchanged but in which only one company survives. Mergers usually occur between firms of somewhat similar size and are usually friendly. The resulting firm is likely to have name derived from its composite firms, while an acquisition is the purchase of a company that is completely absorbed as an operating subsidiary or division of the acquiring company.

According to Ransariya (2010), a merger can be taken as an abbreviation which means:

M: Mixing

E: Entities

R: Resources for

G: Growth

E: Enrichment and

R: Renovation

Thus, one can conveniently refer to a merger as the mixing of entities' resources for growth and renovation.

Basically, mergers and acquisitions are forms of consolidation. The terms mergers, acquisitions and consolidation are often confused, appear similar and are mostly used interchangeably. However, three have different meanings. Unlike mergers and acquisitions, consolidation refers to the fusion of two or more existing companies into a new company in which the former companies are extinguished or losses their identities.

Therefore, a merger can be seen as the combination of amalgamation of two or more separate companies into a single company where one survives and other lose their corporate existence while acquisitions can be seen as the taking over of the controlling shareholding interest of another company. Usually, at the end of the process, there exist two separate entities or companies. The target company becomes a division or a subsidiary of the acquiring company.

The terms merger and acquisition are often confused or used interchangeably. Although merger and acquisition are often used as synonymous terms, there is a subtle difference between the two concepts. When one company takes over another and clearly established itself as the new owner, the purchase is called an acquisition. From a legal point of view, the target company ceases to exist, the buyer swallows the business and the buyer's stock continues to be traded. A merger happens when two firms, often of about the same size, agree to go forward as a single new company rather than remain separately owned and operated. This kind of action is more precisely referred to as a "merger of equals." Both companies' stocks are surrendered and new company stock is issued place. In practice, however, actual mergers of equals do not happen very often. Usually, one company will buy another and, as part of the deal's terms, simply allow the acquired firm to proclaim that the action is a merger of equals, even if it is technically an acquisition. Being bought out often carries negative connotations, therefore, by describing the deal as a merger, deal makers and top managers try to make the takeover more palatable.

1.1.2 Shareholder's Value

Shareholder's value is the value enjoyed by a shareholder by possessing shares of a company. It is the value delivered by the company to the shareholder. Increasing the shareholder value is of prime importance for the management of a company. So the

management must have the interests of shareholders in mind while making decisions. The higher the shareholder value, the better it is for the company and management.
It is difficult to make a clear cut conclusion that mergers and acquisitions lead to the creation of shareholder wealth or that they do not lead to the creation of shareholder wealth. Many studies have taken a number of different approaches to arrive at different conclusions. On the one hand, accounting studies seek to understand whether there is an improvement in accounting numbers following a merger and acquisition. The evidence from these studies remains mixed with some studies demonstrating that mergers and acquisitions result in an improvement in profitability while a significant number of studies conclude that mergers and acquisitions do not foster performance improvement. Financial and economic studies typically employ event studies, which aim at understanding how the share prices (stock returns) of the firms concerned react to the merger or acquisition announcement. The results of these studies suggest that mergers and acquisitions lead to significant positive abnormal returns to shareholders of the target firm while resulting in negative of no abnormal returns to shareholders of bidder firms, Bild and Guest, (2002). The studies also demonstrate that despite the negative abnormal returns to acquiring shareholders, there these shareholders eventually benefit from overall significant gains in the future. These results have led some authors to argue that the results obtain tend to be sensitive to the methodology employed thereby leaving one to continue doubting whether the results actually reflect reality or whether they simply reflect the authors beliefs about mergers and acquisitions. The shareholder’s value is measured in terms of Return on Assets (ROA), Return on Equity (ROE) and Earnings per share ratio (EPS).

1.1.3 Evolution of Bank Mergers in Nepal

In a developing economy like Nepal, merger and acquisitions to banking and financial institutions has started recently, but has gained wide scale popularity. It has been demanded by the market and also recommended by the Nepal Rastra bank.
The policy of the central bank to liberalize the opening of banks and financial institution resulted into mushrooming of banking and financial institutions in Nepal. There were only two commercial banks till 1984 A.D. and the services and facilities

of Nepalese banks were mainly of traditional type. As the government adopted the economic liberalization policy in 1984, banking sector started growing and this led to the development of modern banking services. The policy of economic liberalization initiated basically the opening of joint venture banks. Some of these banks established with 50 percent joint venture and some other established with less equity stake in paid up capital. At present some of the joint venture banks have upgraded their stake from 50 percent. Along with growing number of commercial banks, the flexible policy encouraged the establishments of developments banks, finance companies to improve the banking service quality as well as to enrich the banking access for maximum number of people.

The Nepalese financial sector has witnessed a tremendous growth in the number of financial institutions after the 1980's by adopting an economic liberalization regulation with a mixed economic model. However, the unnatural increment of the BFIs has brought several financial challenges and complexities. The financial indicator had indicated that the Nepalese financial sector was weak, vulnerable and, at the verge of a collapse. "Merger is a golden opportunity for BFIs. This facility is floated to reduce the number of BFIs to strengthen them".

In the beginning, the merger bylaws had failed to create immediate impression in the banking fraternity and the merger bylaws in the form of consolidation have gained acceleration over the last two years in 2011 and 2013 when the Himchuli Finance and Birgunj Finance first sparked the merger trend and consolidated to become the H&B Development Bank. The merger bylaws policy introduced by the Nepal Central Bank in the year 2011 has been successful as almost one fourth of the financial institutions have opted mergers. (Singh2013).

A lot of speculations have been going on in the financial sector whether the merger policy will be fruitful to strengthen the Nepalese bank and financial institutions. Some positive signals have been visible in the financial institutions as 60 financial institutions including commercial banks, development banks and finance companies have merged forming 27 financial institutions as of July 2014 and a few BFIs are in pipelines and some have got the letter of intent. This depicts that merger and consolidation has gradually taken place in the banking industry. The goal of this research is to find out the effect and impact of the merger policy adopted by the

Nepal Rastra Bank. The research is carried out by analyzing the financial statements of the BFIs involved in the merger activity. A comparison is made between pre-merger performance and post-merger performance of the banking and financial institutions.

In recent years, mergers and acquisitions have been the burning issue in the banking sector. Complying with the global scenario, Nepalese banks and financial institutions are currently going through the situation of merger and acquisition. The first banks to merge in Nepal were Himchuli Bikash Bank (category "B") and Birgunj Finance Limited ("C") on which the banks were renamed to H & B Development Bank Limited (National Level category "B") and the banking operation started from 6/15/2011 after merger. In Nepal, the banks have not gone for acquisition so far. The Banks and Financial Institutions Acquisitions By law came into practice only from 2014 (Nepal Rastra Bank Allows Acquisitions of Financial Institutions, 2014).

1.1.4 Overview of Mergers of Selected Commercial Banks

Machhapuchchhre Bank Limited was registered in 1998 as the first regional commercial bank from the western region of Nepal and started its banking operations from Pokhara since year 2000.

The Bank facilitates its customer needs by delivering the best of services in combination with the latest state of the art technologies and prudent international practices. The Bank is the pioneer in introducing the latest technology in the banking industry in the country. It is the first bank to introduce centralized banking software, GLOBUS BANKING SYSTEM of Temenos NV, Switzerland. The bank provides modern banking facilities such as Any Branch Banking, Internet Banking, Mobile Banking, Safe Deposit Locker facilities, Utility Bill payment (Telephone & Mobile), ATM (VISA Debit Cards) to its valued customers. Besides these, the Bank is providing 365 Days banking and Evening Counter services to the customers through many of its offices.

The Bank has been promoted by highly renowned Non-Residential Nepalese, prominent business man and industrialists with a vision and dedication to provide the best financial products and services in the most efficient and professional manner.

Machhapuchchhre Bank has merged with Standard Finance Limited in the year 2012

and become the first largest bank in western region based on the paid–up capital, i.e. Rs 2.47 billion rupees .Since after the merger, the bank has reported a tremendous growth in its profit in the second quarter of the fiscal year 2013/2014. In addition, the market price per share has increased to NPR 440 compared to NPR 133 in the previous year. More recently, the board meeting of the bank has passed a proposal to merge with any other financial institutions. (Machhapuchchhre Bank Limited 2014).
Machhapuchchhre Bank has successfully completed 16 years of operations and it gives us pleasure to report another successful year for Machchapuchchre Bank in fiscal year 2015/16. During the year, the banks deposit increased by 18.29%, the operating profit dramatically increased by 68.35% over that of the last FY's operating profit. The bank has achieved a net profit of NPR 89.82 million against NPR 61.64 million of previous year, posting an increase of 45.73%.

NIC ASIA Bank has its antecedents in NIC Bank which was established on 21st July 1998. The Bank was rechristened as NIC ASIA Bank after the merger of NIC Bank with Bank of Asia Nepal on 30th June 2013. This was a historic merger in the annals of Nepalese financial landscape as the first of its kind merger between two successful commercial banks in the country. Today, NIC ASIA has established itself as one of the most successful commercial banks in Nepal.

During the post-merger integration phase, NIC ASIA managed the transition very smoothly receiving accolades from the regulators as well as the stakeholders, paving the way for other mergers and consolidation in the Nepalese financial sector. After the merger, NIC ASIA was recognized as "Bank of the Year 2013-Nepal" by The Banker, Financial Times, UK. This is the second time that the Bank was recognized with this prestigious award, the previous occasion being in 2007. The main vision of this bank is to become one of the most respectable bank in Nepal based on honourable conduct and long term financial performance. The mission is to become a lending bank in Nepal providing complete financial solutions to customers, superior value to the shareholders and promising growth opportunities to the employees.

The bank's corporate governance policy is directed not only towards the regulatory and legal requirements, but also towards adherence to best business practices, transparency and disclosure to the stakeholders. The bank has established a culture of best practices in corporate governance. The bank's corporate governance framework

is based on effective independent Board that is not involved in day to day management and the constitutions of different Board committees with independent directors to oversee critical issues.

The bank has adopted three core principals of corporate governance i.e. integrity, transparency and fairness. Good corporate governance has been an integral part of the bank's policy in order to safeguard the interest of its shareholders and stakeholders and for providing the highest level of services to its customers.

During the review period , the bank has formulated and implemented "Corporate Governance Policy 2015" which shall further strengthen the bank's corporate governance practice and values across all levels and activities of banks. The objectives of this policy are as follows:

a. To lay down a framework for achieving the vision, mission and objectives of the bank in an effective and efficient manner.

b. To lay down a foundation for sound organizational development, planning succession, control and performance.

c. To ensure that all activities of the bank are carried out in due compliance with applicable acts, regulations and directives.

1.2 Statement of Problem

Merger and acquisition in banking sector has been a frequent activity in Nepalese banking sectors. Nepal Rastra Bank (2014) has stated in Nepalese language that after the deregulation in Nepalese banking sector, the number of banking and financial institutions increased but it did not lead to healthy competitive environment. Also, it was felt that there were many banking and financial institutions looking for institutional stability while others looking for safe and easy exit, NRB introduced the Merger Act, 2011 as the second phase of liberalization as per financial consolidation policy initiatives for restructuring the banking industry.

In Nepal, the banks have not gone for acquisition so far. Nepal Rastra Bank lately introduced the long awaited by law on acquisition on 21st April 2017, paving the way for banks and financial institutions to raise their net worth and expand balance sheet size by taking over similar players in the market.

Thus, although NRB paved a framework for M&A activities, the reasons behind the banks' decision to go for M&A have not been the subject of study. While operating after merger there may be different kind of changes in the position of organization. Change may take place as regard net worth, deposit collection, investment, income generation, expenditure etc. In this research work it would be relevant to analyze the direction as well as magnitude of such change that has taken place during the study period. This research work attempts to know whether the change pattern or direction of changes as regards various trends of the concerned banks is beneficial to the shareholders and to the economy or not. This study will try to seek the answers relating to the merger of banks and the consequences to the shareholders return and to the economy as a whole. Do merger really enhance the shareholder's value?

1.3 Objectives of the Study

The present study is aimed at achieving the following objectives:

1. To assess the effect of merger and acquisitions on the shareholder's value at sample banks in terms of Pre-M&A and Post-M&A analysis, and
2. To compare the Pre-M&A and Post-M&A effect on shareholder's wealth at Machhapuchchhre Bank with that of NIC Asia Bank

1.4 Need and Significance for Study

The main purpose of this paper is to get insight of the merger and Acquisition on shareholder wealth. This study helps to know the details about motive behind the M&A and its impact on employee, customers and the shareholders.

1.5 Limitations of Study

The study has the following limitations:

1. The overall study only covers aspect of merger and acquisition of Banking and Financial Sectors.
2. The financial data of the bank used in the study may not cover the actual figure of the industry.
3. Theoretical part of the research is based on available literature only.
4. The study is largely based on secondary data.
5. The data taken for analysis covers only seven year from 2010/11 to 2016/17.

6. The study covers only two selected commercial banks as sample banks, since they are among the few banks that have gone under the merger and acquisition process.

1.6 Organization of the Study

The entire study has been designed into five main chapters. They are:

1. Introduction
2. Review of Literature
3. Research Methodology
4. Presentation and analysis of data
5. Summary, Conclusion, Recommendations.

Chapter1: Introduction

The first introduction chapter includes background of study, objectives of study, significance of study, limitations of study and organization of study.

Chapter 2: Review of Literature

The second chapter review of literature is done to know what research had been done in the related topic in previous days and what is to be done at present or in future.

Chapter 3: Research Methodology

In third chapter describes the methodology use for the study. This chapter includes the introduction, research design, population and sample, sources of data and data collection.

Chapter 4: Presentation and Analysis of Data

Presentation and analysis of data have been made in the fourth chapter. The data collected from various sources have been tabulated in their sequential order and data have been described and analysed with statistical tools.

Chapter 5: Summary, Conclusion and Recommendations

The fifth chapter consists of brief summary, conclusion and recommendations of the study. Lastly, essential bibliography and annex has been presented the end of the study.

CHAPTER II
REVIEW OF LITERATURE

The literature review simply explains the development process and the course of research in the corresponding fields, especially development trends and the latest achievements in recent years. Literature review brings a better comprehension of the relevant secondary data analysed by the researcher. Literature reviews help researchers limit the scope of the inquiry, and conveys the importance of studying a topic to reader.

2.1 Review of Theoretical Framework

A merger is the combination of two or more companies, generally by offering the stockholders of one company securities in the acquiring company in exchange for the surrender of their stock.

The reasoning behind any corporate merger is that two companies together are more valuable than if they were separate because they increase shareholder value over and above that of the two separate firms. Thus the primary reasons behind bank merger activity pertain to (1) creating economies of scale, (2) expanding geographically, (3) increasing the combined capital base size and product offerings, and (4) gaining market power.

Kafle (2012) writes “Study in Wharton, Harvard and Morgan suggests that 50% to 85% of the merged forms don’t achieve the shareholders’ expected value. In context of Nepal, last seven years result shows the success rate is 15%.”

As of 1st May 2015, it is estimated that among all of mergers since 2011, only around 25% of mergers have succeeded while half of them have share price below the face value of Nepal Stock Exchange (Kafle 2012).

Timilsina (2012) from Nepal Investors Forum says ‘In most of the cases, mergers have been taking place to avoid regulation action, when the financial health of FIs is bad. Due to this, it causes bad forced mergers. Immaturity of BFIs can create various problems for future operations’ (Mergers and Acquisitions in Nepalese Banking Sector 2012).

According to Shrestha (2012), the concept of M&A was an entirely new thing to the Banking and Financial Institutions (BFIs) of Nepal when the Nepal Rastra Bank, supervisory and regulatory body of all the BFIs has issued merger by-laws in May 2011.

According to Agarwal (2007b) it is difficult to assess the mode of success of a merger and whether it has been a success. Author further stated that estimates illustrated that about 80 percent of the mergers do not meet their financial targets, producing lower returns than it was expected and higher than the expected cost and about 50 percent of the mergers and acquisitions are failures. A crucial time period that determines the success or failure of a merger deal is the way in which the transition in the company is handled in the initial months. It also depends on the way employees of the target company assess the corporate culture of the acquirer and compare it with their culture. Furthermore, when firms are in the same line of business merged together, they have a better success rate in comparison to those companies that merge together in different sectors, the main reason being expertise, ease with which knowledge is transferred and economies of scale.

It takes time for the evaluation of a certain mergers. Even though that the various indicators like capital adequacy ratio, nonperforming loans and return on equity show the positive figures in few years of mergers, we cannot judge them.

Thus, there are number of studies examining the importance of wealth effects associated with M&A while others have studied the risk effects of M&A but the research is limited to these areas only. Thus the researcher aims to conduct a research on value enhancement through M&A in the context of Nepal.

2.1.1 History of Mergers and Acquisitions

Both mergers and acquisitions are aspects of strategic management, corporate finance and management dealing with buying, selling, dividing and combining of different companies and similar entities that can help and enterprises grow rapidly in its sector or location of origin, or a new field or new location, without creating a subsidiaries or child entity or using joint ventures. The history of Merger and Acquisitions began long before early 1900s. This period of time covers six main waves of M&A for the past 100 years and these are those of the early 1900's, 1920's, 1960's, 1980's,

1990's, and 2000's. In the past decades, M&A activities have increased rapidly and come to a light since 2000 when Asian the market started following the trend of U.S and Europe to cope with the downturn of economic and financial markets that began in 2000. Emerging countries such as India, China, South Korea and some ASEAN nations entered into the M&A activity as new major players in global market. Besides, cross-border M&A became an instrument to pursue a business growth in global markets. (Chand 2009)

According to Shrestha (2012), the concept of M&A was an entirely new thing to the Banking and Financial Institutions (BFIs) of Nepal when the Nepal Rastra Bank, supervisory and regulatory body of all the BFIs has issued merger by-laws in May 2011. The Nepalese financial sector has witnessed a tremendous growth in the number of financial institutions after the 1980's by adopting an economic liberalization regulation with a mixed economic model. However, the unnatural increment of the BFIs has brings several financial challenges and complexities. The financial indicator had indicated that the Nepalese financial sector was weak, vulnerable and, at the verge of a collapse. "Merger is a golden opportunity for BFIs. This facility is floated to reduce the number of BFIs to strengthen them" (The Himalayan Times 2013). According to the monetary policy report of the Nepal Rastra Bank (2013), the total number of the BFIs stood at 207 including 31 class A commercial banks, 86 class B development banks, 59 class C finance companies, and class D microfinance institutions.

2.1.2 Types of Mergers and Acquisitions

There are various types of merger and acquisition which are driven by different corporate strategies. The types of mergers are as follows:

(a) Horizontal Merger

Horizontal mergers occur when two companies sell similar products to the same markets. The goal of a horizontal merger is to create a new, larger organization with more market share. Because the merging companies' business operations may be very similar, there may be opportunities to join certain operations, such as

manufacturing, and reduce costs. However, an interesting observation by Weston (1990) is that not all small firms merge horizontally to achieve such economies of scale. According to Cowling et al (1980), this type of merger accounts for the majority of merger cases, and it can be verified that the majority of mergers in the banks industry tend to be of this type. This type of merger leads to the elimination of a competitor, to an increase in the market share of the acquiring firm, and to increase in the degree of concentration of the industry. It is also an attempt by companies to gain control of business activity to increase the firm’s dominance in its exchange relationships with other firms (Green, 1990).

Horizontal mergers raise three basic competitive problems. The first is the elimination of competition between the merging firms, which, depending on their size, could be significant. The second is that the unification of the merging firms' operations might create substantial market power and might enable the merged entity to raise prices by reducing output unilaterally. The third problem is that, by increasing concentration in the relevant market, the transaction might strengthen the ability of the market's remaining participants to coordinate their pricing and output decisions. The fear is not that the entities will engage in secret collaboration but that the reduction in the number of industry members will enhance tacit coordination of behaviour.

(b)Vertical Merger

A vertical merger joins two companies that may not compete with each other, but exist in the same supply chain. These mergers happen when organisations that are engaged in related functions but at different stages in the production process merge with one another (Scott, 2003; Gaughan, 2010). This enables companies to increase their control over more sources of supply and distribution, for reasons of security (Demsetz, 1990; Green, 1990).

Vertical mergers take two basic forms: forward integration, by which a firm buys a customer, and backward integration, by which a firm acquires a supplier. Replacing market exchanges with internal transfers can offer at least two major benefits. First, the vertical merger internalizes all transactions between a manufacturer and its supplier or dealer, thus converting a potentially adversarial relationship into

something more like a partnership. Second, internalization can give management more effective ways to monitor and improve performance.

Vertical integration by merger does not reduce the total number of economic entities operating at one level of the market, but it might change patterns of industry behaviour. Whether a forward or backward integration, the newly acquired firm may decide to deal only with the acquiring firm, thereby altering competition among the acquiring firm's suppliers, customers, or competitors. Suppliers may lose a market for their goods; retail outlets may be deprived of supplies; or competitors may find that both supplies and outlets are blocked. These possibilities raise the concern that vertical integration will foreclose competitors by limiting their access to sources of supply or to customers.

(c) Conglomerate Merger

Conglomerate mergers occur when two organizations sell products in completely different markets. There may be little or no synergy between their product lines or areas of business. The benefit of a conglomerate merger is that the new parent organization gains diversity in its business portfolio. Conglomerate transactions take many forms, ranging from short-term joint ventures to complete mergers. Whether a conglomerate merger is pure, geographical, or a product-line extension, it involves firms that operate in separate markets. Therefore, a conglomerate transaction ordinarily has no direct effect on competition. There is no reduction or other change in the number of firms in either the acquiring or acquired firm's market. According to Fairburn and Key (1989) these types of mergers take place when an industry is already concentrated and competition legislation is unwilling to allow further large horizontal mergers.

Conglomerate mergers can supply a market or "demand" for firms, thus giving entrepreneurs liquidity at an open market price and with a key inducement to form new enterprises. The threat of takeover might force existing managers to increase efficiency in competitive markets. Conglomerate mergers also provide opportunities for firms to reduce capital costs and overhead and to achieve other efficiencies.

Similarly, the types of acquisitions are listed below:

(a) Stock Acquisition

The acquirer buys the target's stock of from the selling shareholders. In a stock purchase, all of the assets and liabilities of the seller are sold upon transfer of the seller's stock to the acquirer. As such, no tedious valuation of the seller's individual assets and liabilities is required and the transaction is mechanically simple. The acquirer does not receive a stepped-up tax basis in the acquired net assets but, rather, a carryover basis. Any goodwill created in a stock acquisition is not tax- deductible.

(b) Asset Acquisition

The acquirer buys some or all of the target's assets/liabilities directly from the seller. If all assets are acquired, the target is liquidated. The acquirer can choose which specific assets and liabilities it wants to purchase, avoiding unwanted assets and liabilities for which it does not want to assume responsibility. The asset purchase agreement between the buyer and seller will list or describe and assign values to each asset (or liability) to be acquired, including every asset from office supplies to goodwill.

2.1.3 Theories of Mergers and Acquisitions

1. Synergy Theory

Sirower (1986) proposed the Synergy theory which holds that firm managers achieve efficiency gains by combining an efficient target with their business and then improving the target's performance. Buyers recognize specific complementarities between their business and that of the target. Thus, even though the target is already performing well, it should perform even better when it is combined with its complementary counterpart, the buyer firm. The synergistic theory implies that target firms perform well both before and after mergers. The two types of synergies identified are: operating Synergy and financial synergy.

Operating synergy consists of both economies of scale and economies of scope, which can be important determinants of shareholder wealth creation. Gains in efficiency can come from either factor and from improved managerial operating practices. Economies of scale refers to the reduction in average total costs for a firm producing a single product for a given scale of plant due to the decline in average

fixed costs as production volume increases. Scale is defined by such fixed costs as depreciation of equipment and amortization of capitalized software, normal maintenance spending, and obligations such as interest expense, lease payments, long-term union, customer, and vendor contracts, and taxes.

Economies of scope refers to the reduction in average total costs for a firm producing two or more products, because it is cheaper to produce these products in a single firm than in separate firms. Economies of scope may reflect both declining average fixed and variable costs. Common examples of overhead- and sales-related economies of scope include having a single department (e.g. accounting and human resources) support multiple product lines and a sales force selling multiple related products rather than a single product. Savings in distribution costs can be achieved by transporting a number of products to a single location rather than a single product.

Financial synergy refers to the reduction in the acquirer's cost of capital due to a merger or acquisition. This could occur if the merged firms have cash flows that are relatively uncorrelated, that realize cost savings from lower securities‟ issuance and transactions costs, or that result in a better matching of investment opportunities with internally generated funds.

2. Managerial Efficiency

According to Chatterjee (1986), the theory of efficiency suggests that mergers will only occur when they are expected to generate enough realizable synergies to make the deal beneficial to both parties; it is the symmetric expectations of gains which results in a friendly merger being proposed and accepted. If the gain in value to the target was not positive, it is suggested, the target firm's owners would not sell or submit to the acquisition, and if the gains were negative to the bidder's owners, the bidder would not complete the deal. Hence, if we observe a merger deal, efficiency theory predicts value creation with positive returns to both the acquirer and the target. Banerjee and Eckard (1998) and Klein (2001) evidence this suggestion.

3. Free Cash Flow Theory

Jensen (2007) says free cash flow is cash flow in excess of what is required to fund projects that have positive NPV when discounted at the relevant cost of capital. When the bidding firm has substantial free cash flow and a low growth prospect,

managers would likely want to keep control of internal funds and maintain their power in that payment of excess cash flows as dividends or share buyback can reduce manager's control and power. In addition, the managers regard a pay out of dividends or buy back as a complete waste, whereas M&As conserve corporate value, Shleifer and Vishny(as cited in Wang , 2007). Jensen (as cited in Wang, 2007) argues that free cash flow is regarded as a source of value destruction for shareholders and that the returns for the newly created firm are negative.

4. Agency Theory

Jensen (1986) first proposed the agency theory suggests that value destroying mergers are driven by the manager's incentive to grow the firm beyond its optimal size. In some circumstances the agency problem might force managers to engage in M&As (Maletesta, 1983 in Frensch, 2007), with the separation of ownership and control, the agency problem implies M&As occur when managers want to increase their value at the expense of the acquirer's shareholders benefits, Berkovitch and Narayan, (1993). Agency problem can stimulate competition among companies but cannot be itself eliminated by the competition and the gains to the target shareholders increase with the competition, Berkovitch & Narayanan, (1993).It seems therefore that the agency motive is the main reason for value destruction in M&As.

According to Gupta and Misra (2007), good managers run firms with efficient incentive and monitoring systems which work to ensure that corporate policy is focused on maximizing value. Mehran & Perisriani, (2006), found that agency problems are important factors contributing to management initiated buyouts, particularly when managers and stockholders disagree on how excess cash should be used. According to European commercial bank, (2010), the goal of any profit seeking organization is to create and preserve value for its owners.

5. Hubris and the Winner's Curse

According to Roll (1986), Hubris hypothesis explains why mergers and acquisitions occur even if the current market value of the target firm reflects its true economic value. Instead of accepting markets valuation managers or bidders believe that their own valuation of target firm is superior and tend to overpay. Bidders get caught in hubris, an animal like spirit of arrogance and pride where they are optimistic in

evaluating potential synergies. The desire to win can drive the purchase price of a company well in excess of its economic value. In an auction environment the winning bid is often in excess of the estimated value of a target company and is likely to represent a positive valuation error. The positive valuation error represents the winners curse. The winner is cursed in that he has paid more than the company's worth excess premium paid for the target company benefits the shareholders but the shareholders of the acquiring company suffer a diminution of wealth.

6. The Theory of Managerial Entrenchment

Shleifer and Vishny, (1991) claim that unsuccessful mergers occur because managers primarily make investments that minimize the risk of replacement. It suggests that managers pursue projects not in an effort to maximize enterprise value, but in an effort to entrench themselves by increasing their individual value to the firm. Entrenching managers will, accordingly, make manager-specific investments that make it more costly for shareholders to replace them, and value will be reduced because free resources are invested in manager-specific assets rather than in a shareholder value-maximizing alternative. Amihud and Lev (1981) empirically support this notion, and suggest that managers pursue diversifying mergers in order to decrease earnings volatility which, in turn, enhances corporate survival and protects their positions.

7. Diversification

Theoretical arguments suggest that diversification has both value-enhancing and value-reducing effects. Diversification means growing outside a company's current industry category. The potential benefits of operating different lines of business within one firm include greater operating efficiency, less incentive to forego positive net present value projects, greater debt capacity, and lower taxes. The potential costs of diversification include the use of increased discretionary resources to undertake value-decreasing investments, cross-subsidies that allow poor segments to drain resources from better-performing segments, and misalignment of incentives between central and divisional managers. There is no clear prediction about the overall value effect of diversification. Other theories predict a positive relation between diversity and value. In Lewellen (1971) diversity of cash flow variation is good if it allows

greater tax benefits of leverage by reducing the volatility of cash flows and the probability of financial distress. Hadlock et al. (1999) argue that diversity might be good if managers‟ private information at the segment level washes out at the firm level, reducing information asymmetry. Another argument is that diversity in investment opportunities is good when internal capital markets function better than external markets, since it maximizes the scope of the internal market. Hubbard and Palia (1999) find evidence, using acquisitions in the 1960s, that gains are greatest when a financially unconstrained buyer acquires a constrained target. Thus, diversity in financial constraints is good.

2.1.4 Mergers and Acquisitions Waves

1. First wave:

The first wave occurred from 1897 to 1904. This period is characterized by monopolistic market that had resulted from horizontal mergers. This period of wave is considered to be the period in which large monopolies were created.

O'Brien (1988) has stated that the mergers at this time occurred were mostly influenced by the companies that wanted to have strong presence and power in the market rather than economies of scale. Although monopoly was supposed to be highly discouraged by the Sherman Antitrust Act which was implemented in 1890, the companies used merger as a tool to get around this law. Gaughan (2011) has stated the inefficiency of Justice Department being responsible for improper execution of Antitrust Act. Gaughan (2011) has further stated that corporations were better able to hold stock in other companies and increase their business operations thereby creating merger environment because of relaxation of corporate laws. During the period 1898-1904, the firms were disappearing for the sake of merger and acquisition in the rate of 301 per year with 1028 firms disappearing into merger in 1899 alone (Nelson, 1959).

The period of 1905 to 1914 is described as a decade of lower merger activity. The momentum reappeared from 1915.

2. Second wave:

The second occurred from 1916 to 1929. This period is supposed to be affected from oligopolies. After the equity market had declined in first wave, it began to develop in

this phase. Investment capital was easily accessible and stock market began to boom because of economic growth. In this period, the government of United States had executed hard and strict rules in antitrust law, as Clatyon Act was executed in 1914 which was like back force for Sherman Act in the US. According to Sundarsanam (2010), with strict antitrust laws, vertical mergers began to flourish and thus industries not related to each other, began to go for merger. This led to demolition of monopolies and formation of oligopolies. This period is also characterized by small scale companies merging with each other in order to gain economies of scale. This period ended with the decrement in equity market. Because of Second World War, merger and acquisition activities remained low until around 1950s after second wave.

3. Third wave:

The third wave occurred from 1965 to 1969. This period is characterized by conglomerate mergers resulting from booming economies in the 60s. With the intention of companies to execute diversified strategies along with diversified product lines, such conglomerate mergers came into practice. As per Shleifer and Vishny (1991), such conglomerate mergers were a because of antitrust laws that did not allow mergers between companies belonging to the same industry. In order to tackle the monopolies and oligopolies, Cells Kefuaver Act was implemented which did not allow the companies of same organization to merge. Such conglomerates were also a result of the companies wanting to reduce the fluctuation or volatility in their income (Sundarsanam, 2010). The third wave ended with oil crisis in 1973 as well as the economic recession of the 70s.

4. Fourth wave:

The fourth wave occurred from 1984 to 1989. This period is termed as a period of hostile merger by Gaughan (2011). With the aim to earn high returns in short period of time, hostile takeovers and mergers took place. As conglomerate mergers had some negative points too, there were significant mergers which were formulate to either specialize operations or downsize them. Also in fourth wave, large size companies were the prominent players of merger and acquisition while such were middle and small companies in previous merges. Mitchell and Mulherin (1996) have stated that oil price shocks, deregulation, financial innovation, competition were the

prime factors resulting takeover activities in this period. Sundarsanam (2010) has stated that fall of Berlin Wall and Schengen Agreement in this period was the cause of rise in merger in Europe. Also, because of high inflation rates and thus high borrowing costs, big companies began to opt for merger and acquisition so that they could reduce operating and financing costs.

With the collapse of stock market as well as highly leveraged companies, the fourth wave came to end.

5. Fifth wave:

The fifth wave occurred from 1992 to 2000. The mergers here were characterized by friendly and long-term commitment type of deals. With the boom in the economy again, as well as rocketing of stock market, the companies opt for merger in order to fulfil the demand. In the fifth wave merger, the companies opted for equity financing rather than debt financing. Also, this wave is characterized by international mergers with companies going for cross merger deals. Deregulations also played the great role in such international mergers with Europe, America and other countries having many companies going for merger and acquisition. This merger waves were greatly supported by various multinational trade zones like European Union, North Atlantic Free Trade Agreement etc. This period ended with economic recession.

6. Sixth wave:

The sixth wave occurred from 2003 to 2007. Martynova and Renneboog (2005) stated that the merger wave occurred after the market began to return to normal post terrorist attack on September 11, 2000. In this period, even though economy began to recover, the interest rate was kept low. In this period, the trend of cross-border merger and acquisition continued. Many private equity firms came into rise because of low interest rate thereby making it easier to obtain credit availability. The sixth wave came into end with subprime debt crisis in 2007 (Ferris and Pettit, 2013).

Studies have shown that the takeovers did not occur evenly, rather there was a cluster of different waves.

2.1.5 Phases of Mergers and Acquisitions

Depending on the studies and research approaches, there are various categorizations and viewpoints when it comes to the M&A process, ranging from two to seven

phases (Calipha et al., 2010). The importance of these distinctions between the phases is that the process of integration and activities that influence the success of the integration begin long before the closing, at the point when companies first take contact. Surprisingly, there is little empirical research that has systematically examined the relationships among the stages and how activities conducted during the different stages affect the success of the M&As integration process (Schweiger and Goulet, 2000).

Boland (1970) roughly divides the M&A stages into post-merger and pre-merger phase (Boland, 1970), whereas Schweiger and Weber (1989) summarize the M&A process with pre-merger phase and implementation phase. Picot (2002) narrows the M&A process and defines three phases: planning, transaction and integration (Picot, 2002; Marks and Mirvis, 2001). The phase model of Jansen (2008) is also subdivided into three stages: strategically phase of analysis and conception, transaction phase and integration phase (Jansen, 2008,). Similarly, three phase integration is suggested by Marks and Mirvis (2010): Pre-combination, combination and post combination phase. Four-Stage model (Haspeslagh and Jemison, 1991; Quah and Young, 2005), Five Stage model (Lohrum, 1992), and a Seven Stage model (Buono and Bowditch, 1989). No matter if the M&A process is subdivided into two or seven phases, the principle pattern is similar: Analysing how M&As set their objective, choose a partner, prepare to merge, integrate different processes, handle culture and develop a sustainable environment (Calipha et al., 2010). As the M&A process is a complex phenomenon, one has to consider the whole picture. With a development of M&A research, there is an increasing group of experts who recommend focusing on a more holistic approach (e.g., Bauer and Matzler, 2013; Calipha, 2010) and treating the overall deal as a lifecycle (Chanmugam et al., 2005). The outlined numbers of stages show a variety of possibilities to categorize the M&A process.

1. Three-Stage Model

Marks and Mirvis (2010) identified the M&As process to be composed of Pre-Combination, Combination, Post-Combination. In the pre-combination stage, the deal will be conceived and negotiated by executives and then legally approved by shareholders and regulators. The pre combination phase which starts with an analysis

and study of the buyer firm itself that is analysing its own goals as well as strategic potential and limitations (Jansen, 2008). Once the buyer company has strategically decided to realize an M&A activity, the buyer company develops a process plan including considerations of business administration and tax law (Picot, 2000). In combination phase, two significant parts of the M&A process: Due diligence and negotiation. In order to clarify the scope and the value of the company in a relatively early stage of negotiations, due diligence provides the perfect tool (Depamphilis, 2010; Picot, 2000). A due diligence review is made throughout all fields within the company, ranging from financial, marketing, HR, legal, and tax as well as environmental and organisational due diligence (Jansen, 2008). With the help of a due diligence review the buyer firm aims to eliminate the risk of the transaction. Therefore, the more detailed the information given in a due diligence review and the more precise the process that is undertaken, the less risky seems the M&A transaction (Pack, 2000). In post-combination stage, the combined entity and its people will be regrouped from initial implementation and the new organization will be settled in. The model for acquisition process is presented in figure 2.1.

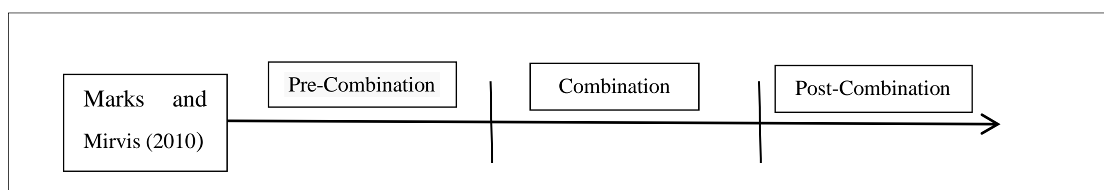

Figure 2.1: Three stage Model of Mergers and Acquisitions process

2. Four-Stage Model

Haspeslagh and Jemison (1991) consider the acquisition process to contain four major phases: idea, acquisition justification, acquisition integration, and results. The first two are referred to as the pre-combination stage, while the last two are referred to as the post combination stage. During the idea phase, the potential acquisition is suggested and eventual combination partners are evaluated. Thereafter the acquisition must be justified to the rest of the company before the actual decision to go on with the deal is made. When the deal is a fact, the integration starts with a special phase called the "stagesetting phase". This phase involves a transition period before the integration actually starts. In Haspeslagh and Jemison's model, the boundaries

between the phases are not clear; many of the acquisition questions they raise overlap the different phases (Caiazza and Valpe, 2015). Hence, even though there are different phases during an acquisition, they are at the same time interactive, and the issues arising during the different phases need to be considered together (Haspeslagh & Jemison, 1991).

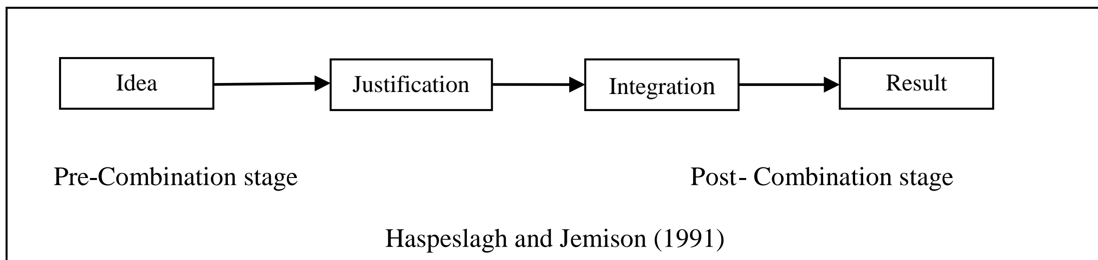

Figure 2.2: A Four stage model of M&As Process

Recently, Quah and Young (2005) suggested that to improve success, the post-acquisition management process should be divided into a number of phases with defined objectives and actions. The study provides preliminary evidence drawing upon the post-acquisition management of four European cross border M&As undertaken by an American automotive multinational firm. The authors have divided the post-acquisition management into four phases - Phase 1: Pre acquisition (6months prior to M&A), Phase 2: Slow absorption (Year 1), Phase 3: Very active absorption (Year 2-5), Phase 4: Totally absorbed (5 years). In addition, the authors have suggested actions to be taken in each phase. In phase 1, the acquirer should conduct interviews with key management and also carry out a cultural audit on target. The results of the cultural audit should be communicated in phase 2 along with providing training for changes in language and the financial system. In phase 3, the acquirer should gradually change the target’s management and provide further training as needed. In the final phase, employee behaviour should be measured and a continuous check made of the sensitivity of national cultural difference in the acquired business.

3. Five-Stage model

Different parts of the process have also been divided into phases. Lohrum (1992) divided the integration into different phases to facilitate the understanding of what happens during acquisition integration. In her study of a cross border M&A, she identified the following five integration phases. The integration process started with an observation phase, where the two parties observe each other and the situation (Haspeslagh and Jemison's stage-setting phase). The next phase is the planning phase where the management of the acquiring firm starts the formal and structural changes. The changes stayed at the formal level while the integration of people and cultures were neglected. Then the execution phase follows, which brings about a lot of changes. The human and cultural integration start in this phase, which also triggers a reaction among the employees in the acquired firm. In the consolidation phase, the real socio-cultural integration starts, when it is important to establish contacts between all hierarchical levels in both companies. When the two corporate cultures have been blended, the last phase starts – the maturity phase.

4. Seven-Stage Model

Buono and Bowditch (1989) identified as many as seven different combination phases. The phases are called pre-combination, combination planning, announced combination, initial combination, formal combination, combination aftermath and psychological combination. The authors discuss how the decisions in the different phases are affected by ambiguities and uncertainties in the environment. They found that in each phase the ambiguities and uncertainties were more or less salient than in other phases. The problem with discussing the M&As process in terms of different phases is that it is difficult to identify when each phase ends and the next starts (Risberg, 1999). It is also difficult to say when the post-combination stage ends, and the relationship between the acquiring and acquired company turns into a headquarters-subsidiary relationship. Another problem with phase thinking is that phases do not have to correspond with time. Two events occurring at the same time can consequently be referred to as different phases. Different parts of the organisation and different individuals can experience different phases at the same time. Therefore,

it is difficult to talk in terms of the whole organisation being in "this phase" or "that phase" (Risberg, 1999).

2.1.6 Motives of Mergers and Acquisitions

Merger and Acquisition has become a corporate strategy enabling a firm to strengthen its core competencies. The factors affecting mergers change with their changing legal, political, economic and social environments. Firms engage in a merger and acquisitions activity for different economic reasons. The most common motives of firms for mergers and acquisitions are discussed below:

1. Synergy

Synergy is commonly used in a merger and acquisitions activity. Synergy has been described as the combined firms have a value that is greater than the sum of the values of the separate firms (DePamphilips 2011). Hypothetically the underlying principle of synergy is 2+2=5, or 5+5=11 which is technically incorrect. However, it is believed that the net positive gain will be achieved resulting from the merger of two separate entities.

Operational synergy can be explained as the combination of economies of scale, which would reduce average costs as a result of more efficient use of resources, and economies of scope, which would help companies deliver more from the same amount of inputs (DePamphilips 2011). Financial synergy refers to the impacts of mergers and acquisitions on the cost of capital of the acquiring firm or the newly formed firm resulting from a merger or acquisition (DePamphilips 2011). The merged entity will be able to reduce the cost of capital and increase its buying power. A conglomerate merger enables an individual unit under the umbrella of one centralized parent company beyond what would have been achieved by each unit competing individually (DePamphilips 2011, 4-5; Frankie TAN 2009).

2. Revenue Enhancement

According to Ross et.al (2003b), "One important reason for a merger or acquisition is that the combined firm may generate greater revenues than two separate firms". The increase in revenue may come from marketing gains, strategic benefits, and increase

in the market power. Enhancing the revenue of companies can be done by market gains, strategic benefits, and market power.

It is perfectly obvious that mergers and acquisitions can produce greater operating revenues from improved marketing. For example, when Microsoft purchased Tiny Vermeer in 1996, Vermeer's front-page software used to create webpage was selling at a snail's pace. But, when the software was superimposes on the Microsoft front page, the sales took off reflecting Microsoft marketing muscle (Ross et.al 2003). Some merger and acquisition produces strategic benefits when companies enter into another line of business to enhance management flexibility with regard to the future operations.

3. Cost Reductions

Many merger and acquisition are undertaken with the belief that a merged firm may operate more efficiently than two separate firms. A firm can obtain cost reductions in several ways through a merger or an acquisition (Ross et.al 2003). According to Motis (2007), a firm can obtain cost advantage when its average cost per unit decreases as the total level of output increases.

4. Tax Gains

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

2.1.7 Post M&A and Integration

In M&A, there are three stages in general which are the pre-merger planning, the merger implementation, and the post-merger integration. The pre-merger planning is the phase where the whole merger strategy is being planned and formulated at the most comprehensive and practical manner. The merger implementation is the process

where merger negotiation proceeds until the deal is concluded. And last but not the least, the post-merger integration will be executed to build a robust integrated new company and realize expected synergies. Synergies creation is always one of the very important factors that lead to M&A, hence, post-merger integration is a very important process to look in detail to realize synergy expected.

Integration process is the real source of value creation in acquisitions. Value is not created until capabilities are transferred and the people from both organizations collaborate in order to create the expected benefits and the unpredicted opportunities. This collaboration relies on the will and ability of managers from both organizations to work together towards a new future. The key to integration is to obtain the participation of the people involved without compromising strategic task.

During integration stage, the aspects that are being integrated will be accounting and finance, legal platform, assets and products, systems and technologies and most importantly cultures and mindsets.

Most common integration stages are mainly divided into three stages. The first one will be to run both business units under same root, which used to two different business entities to run parallel. In this stage, values are preserved. The next stage will be to consolidate operations and business processes. This second stage of integration is the phase where synergy values are starting to be realized. And the last stage will be to transform into a brand new organization, where synergies of value is created. According to Sherman and Rupert(2006) on banking post-merger integration, some efficiency benefits following bank mergers are not realized until four years after merger and execution of a proper post-merger integration is utmost important in creating synergies expected. Challenges will come during integration and it has got to be managed from integrating different operation processes to cultural disharmony in order to harvest the benefits of M&A.

2.2 Review of Related Studies

A common view of mergers and acquisitions is that they are stimulated by the firms' objectives to obtain more benefit from the merged firms compared to their total value if they were independent.

Baniya's (2016) thesis entitled "A study on the factors affecting Merger and Acquisition in Nepalese Banking Sector" aimed at finding out the factors affecting merger and acquisitions in Nepalese banking sector. The purpose of this research was to find out the factors that have their significant contribution in the merger and acquisition decision carried out in the context of Nepalese banking scenario.

Tamragundi and Devarajappa (2016) focused on the impact of mergers on the performance of banks which were merged between2004-2008. The CMIE data based at IIM Bangalore have been used for collection of relevant data. Various statistical tools like mean, Standard deviation, T-test and ANOVA have been used for analysing the impact of merger. The study found that the physical and financial performance of merged banks is significant but it is not clearly reflected in the share price. The study concluded that, merger is a useful strategy to increase profitability, liquidity and efficiency, but the overall growth and financial illness of the bank cannot be solved from mergers alone.

Duggal (2015), focused on post-merger performance of acquiring firms in Indian pharmaceutical industry. The researcher used various ratios like Current ratio, Quick ratio, Debt-Equity ratio, Return on Net worth, Interest turnover ratio, Debt equity ratio, Operating profit ratio etc., and statistical tools like T test. The study period covers from 2000 to 2006. The study observed that merger have significant impact on the performance as compared to pre-merger period but the impact is evident more in the immediate year after merger. Finally he concludes that there is a positive impact of merger announcement on the operating and financial performance in short-run but not in long run.

Singh (2015), this study was conducted on mergers in service sectors: post merger financial analysis of ICICI bank. This paper evaluates the performance of the ICICI bank, after buy the Sangli Bank in April 2007 and Bank of Rajasthan in May 2010.This study mainly focused on pre and post amalgamation performance was analyzed based on financial statements of ICICI bank from (2004- 2014) by using various financial ratios such as, net profit margin, ROA, ROE, ROI, return on advances, debt/equity ratio, current Ratio, quick ratio and EPS.T-test was applied to the various financial ratios for before and after merger data. The results show that,

out of total performance ratios of ICICI Bank half of ratios have significantly changed after mergers in both sample cases.

In one of the article explaining the merger and acquisition and Banks performance in Pakistan (Ahmad et. Al, 2015) considered 5 banks that are listed only in Karachi stock exchange limited. The objective was to check whether there is increment in banks performance after the merger and analyzed the performance through financial ratio analysis like liquidity ratio, profitability ratio and solvency ratio. He concluded that most of the banks have positive effect on the financial ratios to prove better performance after the merger but still many other factors need to be analyzed.

Adhikari's (2014) thesis entitled "Merger and Acquisition as an indispensible tool for Nepalese banking and financial institutions" set the main objective to explore the possible effects and impacts on the banking and financial institutions caused by merger and acquisitions since 2011 in Nepalese financial sector.

Barai and Mohanty, (2014) have argued that mergers and acquisitions are distinct strategies, because of the unique regulatory structure and equity ownership pattern that exists in India.

Thangavelu (2014) has studied the shift in structure is experienced especially in the operating performance after merger and acquisitions by studying 39 selected acquiring manufacturing firms in India.

Fakarudin (2014), this study was undertaken on effects of mergers and acquisitions on revenue efficiency and the potential determinants: evidence from Malaysian banks. This paper discusses on identifying the effects of regulators-guided mergers on production efficiency gains of Malaysian banks as measured by revenue efficiency ratio and capital gearing ratio etc. The paper also examines the potential bank-specific and macroeconomics determinants correlated with revenue efficiency. The study sample consisted of banks that were engaged in mergers during 2002-2009. This study results the revenue efficiency did not improve after the merger, meanwhile, size, market power and management quality were shown to be correlated with revenue efficiency of Malaysian banks.

The article titled "impact of merger and acquisition on the financial performance of west African banks" (Moctor, 2014) made a comparative analysis between the two groups of banks which have merged and which are not merged. The data were

secondary in nature and financial indicators like return on asset, return on equity and earnings per share were analyzed. The article pointed out negative effects in short term after merger however is likely to be positive in long run as the indicators were improving.

Javid (2013), this study was emphasized on impact of merger and acquisition on operating performance and shareholder wealth in Pakistan banking sector. The present paper investigated the impact of merger and acquisitions on operating performance and shareholder wealth in Pakistani banking sector. In this study has been covered data from 2007-2010, with both domestic and foreign banks which are operating in Pakistan. The present study showed that after the transaction the operating performance from the figures that the ratios of operating performance has decreased significantly which shows that the transaction doesn't have a positive relationship with the operating performance of the banks.

Mallikarjunappa and Panduranga (2013) examined the wealth effects of takeover announcements on target company shareholders for 227 sample companies, which received bids during 1998-2007. For analysis purpose they used models like AR, AAR's and CAAR's. The results indicate that takeovers in India create wealth for target companies. Finally the study concluded that they offer an opportunity to shareholders of target companies and general investors to make profits both in the period before and after the announcement of the takeover bid.

Yadav, Jain, (2012) have studied that M&A generate statistically significant abnormal returns on the announcement as well as higher post M&A returns for shareholders of the acquiring firms.

Mishra, Jaiswal (2012) have examined the impact of M&A on the export competitiveness of firms in the Indian manufacturing sector.

Sehgal (2012) has observed that while stock financed mergers are value creating, cash financed mergers seem to be value destroying in the short run.

Devarajappa (2012) studied motives of merger in Indian banking industry. It also compares pre and post-merger financial performance. For his study purpose he used the financial parameters like gross profit margin, net margin, return on capital employed, return on equity and debt-equity ratio and statistical tools like independent

t-test. The study covers a period of six years that is before 3 years and after 3 years from the period of merger. The results of the study suggested that after merger the financial performance of banks have increased.

Tiwari (2011), these studies was conducted on mergers of banks some issues and challenges us. This paper attempt to some important dimensions and issues in the post-merger regime of banking system in India. These issues may vary from financial restructuring to human resource to IT consolidation etc. This paper main objective is synergy operations and bringing financial strength. There are some issues, questions and challenges which need to be addressed in an inevitable environment of imminent reality of banking mergers in India and also this study recommends narasingham Committee and BASEL conventions have also propagated the need of mergers and consolidations of banking industry to bring synergic consequences in India.

Other studies in Merger and Acquisition in Indian banking sector (Goyal & Joshi 2011) examined the need for merger and acquisition in India and concluded that merger and acquisition is a strategic tool in creating benefits. The synergy hypothesis in merger and acquisition (Becher, 2000) suggests merger and acquisition for economic gain.

The article "merger and acquisition in Nigerian banking industry" (2011) evaluated the post-merger condition within Nigerian banks based on the secondary data sources mostly. The article pointed out the subsequent drawbacks in meeting the targeted objectives set before which includes Liquidity, capital adequacy and corporate governance. The article pointed out the factors like corruption, fraud and internal abuse responsible for ineffective merger and acquisition experience in Nigerian banking industry.

Sinha, Kaushik, Chaudhary, (2010) have found that M&A cases in India show a significant correlation between financial performance and the M&A deal, in the long run, and the acquiring firms were able to generate value.

In one of the study of merger and acquisition in Nigeria (comparative analysis of the impact of merger and acquisitions on financial efficiency of banks in Nigeria (Joshua, 2010) explained the better financial efficiency after the merger by studying 3 banks merger cases using convenience and judgmental sample selection method in Nigeria. He analyzed gross profit, net profit and net assets through secondary data by using

t-test method and found all these parameters were improved leading to financial efficiency.

One of the studies about the impact of Merger and Acquisition on employees and their unions in the European financial service sector (weber, 2000) explains the significant decline in employment in the European financial services sector in all member states. This is frequently not the case because Merger and Acquisition is also responsible in creating the job demands as well as measuring the performance of employees under different circumstances.

One of the studies in Merger and Acquisition in USA (Bank merger activity in the united states, 2004) examined the types, numbers, locations and the size of the merger and outlined that usually the purchase of relatively smaller organizations in capital, size and types were mostly favoured compared to that of others as well as the objective of merger was to create a huge structural changes impacting the overall industry status.

Ravenscraft and Scherer (1989) proposed that corporate mergers are motivated by reasons such as displacement of inefficient managers, achievement of economies of scale and scope in production, distribution and financing, enhancement of monopsony or monopoly power, exploitation of tax reduction opportunities, and construction of managerial empires.

Dutz (1989) argues that even though mergers are profitable for shareholders, they are socially undesirable and should be prohibited because they may result in rationalisation of capacity. Some studies such as Caves (1989) indicate that mergers are profitable activities and socially desirable, because they create value and are economically efficient. Sudarsanam et al (1996) argue that there are three sources of value creation in mergers: operational synergy, managerial synergy and financial synergy. Lev (1993) finds that financial synergy can be achieved in short term and long term goals. Short term financial synergies are, for example, price-earning effects, improved liquidity, and tax effects. The long term financial synergies include increased debt capacity, improved capital redeployment, and stabilised earnings. Lev also points out that motives for mergers are not only based on financial purposes, but also on such managerial motives as executive compensation, power needs, power growth, human capital and risk diversification.

Bradley, Desai and Kim (1983) find that mergers can generate an operating synergy resulting from efficient management, economies of scale, improved production techniques, the combination of complementary resources, increased market power and the redeployment of assets to more profitable uses.

2.3 Challenges and Problems in Post-Merger Integration

Integrating the firms is a process fraught with difficulty. Researchers suggest that integration is very challenging and have identified numerous problems that the acquirer faces when integrating (Haspeslagh and Jemison, 1991; Cartwright and Cooper, 1996; Marks and Mirvis, 1998; Schweiger and Goulet, 2000; Schweiger, 2002). The literature on integration is eclectic (Schweiger and Very, 2003). While most of the studies focused on the human issues (e.g. Risberg, 1999; Larsson and Risberg, 1998; Haspeslagh and Jemison, 1991; Hambrick and Cannella 1993), few studies have concentrated on acquisition integration issues (e.g. Schweiger and Goulet, 2000; Morosini et al., 1998; Very et al., 1997; Weber et al., 1996). Based on previous research, five major issues affecting to the integration process can be identified. Each of the issues is briefly described in the subsequent sub-sections:

a. Individual uncertainty and ambiguity Haspeslagh and Jemison (1991) stated "the immediate post acquisition is pregnant with expectations, questions and reservations, among the personnel and the managers of both the acquired and acquiring organisations." During this period some employees perceive threats while others perceive opportunities. Risberg (1999), and Larsson and Risberg (1998) make a distinction between two kinds of issues: uncertainly and ambiguity. Uncertainty occurs when employees feel a lack of information. Ambiguity is characterized by the inconsistency of information provided to the employees. More communication is itself not sufficient for resolving ambiguous situations; what prevails is the consistency and clarity of the future communication flows (Feldman, 1991).

Uncertainty and ambiguity explain why employees react to a merger announcement and to the inherent changes. They are concerned about their future in the combining organisation. Accordingly, these issues contribute to a loss of productivity; defection of competent executives, managers and employees; absenteeism; poor morale; safety problems; and resistance to change during the first months of the post-acquisition

period (Schweiger and DeNisi, 1991; Cartwright and Cooper, 1996; Marks and Mirvis, 1998). Subsequently, it contributes to value leakage and an inability to realize projected cash flows and synergies.

b. Organisational politics M&As often lead to a change in ownership for acquired firms, which leads to changes in their organisation and management practices (Schweiger and Very, 2003). Power bases are also likely to shift as authority structures change and sources of power (e.g. expertise) needed in the organisation change. As these happen instability is created, as employees perceive threats or opportunities; i.e. some people will perceive that they have "gained" whereas others will perceive that they have "lost".

These conditions are ideal antecedents to organisation politics – that is to say "those activities taken within organisations to acquire, develop, and use power and other resources to obtain one's preferred outcomes" (Pfeffer, 1980). Consequently, M&As can create an excellent context for political tactics like scapegoating, controlling information, networking or manipulating people. As Pfeffer and Salancik (1977) argued, the greater the organisational politics the greater the sub-optimization within organizations; thus, if too many people jockey for their own interests, the overall firm's performance is likely to decline.

Power and politics have rarely been the direct focus of cross border M&A research. However, two studies have focused on power and politics in the context of domestic M&As. The first is Schweiger, Ivancevich, Power (1987) who studied executive actions for managing human resources before and after a merger. They found that one of the greatest challenges for executives was to minimize warfare among employees and to avoid "playing favourites" especially in staffing decisions. In other words, effective managers were perceived as those who avoided or minimized political behaviour.

The second is research on the "theory of relative standing" which has been used to explain top-management behaviours (e.g. Hambrick and Cannella, 1993). This theory asserts that the status an employee feels for himself in a social setting is based on how he compares his status to others in a proximate social setting. According to Hambrick and Cannella (1993) "acquired executives are placed in a new social

setting in which comparisons to acquiring executives as well as comparisons to their prior situation are inevitable and salient". This line of research suggests that the loss of standing, and resulting loss of power and stature, can lead to the turnover of executives. When this happens there may be a loss of leadership talent need to drive the changes required to realize synergies and cash flows.

Finally, political behaviour during a merger can foster so much internal organizational competition that executives, managers and employees fail to attend to external competition and other important market and business issues (Haspeslagh and Jemison, 1991). Again, the net result can be unrealized synergies and cash flows as customers defect to aggressive competitors. In conclusion, political behaviour can lead to the loss of key people, the de-motivation of others needed to implement changes to realize synergies and cash flows.

c. Voluntary departure of key people Key people are those who are necessary for value preservation (e.g. relationships with key customers) or synergy realization (e.g. important technology knowledge). Their retention becomes critical to the success of an acquisition (Schweiger and Very, 2003).

2.4 Concluding Remarks

The history of merger and acquisition in the international market is very long, which has led to various studies examining the post-merger profitability, transaction cost analysis in merger and acquisition process and various other topics regarding the cultural clashes and many other aspects. Coming into the case of merger and acquisition activities in Nepalese banking sector the history is not so long or precisely saying it is in the starting phase resulting any study to assess the effectiveness of merger and acquisition activities in the performance of Nepalese Banking sector mainly in the areas of profitability, cost efficiency, liquidity and shareholder's wealth.

Earlier studies and researcher on the impact of mergers and acquisitions on shareholder's wealth are carried out as the apparent approach by taking the most common indicators in consideration. During the review of previous thesis, it is found that no researcher has been conducted by taking these sample companies, which the researcher has selected in this research.

So, it is believed that this study will fulfil the gap, which had been made by the earlier researcher. Researcher has taken sample from only the first class commercial banks. The impact and significance of merger on shareholder's wealth creation will be addressed in this study. Moreover, such a study would serve instrumental in exploring global best practices in merger of financial institutions and also uncover alternatives to merge.

Furthermore, it shows that there is very few research works conducted on this topic. This study will try to find out the effects of merger in terms of capital base, revenue and cost saving on shareholder's wealth creation. Therefore, it is necessary to test the validity of these studies and their applicability in our context.

Most of the above stated studies use statistical tools such as mean, standard deviation, covariance, etc. for analysis purpose. More than that, some few studies are concerned about financial indicators like EPS, ROA, ROE, P/E Ratio, Hypothesis of t-test etc. which are the most influencing factors for the MPS. So, this study is expected to be useful to various concerned persons or groups such as management, Shareholder's, depositors, creditors, investors, stock brokers, policy makers, researchers and so on.

CHAPTER III
Research Methodology

3.1 Introduction

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In other words, research methodology describes the methods and processes applied in the entire subject of the study. Research Methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done significantly. It is necessary for the researcher to know not only the research methods and techniques but also the methodology. Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, the mode, the research techniques, but they also need to know which of these methods or techniques are relevant and which are not and what would they mean and indicate and why.

The objective of study is to assess the effect of merger and acquisitions on the shareholder’s value in terms of pre M&A and post M&A analysis of selected banks. In order to reach and accomplish the objectives of the study, different activities are carried out and different stages are crossed during the study period. For this purpose the chapter aims to present and reflect the methods and techniques those are carried out and followed during the study period. The research methodology adopted for the present study is mentioned in this chapter which deals with research design, sources of data, data collection, processing and tabulating procedure and methodology.

3.2 Research Design

Research design is the conceptual structure within which research is conducted. In other words, a plan of study or blue- prints for study is called research design or research strategy. A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. It is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure. It facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible. Research design is a plan, structure and strategy to obtain the objectives of the study.

The study will use a descriptive research design because it seeks to explore the variables forming the study. According to Mugenda and Mugenda (2003), a descriptive study involves collecting data which can then be used to test hypothesis or to answer questions concerning the current state of the object of study. Descriptive research design will be used where banks performance was analysed before and after the merger to determine whether there was any effect on the shareholder's value. This research is based on secondary data and primary data analysis. Hence, the historical and descriptive research design has been used to conduct the study on focus on impact of mergers and acquisitions in shareholder's value.

3.3 Population and Sample

The Population refers to the industries of the same nature and its services and product in general. Thus, the total Commercial Banks constitutes the population of the data and the bank under study constitutes the sample for the study. So, from the 20 merged Commercial Banks operating in Nepal, Machhapuchchhre Bank and NIC Asia Bank have been selected as the sample for the study.

3.4 Sources of Data

Data are collected from two sources. They are Primary sources and Secondary sources. The data presented in this study are of secondary type. The secondary sources of data are those that have been used from published sources or used by someone previously. The annual reports of the concerned Bank are the major sources of data for the study. However, besides the annual reports of the subjected bank, the following sources of data have also been used in the course of the study.

- NRB reports and bulletins
- Various publications dealing in the subject matter of the study
- Various articles published in the Newspapers
- Periodic returns submitted by the Bank's Head Office to NRB
- The NEPSE reports, etc

Formal and informal talks with the concerned authorities of the bank were also helpful to obtain the additional information of the related problem.

3.5 Data Collection Procedures

In this study, secondary sources have been used. Various numerical data and information are collected as per the objective of the study. The relevant secondary data will be collected through the annual report of selected commercial bank, from the data bases of Nepal Rastra Bank (NRB), various reports and other studies like studies in Tribhuvan University central library, different journals, magazines, reports, Master degree thesis papers, website articles, Books and articles.

3.6 Tools for Data Analysis

Presentation and Analysis of the collected data is the core of the research work. The collected raw data are the first presented in systematic manner in tabular forms and are then analyzed by applying different financial and statistical tools to achieve the research objectives. Besides these, some graph charts and tables have been presented to analyze and interpret the findings of the study. The tools applied for analysis of data are:

3.6.1 Statistical Tools

Some important statistical tools are used to achieve the objectives of this study. In this study statistical tools such as mean, standard deviation, coefficient of variation, coefficient of correlation, and trend analysis have been used.

3.6.1.1 Mean

A mean is the average value or the sum of all the observations divided by the number of observations and it is denoted and given by the formula:

$$Mean(\overline{X}) = \frac{\Sigma X}{N}$$

Where, $\bar{X}$ = Mean of the values

N= Number of pairs of observations

3.6.1.2 Standard Deviation

The Standard deviation measures the absolute dispersion. It is said that higher the value of standard deviation the higher the variability and vice versa. Karl Pearson introduced the concept of standard deviation in 1823 and this is denoted by the small Greek letter "σ" which is read as sigma.

The formulas to calculate the standard deviation are given below:

$$S.D. = \sqrt{\frac{1}{N}\sum(X - \bar{X})^2}$$

3.6.1.3 Coefficient of Variation

The standard deviation calculated in the above formulas gives an absolute measure of dispersion. Hence, where the mean value of the variables is not equal, it is not appropriate to compare two pairs of variables based on standard deviation only. The coefficient of variation measures the relative measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability. The coefficient of variation (C.V.) is given by the following formula:

$$\text{Coefficient of Variation (C.V.)} = \frac{\text{Standard deviation}}{\text{Expected return}} \times 100$$

3.6.1.4 Test of Hypothesis

The trend of the ratio for period before and after merger was tested with the aid of paired sample t-test. The paired sample t-test is outlined as follows:

Null Hypothesis: $H_0 : \mu_1 = \mu_2$, i.e. there is no significant difference between two sample means $\overline{X_1}$ and $\overline{X_2}$

Alternative Hypothesis: $H_1 : \mu_1 \neq \mu_2$ i.e. there is significant difference between two sample means $\overline{X_1}$ and $\overline{X_2}$

Test statistics:

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2 p \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

where,

$\overline{X_1}$ = mean of first sample

$\overline{X_2}$= mean of second sample

s^2p = an unbiased estimate of common population variance

Degree of freedom = $n_{1+}n_2 - 2$

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance. Decision: If calculated t is less than or equal to tabulated value of t it fails in acceptance region and null hypothesis is accepted and if calculated t is greater than tabulated t, H_0 may be rejected of the adopted level of significance.

3.6.2 Financial Tools

Financial tools basically help to analyze the financial strength and weakness of a firm. A ratio is simply one number expressed in term of another and such it expresses the quantitative relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as coefficient. Logarithmic graph and break even chart are the graphic forms of expressing a ratio. Financial ratio is the mathematical relationship between two accounting figures. Ratio analysis is a part of the whole process of analysis of financial statements of any business or industrial concern especially to take output and credit decisions. Even though there are many ratios to analyze and interpret the financial statement only those ratios that are related to the investment operation of the bank are have been covered in this study. Different types of ratios have been used in this study.

3.6.2.1 Profitability Ratios

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. It shows the combined effect of liquidity, assets management and debt management on operating results. For better

performance, profitability ratios of firms should be higher. The followings are the major financial ratios used to measure the profitability of a firm.

1. Earnings per share (EPS): Earnings per share is the amount of a company's profit allocated to each outstanding share of a company's common stock, serving as an indicator of the company's financial health. In other words, earning per share is the portion of a company's net income that would be earned per share if all the profits were paid out to its shareholders. EPS measures the profit earned to the equity stakeholders on per share basis. It is calculated by dividing the net profit by number of outstanding shares. However, EPS does not show how much to be paid to the shareholder's as a dividend nor how much of the net profit will be allocated as a retained earnings. It gives an overall figure of net earnings belong to the ordinary shareholder's on per share basis.

$$\text{EPS} = \frac{\text{Net profit Available to equity shareholders}}{\text{Number of Ordinary share outstanding}}$$

2. Return on Equity (ROE): ROE measures the rate of profit generated by utilizing the shareholder's funds. It is calculated by dividing the profit after taxes by average shareholder's equity. The ratio show how effectively the shareholder's investment has been utilized by the firm.

$$\text{ROE} = \frac{\text{Net Profit After Taxes}}{\text{Average Total Shareholder'sequity}}$$

3. Return on Assets (ROA): ROA examines the overall effectiveness of management in generating profit with the use of available assets in the firm. It is calculated by dividing the net income by total assets.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

4. Price Earnings Ratio (P/E Ratio): The price-to-earnings ratio or P/E is one of the most widely-used stock analysis tools used by investors and analysts for determining stock valuation. The price earnings ratio shows how much inventors are willing to pay per rupees of reported profit. Other things held constant, P/E Ratios are higher for firms with strong growth prospects, but lower for riskier and no growth or slow growth firms. This ratio is calculated dividing the market price per share by earning per share. The P/E ratio helps investors determine the market value of a stock as compared to the company's earnings. In short, the P/E ratio shows what the market is willing to pay today for a stock based on its past or future earnings.

$$\text{P/E Ratio} = \frac{\text{Market price per share}}{\text{Earning per share}}$$

CHAPTER IV
DATA PRESENTATION AND ANALYSIS

This chapter deals with the data presentation, analysis and interpretation following the research methodology presented in the third chapter. Data presentation and analysis are the central steps of the study. The main purpose of this chapter is to analyse and elucidate the collected data to achieve the objective of the study following the conversion of unprocessed data to an understandable presentation. This chapter deals with the main body of the study.

4.1 Data Presentation Analysis

Data Presentation is the method of exhibiting them into tables and figures. Data analysis summarizes the collected data and its interpretation attempts to find the meaning and implication of results of data analysis. Analysis is not complete without interpretation and interpretation cannot proceed without analysis. In this course of analysis, data gathered from various sources have been inserted in the tabular form and shown in diagram form. The data has been analyzed by using financial and statistical tools. The results of computation have also been summarized in appropriate tables. The samples of computation of each model have been included in annexes. The data collected from the procedure as mentioned in chapter three were used for analysis and presentation. The analysis of data was performed with the help of SPSS and MS- Excel.

4.1.1 Analysis of EPS of Sample Banks

EPS measures the profit earned to the equity stakeholders on per share basis. EPS does not show how much to be paid to the shareholder's as a dividend nor how much of the net profit will be allocated as a retained earnings. It gives an overall figure of net earnings belong to the ordinary shareholder's on per share basis.

It can be calculated as under:

$$\text{EPS} = \frac{\text{Net profit Available to equity shareholders}}{\text{Number of Ordinary share outstanding}}$$

The EPS of the sample banks under the study are tabulated as follows:

Table 4.1

EPS of Sample Banks

(Rs. in millions)

Fiscal Year	MBL	NIC Asia
	Pre-Merger	
2010/11	0.55	37.8
2011/12	1.54	29.87
Total	**2.09**	**67.67**
% Change	**180**	**20.97**
Mean	**10.45**	**33.84**
SD	**0.5**	**3.97**
CV (%)	**47.84**	**11.73**
	Post-Merger	
2012/13	5.98	47.41
2013/14	18.34	35.98
2014/15	22.2	25.59
2015/16	25.04	28.31
2016/17	24	23.06
Total	**95.56**	**160.35**
% Change	**(301.33)**	**51.36**
Mean	**19.12**	**32.1**
SD	**6.95**	**8.8**
CV (%)	**36.35**	**27.41**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.1 represents the pre and post-merger analysis of earning per share of selected banks. The average EPS for two commercial banks over the two year before merger and five year after merger was positive.

In the context of pre-merger performance of earning per share of Machhapuchchhre bank showed increasing trend whereas for NIC Asia bank showed decreasing trend. The total earning per share of MBL stood at 2.09 and NIC Asia stood at 67.7. Further overall the percentage change to earning per share of both selected banks during the period of study was 180 percent and (20.97) percent respectively. In the context of post-merger analysis of earning per share of both selected banks, MBL showed increasing trend whereas NIC Asia showed decreasing trend. The highest Earning per share of MBL was found during 2015/16 and the amount stood at 25.04 whereas

highest earning per share for NIC Asia was found during 2012/13 and the amount stood at 47.41 As against the lowest earning per share of MBL was found during 2012/13 and amount stood at 5.98 and for NIC Asia the lowest earning per share was found during 2016/17 and amount stood at 23.06. The total earning per share of MBL stood at 95.56 and NIC Asia stood at 160.36.

In the year of merger, MBL registered slightly improved EPS compared to the year before merger and after the merger NIC Asia bank also increase tremendously and in the second year of merger EPS dropped drastically and in decreasing trend.

From the above analysis, it is clear that post-merger analysis of earning per share was better and good compared to the pre-merger of selected banks. To conclude, MBL showed constantly increasing trend but NIC Asia bank showed both increasing and decreasing trend.

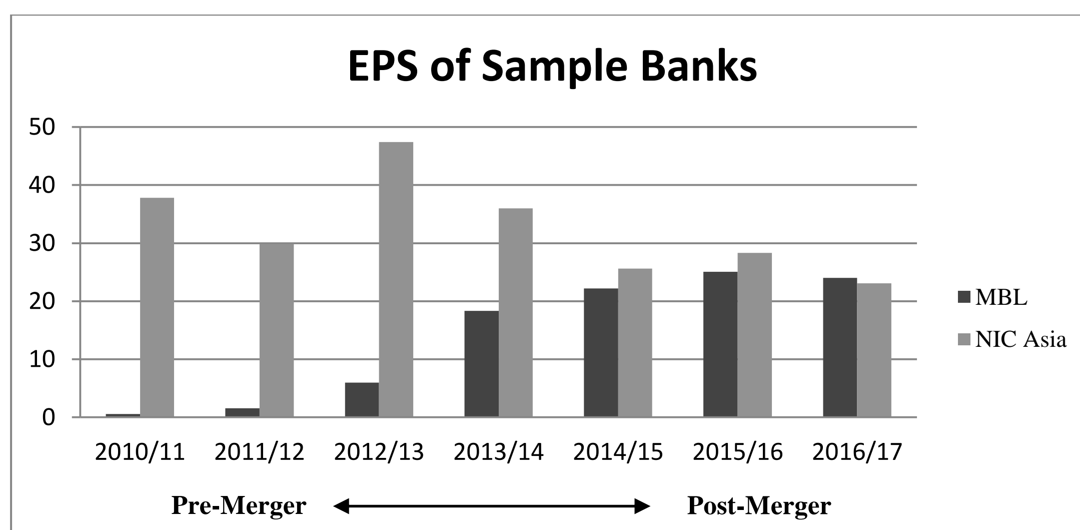

Figure 4.1 EPS of the Sample Banks Compared

Figure 4.1 shows the pre-merger and post-merger analysis of EPS of selected banks from 2010/11 to 2016/17. As the figure suggests, MBL has highest EPS at 2015/16 and lowest EPS at 2010/11 whereas NIC Asia has highest EPS at 2012/13 and lowest EPS at 2016/17. From the figure, it can be seen that post-merger period is better than pre-merger period for both selected banks where MBL is continuously increasing but NIC Asia is increases after the merger and drop don slightly after one year of merger

period. Therefore, the financial performance of both selected banks increases in the post-merger period which has the positive impact on shareholder's wealth.

4.1.2 Analysis of ROA of Sample banks

ROA examines the overall effectiveness of management in generating profit with the use of available assets in the firm. It is calculated by dividing the net income by total assets. In basic terms, ROA tells us what earnings were generated from assets.

The ROA helps to gives investors an idea of how effective the company is in converting the money it invests into net income. It can be calculated as:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Generally, higher ROA is better because the company is earning more money on less investment. So, it creates positive attitude towards the shareholders for creating wealth satisfaction. The return on asset of the selected banks is tabulated as follows:

Table 4.2

ROA of Sample Banks

(Rs. in millions)

FY	MBL	NIC Asia
	Pre-Merger	
2010/11	0.05	2.34
2011/12	0.16	1.64
Total	**0.21**	**3.98**
% Change	**(220)**	**29.91**
Mean	**0.11**	**1.99**
SD	**0.05**	**0.35**
CV (%)	**45.5**	**17.59**
	Post-Merger	
2012/13	0.49	1.78
2013/14	1.12	1.71
2014/15	1.26	1.21
2015/16	1.51	1.51
2016/17	1.89	1.64
Total	**6.27**	**7.85**
% Change	**(285.71)**	**7.87**
Mean	**1.25**	**1.57**
SD	**0.46**	**0.21**
CV (%)	**36.8**	**13.38**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.2 represents the pre-merger and post-merger analysis of Return on Assets of selected banks from the year 2010/11 to 2016/17.

In the context of pre-merger analysis of MBL, the highest Return on Assets stood at 0.16 in 2011/12 and for NIC Asia highest Return on Assets stood at 2.34 in 2010/11. The total ROA of MBL and NIC Asia was 0.21 and 3.98 respectively. In the context of post-merger analysis of ROA of MBL and NIC Asia bank, the highest ROA of MBL and NIC Asia stood at 1.89 in 2016/17 and 1.78 in 2012/13. Mean statistics of MBL and NIC Asia reveals 0.11 and 1.99 for pre-merger while 1.25 and 1.57 for post-merger. Standard deviation of MBL and NIC Asia bank was recorded 0.1 and 0.35 for pre-merger while 0.46 and 0.2 for post-merger during the period of study.

In the year of merger, MBL registered slightly improved ROA compared to the year before merger and after the merger NIC Asia bank also increase tremendously and in the second year of merger ROA dropped drastically and in decreasing trend.

From the above analysis, it is clear that post-merger analysis of return on asset was better and good compared to the pre-merger of sample banks. To be concluded, MBL showed constantly increasing trend but NIC Asia bank showed both increasing and decreasing trend. Therefore, it helps to creates positive attitude towards the shareholders for creating wealth satisfaction.

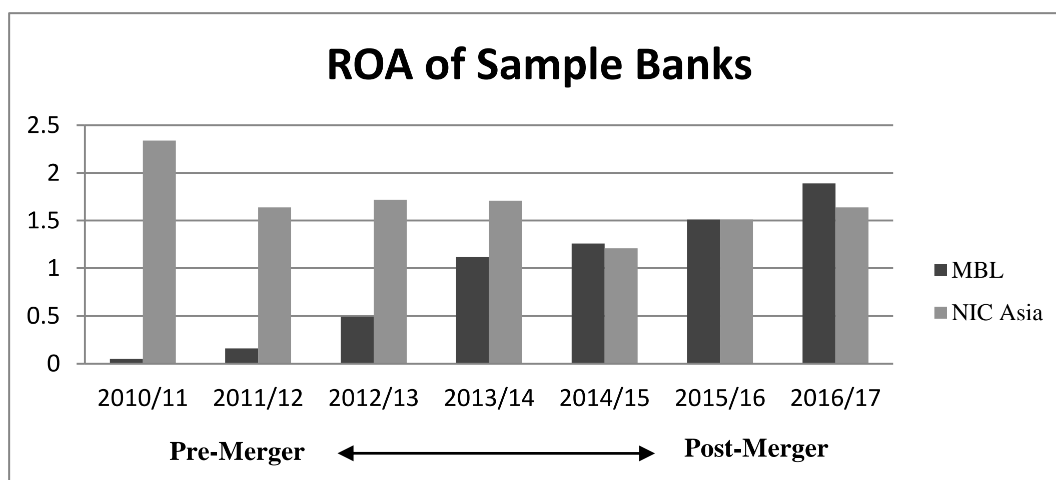

Figure 4.2 ROA of Sample Banks Compared

Figure 4.2 shows the pre-merger and post-merger analysis of ROA of selected banks from 2010/11 to 2016/17. If we give glance in above figure, it can easily be known that the ROA of Machhapuchchhre bank is higher in 2016/17 and lower in 2010/11.

As well as ROA of NIC Asia is higher in 2012/13 and lower in 2014/15. From the figure, it can be shown that Machhapuchchhre bank is in increasing trend and become higher than NIC Asia in 2016/17.

It clearly shows that both sample banks have positive result after the merger period. MBL is in increasing trend after the merger of banks where as NIC Asia bank is increases after the merger and slightly decreases after one year of merger period and again decreases and fourth year after merger period it slightly increases. Thus, ROA of both sample banks helps to create positive impact for shareholders for wealth maximization.

4.1.3 Analysis of ROE of Sample Banks

ROE measures the rate of profit generated by utilizing the shareholder's funds. A company can only create shareholder value, economic profits, if the ROE is greater than its cost of equity capital.

Return on equity may be calculated by diving net income by average shareholders' equity. The return on equity of the sample banks are tabulated as follows:

Table 4.3

ROE of Selected Banks

(Rs. in millions)

FY	MBL	NIC Asia
	Pre-Merger	
2010/11	0.5	28.09
2011/12	5.22	19
Total	**5.72**	**47.09**
% Change	**(944)**	**32.36**
Mean	**2.86**	**23.55**
SD	**2.36**	**4.55**
CV (%)	**82.52**	**19.32**
	Post-Merger	
2012/13	5.31	14.63
2013/14	14.05	15.93
2014/15	16.15	13.05
2015/16	16.82	16.5
2016/17	15.86	16.84
Total	**68.19**	**76.95**
% Change	**(198.6)**	**(15.11)**
Mean	**13.63**	**15.4**
SD	**4.26**	**1.39**
CV (%)	**31.25**	**99.03**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.3 represents pre and post-merger analysis of Return on Equity of selected banks. In the context of pre-merger performance, the ROE of MBL stood at 5.72and NIC Asia stood at 47.09 respectively. The highest pre-merger performance of MBL was recorded 5.22 in the year 2011/12 whereas the highest pre-merger of NIC Asia was recorded 28.09 in the year 2010/11. Further the post-merger performance, the highest market value per share of MBL was recorded 16.82 in the year 2015/16 and the highest market value per share of NIC Asia was recorded 16.84 in the year 2016/17.

Mean statistics of MBL and NIC Asia reveals 2.86 and 23.55 for pre-merger while 13.63 and 15.39 for post-merger. Standard deviation of MBL and NIC Asia bank was recorded 2.36 and 4.5 for pre-merger while 4.2 and 1.4 for post-merger during the period of study.

In the year of merger, MBL registered slightly improved ROE compared to the year before merger and after the merger NIC Asia bank drop down drastically and in the second year of merger ROE increases slightly and again decreases but increase in 2016/17.

From the above analysis, it is clear that post-merger analysis of return on equity was better and good compared to the pre-merger of sample banks. To be concluded, MBL showed constantly increasing trend but NIC Asia bank showed both increasing and decreasing trend. Therefore, it helps to creates positive results towards the shareholders for creating wealth satisfaction.

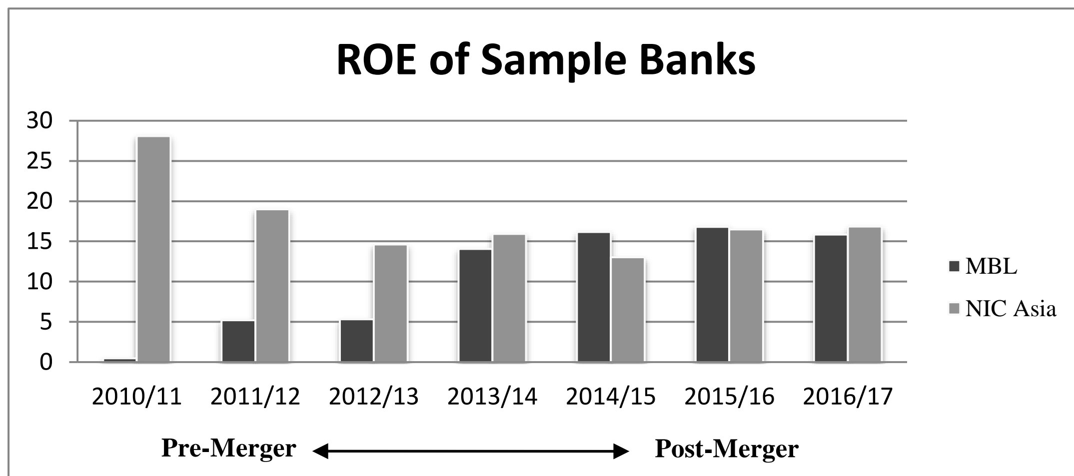

Figure 4.3 ROE of Selected Banks Compared

Figure 4.3 indicates pre and post-merger analysis of Return on Equity of selected banks from 2010/11 to 2016/17 respectively. From the figure, it can be seen that ROE of MBL is in consistently increasing trend in all year after the merger compared to the NIC Asia bank. The highest ROE of MBL is in 2015/16 as well as the highest MPS of NIC Asia bank is in 2016/17 after the merger of the bank. NIC Asia shows a relatively consistent trend in ROE with regular increase and decrease during the study period.

It clearly shows that both sample banks have positive result after the merger period. MBL is in increasing trend after the merger of banks where as NIC Asia bank is drop down after the merger and slightly increases after one year of merger period and again decreases and fourth year after merger period it starts to increase. Therefore, the ROE of both sample banks looks better in order to generate profit of shareholders.

4.1.4 Analysis of MPS of Sample Banks

Market Value of Share is one of the variables which is affected by the earning per share of firm. So, the MPS is that value of stock, which can be obtained by a firm from the market. If the EPS are high, the MPS will also be higher.

The MPS of the sample banks under the study are tabulated as follows:

Table 4.4

MPS of Selected Banks

(Rs. in millions)

FY	MBL	NIC Asia
Pre-Merger		
2010/11	133	520
2011/12	107	468
Total	**240**	**988**
% Change	**19.54**	**10**
Mean	**120**	**494**
SD	**13**	**26**
CV (%)	**10**	**5.26**
Post-Merger		
2012/13	203	554
2013/14	576	970
2014/15	564	617
2015/16	680	798
2016/17	360	445
Total	**2383**	**3384**
% Change	**(77.34)**	**19.67**
Mean	**476.6**	**676.8**
SD	**171.6**	**186.03**
CV (%)	**36.01**	**27.48**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.4 indicates pre-merger and post-merger analysis of market value per share of selected banks. In the context of pre-merger performance, the total market value per share of MBL stood at 240 and NIC Asia stood at 988 respectively. The highest pre-merger performance of MBL was recorded 133 in the year 2010/11 whereas the highest pre-merger of NIC Asia was recorded 520 in the year 2010/11. Further the post-merger performance, the highest market value per share of MBL was recorded 680 in the year 2015/16 and the highest market value per share of NIC Asia was recorded 970 in the year 2013/14. To be concluded that post-merger was better than pre-merger for both the selected banks.

Mean statistics of MBL and NIC Asia reveals120 and 494 for pre-merger while 476.6 and 676.8 for post-merger. Standard deviation of MBL and NIC Asia bank was recorded 13 and 26 for pre-merger while 171.6 and 186.1for post-merger during the period of study.

In the year of merger, MBL registered slightly improved MPS compared to the year before merger and after the merger NIC Asia bank increases and in the second year of merger MPS increases drastically and starts to decline but again increase.

From the above analysis, it is concluded that the financial performance of MBL and NIC Asia bank is better after the merger. MBL is continuously increasing after merger whereas NIC Asia is increasing and decreasing trend. There is positive result for shareholder in order to maximize wealth.

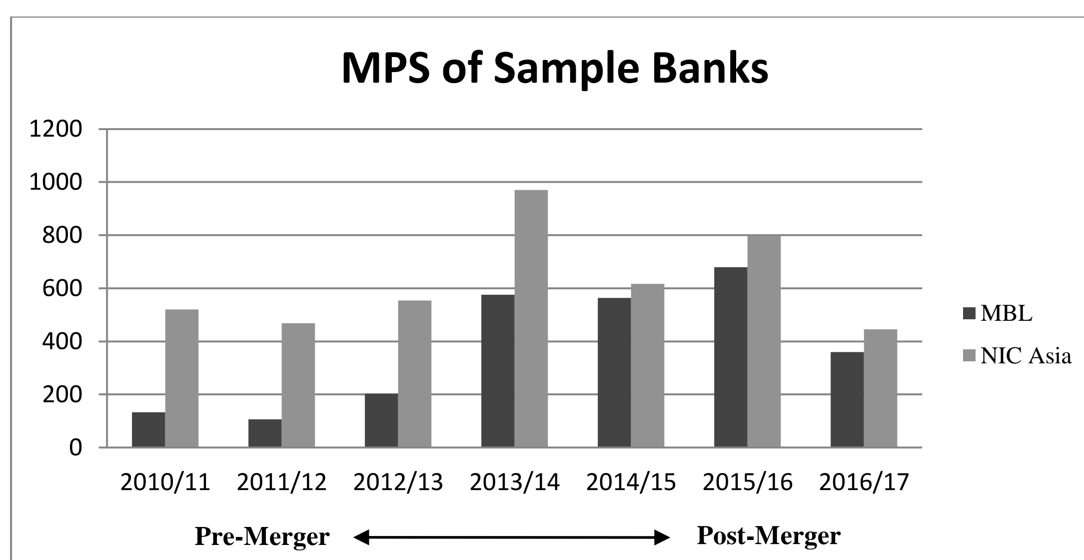

Figure 4.4: MPS of Selected Banks Compared

Figure 4.4 shows the MPS of selected banks from the fiscal year 2010/11 to 2016/17. From the figure, it can be seen that MPS of MBL is in consistently increasing trend in all year after the merger compared to the NIC Asia bank. The highest MPS of MBL is in 2015/16 as well as the highest MPS of NIC Asia bank is in 2013/14 after the merger of the bank. NIC Asia shows a relatively consistent trend in MPS with regular increase and decrease during the study period.

It clearly shows that both sample banks have positive result after the merger period. MBL is in increasing trend after the merger of banks where as NIC Asia bank is increases after the merger and drastically increase after one year of merger period and again decreases and fourth year after merger period it slightly increases. Thus, MPS of both sample banks helps to create positive impact for shareholders for wealth maximization.

4.1.5 Analysis of P/E Ratio of Sample Banks

The price-earnings ratio (P/E ratio) is the ratio for valuing a company that measures its current share price relative to its per-share earnings. To calculate the P/E ratio, the EPS must be known. In general, a high P/E suggests that investors are expecting higher earnings growth in the future. A low P/E can indicate either that a company may currently be undervalued.

The P/E ratios of selected banks under the study are tabulated below:

Table 4.5

P/E Ratio of Selected Banks

(Rs. in millions)

FY	MBL	NIC Asia
	Pre-Merger	
2010/11	242.54	13.76
2011/12	69.41	15.67
Total	**311.95**	**29.43**
% Change	**71.38**	**(13.88)**
Mean	**155.97**	**14.72**
SD	**86.57**	**0.95**
CV (%)	**55.5**	**6.45**
	Post-Merger	
2012/13	33.96	11.69
2013/14	31.4	26.96
2014/15	25.4	24.11
2015/16	27.15	28.19
2016/17	15	19.3
Total	**132.11**	**110.25**
% Change	**55.83**	**(65.1)**
Mean	**26.42**	**22.05**
SD	**6.36**	**6.02**
CV (%)	**24.07**	**27.3**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.5 indicates pre-merger and post-merger analysis of price earnings ratio of selected banks. In the context of pre-merger performance, the price earnings ratio of MBL stood at 311.95 and NIC Asia stood at 29.43 respectively. The highest pre-merger performance of MBL was recorded 242.54 in the year 2010/11 whereas the highest pre-merger of NIC Asia was recorded 15.67 in the year 2011/12. Further the post-merger performance, the highest price-earnings ratio of MBL was recorded 33.96 in the year 2012/13 and the highest price-earnings ratio of NIC Asia was

recorded 28.19 in the year 2015/16. To be concluded that post-merger was better than pre-merger for NIC Asia bank but pre-merger is better than post-merger of MBL during the study period.

Mean statistics of MBL and NIC Asia reveals155.97 and 14.72 for pre-merger while 26.42 and 22.05 for post-merger. Standard deviation of MBL and NIC Asia bank was recorded 86.57 and 0.95 for pre-merger while 6.36 and 6.2 for post-merger during the period of study.

In the year of merger, MBL registered drastically drop down P/E ratio compared to the year before merger and after the merger NIC Asia bank also slightly decreases and in the second year of merger MPS increases drastically and starts to decline but again increase.

From the above analysis, it is concluded that the financial performance of MBL is better before merger and NIC Asia bank is better after the merger. MBL is continuously decreasing after merger whereas NIC Asia is increasing and decreasing trend.

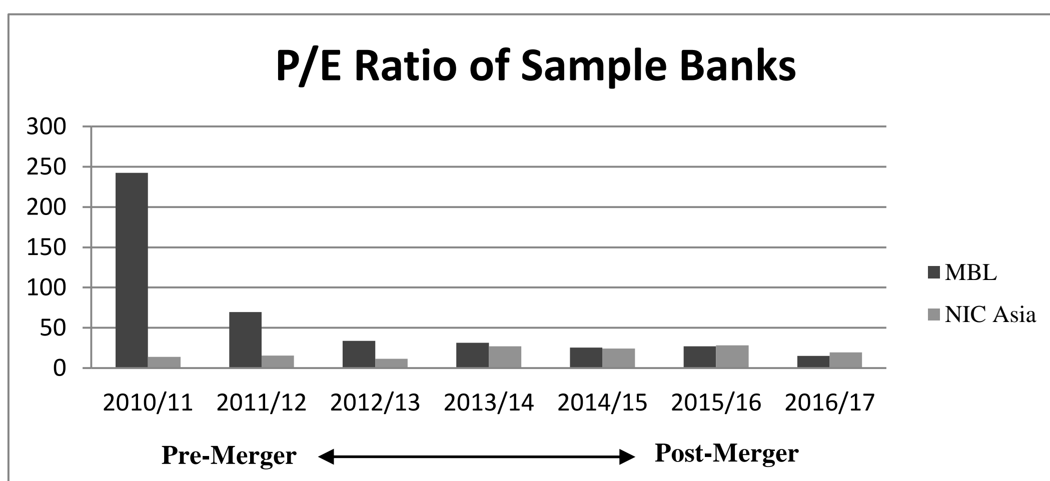

Figure 4.5 P/E Ratio of Selected Banks Compared

Figure 4.5 shows the pre and post-merger analysis of P/E ratio of Machhapuchchhre bank and NIC Asia bank from the fiscal year 2010/11 to 2016/17. As shown in figure, P/E ratio of MBL is decreasing trend. The highest P/E ratio of MBL is 242.54 in fiscal year 2010/11 and lowest P/E ratio of MBL is 15 in fiscal year 2016/17. NIC

Asia bank is increases in 2015/16 and decreases in fiscal year 2012/13; it shows that NIC Asia is both increasing and decreasing trend during the study period.

It clearly shows that NIC Asia bank has positive result after the merger period but MBL is better before the merger period. MBL is decreasing trend after the merger of banks whereas NIC Asia bank is increases after the merger and drastically increase after one year of merger period. Thus, P/E ratio of both NIC Asia bank is more better than MBL in order to create shareholders wealth.

4.1.6 Analysis of Capital Adequacy Ratio

Capital Adequacy Ratio is the ratio of a bank's capital to its risk. It is a measure of a bank's capital. This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world. It is calculate as:

Table 4.6

Capital Adequacy Ratio of Selected Banks

(Rs. in millions)

FY	MBL	NIC Asia
	Pre-Merger	
2010/11	10.85	12.89
2011/12	15.04	11.01
Total	**23.9**	**23.9**
% Change	**(38.62)**	**14.58**
Mean	**12.95**	**11.95**
SD	**2.1**	**0.94**
CV (%)	**16.21**	**7.86**
	Post-Merger	
2012/13	12.54	13.17
2013/14	10.63	14.05
2014/15	12.24	12.49
2015/16	12.36	12.44
2016/17	16.82	13.83
Total	**64.59**	**65.98**
% Change	**(34.13)**	**(5.01)**
Mean	**12.92**	**13.19**
SD	**2.1**	**0.66**
CV (%)	**16.25**	**5.01**

Note: From Annual Report of MBL & NIC Asia (2010-17)

Table 4.6 indicates the pre-merger and post-merger analysis of Capital Adequacy Ratio of selected banks from the year 2010/11 to 2016/17. The maximum capital adequacy ratio in pre-merger of MBL and NIC Asia was 15.04 in 2011/12 and 12.89

in 2010/11 compared to 16.82 in 2016/17 and 14.05 in 2013/14 in post-merger. The total capital adequacy ratio in pre-merger of MBL and NIC Asia bank was 25.89 and 23.9 whereas 65.6 and 65.9 in post-merger period. Mean statistics of MBL and NIC Asia bank was recorded 12.95 and 11.95 for pre-merger while 12.9 and 13.2 for post-merger period. Standard deviation was recorded 201 and 0.94 for pre-merger while 2.06 and 0.66 for post-merger during the study period.

Mean statistics of MBL and NIC Asia reveals12.95 and 11.95 for pre-merger while 12.92 and 13.19 for post-merger. Standard deviation of MBL and NIC Asia bank was recorded 2.1 and 0.94 for pre-merger while 2.1 and 0.66 for post-merger during the period of study.

In the year of merger, MBL registered drastically drop down capital adequacy ratio and after the merger NIC Asia bank also slightly increases and in the second year of merger capital adequacy ratio slightly increases and starts to decline.

From the above analysis, it is concluded that the financial performance of MBL and NIC Asia is better after the merger.

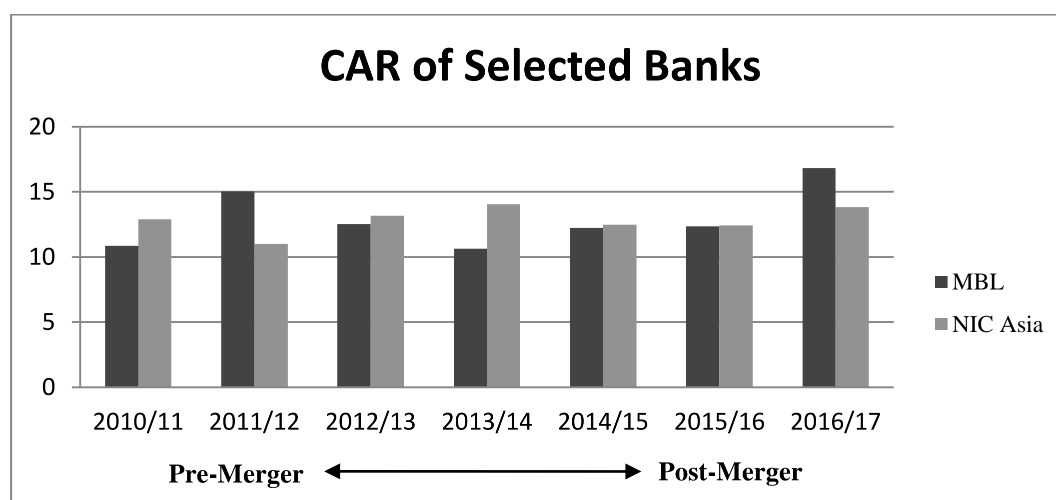

Figure 4.6 Capital Adequacy Ratios of Selected Banks Compared

Figure 4.6 shows the pre and post-merger analysis of capital adequacy ratio of MBL and NIC Asia bank. Figure reveals that post-merger performance was better than pre-merger performance of both selected banks.

It clearly shows that both MBL and NIC Asia bank have positive result after the merger period. MBL is decreasing trend after the merger of banks but increase at

highest level at 2016/17 whereas NIC Asia bank is increases after the merger and slightly increase after one year of merger period. Thus, capital adequacy ratio of MBL and NIC Asia bank is much better after the merger period which helps to create a positive result for shareholders.

4.2 Analysis of Sample t-test of Selected Banks

A statistically significant t-test result is one in which a difference between two groups is unlikely to have occurred because the sample happened to be atypical. Statistical significance is determined by the size of the difference between the group averages, the sample size, and the standard deviations of the groups. Statistical hypothesis testing is used to determine whether the result of a data set is statistically significant. The lower the significance level, the more confident can be in replicating the results. Significance levels most commonly used are the .05 and .01 levels. Paired sample t-test is used in between the 'before-after' or pre and post' studies, or when the samples are the matched pairs or when it is a case-control studies. To examine whether there is a significant difference in the pre and post-merger financial performance of each of the acquiring commercial banks for two years before and five years after the year of merger, paired t-test was applied on all the ratios as a test of significance at significance level at 0.05.

4.2.1 Analysis of Sample t-test of MBL

T test is employed to see whether the difference in the performance of these ratios between the pre -merger and post-merger period is significant or not. To examine whether there is a significant difference in the pre and post-merger financial performance of Machhapuchchhre bank for two years before and five years after the year of merger, paired t-test was applied on all the ratios as a test of significance at significance level at 0.05. It can be further explained from the table below:

Table 4.7

Analysis of Sample t-test of MBL

Performance Indicators		Mean	SD	Mean Difference	t- value	Remarks
EPS	Pre-Merger	1.05	0.5	18.07	-3.1	**Reject H_0**
	Post-Merger	19.12	6.95			
ROA	Pre-Merger	0.11	0.05	1.14	-2.1	**Accept H_0**
	Post-Merger	1.25	0.46			
ROE	Pre-Merger	2.86	2.36	10.77	-3.34	**Reject H_0**
	Post-Merger	13.63	4.26			
MPS	Pre-Merger	120	13	356.6	2.93	**Reject H_0**
	Post-Merger	476.6	171.6			
P/E Ratio	Pre-Merger	155.97	86.5	129.5	3.32	**Reject H_0**
	Post-Merger	26.42	6.36			
CAR	Pre-Merger	12.95	2.1	0.05	0.01	**Accept H_0**
	Post-Merger	12.9	2.1			

Note: Calculations based on Annual Reports of Machhapuchchhre Bank

Table 4.7 representing the overall ratio of the Machhapuchchhre bank in the pre and post-merger period, it is found that out of the six ratios used to determine the performance of the banks, i.e. Earnings per share, Return on Asset, Return on Equity, Market value per share, Capital Adequacy Ratio, Price earnings ratio of the acquiring banks is being observed.

The t calculated value for EPS is greater than t tabulated two tail value at 5% significance level indicating that there is a significance difference in their performance during the pre and post -merger periods, therefore null hypothesis is rejected. In the context of ROA, the calculated value of t for ROA is less than tabulated value of t at 5% significance level indicating that there is no significance difference between the performance during pre and post- merger periods, therefore

null hypothesis is accepted. In the context of ROE, the t calculated value is greater than t tabulated two tail value at 5% significance level indicating that there is a significance difference in their performance during the pre and post-merger periods, therefore null hypothesis is rejected. Similarly, the t calculated value for MPS is also greater than t tabulated value indicates that there is a significance difference between pre and post-merger performance of bank during the study period, therefore null hypothesis is rejected. In the context of CAR, the calculated value of t for CAR is less than tabulated value of t at 5% significance level indicating that there is no significance difference between the performance during pre and post- merger periods, therefore null hypothesis is accepted and in the context of P/E ratio the t calculated value is greater than t tabulated two tail value at 5% significance level indicating that there is a significance difference in their performance during the pre and post -merger periods, therefore null hypothesis is rejected.

From the above analysis, it is found that there is significant difference in EPS, ROE, MPS and P/E ratio which indicates that the acquiring banks are able to create additional revenues after consolidation that could accrue to the shareholders as increased equity. The return on asset and capital adequacy ratio does not show any significant difference in pre-merger and post-merger performance which reflects the fact that the acquiring bank is not able to promote stability and efficiency of bank.

Thus, the MBL should take necessary steps to enhance its earnings ability so that the consolidation strategy that they resorted to can prove beneficial for the bank and shareholder.

4.2.2 Analysis of Sample t-test of NIC Asia bank

To examine whether there is a significant difference in the pre and post-merger financial performance of NIC Asia bank for two years before and five years after the year of merger, paired t-test was applied on all the ratios as a test of significance at significance level at 0.05. It can be further explained from the table below:

Table 4.8

Analysis of Sample t-test of NIC Asia Bank

Performance Indicators		Mean	SD	Mean Difference	t-value	Remarks
EPS	Pre-Merger	33.84	3.97	1.77	0.27	**Accept H_0**
	Post-Merger	32.07	8.8			
ROA	Pre-Merger	1.99	0.35	0.42	0.85	**Accept H_0**
	Post-Merger	1.57	0.2			
ROE	Pre-Merger	23.5	4.5	8.11	3.5	**Reject H_0**
	Post-Merger	15.39	1.39			
MPS	Pre-Merger	494	26	182.8	-1.38	**Accept H_0**
	Post-Merger	676.8	186.1			
P/E Ratio	Pre-Merger	14.7	0.95	7.35	-1.61	**Accept H_0**
	Post-Merger	22.05	6.02			
CAR	Pre-Merger	11.95	0.94	1.25	-1.7	**Accept H_0**
	Post-Merger	13.2	0.66			

Note: Calculations based on Annual Reports of NIC Asia Bank

The test statistics from the table 4.8 reveals that significant difference exists between Pre and Post-merger performance of NIC Asia bank.

Out of the six indicators are used for analysis of t- test of sample banks. They are earning per share, return on asset, return on equity, market value per share, capital adequacy ratio and price earnings ratio.

The t calculated value for EPS is less than t tabulated two tail value at 5% significance level indicating that there is no significance difference in their performance during the pre and post -merger periods, therefore null hypothesis is accepted. In the context of ROA, the calculated value of t for ROA is less than tabulated value of t at 5% significance level indicating that there is no significance difference between the performance during pre and post- merger periods, therefore

null hypothesis is accepted. . In the context of ROE, the t calculated value is greater than t tabulated two tail value at 5% significance level indicating that there is a significance difference in their performance during the pre and post-merger periods, therefore null hypothesis is rejected. Similarly, the t calculated value for MPS is also less than t tabulated value indicates that there is no significance difference between pre and post-merger performance of bank during the study period, therefore null hypothesis is accepted. In the context of CAR and P/E ratio, the calculated value of t for CAR and P/E ratio is less than tabulated value of t at 5% significance level indicating that there is no significance difference between the performance during pre and post- merger periods, therefore null hypothesis is accepted.

From the above analysis, it is found that there exists significant difference only in the return on equity of the acquiring banks in the pre and post merger period. The earning per share, return on assets, market value per share, capital adequacy ratio as well as price earnings ratio does not show significant difference in pre-merger and post-merger period which results the fact that NIC Asia bank failed to increase earning, financial stability of bank. Therefore, NIC Asia bank should take necessary steps to enhance its earnings ability so that the consolidation strategy that they resorted to can prove beneficial for the bank and shareholder.

4.3 Major Findings

The major findings of the study from the analysis of secondary data are as follows:

1. In the context of pre-merger and post-merger performance of analysis of earning per share of NIC Asia stood higher than MBL during the period of the study. The EPS of MBL is in increasing trend during the two years of pre-merger and five years of post-merger of the study period but EPS of NIC Asia bank is not increasing trend whereas it is in fluctuating trend.
2. Further the return on assets of MBL the overall pre-merger and post-merger performance was recorded 0.21 times and 6.27 times as well as the return on assets of NIC Asia bank was recorded 3.98 times and 7.85 times respectively. The highest ROA of MBL was 1.89 times in the fiscal year 2016/17 after the merger and lowest was 0.05 times in the fiscal year 2010/11before the merger and the highest ROA of NIC Asia was 2.34 times in the fiscal year

2010/11before the merger and the lowest was 13.05 in 2014/15 after the merger during the study period.

3. The overall return on equity of pre-merger and post-merger performance of MBL was recorded 5.72 times and 68.19 times as well as the NIC Asia was recorded 47.09 times and 76.95 respectively. Based on the return on equity of both sample banks, it has observed that the highest return on equity of MBL was 16.82 times in the fiscal year 2015/16 after the merger and the highest return on equity of NIC Asia was 28.09 times in 2010/11 before the merger and it dropped slightly after the merger.
4. In the context of pre-merger and post-merger performance of analysis of market value per share of MBL was recorded Rs 240 and Rs 2383 where as the market value per share of NIC Asia was recorded Rs 988 and Rs 3384 respectively. The highest market value per share of MBL was Rs 680 in the fiscal year 2015/16 and highest market value of NIC Asia was Rs 970 in 2013/14 during the study period.
5. The overall price earnings ratio of pre-merger and post-merger performance of MBL was recorded 311.95 times and 132.11 times as well as price earnings ratio of NIC Asia bank was recorded 29.43 times and 110.25 times respectively.
6. In the context of pre-merger and post-merger performance analysis of capital adequacy ratio of MBL was recorded 25.9 times and 64.6 times whereas the capital adequacy ratio of NIC Asia bank was recorded 23.9 times and 65.9 times during the pre-merger and post-merger periods.
7. T test results of MBL indicated a significant difference in the performance in case of earning per share, return on equity, market value per share, price earnings ratio rest all ratios i.e. return on asset and capital adequacy ratio indicated no significant difference between pre and post-merger periods.
8. T test results of NIC Asia bank indicated a significant difference in the performance in case of return on equity rest all ratios indicated there is no significant difference between pre and post-merger periods.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter focuses on summarizing the study held with the conclusion and recommendation on the basis of findings. For this purpose, the chapter has been divided into three parts as summary, conclusions and recommendations.

5.1 Summary

The study was conducted with the objective to assess the effect of merger and acquisitions on the shareholder's value at sample banks in terms of pre-merger and post-merger analysis over the study period 2010/11 to 2016/17 following descriptive and analytical research design. To examine the effects of the pre and post-merger impact on operating performance of the merged banks this research analyzes merger between two sampled banks, i.e. Machhapuchchhre bank and NIC Asia bank that were occurred during the period of 2010/11 to 2016/17.
The study started with explaining the background of study, history, overview of studied banks, limitation of study, significance of study and statement of problem concerning the pre and post- mergers and acquisitions. On the basis of that two study objectives were set for which operational definition of the study variable were identified.

To pursue the study objectives, literature was performed into two parts which are theoretical framework and review of related studies. Theoretical framework illustrated the various variables of the study as per the research objectives and review of related studies describes the fundamental of theories related to the study.

As per the study of objectives, research design, population and sample, sources of data, methods of analysis, statistical tools used were determined.

Presentation and analysis of data sought to fulfil the objectives of the study by presenting the data and analysing them with the help of various statistical tools followed by the methodology. The study is based on secondary data and the data have been basically obtained from annual reports and financial statements, official

records, journals, periodicals, various published reports and relevant unpublished thesis. Under financial analysis, various financial ratios such as Earning per share, Return on asset, Return on equity, Market value per share, Capital adequacy ratio, P/E ratio have been used. Under statistical analysis, statistical tools such as mean, standard deviation, coefficient of variation and test of hypothesis have been used. This analysis gives clear picture of the pre and post-merger performance of commercial banks and their impact on shareholders wealth. Hypothesizing that merger would improve performance of selected banks in terms of profitability; six different types of ratios were examined for two year before and five year after their merger. Paired sample t-test was used to compare the operating performance of merged sampled banks pre and post-merger. From the data analysis conclusions were drawn on the basis of which the recommendations were developed.

5.2 Conclusion

The purpose of this study is to assess the effect of mergers and acquisitions on shareholder's value at sample banks in terms of pre-merger and post-merger analysis. Merger and acquisition is a very important tool for the expansion of business. It is one of the ways by which business firms attempt to enhance their value. Studies have revealed mixed outcomes as to whether or not mergers and acquisitions do indeed enhance value. Mergers and Acquisitions considered as one of the most useful strategy for expansion. M&A in Nepalese banking sector has provided evidence that it is useful tools for survival of weak banks by merging in to the larger banks .The present study focused on overall seven years of performance data out that two years considered as pre-merger performance (2010/11 to 2011/12) and remaining five years considered as post-merger performance (2012/13 to 2016/17), for the purposes of measure the impact of M&A of shareholders wealth of Machhapuchchhre bank and NIC Asia bank using different profitability ratio, Liquidity ratio and financial ratio which shows banks are able to perform better after merger with other banks. Finally, in this study post-merger performance are better compared to pre-merger performance of both selected banks.

With regards to banking sector of Nepal, such factors affecting merger and acquisition has not been the prime subject of study so far. Research on post-merger

performance of banking sectors in Nepal has been conducted by Nepal Rastra Bank but the factors that would make the bank consider merger and acquisition has not been studied.

For the purpose of this research, previous literatures have been observed so far in order to create a concrete base for identifying the factors leading to merger and acquisition. Based upon the factors, hypotheses have been created. The testing of the hypotheses has been done and the findings have been presented as well as discussion of the hypotheses based on the findings have been done.

Profitability Ratios

An analysis of EPS indicates that the profitability of the sampled banks i.e. MBL and NIC Asia bank increased tremendously after merger. The effects of the merger in the selected banks profitability were evident when looking at the average ROA and average ROE of MBL and NIC Asia bank before and after merger, the merger improved the profitability of both selected banks as the ROA and ROE kept on increasing immediately after the merger. However, the profitability increased more in second year after merger compared to immediately after the merger. The outcome of this study suggested that ROA and ROE is the influencing factor in shareholders wealth creation.

The Capital adequacy ratio is important to shareholders because it is an important measure of the financial soundness of a bank. The CAR provides shareholders with a better understanding of the risks a bank is taking with the equity they provide. An analysis of capital adequacy ratio indicates profitability of banks and shareholders wealth. CAR improved after the merger. CAR of MBL before merger is 15.04 but after merger it slightly decreases at 12.54 and also decrease one year after merger but in increasing trend. CAR of NIC Asia is increasing after merger as compared to before merger but highly increases after one year of merger and then dropped slightly and increase in 2016/17.

An analysis of market value per share of MBL is in increasing trend and analysis of market value per share of NIC Asia is also increasing trend which shows the positive result in order to increase the shareholders wealth and profitability of banks. The price earnings ratio compares the market price of a company's stock to its earnings

per share. An analysis of P/E ratio of MBL is slightly dropped down after the merger as compared to before merger. Before merger MBL is 69.41 but after merger it decreases at 33.96 and in decreasing trend. An analysis of P/E ratio of NIC Asia bank is also decreasing after the merger but slightly increasing after one year of merger.

Impact of M&A

Analysis of t test of MBL indicates that there is significant difference in EPS, ROE, MPS and P/E ratio but the return on asset and capital adequacy ratio does not show any significant difference in pre-merger and post-merger performance which reflects the fact that the acquiring bank is not able to promote stability and efficiency of bank. Similarly, analysis of t test of NIC Asia bank indicates that there exists significant difference only in the return on equity in the pre and post merger period. The earnings per share, return on assets, market value per share, capital adequacy ratio as well as price earnings ratio does not show significant difference in pre-merger and post-merger period which results the fact that NIC Asia bank failed to increase earning, financial stability of bank.

Empirical results of previous studies shows that mergers are profitable activities and socially desirable, because they create value and are economically efficient. Singh (2015), focused on pre and post amalgamation performance was analyzed based on financial statements of ICICI bank from (2004- 2014) by using various financial ratios such as, net profit margin, ROA, ROE, ROI, return on advances, debt/equity ratio, current Ratio, quick ratio and EPS.T-test was applied to the various financial ratios for before and after merger data. The results show that, out of total performance ratios of ICICI Bank half of ratios have significantly changed after mergers in both sample cases. However, the present study also shows pre-merger and post-merger performance of MBL and NIC Asia bank from 2010-2017 by using various financial ratios such as EPS, ROA, ROE, MPS, CAR and P/E ratio. T-test was applied to various financial ratios for before and after merger data. The result show that the performance ratio of MBL have significantly change after merger but the performance ratio of NIC Asia bank not significantly change after merger during study period.

Pakistan (Ahmad et. Al, 2015) prove better performance after the merger but still many other factors need to be analyzed. Devarajappa (2012) suggested that after merger the financial performance of banks have increased. Caves (1989) indicate that mergers are profitable activities and socially desirable, because they create value and are economically efficient. Duggal (2015), concludes that there is a positive impact of merger announcement on the operating and financial performance in short-run but not in long run.

Dutz (1989) argues that even though mergers are profitable for shareholders, they are socially undesirable and should be prohibited because they may result in rationalisation of capacity.

From the above study, it can be concluded that the performance of banks is affected by merger and acquisition. Analysis showed that mergers and acquisitions in banking are an appropriate instrument to ensure sustainable financial system development. It can accurately bring out what are the pros and cons of an M&A activity and whether it should be carried out or not.

The above analysis of pre and post-merger shows that both MBL and NIC Asia bank gained considerably from the merger. This can be conveniently based on improvement in significant ratios which shows the strong financial position of banks and it has been statistically proved that the merger had a significant positive impact on shareholders wealth. Since, the ultimate aim of any financial institutions is to increase the shareholders wealth shows that the merger helped achieving the aim.

5.3 Recommendations

Based on the findings and analysis of this study, the following areas are recommended as directions for future research.

1. The study wanted to find out the effect of mergers and acquisitions on shareholder's value of selected commercial banks. It therefore recommends that banks and institutions undergoing difficult economic times should resort to mergers and acquisitions to increase their profitability as this leads maximization of shareholder's wealth.
2. The study also recommends other studies to be done specifically to address the target or the acquiring shareholders as this would enable both the acquiring and the

target shareholders to be able to know the effect of the mergers and acquisitions on their value.

3. The study also recommends that prior and thorough research should be done before the merger and acquisitions takes place to avoid paying more than the company to be acquired is worth. Experienced board members should form the board to enable the mergers and acquisitions transition successfully.

4. Another is the political instability and various ups and downs affected the banking operations.

5. The differences in national cultures and M&A performance among countries may have different implications. Therefore, further studies are encouraged to investigate the impact of national culture on performance.

6. The growth of financial sector in Nepal lacked the clear vision and strategies thus NRB need to focus on strategies to make the financial sector stable in short period of time. The high concentration of banking assets to a few banks must be minimized as a small crisis to those few banks creates a big crisis in future. BFIS lending in agriculture and productive sector is mandatory by NRB but still they are far behind the level thus they need to focus more on these sectors.

7. Merger and Acquisition in Nepal banking sector has faced unused problem due to improper due diligence. Along with implementing policies regarding merger and acquisition in Nepal, NRB used to look after DDA or introduced new policies of DDA for M&A in Nepal.

8. Organization culture has been the main error after two or more than two merged banking institutions starts their operation as one. Therefore, HR policies regarding M&A have to be amended by NRB for upcoming merger to erase this kind of error.

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APPENDIX I

S.N.		Before Merger				After Merger
1	Machchapuchre Bank Ltd.	Standard Finance Ltd				Machchapuchre Bank Ltd.
2	Global Bank Ltd.	IME Finance Ltd.	Lord Buddha Finance Ltd.			Global IME Bank Ltd
3	Pashupati Development Bank Ltd	Uddhyam Bikash Bank				Axis Development Bank Ltd.
4	Butwal Finance Ltd.	Alpic Everest Finance Ltd.	CMB Finance Ltd.			Synergy Finance Ltd.
5	Annapurna Development Bank Ltd.	Surya Darshan Finance Ltd.				Supreme Development Bank Ltd
6	Himchuli Development Bank Ltd.	Birgunj Finance Ltd.				H & B Development Bank Ltd
7	Kasthamandap Development bank Ltd.	Sikhar Finance Ltd.				Kasthamandap Development Bank Ltd.
8	Vibor Bikas Bank Ltd.	Vajuratna Finance Ltd.				Vibor Bikas Bank Ltd.
9	Business Development Bank Ltd.	Universal Finance Ltd.				Business Universal Development Bank Ltd.
10	Nepal Industrial and Commercial Bank Ltd.	Bank of Asia ltd.				NIC Asia Bank Ltd.
11	Diyalo Bikas Bank Ltd	Professional Bikas Bank ltd.				Professional Diyalo Bikas Bank Ltd.
12	Global IME Bank Ltd.	Social Development Bank Ltd.	Gulmi Bikas Bank Ltd.			Global IME Bank Ltd
13	Prabhu Finance Ltd.	Baibhav Finance Ltd.	Sambridhi Bikas Bank Ltd.			Prabhu Bikas Bnk Ltd.
14	Royal Merchant and Banking Finance Ltd.	Api Finance Ltd.	Rara Bikas Bank Ltd.			Apex Development Bank Ltd.
15	Araniko Development Bank Ltd.	Surya Development Bank Ltd.				Araniko Development Bank Ltd.

16	Manakamana Development Bank Ltd.	Yeti Finance Ltd.	Valley Finance Ltd.			Yeti Development Bank Ltd.
17	Global IME Bank Ltd.	Commertz and Trust Bank Nepal Ltd.				Global IME Bank Ltd
18	Civil Bank Ltd.	Axis Development Bank Ltd.	Civil Merchant Bitiya Sanstha Ltd.			Civil Bank Ltd.
19	Reliable Finance Ltd.	Nepal Consumer Development Bank Ltd.	Subhalaxmi Finance Ltd.			Reliable Development Bank Ltd.
20	Reliance Finance Ltd.	Lotus Investment Finance Ltd.				Reliance Lotus Finance Ltd.
21	Imperial Finance Ltd.	Siddhartha Finance Ltd.				Siddhartha Finance Ltd.
22	Biratlaxmi Bikas Bank Ltd.	Khandbari Development Bank Ltd.				Biratlaxmi Bikas Bank Ltd.
23	Lumbini Bank Ltd.	Navadurga Finance Ltd.				Lumbini Bank Ltd.
24	Bageshwori Deelopment Bank Ltd.	Shangrila Development Bank Ltd.				Shangrila Development Bank Ltd.
25	Kist Bank Ltd.	Prabhu Bikas Bank Ltd.	Gaurishankar Development Bnk Ltd.	Zenith Finance Ltd.		Prabhu Bank Ltd.
26	Citizens Bank International Limited	Nepal Housing and Merchant Finance Ltd.	People's Finance Ltd.			Citizens Bank International Limited
27	Triveni Bikas Bank Ltd.	Public Development Bank Ltd.	Bright Development Bank Ltd.			Triveni Bikas Bank Ltd.
28	Bishwa Bikas Bank Ltd.	Fewa Finance Ltd.				Fewa Bikas Bank Ltd.
29	NDEP Development Bank Ltd.	Rising Development Bank Ltd.				Deva Bikas Bank Ltd.
30	Muktinath Bikas Bank Ltd.	Civic Development Bank Ltd.				Muktinath Bikas Bank Ltd.
31	Garima Bikas Bank Ltd.	Nilgiri Bikas Bank Ltd.				Garima Bikas Bank Ltd.
32	Sagarmatha Merchant Banking and Finance Ltd.	Patari Finance Ltd.				Sagarmatha Finance Ltd.

33	NMB Bank Ltd.	Clean Energy Development Bank Ltd.	Pathibhara Bikas Bank Ltd.	Bhrikutee Developme nt Bank Ltd.	Prudential Fiance Co. Ltd.	NMB Bank Ltd.
34	Grand Bank Nepal Ltd.	Prabhu Bank Ltd.				Prabhu Bank Ltd.
35	City Development Bank Ltd.	Om Finance Ltd.				Om Development Bank Ltd.
36	Kathmandu Finance Ltd.	Gorkha Development Bnk Ltd.				Gurkhas Finance Ltd.
37	Mega Bank Nepal Ltd.	Paschimanchal Development Bank Ltd.				Mega Bank Ltd.

APPENDIX II

Hypothesis 1

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-mergerand post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_1	$X_2 - \bar{X}$	$(X_1 - \bar{X})^2$
0.55	-0.5	0.25	5.98	-13.2	172.45
1.54	0.5	0.25	18.34	-0.77	0.6
			22.2	3.09	9.54
			25.04	5.93	35.14
			24	4.89	23.89
$\sum X_1 =$ 2.09	$\sum(X_1 - \bar{X})$ =0	$\sum(X_1 - \bar{X})^2$ =0.5	$\sum X_2 =$ 95.56	$\sum(X_2 - \bar{X})$ =0	$\sum (X_2 - \bar{X})^2$ =241.62

We have, $\overline{X_1} = 2.09$ $\overline{X_2} = 95.56$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum (X_2 - \bar{X})^2\right]$$

$$= \frac{1}{2+5-2}[0.5 + 241.62]$$

$$=48.42$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(2.09 - 95.56)}{\sqrt{48.42 \frac{1}{2} + \frac{1}{5}}}$$

= -3.1

Therefore, $|t|$= 3.1

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is greater than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is significant difference in the pre-merger and post –merger performance of earning per share of MBL.

Hypothesis 2

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
37.8	3.96	15.68	47.41	15.34	235.32
29.87	-3.97	15.76	35.98	3.91	15.28
			25.59	-6.48	41.99
			28.31	-3.76	14.14
			23.06	-9.01	81.18
$\sum X_1 =$ 67.67	$\sum(X_1 - \bar{X})$ =0	$\sum(X_1 - \bar{X})^2$ =31.44	$\sum X_2$= 160.36	$\sum(X_2 - \bar{X})$ =0	$\sum(X_2 - \bar{X})^2$ =387.91

We have,

$\overline{X_1} = 33.84$ $\overline{X_2} = 32.07$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum (X_2 - \bar{X})^2\right]$$

$$= 83.87$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(33.84-32.07)}{\sqrt{83.87\frac{1}{2}+\frac{1}{5}}}$$

$$= 0.27$$

Therefore, $|t|= 0.27$

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post –merger performance of Earning per share of NIC Asia bank.

Hypothesis 3

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
0.05	-0.06	0.0036	0.49	-0.76	0.577
0.16	0.05	0.0025	1.12	-0.13	0.0169
			1.26	0.01	0.0001
			1.51	0.26	0.0676
			1.89	0.64	0.4096
$\sum X_1$ =0.21	$\sum (X_1 - \bar{X})$ =0	$\sum (X_1 - \bar{X})^2$ =0.01	$\sum X_2$= 6.27	$\sum (X_2 - \bar{X})$ =0	$\sum (X_2 - \bar{X})^2$ =1.07

We have, $\overline{X_1} = 0.11$ $\overline{X_2} = 1.25$

$$s^2 p = \frac{1}{n_{1+}n_{2-2}} \left[\sum (X_1 - \bar{X})^2 + \sum (X_2 - \bar{X})^2 \right]$$

$$= 0.216$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2 p \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\frac{(0.11 - 1.25)}{\sqrt{0.216 \frac{1}{2} + \frac{1}{5}}}$$

$$= - 2.05$$

Therefore, $|t| = 2.05$

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post –merger performance of Return on Asset of MBL.

Hypothesis 4

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
2.34	0.35	0.1225	1.78	0.21	0.0441
1.64	-0.35	0.1225	1.71	0.14	0.0196
			1.21	-0.36	0.1296
			1.51	-0.06	0.0036
			1.64	0.07	0.0049
$\sum X_1$=3.98	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ = 0.245	$\sum X_2$ = 7.85	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_2 - \bar{X})^2$ =0.2018

We have, $\overline{X_1}$ = 1.99 $\overline{X_2}$ = 1.57

$$s^2 p = \frac{1}{n_{1+}n_{2-2}} \left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

= 0.0893

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(1.99 - 1.57)}{\sqrt{0.0893\frac{1}{2} + \frac{1}{5}}}$$

= 0.85

Therefore, $|t|$= 0.85

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post–merger performance of Return on Asset of NIC Asia bank.

Hypothesis 5

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
0.5	-2.36	5.57	5.31	-8.32	69.22
5.22	2.36	5.57	14.05	0.42	0.176
			16.15	2.52	6.35
			16.82	3.19	10.17
			15.86	2.23	4.97
$\sum X_1$= 5.72	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =11.14	$\sum X_2$= 68.19	$\sum(X_2 - \bar{X})$ = 0	$\sum(X_2 - \bar{X})^2$ =90.88

We have, $\overline{X_1}$ = 2.86 $\overline{X_2}$ = 13.63

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

= 20.41

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(2.86 - 13.63)}{\sqrt{20.41\frac{1}{2} + \frac{1}{5}}}$$

= -3.34

Therefore, $|t|$= 3.34

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is greater than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is significant difference between the pre-merger and post-merger performance of Return on Equity of MBL.

Hypothesis 6

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
28.09	4.54	20.61	14.63	-0.76	0.58
19	-4.54	20.61	15.93	0.54	0.29
			13.05	-2.34	5.48
			16.5	1.11	1.23
			16.84	1.45	2.11
$\sum X_1$ = 47.09	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =41.22	$\sum X_2$= 76.95	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =9.69

We have, $\overline{X_1}$ = 23.55 $\overline{X_2}$ = 15.39

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

$= 10.18$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2 p \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(23.55 - 15.39)}{\sqrt{10.18 \frac{1}{2} + \frac{1}{5}}}$$

$= 3.55$

Therefore, $|t| = 3.55$

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is greater than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is significant difference between the pre-merger and post-merger performance of Return on Equity of NIC Asia bank.

Hypothesis 7

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
133	13	169	203	-273.6	74857
107	-13	169	576	99.4	9881
			564	87.4	7639
			680	203.4	41372
			360	-116.6	13596
$\sum X_1$ = 240	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =338	$\sum X_2$ =2383	$\sum(X_2 - \bar{X})$ = 0	$\sum(X_2 - \bar{X})^2$ =147345

We have, $\overline{X_1} = 120 \quad \overline{X_2} = 476.6$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

= 29537

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(120 - 476.6)}{\sqrt{29537\frac{1}{2} + \frac{1}{5}}}$$

= -2.93

Therefore, $|t|$= 2.93

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is greater than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is significant difference between the pre-merger and post-merger performance of market value per share of MBL.

Hypothesis 8

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
520	26	676	554	-122.8	15079
468	-26	676	970	293.2	85966
			617	-59.8	3576
			798	121.2	14689
			445	-231.8	53731
$\sum X_1 =$ 988	$\sum(X_1 - \bar{X}) = 0$	$\sum(X_1 - \bar{X})^2$ =1352	$\sum X_2$ =3384	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =173041

We have, $\overline{X_1} = 494$ $\overline{X_2} = 676.8$

$$s^2p = \frac{1}{n_{1+}n_{2-2}} \left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

$$= 34878$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(494 - 676.8)}{\sqrt{34878\frac{1}{2} + \frac{1}{5}}}$$

= -1.38

Therefore, $|t|$= 1.38

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post-merger performance of market value per share of NIC Asia bank.

Hypothesis 9

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
10.85	-2.1	4.41	12.54	-0.38	0.144
15.04	2.1	4.41	10.63	-2.29	5.24
			12.24	-0.68	0.46
			12.36	-0.56	0.32
			16.82	3.9	15.21
$\sum X_1 =$ 25.89	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =8.82	$\sum X_2 =$ 64.59	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2$ = 21.37

We have, $\overline{X_1}$ = 12.95 $\overline{X_2}$ = 12.92

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

$$= 6.1$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(12.95 - 12.92)}{\sqrt{6.1\frac{1}{2} + \frac{1}{5}}}$$

$$= 0.0167$$

Therefore, $|t|$= 0.0167

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post-merger performance of capital adequacy ratio of MBL.

Hypothesis 10

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
12.89	0.94	0.89	13.17	-0.02	0.0004
11.01	-0.94	0.89	14.05	0.86	0.74
			12.49	-0.7	0.49
			12.44	-0.75	0.56
			13.83	0.64	0.41
$\sum X_1 =$ 23.9	$\sum(X_1 - \bar{X})$ = 0	$\sum(X_1 - \bar{X})^2$ =1.78	$\sum X_2$ =65.98	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2 =$ 2.2

We have, $\overline{X_1} = 11.95$ $\overline{X_2} = 13.19$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

$= 0.79$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2 p \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(11.96 - 13.19)}{\sqrt{0.79 \frac{1}{2} + \frac{1}{5}}}$$

$= -1.61$

Therefore, $|t|= 1.61$

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is accepted and hence the alternative hypothesis H_1 is rejected. That is, there is no significant difference between the pre-merger and post-merger performance of capital adequacy ratio of NIC Asia bank.

Hypothesis 11

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
242.54	86.57	7494.3	33.96	7.54	56.85
69.41	-86.57	7494.3	31.4	4.98	24.8
			25.4	-1.02	1.04
			27.15	0.73	0.53
			15	-11.42	130.42
$\sum X_1 =$ 311.95	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2$ = 14988.6	$\sum X_2$ =132.11	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2$ =213.64

We have, $\overline{X_1}$ = 155.97 $\overline{X_2}$ = 26.42

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

= 3041

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2p\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(155.97 - 26.42)}{\sqrt{3041\frac{1}{2} + \frac{1}{5}}}$$

= 3.3

Therefore, $|t|$= 3.3

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is greater than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is significant difference between the pre-merger and post-merger performance of price earnings ratio of MBL.

Hypothesis 12

Null Hypothesis, $H_0 : \mu_1 = \mu_2$, there is no significant difference between pre-merger and post –merger of selected banks.

Alternative Hypothesis, $H_1 : \mu_1 \neq \mu_2$, there is significant difference between pre-merger and post-merger of selected banks.

X_1	$X_1 - \bar{X}$	$(X_1 - \bar{X})^2$	X_2	$X_2 - \bar{X}$	$(X_2 - \bar{X})^2$
13.76	-0.96	0.92	11.69	-10.36	107.33
15.67	0.95	0.9	26.96	4.91	24.1
			24.11	2.06	4.24
			28.19	6.14	37.7
			19.3	-2.75	7.56
$\sum X_1$ =29.43	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2$ =1.82	$\sum X_2$ =110.25	$\sum(X_1 - \bar{X})$ =	$\sum(X_1 - \bar{X})^2$ =180.93

We have, $\overline{X_1} = 14.72$ $\overline{X_2} = 22.05$

$$s^2p = \frac{1}{n_{1+}n_{2-2}}\left[\sum(X_1 - \bar{X})^2 + \sum(X_2 - \bar{X})^2\right]$$

$$= 36.55$$

Test statistics, under H_0 is

$$t = \frac{(\overline{X_1} - \overline{X_2})}{\sqrt{s^2 p \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{(14.72 - 22.05)}{\sqrt{36.55 \frac{1}{2} + \frac{1}{5}}}$$

$$= -1.7$$

Therefore, $|t|$= 1.7

Degree of freedom = $n_{1+}n_{2-2}$ = 2+5-2 = 5

Level of significance (α) = 5%

Critical Value: The tabulated value of t for two tailed test at 5% level of significance and for 5 d.f. is 2.571

Decision: Since calculated value of t is less than tabulated value of t, the null hypothesis H_0 is rejected and hence the alternative hypothesis H_1 is accepted. That is, there is no significant difference between the pre-merger and post-merger performance of price earnings ratio of NIC Asia bank.