CROSS-BORDER BANK ACQUISITIONS AND COMPANY PERFORMANCE: THE CASE OF EMERGING MARKETS

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_____

Prof. Dr. Sencer Ayata
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Business Administration.

_____

Prof. Dr. Cengiz Erol
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Business Administration.

_____

Assist. Prof. Dr. Seza Danışoğlu
Supervisor

Examining Committee Members

Assist. Prof. Dr. Seza Danışoğlu (METU, BA) _____

Assoc. Prof. Dr. Z. Nuray Güner (METU, BA) _____

Assoc. Prof. Dr. Burak Günalp (Hacettepe U., ECON) _____

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Name, Last name: Mert DEMİR

Signature :

ABSTRACT

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Demir, Mert

MBA, Department of Business Administration

Supervisor : Assist. Prof. Dr. Seza Danışoğlu

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In recent years, cross-border mergers and acquisitions have spurred in the global economy. With the breaking down of barriers around national economies, those economies that used to be centrally-planned and closed in the past have emerged as economies that offer invaluable investment and risk diversification opportunities that investors seek. As a natural result of this change, these economies become major targets for foreign investors. This thesis examines the impact of this foreign investment trend specifically for those bank mergers and acquisitions that take place in emerging economies. The impact of these transactions on the acquirer and target company shareholders and firm performance are analyzed and it is found that neither parties' shareholders receive a significantly positive benefit in the short-term but there are significant benefits in the long-term. Moreover, while these bank consolidations resulted in improved profitability, efficiency and asset size for the target firms, no significant change is observed in deposit size, market share and capital adequacy of the targets. Similarly, improvement in profitability is evidenced for the acquirers while no major change in leverage risk is observed.

Keywords: Mergers, Acquisitions, Banks, Emerging Markets

ÖZ

SINIR ÖTESİ BANKA SATIN ALMALARI VE ŞİRKET PERFORMANSI: GELİŞMEKTE OLAN ÜLKELER ÜZERİNE BİR ÇALIŞMA

Demir, Mert

Yüksek Lisans, İşletme Bölümü

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Son yıllarda sınır ötesi birleşme ve satın almalar küresel ekonomiyi ateşlemektedir. Ulusal ekonomilerin etrafındaki engellerin kalkmasıyla birlikte, bir zamanların merkezi planlamalı, kapalı ekonomileri, yabancı yatırımcılara sundukları yatırım ve risk dağıtımı imkanlarıyla ortaya çıkmışlar ve yatırımcıların temel hedefi haline gelmişlerdir. Bu tezde, gelişmekte olan ülkelere, özellikle de bankacılık sektörüne olan yatırımların etkileri, hem satın alan şirket hem de satın alınan banka açısından incelenmektedir. Hissedarlar ve şirketler açısından sonuçlar incelenmiş ve her iki grup şirketin hissedarlarının kısa vadede olmasa da uzun vadede belirgin fayda sağladıkları tespit edilmiştir. Bunun yanı sıra, bu birleşmeler hedef bankalar için karlılık, verimlilik ve aktif büyüklüğü açısından iyileşmeyle sonuçlanmasına rağmen mevduat büyüklüğü, piyasa payı ve sermaye yeterliliği açısından belirgin bir değişiklik yaşanmamıştır. Benzer şekilde, satın alan şirketler için karlılık artışı gözlenmekteyse de, finansal riskte bir azalma saptanmamıştır.

Anahtar Kelimeler: Birleşme, Satın Alma, Bankalar, Gelişmekte Olan Piyasalar

To My Family and Ceylan

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CHAPTER I

INTRODUCTION

The aim of this study is to present an overall view of the cross-border bank acquisitions in the Emerging Market Economies. The study focuses on the effects of these acquisitions on both the shareholders' wealth and operational performance of both sides of the deals. Whether these acquisitions create significant abnormal returns for the shareholders in terms of stock returns is examined and followed by an analysis of the impact of the deal on both the acquiring and target firms' operational performance.

Global economy has been passing through an era of change recently. With the advances in technology, communication and computing technology, information can be processed rapidly than it would have been before. Globalization plays the key role in bringing different cultures, nations and people closer as never before. US's dominance in global economy prior to this latest trend has been decreasing dramatically while new actors taking increasingly active roles in this new competitive arena.

Major changes have occurred in the past decade. The breaking down of global barriers to the free flow of capital allows companies to benefit from the largest and cheapest workforces, raw materials, and technology in other parts of the world. Developing economies as immature playgrounds for profit-hungry investors are taking the flag from their developed counterparts. These "emerging" economies not only offer high-profit investment opportunities for capital holders but also help them decrease their overall riskiness in several ways. Moreover, their growth prospects make these economies an invaluable investment base for

multinationals. In other words, recent globalization wave promotes cross-border cooperation among nations, firms and people by removing the barriers those once exist.

Despite several shocks and recessions in both regional and global scale, world economy can said to be growing continuously. The rate is not the same for all economies actually, rather differing significantly among regions. However, on the average, the global economy is proceeding through a so-called “revolution”, perhaps the most significant of all through the history (Jensen, 1993). This significance roots from the motive that the actors that once lead the mass are starting to lose their dominance and –unavoidably- leaving the ground to newcomers, the rising stars of the new age. In other words, a major restructuring is taking place for world economy and its actors.

Developed countries undergo a period with lower GDP growth rates than their developing counterparts. Furthermore, despite the squeeze in the world total GDP in several years, developing countries continued their growth in the same period. As is clear from the data given above, developed countries even experience minus growth rates for some years while developing countries do not.

One should bear in mind that this is not a one-sided game but a mutually beneficial one. Not only do the multinationals but the host countries benefit greatly from these cross-border interactions. Through the transfer of capital, technology, and skills, multinational companies' overseas investments create positive economic value in host countries as well. It raises productivity and output in the sectors involved, thereby raising national income while lowering prices and improving the quality and selection of services and products for consumers. Rather than being beneficial only in certain industries, foreign investment nearly always generated positive results for the rest of the economy.

The weight and the impact of developed countries on the world economics is still the case. They constitute most of the expenditure, use the most resources and

produce the most accordingly. However, those "others" are starting to change this tradition and lead their rivals. Overall economic impact of cross-border investment on developing economies has been positive despite the persistence of policies that lead to negative, unintended consequences. These economies have been attracting more capital through foreign direct and indirect investments. Behind this fact are several macroeconomic factors. Macroeconomic determinants are generally classified in two major groups: push (or home-country related factors), and pull (or host country-related ones).

Home country's economic health in terms of growth cycle, a push factor, is accepted as a factor affecting foreign direct investments (FDI). The idea that strongly defends this notion is that growth increases firm's wealth and relaxes the financial constraint that FDI outflow may face. Another idea claims that growth at home expected returns should trigger expansions, reducing the attractiveness of FDI outflow. Another factor is accepted with almost unanimity among researchers that high level of interest rates in the home country reduces the amount of FDI outflow.

Another important yet contradictory item is the financial conditions using the exchange rates as proxy. Expected appreciation/depreciation of the local currency was found to lead to both ways as an increase or a decrease in FDI outflow. Despite less frequently visited, stock market value is another determinant in that; stock market returns is found to be positively correlated with FDI (Klein and Rosengren, 1994). Last but not the least, access to credit sources considered another factor for multinationals' foreign investments for which a positive correlation is proposed by the findings of Klein, Peek and Rosengren (2000).

Regarding the second group, pull factors, first of all, these host countries have plentiful resources unprocessed. However, these countries' lack of financing, human resources, technology, know-how, etc. is the key why these sources left unprocessed so far. Multinationals would regard this situation an invaluable opportunity to exploit. In other words, prospects about the host country's

economic growth are stimulus in the eyes of multinationals (Focarelli and Pozzolo, 2001). Nevertheless, several barriers such as politic, economic and legal systems, regulations, politics and resistance of politicians and other circle of benefiters, and even lack of appropriate information and knowledge still exist for foreign investors to reach and exploit these resources. In the last decade, great opportunities for cost savings and revenue generation have been opened up for foreign investors. Recent findings suggest that there are enormous opportunities for companies to create value by taking full advantage of falling barriers in regulation, transportation costs, communications costs, and infrastructure. Furthermore, improvements both in financial and investment conditions in the host country and macroeconomic stability can be listed as other key factors (Grosse and Goldberg, 1991; Fisher and Molyneux, 1996; Yamori, 1998).

These pre-globalization obstacles for foreign investors are starting to be lifted by national governments allowing them to employ their profession in these countries. Governments in emerging markets are eager to take their share in this increasing level of global foreign direct investments, along with the technology and management skills that accompany it. Once closed, centrally planned economies are rapidly shifting to open-market, decentralized economies by liberalizing their trade and investment markets. With the help of the developing communication and information technologies, cultural and organizational differences can be managed properly and their harmful effects can be removed. Even these differences can be used to enhance the performance in the interactions through decentralization and distributed leadership. Intensified national and regional competition can be accounted for another reason why companies increasingly choose outside their borders for business. Fierce competition along with regulatory laws preventing companies from possible abnormal profits in their domestic markets lay as another major factor leading companies for cross-border business.

Despite the recent findings that the incentives used to attract foreign direct investment and the restrictions placed on it are largely ineffective, governments in

emerging economies offer plenty of opportunities from tax exemptions, import duty exemptions to subsidized land and power, in the belief that it will facilitate them to attract multinationals.

Waheed and Mathur (1995) show that expansion into developing (developed) countries results in statistically significant positive (negative) average abnormal returns. However, Buch and DeLong (2003) find that target banks tend to be located in more developed and regulated countries which contradict with the findings of the former. Buch and DeLong (2003) argue that high asymmetric information and regulatory costs are obstacles to cross-border expansions by banks.

With all the above mentioned facts, findings and many more, foreign investors understandably choose multinational business and the host countries offer invaluable opportunities in an attempt to retain a larger portion of the global FDI pie.

Over the last decade, continuous increase in the amount of financial FDI compared to those of other entries has been experienced despite the differences related to geographical regions. Due to the expansion of international financial institutions, especially of banks, into emerging economies, total financial FDI has accounted for a significant and ever increasing portion of the whole.

Starting in mid-90s is the expansion of international banks in emerging markets and the restructuring of those already there (Herrero and Simon, 2003). There are several reasons underlying multinational banks' foreign investment wave. These reasons are strongly related to the expectations of the company's management. In other words, expectations from the intended investments and the needs driving firms to undertake these investments are also the reasons for these multinationals' cross-border expansions. Herrero and Simon (2003) groups these reasons into three as competitive advantage factors, efficiency, and geographical risk diversification.

To start with the competitive advantage factors, among the most cited both by the eclectic theory of the multinational corporations by Dunning (1977) and Gray and Gray (1981) and by the internalization theory by Buckley and Casson (1991) are innovative products, better intermediation technologies or superior management quality. Another factor is the information which the firms prefer to work with a small number of banks in an attempt not to reveal the sensitive information to others (Nigh, Cho and Krishnan, 1986; Casson, 1990). But, perhaps the most significant, hence most cited, is the "follow-the-customer (FTC)" hypothesis. It says that; the larger the home-based business presence in the host, the more the service provider should invest in that country (Von Der Ruhr and Ryan, 2005). To be more precise, in an attempt either seeking to maintain home-based business relationships with their customers in foreign countries or to search for a means to enter foreign markets, financial FDI is closely tied to manufacturing FDI flows and choose to locate where manufacturing has previously invested.

Regarding efficiency, the next factor, possible gains can best be achieved through size. And size enables firms to transfer scale efficiencies (Terrell, 1979; Tschoegl, 1983; Sabi, 1988). Moreover, it facilitates firms' in using the degree of internationalization which allows them to reduce transaction costs by utilizing their large and geographically diversified customer base (Ursacki and Vertinsky, 1992). Lastly, size is an important asset for firms to utilize their own distribution channels in the host country which allow them to realize significant efficiency gains.

The third factor is the risk diversification. Aggarwal and Durnford (1989), and Berger and de Young (2001) argue that banks may choose to diversify their income base by operating in a foreign country in an attempt to obtain gains in terms of their risk-return profile. The importance of this factor will be more obvious in case of possible market imperfections, economic and financial crisis, legal and/or regulatory obstacles, etc.

To sum up, several different -mostly firm-specific- reasons for international firms to pursue cross-border transactions can be outlined here. Apart from all, a common trend in almost all of the transactions is that companies aim to either secure or improve its performance, thereby increase their shareholders' wealth. As mostly being for-profit institutions, multinational companies are likely to choose among the alternatives in which they will ensure less risk with higher than average return of their peers.

Another important aspect of foreign investments is the way they are made. There are several different methods for multinational to expand their operations internationally. Most handy of all these methods is regarding the type of the target. According to this method, FDI is grouped into two major categories as Greenfield investment and Mergers and Acquisitions. In the first method, investors may choose to invest in the establishment of new facilities or they may prefer to expand their already existing operations in these geographies and benefit from the opportunities that those markets offer. This type of investment is called Greenfield Investment. It has benefits to regional and national economies as increased employment, additional capital and transfer of the improvements that the multinational possess in terms of technology, know-how, better management practices, etc. There are also critics on this type of investment as flow of earned funds by these companies back to their home countries and increased fierce competition in the industry that hurts domestic firms in the host country. Compared to the other type of FDI, Greenfield investments hold a secondary position regarding the frequency.

The other method which is the primary type of FDI and constitutes the core of this study is the Mergers and Acquisitions. Mergers and Acquisitions refer to the transfer of existing assets from local firms to foreign ones. Cross-border mergers, which are the most frequent form of FDI, occur when the assets and operation of firms from different countries are combined to establish a new legal entity. Different from the merger of two firms, cross-border acquisitions occur when the control of assets and operations of a local firm is transferred to a foreign company.

The former local company can also remain as an affiliate of the acquirer after the acquisition. As most of the critics understandably argue; Unlike Greenfield investment, acquisitions do not provide long term benefits to the local economy. Moreover, in case the payment is made in terms of stock by the acquirer, the money from the sale never reaches the local economy. Nevertheless, mergers and acquisitions is the most frequently used form of cross-border FDI. Despite its several drawbacks, FDI definitely provides some advantages to the foreign economy as technology transfer, know-how, and better management practices along with higher efficiency in using resources regardless of its type.

Behind each and every m&a transaction –directly or indirectly- are stakeholders. And perhaps the most important of them is the shareholders who assume significant risks and expect high returns in return. Managers of the companies take into consideration the change expected to occur in their shareholders' wealth. Despite increasing the shareholder wealth being the major motivation behind m&a, there are other concerns as well that investors take into account before consolidations. Increasing the firm value, which ultimately serves to increase shareholder wealth, is one of them. This can be achieved through several ways. Few most important of them are listed as follows:

Multinationals may involve in an m&a in an attempt to achieve synergy through combining two companies. This allows them to reduce duplicate departments or operations and lower the costs of the company relative to the same revenue stream which will result in improvement in profit. Another aim can be to increase market share through acquiring a major competitor, thus benefit from former companies' customers and increase its market share which will further result in higher control over the product or service's market price. The objective can also be to achieve economies of scale and scope. In this way, the company can choose to cross-sell its products or services to its targets customers or vice-versa. Furthermore, they also may try to benefit from mass production and bulk-purchase advantages. According to another frequent practice, multinationals may choose rather unprofitable targets for acquisition with the idea that they can use these losses to

decrease their tax liabilities. All these and many others help the firms strengthen their position in the market and thereby, increase firm value.

On the other hand, managers can try to hedge the risk they foresee by diversifying the company's operations into different geographies and industries. These kinds of activities may not primarily result in an increase in shareholder wealth but will provide a solid buffer against possible losses. Conversely, some other manager-oriented motivations like managers' desire to control a greater power in the market and their overconfidence in expected high-efficiency and hence high profits may result in disappointment and even failures in the end.

To sum up, in practice, m&a transactions hold the largest and an increasing portion of the total FDI in its history. The rise of globalization unquestionably affected and accelerated cross-border acquisitions along with its portion in total FDI pie. Underlying this m&a boom are the above mentioned facts about both the home country of the acquirer and the host country of the target. As the pioneers of financial intermediations, banks hold a significant portion of the literature on financial FDI and its most important sub-section, Mergers and Acquisitions. Their activities both national and international have led many developments regarding both the home and host country economies. Consequently, a noticeable amount of research has been conducted on these transactions.

CHAPTER 2

LITERATURE REVIEW

Regarding the literature on mergers and acquisitions of banks, it seems that most studies deal with the transactions from developed countries. These studies rather focus on the effects of consolidations on the acquirers and targets from developed countries. This is reasonable to a certain degree that it is easier to find relevant items such as stock prices, several macro and micro data on these countries, periodic reports on the economies and the corporations, etc. This fact obviously facilitated researchers in their analysis and data collection which constitutes probably the most challenging part of a research. Another justification regarding the studies focusing on the developed countries is that the values and even the frequency of these deals in developed countries represent the bulk of the entire pool of m&a transactions worldwide. In other words, by doing so, researchers are able to make more precise generalizations not only on the developed markets but also on the entire global m&a transactions. Providing such a convenience, m&a data on developed markets help them see the big picture while focusing on a portion of it. Moreover, most of the giant companies of the global economy have originated from these developed economies and they are involved in most of the top m&a deals worldwide as stated in the table below.

Top Mergers and Acquisitions Deals

Table 1: The Largest M&A Deals Worldwide Since 2000

Rank	Year	Acquirer	Target	Transaction Value (in Mil. USD)
1	2000	*Merger*: America Online Inc. (AOL)	Time Warner	164,747
2	2000	Glaxo Wellcome Plc.	SmithKline Beecham Plc.	75,961
3	2004	Royal Dutch Petroleum Co.	Shell Transport and Trading Co	74,559
4	2006	AT&T Inc.	BellSouth Corporation	72,671
5	2001	Comcast Corporation	AT&T Broadband and Internet Svcs	72,041
6	2004	Sanofi-Synthelabo SA	Aventis SA	60,243
7	2000	*Spin-off*: Nortel Networks Corporation		59,974
8	2002	Pfizer Inc.	Pharmacia Corporation	59,515
9	2004	*Merger*: JP Morgan Chase and Co.	Bank One Corporation	58,761
10	2006	*Pending*: E.on AG	Endesa SA	56,266

Source: Institute of Mergers, Acquisitions and Alliances Research, Thomson Financial

Turning back to the literature, there is great amount of contribution made so far. Nevertheless, there is no unanimity on the results of these transactions. Even some issues still remain as a great debate among researchers. Beyond all, some aspects of this subject like that of this study which primarily focus on the effects of cross-border bank m&a of investors in emerging market economies still remain almost untouched.

Regarding the existing literature, the analysis of the effects of m&a transactions can be grouped into two major categories. First approach compares the performance of the institutions, based on the change in their stock prices in a period before and after the deal announcement. These type of analysis are conducted through selecting an appropriate event window starting a period before the deal announcement and ending a period after it. Thereby, researchers are able to identify possible effects of the announcements by analyzing the changes in the stock price of the firm in pre- and post- m&a period, hence on the shareholder wealth. Comparison of the value of the stock in these two time zones and any changes in it is assumed to reflect the sole effect of the deal and all other possible effects are assumed to non-exist.

The second approach refers to a similar but more detailed concept consisting of the analysis of firm performance again in the pre- and post-acquisition period but by using accounting and financial data. In this method, items to be studied are selected after carefully analyzing several issues such as firm characteristics, the industry in which they operate and even macro-economic situation. Once the key-motives are identified, a number of items representative of each characteristic are selected and analyzed thoroughly for any meaningful and significant changes. Studies are conducted for a time interval of a researcher-specific period of before and after the announcement deal.

There are several studies on the effects of deal announcement on shareholder wealth. The cases are mostly analyzed whether these transactions create positive wealth gains to the shareholders of the banks involved in the m&a transaction.

One of the earliest studies on the field is that of Cornett and Tehranian (1992). In this study, they tried to analyze the post-acquisition performance of large bank mergers between 1982 and 1987. Changes in economic performance following the bank mergers are used as a proxy. For the analysis of change in economic performance, they used accounting and cash-flow data. Furthermore, in the second part of the analysis, they examined the relationship between cash flow and stock market performance.

A similar methodology as that of in Healy, Palepu and Ruback (1991) who studied the acquisition of one public company by another but intentionally omit acquisitions of regulated firms was followed. A total of 30 acquisitions, consisting of 15 large interstate and 15 large intrastate bank acquisitions are used in the sample. The event window for the sample is selected as three years before and after the year of deal announcement. The correlation between the merger related stock market performance and the post merger performance of the merged bank is analyzed in the two-day period which is the date right before the announcement and the date of announcement itself. Standard event study methodology that Dodd and Warner (1983) presented is employed in this part of analyses.

The results show that bank acquisitions produced superior cash-flow returns on assets which are attributed to their increased ability in attracting loans and deposits in the period after the merger. Moreover, significant correlation between accounting and cash-flow performance measures and stock market abnormal returns are found. This is attributed to the prospects of bank performance that explains the equity revaluations of the merging banks. In other words, these prospects for the merger are realized in the period following the merger and these prospects are anticipated by the market participants at the deal announcement.

Abnormal returns for the target banks are found to be significantly positive in the two-day event window. It is worth mentioning that intrastate mergers outperform interstate mergers on the side of the target banks. However, the situation is contrary to those of the targets for acquirers. Their results show that acquirers

experience significantly negative abnormal returns in this period. In this case, the important point is that on the contrary to the negative abnormal returns attained from the analysis of intrastate mergers, interstate mergers experience insignificant positive abnormal returns which correct the overall negative situation to some degree.

Vander Vennet (1996) furthered the same issue of the effects of mergers and acquisitions on the efficiency and profitability of firms by broadening its range to cover all the credit institutions. As in most of the cases, newly implemented banking regulations, the effects of globalization trend and increasing competitive pressure and reduction of profit margins led the firms to involve increasingly in m&a transactions. As being the first study of the horizontal bank merger activity of 1992 in the EC, this study considered a significant contribution to the literature. Profitability and operational efficiency analysis of merging credit institutions in the deal announcement period is conducted. Data on their industry peers is used as a proxy. Two competing theories about the determinants of m&a; value-maximizing and non-value maximizing, are used to analyze the situation for EC banking.

The relevant hypothesis for the first approach is that poorly performed banks have a higher profitability of being acquired. Similarly, well-managed bank will be the likely acquirers. Regarding the US banking market, contradicting results exist. It is argued that the shareholders of low-performance target banks earn higher abnormal returns than the shareholders of high-performance targets (Hawanini and Swary, 1990). Acquirers of the former outperform those of the latter as well. Conversely, there are cases where there is no significant evidence for the poorly-performing banks more likely to become potential targets than well-managed ones (Hannan and Rhoades, 1987).

Synergy is considered another key element for mergers in this study. Its presence strongly connected with the presence of scale and scope economies. Considered a value-enhancing item, synergy facilitates the benefits that can be achieved from

scale economies by the mergers between small and medium-sized credit institutions. With the help of the deregulation efforts in the EC, inefficient banks become primary targets for takeovers which may also help managers improve their operational efficiency through cost improvements, especially in larger banks.

Lastly, achieving market-power is argued as a significant value-enhancing item. Especially in the case for horizontal consolidations; main motive behind the transactions is likely to strengthen its competitive position in the domestic market.

Second one is the non-value maximizing hypothesis which refers to the mergers that are undertaken by the managements' own preferences. Managers' desire to increase their control by increasing the size of the company they manage is a common example for this type of behavior. The resulting prestige of the managers is suggested a major motivation that led firms to engage in such non-wealth creating transactions.

In order to examine the effects of bank mergers on the firm performance, the accounting data of the participating institutions are analyzed since any impact of the deal is expected to be reflected in the accounts of the firms. Pre and post-merger performance of merging banks are analyzed accordingly. Their comparison is made through analyzing several performance and operational efficiency-related items.

They used the terms "credit institutions" and "banks" interchangeably in their study. The sample for bank takeovers is collected for the years 1988 to 1992. The final sample contains 422 domestic and 70 cross-border transactions.

According to the results of the analyses, acquirers in domestic acquisitions are found to outperform their industry peers in the three-year pre-acquisition period where this slightly above average performance continues for the post-acquisition period as well. Conversely, on the part of the targets, diminishing profits are seen over the pre-acquisition period. This deteriorating performance found to continue

over the post-acquisition period. It is argued that acquired institutions maintained their intermediation margin at the expense of the credit quality. It is further argued that the reason for this failure is the acquirers' overestimating their ability and confronting with resistance to change. However, the lack of operational integration and the relatively low degree of managerial leverage on the part of the acquirer are stated as more fundamental reasons behind the failure to upgrade the target banks' performance. The gap between the performance figures of acquirers and targets found to be significant in the period following the acquisition.

Regarding the domestic mergers, there is no sign of benefit from either operational or managerial economies of scale or scope. No evidence of improvement on the operational efficiency or profitability is found following the merger. However, the merger partners are found to manage to preserve their pre-merger profit levels. For the case of the merger of equals, declining profits in the pre-merger period seem to turn up and they increase steadily due to the successful recovery of operational efficiency in the post-acquisition period.

Findings for the cross-border acquisitions shows that slightly above-average profitability in the pre-acquisition period is preserved almost the same in the post-acquisition period. Increasing competition in the home markets results in decreasing interest margin. Acquirers are found to improve their operational efficiency after the merger. This improvement can not be attributed to the synergy created since no full-integration exists between merger partners yet. Possible determinant is stated as the successful transfer of superior management practices of the acquirer to the target which is often achieved by putting a managerial nucleus in the core departments of the acquired bank.

One of the most cited studies on bank mergers and acquisitions is that of Pilloff (1996). Influenced by then on-going trend of bank consolidations he examined the effects of deal announcement on firm performance by employing the two approaches stated before. His study followed that of Cornett and Tehranian (1992) by examining whether stock and accounting data shows significant changes in the

announcement period. Moreover, as being his main contribution to the literature, he extended the former analysis by examining the ability of certain pre-merger variables related to the size, location, and operating performance of merging institutions in an attempt to explain variation in both accounting outcomes and abnormal returns. Last but not the least; he extended the sample size by using a longer time period.

Mergers that occurred between 1982 and 1991 are included in the sample. A total of 48 deals are identified for the period. Time period for the analysis is chosen as two years before and after the deal announcement, as it is done in this thesis study. Immediate effects on stock returns are analyzed for the period of 20 days before the announcement date. He created a benchmark index consisting of the relevant data for comparable banking institutions in the industry omitting the data of those examined in the study.

The results show that despite market returns and performance changes show abnormal returns, neither of them is large on average. In addition to that, by further studying the inconsistencies between stock market and accounting data, he concluded that abnormal returns are uncorrelated with the changes in performance measures which contradict with the findings of Cornett and Tehranian (1992). This fact is attributed to the inability of the market in accurately forecasting performance improvements at the time of the merger announcement.

Another, perhaps one of the most similar examples of study to the one outlined in this thesis is that of Rad and Van Bek (1999) which focuses on cross-border mergers in the European banking sector in terms of their effect on their shareholders' wealth. The banking merger wave of late 80's has influenced the writers to profoundly inspect the situation in European banking industry as many others such as Cybo-Ottone and Murgia(2000) and Scholtens and De Wit (2004) would be doing in the future.

The effects that led to this great consolidation wave have been identified at the beginning. Writers argue that the creation of the European monetary union reducing the barriers, introduction of Euro eliminating exchange rate risk both allowed the conditions for further cross-border expansions and increased competition to occur. Several motives for bank mergers as creation of synergies being the most significant of all, management related benefits, risk reduction through diversification, achieving market-power and creation of shareholder wealth are listed for discussion in that these items and many others constitute a significant portion of the literature on the analysis of firm performance during the acquisition. Literature contains a great number of studies primarily using US data to examine the effect of bank mergers on shareholder wealth. Many of them found significant positive gains from these mergers on the side of target firm shareholders (e.g. Hawawini and Swary, 1990; Houston and Ryngaert, 1994; Hudgins and Seifert, 1996) while negative gains found for acquiring banks in the same period of announcement (e.g. Madura and Wiant, 1994; Wall and Gup, 1989; Hawawini and Swary, 1990; Houston and Ryngaert, 1994; Hudgins and Seifert, 1996).

The structural difference of European and US banking industries lures the desire for investigating the situation. Heterogeneity of European banking system is considered by the authors an important determinant of differences for both markets. Social, cultural, legal, economic differences help expand the gap further. Due to the wider range of activities European banks allowed legally to participate in than their US counterparts, they are more likely to experience economies of scale and scope up to a higher degree than US banks. In the study, a broader definition for banks is used as banks are defined as all financial institutions, including investment funds, building societies and insurance companies which is different from the definition that is used in this thesis. The geographical borders are extended beyond that of European Union as well.

The wealth hypothesis of whether bank mergers generate improved shareholder wealth, the Synergy hypothesis of whether a merger creates more value if the

potential economies of scale and scope are larger, The Inefficient Management hypothesis of whether well-performing acquirers acquiring poorly-performing targets outperform poorly-performing acquirers acquiring well-performing targets, the International Hypothesis of whether one of domestic and foreign acquisitions outperform the other and the Second Banking Directive hypothesis to examine the effect of the establishment of the directive on the mergers are five major queries analyzed in the study.

Unlisted banks were discarded from the sample. A list of 56 acquiring banks and 17 target banks that merged with or acquired another bank between 1989 and 1996 was created. Simple and conventional event study methodology is used as in our study and the announcement day as it is in almost all other studies in the literature is defined as the first trading day the information about the deal has reached the market. An event window of 40 days before and after the announcement date is used as again we used in our analysis for testing the immediate effect of deal announcement on the stock price of the firms.

Regarding the first hypothesis on wealth effects of mergers, the market reaction of acquiring banks to an m&a announcement is found to be slightly negative for the pre-merger period while it is found insignificantly positive for post-merger period. This result is due to the fact that targets are too smaller in size compared to the acquirers; hence their impact is relatively small on the acquirer's side. However, results are consistent with the previous findings in the literature stating that mergers do not create significant abnormal returns for the shareholders of the acquiring banks.

Regarding the target banks, significant positive returns are found for several sub-intervals of the entire event window. More specifically, a sharp increase in the one-week pre-merger period is followed by a gradual decrease in the post-merger period. These findings further imply that most of the gains from a possible merger are benefits mostly by the shareholders of target banks.

Regarding the second hypothesis on size effects of mergers, acquiring banks are divided into two groups as small and large banks. If economies of scale and scope to be exploited fully, it is supposed that smaller acquirers should outperform their larger counterparts since they have larger potential to grow. The results support this argument as smaller acquirer banks consistently experience higher abnormal returns.

According to the inefficient management hypothesis, efficient acquiring banks' acquisition of inefficient targets should result in higher efficiency provided that they successfully transferred their efficiency to them. The results support this argument in some sense that efficient acquirers outperform less efficient banks despite this difference being statistically insignificant.

Regarding the comparison of Cross-border versus domestic deals, the expectation of the authors is stated as foreign acquisitions should outperform domestic acquisitions. The importance of the argument is justified with the idea that correlations between different countries are less than that in domestic consolidations. However, the possibility of further cost savings ability in domestic mergers compared to foreign ones lies as a contrary argument in this case. The results, despite being insignificant, show that domestic mergers outperform foreign ones. However, it is suggested as a conclusion that domestic and international consolidations have similar effect on shareholders' wealth.

The hypothesis on the effect of the second banking directive faced similar results with the previous hypothesis that no significant difference between the mergers before and after the implementation of the directive is found.

In conclusion, European acquiring banks are found to experience no significant abnormal return while European target banks to experience significantly positive returns that are consistent with the findings of the studies on US banks.

Another frequently cited study is that of Berger et al. (2000). They expanded the subject to the determinants and results of globalization on the financial arena by examining cross-border banking efficiency in France, Germany, Spain, the U.K. and the U.S. during the 90's. The research is conducted on the basis of efficiency, market power, managerial and governmental motives and their consequences. The authors start with an assumption that cross-border acquisitions are sustainable provided that efficiency increases or at least it does not decrease significantly. Similarly, only those showing efficient patterns in management are assumed to transfer these skills, policies and procedures to the acquired institutions. Regarding efficiency, foreign owned institutions are expected to experience similar figures as that of domestic institutions. Nevertheless, previous literature argues that foreign institutions are less efficient that their domestic counterparts. In order to solve this contradiction, authors represent two main hypothesis as home-field advantage hypothesis which defends that domestic institutions are more efficient that foreign ones in general and global advantage hypothesis which proposes the idea that there are exceptions to the first hypothesis in that some foreign institutions can manage to operate more efficiently that domestic ones.

Analysis started with five countries as France, Germany, Spain, the UK and the US. Later on, it is extended to Canada, Italy, Japan, the Netherlands, South Korea, and Switzerland. Intra country aggregates for cost and profit items are estimated to use as benchmark in hypothesis testing. This approach allowed the researchers to make significant contributions to the existing literature which has limitations in this sense.

US data consists of 2123 banks; 1940 of which are domestic and the rest is foreign bank where the rest of the countries' data consists of 678 banks; 428 of which are domestic and the rest is foreign banks. The event window for both parties also differs slightly. US data is collected for 1993 through 1998 while others are collected from 1992 to 1997.

Results show that, not in all but in most of the countries, domestic banks found to experience higher mean profit and cost efficiencies than their foreign counterparts which are consistent with the existing literature. This finding is furthered by the authors by examining the countries in the sample one-by-one. According to this disaggregated results, it is found that the above mentioned situation can change among countries, the result of which refers to the rejection of the first hypothesis in favor of the second.

Not all the literature is based on the data of US but there also exist ample amount of research on European banking industry. One of the most significant of all is that of Cybo-Ottone and Murgia (2000). Their paper provides the first analysis of the stock market valuation of the largest mergers and acquisitions between banks and financial institutions that have been announced from 1988 to 1997 in 14 European markets. In this study, they examine the stock market valuation of mergers and acquisitions in the European banking industry. They found remarkably different results compared to those of researches on US banking industry which makes this study one of the most cited among all.

Limited literature on the European banking system is attributed to huge methodological difficulties of studying the fragmented structure of European banking market. However, compared to that of US banking system, Europe offers less restrictive environment for expansions in size, product distribution and ownership, thereby offering plenty of opportunities to investors compared to those by US market. Consequently, European banking industry considered to deserve more attention than it had attracted that far.

They performed an event study analysis and constructed a sample of 54 m&a deals covering 13 European Union countries plus the Swiss market. 18 of these deals are cross-product deals in which banks consolidate with firms other than commercial banks. They expect in their study that European m&a deals create positive results contrary to those of US banking deals where no value creation is reported. This difference is assumed to be resulting from different regimes that US

and European banking industry has. Also, decreasing cost functions in European m&a deals which is not present in US m&a deals, found to be consistent with these difference in two different markets. Furthermore, they tried to identify possible determinants of the m&a gains at the time of announcement by splitting the sample according to scope, geography, scale and legal nature of the deals. Further details on m&a motivations are identified by looking at the characteristics of both parties of the m&a before the deal. The gross list of deals from 1988 to 1997 in European market is used. Several restrictions are applied to the sample such as at least one partner to be a banking firm, deal value to be greater than US$ 100 millions. A total of 54 cases are identified finally. Stock values are analyzed in the symmetric event window from twenty days before and after the deal announcement day.

Standard event study methodology for examining abnormal returns is applied in the analysis of changes in stock prices. Sample is weighted prior to analyzing the results: in Panel A, the sample is examined using the total assets at the end of fiscal year as a weight for abnormal returns, and in Panel B using the stock market value at the end of month before the announcement date as a weight measure. Panel A further uses a benchmark index of general market index of each country while Panel B uses DataStream Bank Sector index.

Results in Panel A found to represent a significant positive market revaluation in the shorter event window while in Panel B it is not. Bank stocks tend to rise with the merger announcement due either to the increase in profits of the largest player with the increase in market concentration or to financial analysts expectation of other peers to be acquired. As a result of this increase in sector index, possibility of excess returns is limited. In all sub-sections of the entire event window, significantly positive returns are found for targets.

To sum up, there is strong evidence that an increase in value of the merger is observed with the deal's announcement in Europe, contradicting the general idea about no significant merger revaluation in US banking industry. However, both

targets and acquirers are found to underperform the market prior to the deal. Regarding the impact of deal announcements in the long-term, higher and significant abnormal returns are observed only for mergers with insurance companies. Moreover, the economic impact of cross-border deals and m&a with securities firms is found to be non-existent where combined abnormal returns of bidders and targets are found to be significantly positive market reaction around the deal announcement date for the rest.

Another study that puts US banks on the spot is that of DeLong (2003). She tries to find out the factors that the market anticipates will create value and then analyze if these anticipations realize and create value. This will allow one to identify the factors that lead to successful mergers and whether these factors are correctly assessed by the investors prior to the deal announcement. Regarding the effects of mergers, she analyzed the issue from two major aspects as focusing and diversification. Diversification here refers to the merger of banks with different revenue streams or cost structures where focusing to that of banks having almost similar structures.

Only those successful deals with both sides being publicly traded are involved in the sample. Deals from 1991 through 1995, a total of 122 mergers between US commercial banks are used. After observing several criteria, 54 bank mergers are left. The standard event study methodology of Brown and Warner (1985) is used to calculate abnormal returns. The period for abnormal stock return analysis is selected as ten days before and one day after the merger announcement. A period of one year before and three years after the merger is selected for firm performance analysis.

Results show that focusing mergers do not necessarily create improved long-term performance. The market is also found not to be able to predict the long-term performance of merger which is attributed to the dynamic and detailed structure of bank mergers itself.

Another important study on the subject is that of Scholtens and De Wit (2004). In this study, they tried to compare the short-term announcement effect of large bank m&a in European and the US stock market. Their focus is on identifying any changes in the stock price of the banks involved in these transactions. In line with the previous findings of DeLong (2003) who examines the announcement effects of US versus non-US bank deals, Berger and Humphrey (1997), Pilloff and Santomero (1998), and Houston et al. (2001) who use US data to determine whether bank mergers create shareholder wealth, they expect the news of a bank m&a announcement to have the highest impact in highly developed markets. Another typical finding in the analysis of the effects of m&a is that target shareholders earn significant positive returns while acquiring shareholders earn negative abnormal returns from m&a transactions.

They constructed their sample from the bank mergers from 1990 to 2000. A total of 81 acquiring banks and 78 target banks are identified. Conventional event study methodology (Weston et al., 1990; Campbell et al., 1997) is used to analyze the immediate effects of the mergers, a period of three days before and thirty-one days after the announcement date are obtained and used. Abnormal returns of the stocks compared to the relevant market index and banking sector index values in the deal announcement period are used as a proxy for the calculations.

As the result of the analysis, they found that target banks earn higher returns than acquirers, as expected prior to the analysis. For the second part of the analysis which compares the announcement effects of US and European bank mergers, they found that different results are produced from these transactions for two groups. US acquiring banks are found to realize negative abnormal returns, while target banks are found to realize positive returns in the announcement period which is consistent with the findings of Hudgins and Seifert (1996) who examined the wealth effects of US target banks involved in these transactions and concluded that US target banks' shareholders benefit from these transactions. Nevertheless, banks in Europe are found to realize lower abnormal returns compared to their US counterparts.

One of those researches which assert negative post-merger performance for bank holding companies is that of Knapp et al. (2005). In an attempt to identify the determinants of these transactions in this study, post-m&a performance of banks are examined. Financial performance in the first five years of post-merger period along with the stock price movements is analyzed. The entire event window is divided into five sub-sections and analysis furthered in each of these periods. Moreover, to identify the main determinants of the results, overall performance is broken down into its components.

A sample of 80 bank merger from 1980 to 1990 is studied. Only those mergers with a deal value greater than $25 millions are included in the sample. Moreover, as stated in the findings of Houston et al. (2001), mergers with its targets having a substantial impact on the acquirers' are selected and added to the sample. The benchmark index used consists of appropriately sized peers in the banks' industry, something similar to that of DeLong (2003). Analyses are conducted on the basis of comparing pre- and post-merger performances of banks. Data for each year in the 5-years post-merger period is compared with that of the last year before the merger. A multiple regression model is used to identify the significance of the determinants of variance in ROE, which is used as a proxy for firm performance along with ROA. Eight independent variables are selected as candidates affecting firm performance.

Results show that buyers significantly outperform the industry average in the year of the deal, both in terms of ROA and ROE. Acquirers are also shown to perform well as their targets in the same year of the deal. This bright picture turns down in as early as the first year of post-merger period and maintains the same downward trend in the next 4 years. Merging banks found to underperform the industry for both ROA and ROE. This finding is attributed to the negative banking environment in the period from 1987 to 1994. However, it is added to the argument that this is not the sole factor in the failure.

Other major findings in the analyses are merging banks being less effective in terms of noninterest expense, generating fee income, noninterest income to total assets, earning assets to total assets while the weight of loans in the banks' financials are increasing which suggests that banks are shifting the funds from securities to loans. Credit quality is also found to decline while noninterest expenses tend to outperform the industry in the period following the merger. The effect is so substantial that in the second part of the analyses where the determinants of these results are tried to be identified, the item Charge-offs to Equity is the only variable that is significant for all the years following the merger.

In the event study part of the analysis where the market reaction to the mergers is identified, 79 of the all 80 mergers are used in the sample. Markets response is found to be significantly negative which is consistent with the findings of Pilloff (1996) and Houston et al. (2001). To sum up, this study supports the idea that merger announcements either not change or diminish the market value of acquirers. In the formation of these results, credit quality plays the key role in the bank performance.

The study of Olson and Pagano (2005) is perhaps the most significant of those that primarily focuses on the determinants of long-term performance of banking m&a. Like most of their colleagues, they used the data of US publicly traded bank companies from 1987 to 2000. Proposing a new concept of sustainable growth which presents a comprehensive measure of banks ability to manage its complex composition, they tried to examine the determinants of post-merger stock performance in the commercial banking industry during the year aforementioned.

Two key components of this new model are the bank's asset size and profit margin which is derived from the firms' financial statements like all the other variables included in the model. Hence, sustainable growth model proposes a detailed yet simple overview of firm's structure. In this study, they construct a model consisting of bank's return on assets, dividend payout, and equity capital

ratio which will allow one to identify if the pre-merger motivations for firm performance are realized after the merger. Achieving the optimal level of these items included in the model is expected to result in improved value for the bank. Whether this sustainable rate of growth is reflected in the increased value of the bank is another key point mentioned in the study. As a final point, long-term performance of the acquirer's risk adjusted return is examined for whether it has impact on the sustainable growth. Gathering all the answers to the selected questions are assumed to provide investors with significant clues in selecting the most valuable target and enhance the management of the new organization.

The term "sustainable growth" is defined as "…the growth in sales the firm can achieve given its operating constraints and without altering its dividend or financial policies". It has some assumptions where the firm's actual growth will deviate from this level if these assumptions do not hold. Thus, contrary to its meaning, sustainable growth rate is expected to change with the changes in the accounting variables referred in the assumptions.

Sustainable growth can be considered a balance of funds inflow and outflow. According to the idea of this equation, several implications were derived. Firstly, the sustainable growth of a bank in the long run is dependent on its long-run operating performance. Secondly, as stated above, changes in the items of sustainable growth model which are bank's return on assets, dividend payout, and equity capital ratio will also influence a change in the bank's sustainable growth. Thirdly, which is a derivative of the second actually; a bank's sustainable growth rate can only be changed by changing the value of these items. Fourthly, it can be seen as an optimal level for operating performance. And finally, achieving this optimal level should lead to the maximization of bank's value.

Long-term performance is analyzed with the abnormal stock-return data for each deal. A period of three years after the merger is selected for analysis since the effects of the merger to be realized can take several years. In contrast to some of the earlier literature (Healy et al., 1992; Cornett and Tehranian, 1992), pre- and

post-merger data for both the acquirer and the target are not aggregated since both parties and their performance are to be examined separately.

The event window is selected as one year before and three years after the merger including the year of the deal. The sample consists of bank mergers between January, 1987 and December, 1997. Firms' stock and relevant accounting data for the corresponding period of the merger deal is used in the model.

The key results for the study are as such: It is found that the acquiring bank's estimated sustainable growth rate prior to the acquisition, as well as post-acquisition changes in this growth rate, and the bank's dividend payout ratio are statistically and economically significant determinants of the merged bank's abnormal stock return performance over the three years following the merger. A bank's changes in its dividend payout policy, riskiness, and dividend growth rate are found to be primary determinants for long-term merger stock performance compared to those previously stated in the literature however they can still be relevant in examining a bank's merger premium and short-term stock returns.

Another study on the deal announcement effects of European bank acquisitions is that of Campa and Hernando (2006). In their research study, the year of the creation of Euro is selected as the milestone. Resulting performance structure of mergers and acquisitions in European financial institutions are examined through analyzing the stock market response and operating and accounting performance of both parties of the deal. Two criteria as geographical scope of the merger along with relative sizes of two sides of the mergers are used to analyze value-creation effects and change in performance. It is worth mentioning that the context and the methodology used in Campa and Hernando (2006) is very similar to what is discussed in this study.

As in most of the cases on the effects of bank mergers and acquisitions deal announcements, their study firstly focuses on the changes of stockholder value with the announcement of the merger. Secondly, they shift their focus on

evaluating the expected gains from m&a in terms of post-m&a operation improvements. Finally, they focus on the effects of regulatory changes in the European banking market which is doubted to have significant influence on merger related gains of financial firms.

Conventional event study technique is used to analyze the stock market reaction to mergers. Transactions with both firms are required to be financial firms between 1998 and 2002 in the European Union are included in the sample. Only publicly traded companies are included in the sample because of stock value collecting purposes. After elimination of inappropriate deals, a total of 172 samples, of which 104 are banking institutions. Daily stock value of one year before and after the deal announcement date is used in this part of analyses. This period is also broken down into sub-periods to measure immediate and long-term effects separately.

In the second part of the analyses, accounting and financial evaluations of the performance prior to the merger is compared with that of the post-merger period. Profitability (return on equity and net financial margin), solvency (capitalization ratio), efficiency (cost to income ratio), lending intensity (net loan to total assets) and risk profile (loan loss provisions to total loans and loan loss provisions to net interest revenue are selected as key variables to be analyzed in the model.

Results of the analyses show that acquirers experience a slightly higher return on equity and efficiency while a lower lending intensity and risk profile in their lending activity than targets. These results suggest that acquirer have a better risk profile that target banks. Targets are also found to show significant improvement in ROE following the merger which is consistent with the findings of Altunbas and Marques (2004) who argues that European bank mergers in 1992-2001 show improvements in return on capital. Despite a significant positive impact of the net financial margin of target banks, the effects diminish in time which is attributed to the movement of interest rates between 2000 and 2002. Moreover, there is no

evidence for the effect of cost to income ratio which is consistent with the findings of Vander Vennet (2002).

Regarding the stock returns, targets found to experience positive abnormal returns with the announcement while no or slightly negative returns are evidenced on the side of the acquirer in the same period. However, no correlation found between positive abnormal returns and operating improvements after the merger.

In another study, Gleason, Mathur and Wiggins (2006) also examined international bank expansions into developing and developed markets. Their study includes both the analysis of stock returns and accounting and operating performances of banks before and after the announcement. Their study consists of five group of hypothesis. In one of them, they expect average returns for expansions into developing markets to be above the average. Thus, relevant question states that bank expansion into developing countries will result in positive average announcement-period abnormal returns. In addition to acquisitions by US banks, they analyzed the effect of joint ventures by them.

They use two different event windows: one for stock price and one for the long-term effect on the operational performance of the firm. The period for the analysis on the stock price is selected as one day before and one day after the announcement. The period for operational performance analysis is one year before the announcement to two years after. Accounting, financial and stock price data are collected for the corresponding period. Regarding the selection of accounting and operating performance indicators, they followed the method similar to that of Cornett and Tehranian (1992) who analyzed the post-acquisition performance of large bank mergers between 1982 and 1987.

Their sample consists of deal announcements from 1984 to 1998 including only nationally chartered banks that trade on New York Stock Exchange (NYSE), American Stock Exchange (AMEX) or NASDAQ. The final sample consists of

459 expansion announcements; 233 and 226 of which are acquisition and joint venture announcements, respectively.

Examining 233 bank acquisitions, they found no significant announcement effects in their study. However, they found significant positive long-period holding returns for banks expanding into both developed and developing economies. In general, both accounting and market value performance of sample banks found to improve significantly in the two years following either type of expansion announcement.

Another contradiction to the findings of Gleason and Mathur (1998), Knapp et al. (2005) and Pilloff (2001) which shows that cross-border bank acquisitions result in negative average returns is those of Altunbas and Marques (2007). The objective of their study is to find out the effect of the degree of similarities among European Union banks on their post-merger performance. They expect these similarities to lead to higher profitability for merging banks. They found that bank mergers, on the average, result in improved performance. In addition, regarding the cross-border bank mergers, loan and credit risk strategies of two merging parties promotes higher performance where cost capital structure diversity has a negative impact.

This study is just another one of those working on European Union banks. Following the concept of strategic management, they based their study on the idea that potential benefits of product and geographical diversification are the key factors in banks' managements to involve in cross-border consolidations. A multiple regression model as Knapp et al. (2005) used in their study is selected with the change in performance and several other financial indicators as being the dependent and independent items in this model, respectively. Explanatory variables include measures of financial performance, asset and liability composition, capital structure, liquidity, risk exposure, profitability, financial innovation and efficiency plus relative size, performance of the bidder, country and time dummies.

Data selected covers all mergers and acquisitions in European banking sector from 1992 to 2001. A total of 262 m&a deals, of which 207 are domestic and 55 were cross-border are listed in the sample. Two years before and after the deal announcement are selected as the event-window for the analyses.

Results show that the performance of the new entity after the merger shows increasing performance in the post-acquisition period. Acquirers also found to show positive performance in the same period which is contradicting with the results of US banking market. It is derived from the multiple regression results that size differences between merging partners play a significant role in m&a performance. In cross-border mergers, the larger the target, the higher the post-merger performance which is attributed to the idea that the primary goal here is not to achieve cost economies but to benefit from other opportunities provided.

Concerning the differences in capital structures, cross-border mergers found to result in lower performance as the gap widens between the two sides. Same is valid for differences in efficiency level and deposit strategies of the two parties of the m&a in the pre-merger period. However, for cross-border mergers, the greater the degree of difference in credit-risk and loan position, the better the improvement in performance. Same is valid for the level of similarities on the banks' technology and innovation strategies.

To sum up, despite having no consensus on the effects of bank mergers and acquisitions in the previous literature, the majority of the findings suggest that m&a transactions do not necessarily create significantly positive abnormal returns, especially for the acquiring firms. However, there is an increasing trend of m&a in the recent years which stands as an important contradiction in our eyes. This contradiction constitutes the major motivation of this thesis study on cross-border bank acquisitions. Again derived from the literature, it is clear that emerging market economies as our country Turkey have not attracted the attention they deserve as being the rising stars of this new era. Hence, it is aimed in this

thesis study to help to throw a light on this blank by providing an overview of the situation in these economies.

The analyses include two major parts. In the first part, the impact of the cross-border bank m&a in emerging market economies is examined on the side of the shareholders. The effects of these transactions on the wealth of shareholders are tested through conventional event study methodology. This part of the analyses further includes both the short-term immediate and long-term testing of the effects. And in the second part, same impact is examined for both the acquiring firms and the target banks of the acquisition deals. The operational and financial performances before and after the acquisition are compared for both parties. The details for the analyses are listed in the next section of this thesis.

CHAPTER 3

DATA AND METHODOLOGY

3.1 Data

The sample of the study consists of all emerging-market commercial banks that were acquired by foreign companies from any industry between the years 2000 and 2008. China is excluded from the sample since it has substantial differences as an economy from the rest of the emerging economies and should be treated separately. Emerging markets are identified according to the Internet Securities, Inc. (ISI Emerging Markets) database's definition. According to this database, the list of emerging market economies consists of 70 countries from 6 geographical regions, covering Central Europe, Southeast Europe and Turkey, Russia/CIS (including Central Asia and Caucasus), Greater China, India and Latin America, MENA and other regions. The sample includes only cross-border bank acquisitions and each transaction in the sample satisfies the following selection criteria:

1. The transaction is listed in the ISI Emerging Markets Deal Watch Database.
2. For the event study analysis on the immediate stock market reaction, only those companies with daily common stock returns available in the period (-40,+40) days around the deal announcement date are included in the sample.
3. For the event study analysis on the long-term stock market reaction, only those companies with daily common stock returns available in the period one day following the deal announcement date to one year after the deal announcement date are included in the sample.

4. For operating performance analysis, only those companies with relevant annual accounting items available in the period (-2,+2) years around the deal announcement year are included in the sample.
5. Announcement dates of the transactions are available and traceable on the ISI Emerging Markets Deal Watch database.

Based on these criteria, the sample companies are determined based on the information provided in the ISI Deal Watch database. The stock returns for both sides are collected from Thomson Financial database. Necessary accounting data are obtained from online databases such as ISI Emerging Markets, Factiva, and Thomson Financial databases.

Those companies that are involved in a transaction but were closed at the time of data collection are also included in the sample in order to avoid the survivorship bias. However, those companies that are involved in more than one deal simultaneously are excluded from the sample in order to avoid the contamination effect.

A total of 114 cross-border bank acquisition deals in emerging markets of over 80 countries are identified in the period January 2000 to February 2008, shown in Figure 1 below. An increasing trend is obvious starting from the year 2004. The data for 2008 includes the deals until the end of February, for the first two month of the year.

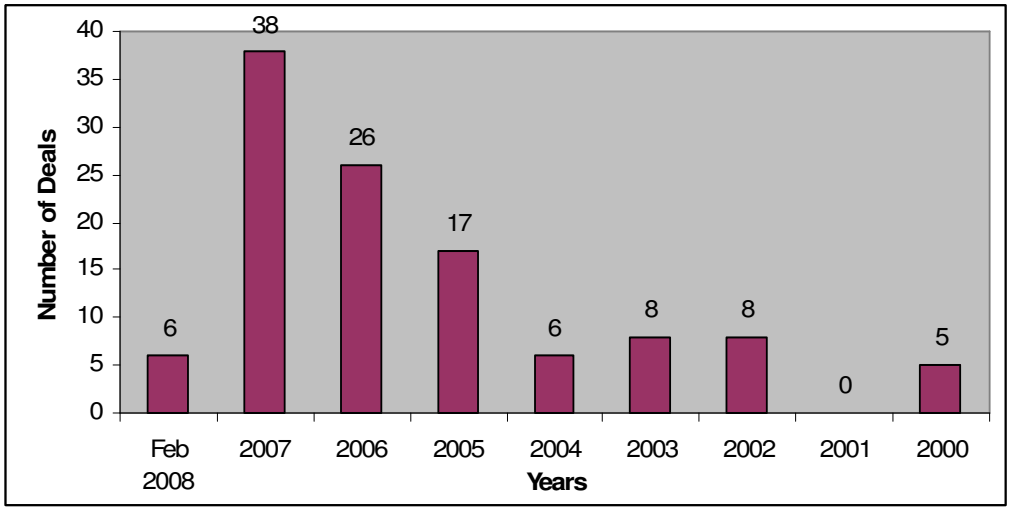

Figure 1: Cross-Border Bank Acquisition Deals in Emerging Markets in Years 2000 to 2008

For testing the immediate effect of acquisitions, all of these 114 deals are eligible to be included in the sample. Another issue worth mentioning here is that throughout the data collection process, either acquirers or target banks or both having any other major concurrent economic event in the period of testing are excluded from the sample to avoid contamination effect.

During data collection for testing the immediate shareholder wealth creation effect, 67 deals for acquirers and 10 deals for targets are found eligible for further analysis. The number is reasonable for the acquirers; however, the number of targets is very small. As mentioned before, target firms are rather small and unlisted national or local banks operating in emerging markets. Hence, both stock and accounting data for these banks are mostly unavailable in the databases used for data collection. Furthermore, of these 67 deals of acquirers, 55 are financial and 12 are non-financial firms'.

However, regarding the long-term testing of the change in shareholder wealth, only 80 of these 114 deals can be included in the sample. Deals occur between January 2000 and March 2007. Deals after March 2007 are excluded from the

sample since necessary data of one year from the deal announcement date is yet unavailable, which caused the sample size to reduce to that level. Due to this unavailability of daily stock price data in the period mentioned, 34 deals occurred beyond April 2007 are excluded from the sample.

Of these 80 deals, data for 45 deals of acquirers and only 6 deals of target banks can be collected and selected for further analysis. Such a low level for targets is expected for the reasons mentioned before. Moreover, of these 45 acquirers, 39 are financial and 6 are non-financial firms.

Similarly, due to lack of necessary accounting data in the period of two years around the year of acquisition, those acquisitions after the year 2005 are excluded from the sample for firm performance analysis and the entire sample ended up with only 43 deals. There are 6 major categories and 8 different ratios; every of which is a different story.

3.2 Methodology

The analysis of cross-border bank acquisitions is performed in three stages. In the first stage, the stock returns are examined by calculating abnormal returns through the market model in order to determine whether value is created for the stockholders of the acquiring firms and target banks immediately after the deal announcement.

One of the critical assumptions in calculating the abnormal returns is that any change in the stock returns of the related companies is due to the impact of the acquisition and no other factor. In order to ascertain that this assumption holds, those companies –acquirer or target- that have any other economic event with a potential impact on stock returns taking place simultaneously with the deal are excluded from the sample. These events and/or announcements include any economic event that is likely to significantly influence the market value of the firm such as takeovers, bankruptcy proceedings, leveraged buy-outs, other

mergers and acquisitions and relevant bids for these transactions. Firms with this type of a concurrent event and/or announcement over the 40 day period (t=-40) preceding the announcement day for the merger under analysis (t=0) are excluded from the sample (Cakici and Hessel, 1991).

The market model is used to measure the abnormal returns around the announcement for the transaction. The announcement day is taken as the first day that news about the deal reaches the market. This date is determined by scanning the ISI Emerging Markets Deal Watch database. The market model is estimated over the event window from day -270 to day -41, where day 0 is the deal's announcement in the ISI Emerging Markets Deal Watch database. Daily abnormal returns are then calculated for each firm over the period t=-40 to t=+40 days for testing the immediate effect of the deal announcement on the stockholder wealth in the pre- and post-acquisition period.

Within the market model framework, abnormal return equals the difference between the stock's observed return and the expected return. The expected stock return is calculated in the following manner:

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it} \quad (1)$$

In this equation, R_{it} is the observed return on security i for event day t, R_{mt} is the observed return on the benchmark index for event day t and e_{it} is the error term of security i for event day t.

Two different benchmark indexes are used to estimate the market model: DJ STOXX™ Global 1800 and DJ STOXX™ Global 1800 Banks [8300]. Both of these indexes are compiled by the Dow Jones and Company Inc. and the first one is used as the market portfolio proxy for the acquirers and the second index is used as the market portfolio proxy for the target banks. The reason for using two

different market proxies is the fact that the companies on the two sides of the transaction have very different characteristics. First, both the acquiring firms and the target banks come from different countries, and, so, it is not possible to use a national stock index as a proxy. Second, since the acquiring firms belong to different industries, it is impossible to use a specific sector stock index as the market proxy.

The Dow Jones STOXX™ Global 1800 Index contains 600 European, 600 American and 600 Asia/Pacific region stocks and therefore covers a significantly large portion of the global market with a free float market capitalization of USD 29,289.27 billion (almost 86% of the world total market capitalization of USD 34,158.52 billion). DJ STOXX™ Global 1800 Banks [8300], which is a derivative of the former, reflects the weighted-average prices of the stocks of 163 major banks from around the world whose total market capitalization is large enough to successfully represent the characteristics of the entire bank population worldwide. It represents a free float market capitalization of USD 3,644.82 billion which almost equals 91% of the total market capitalization of USD 4,022.63 billion. Data starting from December 31, 1991 are available online for both indexes.

After the calculation of the expected return, daily excess returns are estimated by taking the difference between the estimated and realized stock returns. This difference is the unanticipated portion of the daily stock return that cannot be accounted for the by the market model. The abnormal return (AR) for firm i at time t is calculated in the following manner:

$$AR_{it} = R_{it} - [\alpha_i + \beta_i R_{mt}] \qquad (2)$$

In order to estimate the total effect of the acquisition, cumulative abnormal returns (CAR) are calculated over the period t=-40 to t=+40 for each firm in the sample:

$$CAR_i = \sum_{t=1}^{k} AR_{it} \tag{3}$$

In Equation (3), i=1,…,N denotes the number of firms in the sample.

These cumulative abnormal returns are tested separately for statistical significance for firms on both sides of the acquisition. The significance of the CAR is tested using the z-statistics. The z-statistics for the abnormal returns is based on the standardized abnormal return, SAR, and is calculated as

$$Z_t = \sum_{i=1}^{N} SAR_{it} / \sqrt{N} \tag{4}$$

where $SAR_{it}=AR_{it}/S_{it}$,

$$S_{it} = \left[S_i^2 \left[1 + \frac{1}{L} + \frac{\left(R_{mt} - \overline{R}_m\right)^2}{\sum_{k=1}^{L} \left(R_{mk} - \overline{R}_m\right)^2} \right] \right]^{1/2} \tag{5}$$

Where S_i^2 is the residual variance for security i from the market model regression, L is the number of observations during the estimation period, R_{mt} is the return on the market portfolio for day t, R_{mk} is the return on the market portfolio for the k^{th} day of the estimation period and $\overline{R}_m$ is the average return on the market portfolio for the estimation period.

Not only is the immediate but also the long-term stock market reaction tested in this thesis. The impact of the acquisitions on the long-term stock performance of both parties of the deals is examined in the second part of the analysis. Daily abnormal returns are calculated for each firm over the period one day following the deal announcement and one year after that. Holding Period Return (HPR) is used in this stage of the analysis. HPR is the percentage by which the value of a stock has grown over a particular period. In other words, HPR shows the amount that a stockholder would gain/lose when a stock is held during a given period. It is measured by subtracting the initial value of the stock from its final value and dividing this result by the initial value of that stock. The ultimate result less one is the return that this particular stock earns to its holder in that specific event window:

$$HPR = \left(\frac{(P_{n+1} - P_n)}{P_n} \right) - 1 \qquad (6)$$

where P_{n+1} is the price of the stock on the day one year after the deal announcement and P_n is the price of the stock on the day before the deal announcement.

In the third and the last section of the analyses, pre- and post-acquisition performances are compared for these target banks and acquiring firms separately to figure out the operating and financial impact of the deal on the firm performance. At this step of the analysis, the entire event window is selected the same as it is in the second part of the analyses, i.e. in the period t=-2 years to t=+2 years around the year of the acquisition. t=0 is the year of the acquisition. For instance, if the transaction occurs on May 28, 2005, t=0 refers to the year 2005, t=-1 to the year 2004, t=-2 to the year 2003, t=+1 to the year 2006, and t=+2 to the year 2007. Firms with any other major concurrent event and/or announcement

over the period of the deal announcement for the acquisition under analysis are excluded from the sample.

Performance changes are tested using the t-statistics as:

$$t = \left(\sum_{i=1}^{N} \left(X_{post} - X_{pre} \right) / N \right) / \left(\sigma / \sqrt{N} \right) \qquad (7)$$

where X_{post} is the post-merger performance of the target banks or acquirers, X_{pre} is the pre-merger performance of the target banks or acquirers,σ is the standard deviation of the distribution of the performance change in both acquisition parties, and N is the number of firms for each sample.

Performance analyses are conducted in six major categories derived from the previous literature. The variables to be tested include several accounting items. These variables are identified by reviewing the existing literature on the characteristics of the acquired and target firms in M&a transactions. Though it can be inferred from the literature that there are many different firm characteristics that may have an impact on the investors' acquisition decisions, only the most significant ones from the literature are used in this study. These items are grouped into 6 main categories as; (1) Profitability, (2) (Leverage) Risk, (3) Size, (4) Market Share, (5) Efficiency, and (6) Capital Adequacy.

3.2.1 Variables

One of the main objectives of managers is to make and implement decisions that will improve the future performance and thus increase the stock price of the firm. On the other hand, investors make their investment decisions by looking at key measures of the firm including profitability, size, market share, risk, etc. While making a decision, they use key descriptive items included in the financial statements both to identify the characteristics of the firm, its current position and to anticipate the future performance of the firm. It is mainly these prospects about the firm's future performance and their realizations that determine the stock price of the firm in the market.

The acquiring firms and the target banks included in the sample come from different industries. As a result, identifying those common variables that will be descriptive of all companies proves to be a major task in this study. The existing literature is reviewed to determine which variables have been used to identify the characteristics of targets and acquirers. Based on the previous findings, the following six factors are determined to be the most relevant common factors that will be used in this study:

3.2.1.1 **Profitability:**

The profitability ratios show the combined effects of all major decisions taken by the firm. Through these ratios, it is possible to gauge the financial success of the company. Profitability prospects of the firm are also closely tied with the firm's stock price. One of the ways that an expectation of change in profitability is reflected is through stock returns. More precisely, holding all the other factors such as risk constant, an anticipated improvement in the firm's profitability results in an increase in the stock price while an anticipated deterioration in returns results in a decrease. Since the shareholders' wealth is directly affected from any

change in the stock price of the firm, the shareholders will prefer to invest in a firm with a potential of high profitability.

Profitability is also considered to be a major motivation behind merger and acquisition decisions. While the past performance of the target firm significantly influences the decision, it is the future prospects of the acquirers that usually finalize the deal. Rose (1988) argues that acquired firms tend to have relatively low profitability. The typical argument is that even though the target firms might be underperforming the acquirers, they can be restructured in several ways for success after acquisition. Therefore, it is expected that acquirers may target not only those banks with relatively higher profits to benefit from their existing success but also those banks with relatively lower profits with the potential to increase the profitability in the post-acquisition period.

In the literature, profitability for the acquirer or the target is measured as the return on equity (Kim, 2007). Return on assets is also used in this study. It should be noted that while the return on assets measures the return-generation potential of the firm's assets, return on equity shows the effects of financial leverage usage in addition.

Based on the arguments in the existing literature, profitability for the target banks and the acquirers are expected to increase in the post-acquisition period. We expect both the ROA and ROE to increase following the acquisition of the target bank by the acquirer. Relevant hypothesis to be tested are as follows:

For the ROA;

$$\begin{aligned} H_o &= ROA_{pre} \geq ROA_{post} \\ H_1 &= ROA_{pre} < ROA_{post} \end{aligned} \tag{8}$$

and for the ROE:

$$H_o = ROE_{pre} \geq ROE_{post}$$
$$H_1 = ROE_{pre} < ROE_{post} \quad (9)$$

Regarding the profitability, the failure to reject the null hypothesis for both ratios shows that there is no significant improvement in the profitability of the target banks following the acquisitions. Furthermore, this failure to reject may signal diminishing profits in the period after the acquisition. Rejection of the null hypothesis, on the other hand, can be interpreted in several different ways such as acquirers successfully transfer their superior practices to the acquired banks, reduction in costs achieved and acquisition synergies are occurred.

3.2.1.2 Financial Leverage:

Firms may either use debt or equity or both to finance their investments. Even though there is no "right" mix of the two for the right-hand-side of a firm's balance sheet, different industries and different firms tend to have common tendencies regarding the use of financial leverage. For instance, although it is usual for banks to have a very high leverage ratio due to the nature of their business, the same level of debt may be a signal for possible problems in the case of a non-bank company. Hence, having the optimum financing portfolio is crucial not only for the management of the firm but also for the investors who are searching for safe but high-return companies to invest in.

In financial terminology, leverage is the situation in which potential outcomes of certain actions are magnified. In general, it refers to using debt rather than equity as a way of financing. In good times, leverage allows greater potential returns to the investor than otherwise would have been available. On the other hand, if the investment becomes worthless, the potential for loss will also be greater since the

loan principal and all accrued interest on the loan still need to be repaid. In other words, holding all the other factors constant, leverage magnifies not only the gains but also the losses from an investment and this is what makes leverage a very important issue for the management and investors.

The uncertainty about the results of these investments generates the risk and this close relation between risk and leverage is what investors take into account in making their investment decisions. Shareholders benefit from financial leverage through increase in share prices to the extent that return on this borrowed money exceeds its interest costs. If the investment fails and yields a return below the cost of debt, principal and the interest to be paid, along with the capital risk which refers to the risk of a firm being unable to pay back its debt and go bankrupt, this will harm the firm value and lower its share price. Hence, investors prefer firms with less risk but high returns to invest in.

Usually measured as the ratio of total equity to total assets, leverage is another important factor that seems to play a role in the acquisition decisions. Beatty et al. (1987) argue that a higher equity ratio is necessary for a firm to decide to acquire a target. Acquirers with lower levels of debt are found to be more likely to acquire potential targets. A similar argument also applies for the risk position of the target bank. Rose (1988) argues that the high liquidity and low leverage of the target firm increase the probability of it being acquired and more importantly, acquired firms may serve to lower the acquirers' exposure to credit-risk in the post-merger period by increasing consolidated capital and liquidity reserves, especially when the acquirer is also a bank.

In this study, the focus is on the change in the risk position due to the amount of leverage of the acquiring firm after the m&a transaction. Derived from the findings above, a decrease in the degree of leverage risk for acquiring firms is expected in the post-acquisition period. In other words, we expect the acquirers to have lower level of debt in the post-acquisition period than in the pre-acquisition period. The ratio of Total Debt to Total Assets is used for testing. FL is used to

refer to this ratio of the firms. Relevant hypothesis for testing the change in the financial leverage position of the acquiring firms is as below:

$$H_0 = FL_{pre} \leq FL_{post}$$
$$H_1 = FL_{pre} > FL_{post} \quad (10)$$

The failure to reject the null hypothesis reflects acquiring firms' aggressive behavior as using debt for financing where rejection of the null hypothesis indicates the conservative and complacent behavior of the acquiring firms.

3.2.1.3 Growth Potential in Size:

It is argued that mergers and acquisitions can be used by the acquiring company as a means of growth. Even though an increase in the level of profits, loans, assets, etc. for the target company in the pre-acquisition period is appealing for the bidders, it is the future prospects that really influence the acquisition decision.

Increase in size not only helps the acquiring firm to strengthen its position in the market but also may result in higher sales volume and earnings. Especially in the emerging market economies with endless growth opportunities and hunger for foreign investment, the larger the firm, the better it survives and copes with stiff competition. Foreign investors are willing to test these new waters and try to exploit the existing opportunities. Hence, firms that possess satisfactory rewards for its owners attract foreign investors. Growth not only provides firms with the fruits of geographical diversification, but also allows the acquirers to fully utilize this potential and generate significant returns in the post-acquisition period accordingly.

The growth potential of the target banks also seems to be an important factor in the cross-border bank acquisition decision. Researchers have spent considerable

time on not only the past trend but also the future prospects of the change in the company size in terms of deposits, loans, total assets, etc. Kim (2007) finds that the acquirers are larger in size than target firms. Rhoades (1987) argues that dealers acquire banks not for profitability but rather for their growth potential, which is in line with the findings of Kim (2007) who shows that the growth rate for targets is lower in the pre-acquisition period.

In line with previous studies, both the acquirers' and target banks' growth potentials are identified as one of the key factors that influence the investors' M&a decisions. It is expected that targets increase in deposit and asset size in the post-acquisition period. D and A refer to the change in the Deposits and Assets, respectively. Two pairs of hypothesis are used in the analysis as:

For the deposits;

$$H_0 = \Delta D_{pre} \geq \Delta D_{post}$$
$$H_1 = \Delta D_{pre} < \Delta D_{post} \tag{11}$$

and for the assets;

$$H_0 = \Delta A_{pre} \geq \Delta A_{post}$$
$$H_1 = \Delta A_{pre} < \Delta A_{post} \tag{12}$$

The interpretation of the possibilities would be such that the failure to reject the null hypothesis for the deposits indicates that targets bank experience difficulties in attracting more deposits following the acquisition while rejection of the null hypothesis refers to the accelerated growth in deposits with the acquisition.

Similarly, regarding the asset growth, the failure to reject the null hypothesis is a negative signal for acquirers seeking positive returns through growth where the rejection of the null shows acquirers' success in improving their targets' growth, thereby their market value.

3.2.1.4 Growth Potential in Market Share:

Market share shows the proportion of the total market held by a particular company. It becomes even more important for emerging economies. As the market in which the firm operates emerges, the controlled portion of the pie should increase for a firm to be regarded as successful. This implies that the company is successful in its operations, its products/services are popular compared to those of other firms and the firm outperforms its rivals in the competition. Firms with these credentials attract the investors more for possible acquisitions and investors consider market share performance of a firm a top issue in their acquisition decisions.

Previous studies show that firms with higher market share become more attractive targets (Hannah and Rhoades, 1987). However, there are also studies that argue that firms with smaller market shares may also attract investors under the premise that they can improve the target's market position (Moore, 1996). Moore (1996) also argues that high market share can be a drawback for a bank to be acquired due to regulatory concerns about anticompetitive effects. Furthermore, possible acquirers may not be large enough to acquire a bank with substantial market share.

Based on the findings from previous studies, target firms are expected to increase their market share in the post-acquisition period. This growth potential in the targets' market share plays a significant role in investors' acquisition decisions. Market share, shown as MShare, is measured as the ratio of the target bank's Total Assets to the market's Total Assets. The relevant hypotheses used for testing the impact are as shown below:

$$H_o = MShare_{pre} \geq MShare_{post}$$
$$H_1 = MShare_{pre} < MShare_{post} \quad (13)$$

Regarding the interpretation of the results, the failure to reject the null hypothesis can be interpreted as the failure to manage the acquired bank more efficient than the peers in the industry. On the other hand, rejecting the null hypothesis indicates that the acquired firm, under the management of the bidder, outperforms its former management and improves its market power through increasing market share.

3.2.1.5 Efficiency:

Efficiency, in broad terms, refers to using the minimum amount of resources to produce maximum amount of outputs. In other words, minimum amount of waste is required throughout the operations. As efficiency covers all the production process from the beginning to the end, its results can be considered a detailed overlook of the entire firm operations and the overall performance. Identifying the unnecessary or inefficient steps and correcting them adds significantly to the health of the company. Consequently, efficiency is accepted as a crucial issue in performance analysis.

Identifying and eliminating the unnecessary expenditures will push up the efficiency of the firm which eventually leads to higher profits. The opposite is also true; that is, inefficiency will cause the deterioration of limited resources and result in significant losses. Therefore, firms with higher efficiency figures or prospects for higher efficiency will be able to attract more investors.

A bank's efficiency is typically measured by its ability to control both non-interest and total expense relative to its income. Hence, two ratios are used to measure

efficiency: non-interest expense/total income and total expense/total income (Kim, 2007). The former is found to be higher for targets. Kim (2007) further uses three additional ratios: Price/Earnings, Dividend Payout and Market to Book Ratios. All of these ratios are found to be lower for targets. Wheelock and Wilson (2000) and Pasiouras and Gaganis (2006) find that banks showing less efficient patterns are more likely to be acquired. On the other hand, according to the inefficient management hypothesis (Manne, 1965), acquirers are found to have the expectation of outperforming the former management of the targets (Hannan and Rhoades, 1987).

In line with the existing literature, especially with the findings of Hannan and Rhoades (1987), it can be said about the acquirers that they expect to achieve higher efficiency through acquiring their targets. They can either pursue existing practices of an already efficient target or restructure the formerly unsuccessful practices of an inefficient target to improve efficiency after the acquisition.. This prospect of investors for the future increases their appetite for acquiring these banks. Hence, in line with the previous literature, it is expected in this study that target banks experience higher efficiency in the post-acquisition period. In other words, both the non-interest and total expenses which is the total of interest expense and non-interest expense are expected to decrease while the total income which is the total of interest income and non-interest income is expected to increase after the acquisition. Two ratios, as it is in the literature, are used to test the change in efficiency: non-interest expense/total income and total expense/total income, shown as NIE and TE, respectively. The relevant hypotheses are as below:

For the NIE;

$$\begin{aligned} H_o &= NIE_{pre} \leq NIE_{post} \\ H_1 &= NIE_{pre} > NIE_{post} \end{aligned} \tag{14}$$

And for the TE;

$$H_o = TE_{pre} \leq TE_{post}$$
$$H_1 = TE_{pre} > TE_{post} \quad (15)$$

In case of the failure to reject the null-hypothesis, this indicates that the acquiring firms are not able to handle better the resources of the target banks. Conversely, rejecting the null hypothesis shows that new managements outperform the former ones in successfully handling costs and profits of the target. Moreover, higher efficiency can be a consequence of the superior knowhow and technical capabilities of the acquirer.

3.2.1.6 Capital Adequacy:

Capital adequacy, as measured by the ratio of total equity to total assets, determines the capacity of the bank in terms of meeting the time liabilities and other risks such as credit risk, operational risk, etc. Banks, along with all kinds of firms, use capital as a cushion to protect the bank's depositors or other lenders from potential losses. Banking regulators also use capital adequacy to monitor the banking system's vulnerability against potential disturbances in order to promote the stability and efficiency of the financial system.

A high capital adequacy ratio reflects a large capital buffer in the business and offers greater protection to depositors while a lower ratio signals for significant risks especially for its stockholders. This is because debt-holders of a firm receive fixed interest payments and do not bear any risk in case of disturbances. However, stockholders are those who put up their money as equity and bear almost all the business risk.

Hannan and Rhoades (1987) argue that targets with high capital-to-asset ratio are more attractive targets. A high capital-to-asset ratio would allow the acquirer to reduce the capital holdings of the target and increase returns to equity but it may also require the acquirer to make a larger payment. Ross (1988) argues that acquired institutions tend to have higher capitalization ratios. Thomas (2001), on the other hand, argues just the opposite and provides evidence that the higher the capital-to-asset ratio of a bank, the lower the probability of it becoming a target. Pasiouras et al., using the ratio of equity-to-assets, argue that acquired firms are less capitalized and they lack financial strength.

Despite the dilemma in the literature on the way the level of capitalization affects investors' decisions, having gathered all the above findings together, capital adequacy of the target banks can said to be considered an important factor in acquisition decisions. Acquirers are likely to be risk-averse and willing to lower their business risk by acquiring less-risky (highly capitalized) banks or less capitalized banks in an attempt to increase their financial strength and benefit accordingly. That is, a high level of capital adequacy for targets is likely to occur following the bank acquisitions in this study.

The ratio total equity to total assets, shown as CAPITAL, is used for testing the impact on the capital adequacy level of the targets. The relevant hypotheses for the analyses are as below:

$$\begin{aligned} H_o &= CAPITAL_{pre} \geq CAPITAL_{post} \\ H_1 &= CAPITAL_{pre} < CAPITAL_{post} \end{aligned} \tag{16}$$

Regarding the results of the analyses, the failure to reject the null hypothesis indicates financial weakness for the acquired banks while rejecting the null shows the higher level of financial strength and defense against the risk of bank insolvency in the period following the acquisition.

CHAPTER 4

RESULTS AND ANALYSIS

4.1 The Results Of Event Study Analysis Of Stock Market Reaction

4.1.1 The Results Of Event Study Analysis For The Short-Term Immediate Stock Market Reaction

In this part of the analysis, conventional event study methods based on the market model are used to test the stock market reaction to the merger and acquisition announcements. The objective of this part of the study is to determine the short-term impact of the acquisition on the stock returns of the two companies involved in the deal. The event study analysis examines the change in the stock prices of both the acquiring and target companies during the 81-day symmetric time window around the date of the acquisition announcement.

Target banks and acquiring firms form two groups and each group is separately analyzed in the specified period. In the event-study analysis for the immediate stock market reaction, the null hypothesis states that stock market does not react significantly to the deal announcement. In other words, compared to the pre-acquisition period of 40 days, the deal announcement does not significantly create a change in the stock prices of companies in the post-acquisition period of 40 days. This hypothesis is the same for both groups.

The purpose of these analyses is to figure out in which way, either positively or negatively, the deal announcement affects the stock prices following the acquisition. The first group of null hypotheses, one for the targets and the other for the acquirers, states that the deal announcement significantly and negatively affects the stock prices of the two parties of the acquisition where the second group states the opposite that the deal announcement significantly positively affected the stock prices of the two parties. These hypotheses are also tested for both the target banks and the acquirers. Throughout the analyses, three different levels of significance, 1%, 5% and 10%, are used to test the significance of the results. The results of these analyses make it possible to understand the effects of cross-border bank acquisitions for the target banks and acquiring firm shareholders.

Deals in the period between 2000 and 2008 are identified for testing the immediate effect of bank acquisitions. Since most of the target banks in the deal list are relatively small and not publicly held the sample for the target banks ends up with only 10 companies. This is a very small sample and drawing a general conclusion about the entire population is not possible. However, it may provide a foresight on the actual performance.

The results obtained from abnormal return testing are presented in Table 2. Considering the p-value for targets, the p-value for targets is higher than significance levels. This result does not provide evidence for the rejection of null hypothesis. The failure to reject the null hypothesis suggests that target banks' shareholders do not realize positive wealth effects around these deals. In other words, the immediate effect of the bank acquisitions on the acquired bank shareholders is found to be insignificantly different than zero. This result differs from the majority of the literature, which report positive abnormal target returns around the deal announcement.

Such a result has several explanations. This fact can be an approval of the idea that the more advanced the degree of market development, the higher the stock price impact expected from these announcements (Fama, 1991). Since the degree of market development for the markets in which the target banks operate is lower than that for the markets in which the acquirers operate, the results seem meaningful in this respect. Only in a world of perfectly capitalized and fully integrated markets where market participants react in a similar way when they face similar situations or events, we expect the same market reaction to such transactions around the world. Hence, the low degree of integration of the emerging economies to global financial markets may be a major reason for this difference in their reaction. In other words, the increase in the profitability performance of the target banks after the acquisition is not realized as an increase in shareholders' wealth immediately after the acquisition deal announcement.

Shareholders do not expect significant improvements in banks' future performance or are unable to accurately forecast performance improvements at the time of deal announcements. This may result from the managements of both firms' failing to communicate the prospects from these deals to their shareholders. The competitive environment in these emerging economies may be another factor for the expectation of no significantly positive returns associated with bank acquisitions. Other factors can be regulatory influences and geographical limitations yet not totally lifted for foreign entrants. Also, these acquisitions might be perceived as hostile by the host-country markets and hence, capital markets might penalize the banks with no significant increase in the stock price at the time of the deal announcement. Another explanation can be due to the ongoing deregulation process. The deregulation might be forcing multinationals for more overseas investments and the resulting competition for possible targets might be elevating acquisition costs and lowering excess returns.

On the side of the acquirers, due to the fact that acquirers are mostly operating in developed economies, the sample ended up larger than that for the targets. A total of 67 cross-border bank acquisition deals in emerging markets are identified in the

period between 2000 and 2008. Moreover, as an alternative query, the effects of these transactions on two groups of acquirers as non-financial and financial are examined.

This time the results are rather expected. The results obtained from abnormal return testing are presented in Table 2. Considering the p-value for acquirers, the p-value for acquirers is higher than significance levels. This result does not provide evidence for the rejection of null hypothesis. The failure to reject the null hypothesis implies that acquirers also do not experience significantly positive abnormal returns at the time of these cross-border acquisitions which is consistent with a majority of the findings in the previous literature. One reason for this result can be that the perceived risks and costs of these expansions in emerging markets might outweigh the benefits in the eyes of the shareholders. The results also suggest that, on average, the market does not expect acquisitions to lead to gains in performance. Regarding the details of the results, slightly more than half of the deals (36 out of 67 deals) produce negative abnormal returns for their shareholders while almost half of the entire sample of deals (31 out of 67 deals) produce positive abnormal returns immediately around the deal announcement.

On the other hand, regarding the other group of studies in the literature which suggest that acquiring firm shareholders experience significantly negative abnormal returns, this study stands as a contradiction. A possible reason may be that prospects of long-term benefits such as risk diversification and operational benefits on the side of the shareholders are also present and balance the effects of negative expectations to some degree. These findings can also be interpreted as possible motivations for these acquisitions such as replacing the inefficient management, creating synergy, retaining market power, tax reduction, diversification and many others may not be well-identified by the market at the time of the deal announcement. This situation may change in time once the management communicates its prospects correctly and the elementary results reach the market.

When the effects of bank acquisitions on two different sub-groups of acquiring firms as financial and non-financial are examined, evidence similar to the entire sample is found. No significant difference between the average returns of these two sub-groups is found in the analyses shown in Table 3. The analysis of a correlation, which is shown in Table 4, also reveals that there is almost no relation between whether firms realize abnormal returns and their having a financial or non-financial origin. This is also worth mentioning that, contrary to common sense, financial firms do not outperform their non-financial counterparts in cross-border bank acquisitions in emerging markets. This could be due to the fact that acquirers confront with market conditions that avoid them from employing their competitive advantage in what they are already doing. [1]

4.1.2 The Results Of Event Study Analysis For The Long-Term Stock Market Reaction

Similar to the analysis of the short-term stock market reaction, analysis of the long-term is conducted by using the daily stock price data for both groups of firms. In here, the event window is expanded to cover one year after the deal announcement starting from the day following the deal announcement date. The null hypothesis states that there is no significant impact of the deal on the stock

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[1] For further analysis, the entire list of firms in financial performance analysis is eliminated to include only those having stock market data. Analysis is furthered to identify whether the results support the previous ones for the entire group. The p-value for the ROA is found to be greater than the significance level; hence, no evidence for rejection of the null hypothesis is found. In other words, this finding, showing no significant improvement in ROA for the acquirers in the period after the acquisition, is consistent with the one for the entire group of firms. However, regarding the ROE, the p-value equals 0.044644 and its mean changes from 0.120632 to 0.141573. This provides sufficient evidence for the rejection of the null hypothesis; ROE increases for the acquirers following the acquisition, which is also consistent with the previous findings. To sum up, the list of acquirers having both financial and stock market data shows similar behavior in terms of profitability in the post acquisition period.

price of the firm in the long-term following the deal announcement. The objective of all these analyses is to identify whether there is any change and if there is any, in which way it affects the stock prices in the long-run. Throughout the analyses, three different levels of significance, 1%, 5% and 10%, are used to test the significance of the results.

This analysis also allows us to identify whether any inconsistency with the short-term results occur in the long-term for the stock prices of the firms. This is achieved by comparing the results found in the first part of the analysis with those found in here. Such a study leads one to identify if the performance right after the acquisition can be sustained by the new management of the target bank throughout the long-term period of two years.

The results obtained from holding period return analysis are presented in Table 5. Considering the p-value for the targets, the p-value and mean equal 0.080047008 and 0.201421956, respectively. The p-value is lower than 10% significance level. This result provides evidence for the rejection of null hypothesis. In other words, regarding the target banks, long-term analyses of stock market returns show significant deviation from zero. This suggests that in the long-term, stock markets have significantly positive expectations of such acquisitions and accordingly, they react in favor of these acquisitions on the side of the acquired banks. The preliminary positive results in the period one year following the deal announcement, combined with the increasing operational performance of the acquired banks might be the reason for this change in the stock market performance. The sample size for targets also worth mentioning since it is very small for one to derive generalizations about the entire population of bank acquisitions; however, it may be helpful in providing an idea about their actual performance.

Similarly, stock markets in which acquirers operate positively evaluate these acquisitions in the long-term. The results obtained from holding period return analysis are also presented in Table 5. Its mean equals 0.167792469. Considering

the p-value for the acquirers, the p-value equals 0.00199009 and is lower than significance levels. This result provides evidence for the rejection of null hypothesis. These firms' shares show positive holding period returns in the period of one year following the deal announcement date. This result, combined with that for short-term stock market reaction, suggests that the effects of these transactions, both for the targets and the acquirers, take time to be realized by the markets. After getting the first results regarding firm performance, market reaction might have changed from neutral to positive against these transactions.

4.2 The Results Of Operational And Financial Performance Analysis

This performance analysis investigates whether the post-acquisition performance of the acquisition parties outperform the pre-acquisition period performance. Tests are conducted using six key variables. These variables are carefully selected from a list of firm-specific characteristics that were found to be the most significant in the previous literature. The purpose of testing these key variables is to identify whether the anticipated changes in these items in the eyes of the multinationals got realized after the acquisition. Foreign investors' prospects for the changes in these performance items play the major motivation behind their acquisition decisions. Hence, any changes should be examined carefully to put the case clearly.

The sample size for the acquirers and targets are 39 and 27, respectively. Throughout the analyses, three different levels of significance, 1%, 5% and 10%, are used to test the significance of the results. The items are examined in the period two years before and after the year of the acquisition. Such a period is selected since it is necessary to wait almost two years to be able to track the results of these transactions in the annual financial statements of the companies. In order to control for the effects of the ongoing preparation for full takeover, integration activities and to avoid any one-time costs occurred during this period,

the year of the acquisition is excluded from the sample. The entire event window is divided into 4 parts as [-2,+2], [-1,+1], [-2,+1] and [+1,+2] years.

4.2.1 Profitability:

In line with the existing literature, it is expected in this study that both the target banks and the acquirers increase in profitability after the acquisition. The effect is tested by using two different ratios: ROA and ROE. The details of the ROA and ROE data for the acquirers are shown in Table 6 and Table 7, respectively. Descriptive statistics of the ROA and ROE data for the targets are shown in Table 8 and Table 9, respectively.

The results obtained from firm performance analyses of the targets are also presented in Table 10 for ROA and in Table 11 for ROE. Considering the p-value for the target ROA, the p-value equals 0.086598 and is lower than 10% significance level. Its mean changes from 0.56% to 3.27% in the entire event window. Moreover, considering the p-value for the target ROE, the p-value equals 0.010995 and is lower than 10% significance level. Its mean changes from 6.65% to 19.53% in the entire event window. This result provides evidence for the rejection of null hypothesis. In other words, profitability performances of the banks are found to increase significantly in the post-acquisition period, along with all sub-periods of the entire event window. This finding is valid for both ROA and ROE. As profitability is accepted as an overall performance indicator, new management of the target banks can be said to outperform the former management and successfully acquired superior management practices of the acquirers. This improvement in profitability may be a result of more aggressive portfolio management, increased employee productivity, access to lower-cost resources and even a combination of all. Only in the period (+1, +2) years, the level of this change is lower than it is in the other periods. This may be due to the fully realized profitability by the firm and once it is realized, increasing trend in profitability decelerates unless further improvements employed in time. Moreover, in such a competitive environment, others might imitate the practices

of their successful rivals, which will result in loss of competitive advantage, increased competition, and diminishing profits in the long-term.

For the acquirers, no significantly positive improvement in ROA is found in the post-acquisition period. The results obtained from firm performance analyses are presented in Table 12 for ROA and in Table 13 for ROE. Considering the p-value for the acquirers' ROA, the p-value is higher than significance levels. This might be due to the relatively-small size of the acquired banks compared to that of the acquiring firms. This difference in size might preclude the targets, no matter how profitable they are, to create a significant impact on their acquirers. One-time acquisitions of such small targets might also not be well-reflected in the acquirer performance. However, the effect might have been visible if the data on acquirers having more than one consecutive cross-border acquisitions had been used instead. This poor performance of acquirers can also be a result of adverse market conditions rather than poor management in the home country.

However, ROE is found to increase in the same period. Considering the p-value for the acquirer ROE, the p-value equals 0.080407 and is lower than 10% significance level. Its mean changes from 10.58% to 12.01% in the entire event window. This result provides evidence for the rejection of null hypothesis. Since the majority of the acquirers are also banks, overall level of equity for them is already supposed to be low. Hence a possible increase in net income with the acquisition might have higher impact on ROE.

Moreover, for the analyses of 2 sub-groups as financial and non-financial, no significant change in ROA found for neither of these groups. The details for the data of financial acquirers' ROA and ROE are shown in Table 14 and Table 15. Descriptive statistics for the non-financial acquirers' ROA and ROE are presented in Table 16 and Table 17. Financial firms are found to realize slight increase in profitability performance and non-financial acquirers are found to realize slight decrease in profitability performance while neither of these two differences is significantly different than zero, shown in Table 18.

However, ROE is found to increase significantly in the same period. The results obtained from performance analyses in terms of different firm types are presented in Table 19 for ROE. Considering the p-value for the financials' ROE, the p-value equals 0.049122247 and is lower than significance levels. Considering the p-value for the non-financials' ROE, the p-value equals 0.020251 and is also lower higher than significance levels. These results provide evidence for the rejection of null hypothesis. Both financial and non-financial acquirers are found to experience significantly higher ROE ratios in the post-acquisition period. This result is also consistent with the finding of the change in ROE of entire sample of acquirers.

Also, whether a relationship exists between an acquirer being financial or non-financial firm and its performance is tested, shown in Table 20 and Table 21. The results of correlation analysis between firm type and its positive or negative return performance suggest that there is no significant relationship evidenced whether an acquirer being financial or non-financial firm and its profitability performance in terms of ROA and ROE.

4.2.2 Leverage Risk:

The degree of leverage risk for the acquirers, examined by the ratio of total debt to total assets, is expected to decrease in the post-acquisition period. Acquirers are divided into two groups as financial and non-financial, since it is casual for financial firms to have high level of financial leverage which might have contaminated the results; hence, non-financial firms having relatively low degree of leverage and financial firms are set apart and formed two distinct groups and analyzed accordingly. The details for the data are shown in Table 22. The group of non-financial firms is very small, so while it provides us with an idea of the entire population, it is not possible to make generalizations on it. The result of this study, presented by Table 23, suggests that in the entire event window, the degree of the leverage risk for financial firms in the post-acquisition period is not found to be decreasing. Similarly, the degree of the leverage risk for non-financial firms

in the post-acquisition period is found to be decreasing but that decrease is not statistically significant. This finding refers to acquirers' prospects of decrease in their level of financial leverage is not achieved. However, since the sample size for the non-financial acquirers is very small, it is not conclusive enough to make a concrete decision on the favor of the idea that acquisitions help acquirers decrease their leverage risk. Only in the period (+1, +2) years, the degree of leverage risk shows an increase but that increase is not statistically significant either. However, if the idea that firms with higher level of debt-to-asset ratio are likely to be acquirers is true, then this wiggle in financial leverage can be considered to be a clue for future acquisition preparations.

4.2.3 Growth Potential in Size:

Multinationals might seek to acquire targets in other countries to get a foothold in a new country. Hence, growth prospect in size of the target banks is a major motivation for those acquirers aiming to profit while expanding to these countries. The change is tested by two ratios as change in deposits and change in assets, the details for which are presented in Table 24 and Table 25. In line with the existing literature, target banks are expected to grow in deposit and asset size following the acquisition. The results suggest that targets, despite being insignificant, decrease in deposit size, shown in Table 26. However, the change is significantly positive in asset size. The results obtained from analyses of change in asset size of targets are presented in Table 27. Considering the p-value for the targets, the p-value equals 0.034277 and is lower than significance levels. Its mean changes from 20.36% to 27.62% in the entire event window. This result provides evidence for the rejection of null hypothesis. Either a slow or fast growing bank can be a target for the bidders in that they may seek to increase the value of the target banks either by turning up or by accelerating its already existing growth rate.

These results may signal that acquirers prefer to position themselves as strong as they can in these emerging markets no matter what risks growth will pose. The reason may be the acquirers' view that small size may put a bank at a

disadvantage in the markets with high growth rates. Moreover, if the idea behind bank acquisitions is to stimulate the growth of the acquirers, a fast growing target supports the growth of the bidder even more. On the other hand, they can not be regarded as that successful in attracting deposits. The reason may be the unwillingness of the new management to offer the existing deposit rates in the market and rather choose to profit from other channels of service. If they are not successful in providing the services demanded in the market, they are likely to have low market shares which definitely have further implications on other aspects as profitability. Choosing a conservative strategy at the beginning and then switching to an aggressive one after testing the waters might be another strategy for the acquirers.

4.2.4 Growth Potential in Market Share:

An increase in market share can be accepted as increasing popularity of the products or services of that particular bank. The effects of acquisitions on the target banks' market share are examined by the ratio of the bank's total assets to the industry total assets. Descriptive statistics for the data are presented in Table 28. The results, presented in Table 29, suggest that in the entire event window, targets experience no significant growth in market share. This finding can be a consequence of new managements' primary objective to try to preserve the existing market share in the first years or a focused marketing strategy of the banks if considered separately. This conservative behavior can also be attributed to the new managements' being inexperienced in this new market and understandably cautious manner against several uncertainties. However, when looking at the sub-period of (+1, +2) years, a significantly negative change in market share is present. Considering the p-value for the targets, the p-value equals 0.094466 and is lower than significance levels. Its mean changes from 13.54% to 12.01% which provides evidence for the rejection of null hypothesis in that particular sub-event window. This result could reflect the new managements' lack of success in managing the operations in this new economic environment, which is consistent with the diminishing deposits. Combined with the findings of

growing asset size, this finding elevates the negative concerns about the future performance of the acquired banks in both medium- and long-term. Especially an accompanying market growth in the selected period may be indicative of higher than average expansion opportunities and hence, diminishing market share is a very problematic issue to be considered by the new management.

4.2.5 Efficiency:

Acquisitions, generally, are an efficient way to reduce costs and prices. According to the inefficient management hypothesis (Manne, 1965), new management of the acquired firms are motivated by a belief that they will replace the former inefficient management and make better use of firms' existing capacity and resources, thereby maximize firm value. The same expectation is valid in this thesis study. Testing is done by using two measures, non-interest expense to total income and total expense to total income. The details of the data of the former and latter ratios can be found in Table 30 and Table 31, respectively.

The change is found to be significantly negative for both of the ratios. The results obtained from analyses of change in efficiency are presented in Table 32 and in Table 33 for the ratio Non-Interest Expense to Total Income and Total Expense to Total Income, respectively. Considering the p-value for the former, the p-value equals 0.001521 and is lower than significance levels. Its mean changes from 52.46% to 42.68% in the entire event window. Considering the p-value for the latter, the p-value equals 0.023332 and is lower than significance levels. Its mean changes from 90.61% to 77.57% in the entire event window. This result provides evidence for the rejection of null hypothesis in that particular sub-event window. Given that the asset size and profitability ratios increase, this result can be a proof of significant improvements in expense management. This finding suggests that new managements successfully replace the former's poor practices by achieving improvements in non-interest and total expense items. In other words, internal processes are handled more efficiently by the new management than external issues like increasing market share and deposits attracted. These results are also

directly connected to the increase in profitability, which is also found to be significantly increasing following the acquisition. Another point worth mentioning is that, if the management had the idea to outperform the inefficient former management and profit accordingly, the ideas presented by the inefficient management hypothesis, these findings support their achieving this objective in the post-acquisition period.[2]

4.2.6 Capital Adequacy:

Target banks are expected to increase their capital adequacy levels following the acquisition. The logic behind this expectation is that; the higher the level of equity capital for targets, the better they stand against possible shocks. The change in its level in the post-acquisition period is measured by the ratio of total equity to total assets, the descriptive statistics for which is presented in Table 34. The results of this study, presented in Table 35, show that despite, on the average, an increase in the capital adequacy of the targets occurs; this increase is not statistically significant. Given that the asset size increases in the same period, this result reflects slightly increasing capital level.

[2] The analyses are furthered including only the deals in the years 2002 and 2003 to examine the change in efficiency. A total of 7 deals of targets are identified in that particular period. The analysis shows that no significant improvement in Non-Interest Expense to Total Income ratio of targets is experienced which contradicts with that for the entire group. On the other hand, a major positive change in favor of target commercial banks is found in Total Expense to Total Income ratio of them which is consistent with that for the entire group. This result is supported with same pattern in the very first year following the year of the deal announcement as well. Regarding their market share, the banks involved in these deals are found to experience improvement in their market share with these deals which contradicts with the results for the entire group. This might refer to the strategy of these banks' primary objective of clean house by achieving efficiency and then look outside for potential gains.

Table 2: t test For Short-Term Testing of Stock Market Reaction

	Acquirers	Targets
Sample Size	67	10
Sample Mean	0.00685	0.05400
Sample Standard Deviation	0.30763	0.40628
Intermediate Calculations		
Standard Error of the Mean	0.03758	0.12848
Degrees of Freedom	66	9
t test Statistic	0.18228	0.42027
p-Value	0.85592	0.68415

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 3: t test For Comparing Financial and Non-Financial Acquirers' Stock Market Performances

	Non-Financial	Financial
Mean	-0.011	0.011
Variance	0.192	0.076
Observations	12	55
t Stat	-0.164	
P(T<=t) one-tail	0.436	
P(T<=t) two-tail	0.872	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 4: Cross Correlation Between Firm Type and Cumulative Abnormal Return Performances

	Financial / Non-Financial	+/- CAR
Financial / Non-Financial	1	
+/- CAR	0.11302	1

Table 5: t test For Long-Term Testing of Stock Market Reaction

	Acquirers	Targets
Sample Size	45	6
Sample Mean	0.16779	0.20142
Sample Standard Deviation	0.34235	0.22524
Intermediate Calculations		
Standard Error of the Mean	0.05104	0.09195
Degrees of Freedom	44	5
t test Statistic	3.2878***	2.1905*
p-Value	0.00199	0.08005

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 6: Descriptive Statistics for ROA Data of Acquirers

Years	-2	-1	1	2
Mean	0.0097	0.0104	0.0098	0.0111
Max	0.0440	0.0478	0.0482	0.0600
Min	0.0008	-0.0003	-0.0177	-0.0078
Number of Observations	38	39	39	38

Table 7: Descriptive Statistics for ROE Data of Acquirers

Years	-2	-1	1	2
Mean	0.1011	0.1131	0.1128	0.1308
Max	0.2673	0.3250	0.3044	0.2382
Min	0.0015	-0.0023	-0.2280	-0.0719
Number of Observations	38	39	39	38

Table 8: Descriptive Statistics for ROA Data of Targets

Years	-2	-1	1	2
Mean	0.0065	0.0048	0.0102	0.0551
Max	0.0204	0.0236	0.0209	1.0400
Min	-0.0207	-0.0761	0.0004	0.0004
Number Of Observations	27	27	27	27

Table 9: Descriptive Statistics for ROE Data of Targets

Years	-2	-1	1	2
Mean	0.0639	0.0691	0.1295	0.2611
Max	0.2145	0.4593	0.3182	1.6810
Min	-0.2475	-0.7073	0.0030	0.0033
Number of Observations	26	26	26	26

Table 10: t test for ROA performances of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.03265	0.00564		0.01018	0.00482		0.01018	0.00564		0.05511	0.01018
Variance	0.00972	0.00015		3.43806E-05	0.00031		3.44E-05	0.00015		0.03937	3.44E-05
Observations	27	27		27	27		27	27		27	27
df	26			26			26			26	
t Stat	1.4005*			1.5787*			1.8173**			1.16858	
P(T<=t) one-tail	0.08660			0.06325			0.04036			0.12659	
P(T<=t) two-tail	0.17320			0.12651			0.08071			0.25318	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 11: t test for ROE performances of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.19527	0.06654		0.12949	0.06913		0.12949	0.06654		0.26106	0.12949
Variance	0.03500	0.01847		0.00612	0.03825		0.00612	0.01847		0.14756	0.00612
Observations	26	26		26	26		26	26		26	26
df	25			25			25			25	
t Stat	2.4426***			1.5703*			2.3040***			1.6400*	
P(T<=t) one-tail	0.01100			0.06446			0.01491			0.05677	
P(T<=t) two-tail	0.02199			0.12893			0.02981			0.11354	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 12: t test for ROA Performances of Acquirers

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.01030	0.00996		0.00976	0.01043		0.00976	0.00996		0.01085	0.00976
Variance	0.00010	9.28E-05		0.00013	0.00012		0.00013	9.275E-05		0.00010	0.00013
Observations	39	39		39	39		39	39		39	39
df	38			38			38			38	
t Stat	0.39634			-0.65408			-0.18454			0.96694	
P(T<=t) one-tail	0.34704			0.25850			0.42728			0.16985	
P(T<=t) two-tail	0.69408			0.51700			0.85457			0.33969	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 13: t test for ROE performances of Acquirers

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.12010	0.10576		0.11277	0.11306		0.11277	0.10576		0.12742	0.11277
Variance	0.00622	0.00425		0.01127	0.00496		0.01127	0.00425		0.00418	0.01127
Observations	39	39		39	39		39	39		39	39
df	38			38			38			38	
t Stat	1.4303*			-0.02134			0.49660			1.17962	
P(T<=t) one-tail	0.08041			0.49154			0.31117			0.12274	
P(T<=t) two-tail	0.16081			0.98309			0.62233			0.24549	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 14: Descriptive Statistics for ROA Data of Financial Acquirers

Years	-2	-1	1	2
Mean	0.0091	0.0101	0.0098	0.0107
Max	0.0359	0.0439	0.0368	0.0264
Min	0.0000	0.0000	-0.0085	0.0026
Number of Observations	32	32	32	32

Table 15: Descriptive Statistics for ROE Data of Financial Acquirers

Years	-2	-1	1	2
Mean	0.1044	0.1160	0.1220	0.1370
Max	0.2673	0.3250	0.3044	0.2382
Min	0.0015	0.0000	-0.2280	0.0426
Number of Observations	30	30	30	30

Table 16: Descriptive Statistics for ROA Data of Non-Financial Acquirers

Years	-2	-1	1	2
Mean	0.0114	0.0120	0.0098	0.0117
Max	0.0440	0.0478	0.0482	0.0600
Min	0.0012	-0.0003	-0.0177	-0.0078
Number of Observations	7	7	7	7

Table 17: Descriptive Statistics for ROE Data of Non-Financial Acquirers

Years	-2	-1	1	2
Mean	0.1065	0.1314	0.1426	0.1579
Max	0.1646	0.1930	0.2023	0.2124
Min	0.0674	0.0807	0.0754	0.0797
Number of Observations	5	5	5	5

Table 18: t test for Change in Profitability Performances of Acquirers in terms of Firm Types(ROA)

	Financial			Non-Financial	
Years	+2	-2		+2	-2
Mean	0.01021	0.00958		0.01073	0.01170
Variance	4.24E-05	6.52E-05		0.00043	0.00025
Observations	32	32		7	7
df	31			6	
T Stat	0.71954			-0.34752	
P(T<=t) one-tail	0.23860			0.37004	
P(T<=t) two-tail	0.47720			0.74007	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 19: t test for Change in Profitability Performances of Acquirers in terms of Firm Types(ROE)

	Financial		Non-Financial	
Years	+2	-2	+2	-2
Mean	0.12953	0.11019	0.15025	0.11892
Variance	0.00477	0.00474	0.00333	0.00185
Observations	30	30	5	5
df	29		4	
t Stat	1.7084*		2.9859**	
P(T<=t) one-tail	0.04912		0.02025	
P(T<=t) two-tail	0.09825		0.04050	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 20: Cross Correlation Between Acquirer Firm Type and Profitability Performance(ROE)

	+/- Profitability	Financial/Non-Financial
+/- Profitability	1	
Financial/Non-Financial	-0.27639	1

Table 21: Cross Correlation Between Acquirer Firm Type and Profitability Performance(ROA)

	+/- ROA	Financial/Non-Financial
+/- ROA	1	
Financial/Non-Financial	0.17960	1

Table 22: Descriptive Statistics for Leverage Risk Data of Financial and Non-Financial Acquirers
(The ratio of Total Debt to Total Assets)

	Years			
Financial	-2	-1	1	2
Mean	0.24126	0.23594	0.23122	0.22979
Max	0.74935	0.74297	0.71815	0.68967
Min	0.00445	0	0.00127	0.00429
Number of Observations	32	32	32	32
Non-Financial	-2	-1	1	2
Mean	0.21343	0.1992	0.18513	0.20634
Max	0.29308	0.26686	0.30353	0.30156
Min	0.01946	0.01738	0.02744	0.02406
Number of Observations	5	5	5	5

Table 23: t test for Leverage Risk of Acquirers

	Period(years)							
Financial	2	-2	1	-1	1	-2	2	1
Mean	0.23050	0.23860	0.23122	0.23594	0.23122	0.23860	0.22979	0.23122
Variance	0.03530	0.03837	0.03669	0.03980	0.03669	0.03837	0.03446	0.03669
Observations	32	32	32	32	32	32	32	32
df	31		31		31		31	
t Stat	-0.75598		-0.44557		-0.69064		-0.24570	
P(T<=t) one-tail	0.22768		0.32950		0.24746		0.40377	
P(T<=t) two-tail	0.45537		0.65900		0.49493		0.80753	
Non-Financial	2	-2	1	-1	1	-2	2	1
Mean	0.19574	0.20632	0.18513	0.19920	0.18513	0.20632	0.20634	0.18513
Variance	0.01072	0.01170	0.00991	0.01099	0.00991	0.01170	0.01256	0.00991
Observations	5	5	5	5	5	5	5	5
df	4		4		4		4	
t Stat	-0.75030		-0.82061		-1.28032		1.03932	
P(T<=t) one-tail	0.24740		0.22898		0.13482		0.17868	
P(T<=t) two-tail	0.49480		0.45796		0.26964		0.35735	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 24: Descriptive Statistics for Size Data of Targets
(The Ratio of Change in Total Deposits)

Years	-2	-1	1	2
Mean	0.2820	0.2415	0.2375	0.2570
Max	1.0034	1.2179	0.9275	0.6875
Min	-0.1873	-0.1843	-0.1814	-0.1462
Number of Observations	27	27	27	26

Table 25: Descriptive Statistics for Size Data of Targets
(The Ratio of Change in Total Assets)

Years	-2	-1	1	2
Mean	0.1971	0.2681	0.2844	0.2762
Max	0.6143	1.3768	0.8940	0.7913
Min	-0.1105	-0.0603	-0.0676	-0.0555
Number of Observations	27	27	27	27

Table 26: t test for Change in Deposits of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.22399	0.26174		0.23748	0.24149		0.23748	0.26174		0.21049	0.23748
Variance	0.06311	0.05709		0.09205	0.09310		0.09205	0.05709		0.11834	0.09205
Observations	27	27		27	27		27	27		27	27
df	26			26			26			26	
t Stat	-0.71372			-0.06283			-0.38722			-0.34185	
P(T<=t) one-tail	0.24088			0.47519			0.35087			0.36761	
P(T<=t) two-tail	0.48176			0.95038			0.70174			0.73521	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 27: t test for Change in Asset Size of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.27621	0.20357		0.26805	0.21000		0.26805	0.20357		0.28437	0.26805
Variance	0.04536	0.02792		0.08880	0.04797		0.08880	0.02792		0.06536	0.08880
Observations	27	27		27	27		27	27		27	27
df	26			26			26			26	
t Stat	1.9002*			0.94340			1.08422			0.23799	
P(T<=t) one-tail	0.03428			0.17708			0.14411			0.40688	
P(T<=t) two-tail	0.06855			0.35416			0.28822			0.81376	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 28: Descriptive Statistics for Market Share Data of Targets

Years	-2	-1	1	2
Mean	0.1470	0.1356	0.1353	0.1201
Max	1.4776	1.1607	1.0822	0.8985
Min	0.0003	0.0003	0.0004	0.0005
Number of Observations	26	26	26	26

Table 29: t test for Change in Market Share of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.12770	0.14133		0.13535	0.13564		0.13535	0.14133		0.12006	0.13535
Variance	0.04842	0.08743		0.05993	0.07338		0.05993	0.08743		0.03858	0.05993
Observations	26	26		26	26		26	26		26	26
df	25			25			25			25	
t Stat	-0.48031			-0.01407			-0.23436			-1.3506*	
P(T<=t) one-tail	0.31759			0.49444			0.40831			0.09447	
P(T<=t) two-tail	0.63518			0.98888			0.81661			0.18893	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 30: Descriptive Statistics for Efficiency Data of Targets
(The Ratio of non-interest expense to total income)

Years	-2	-1	1	2
Mean	0.5037	0.5454	0.4524	0.4195
Max	1.0483	1.0166	0.9449	0.8352
Min	0.0682	0.2262	0.0221	0.1108
Number of Observations	23	23	23	22

Table 31: Descriptive Statistics for Efficiency Data of Targets
(The Ratio of total expense to total income)

Years	-2	-1	1	2
Mean	0.9652	0.8647	0.7634	0.8149
Max	3.5807	1.6630	1.1963	2.7327
Min	0.3421	0.4090	0.2594	0.3307
Number of Observations	23	27	27	23

Table 32: t test for Efficiency Performance of Targets

The ratio of Non-interest Expense to Total Income

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.42684	0.52459		0.45241	0.54545		0.45241	0.52459		0.40127	0.45241
Variance	0.03614	0.04303		0.05230	0.04798		0.05230	0.04303		0.03496	0.05230
Observations	23	23		23	23		23	23		23	23
df	22			22			22			22	
t Stat	-3.33***			-2.1175**			-2.243**			-1.4169*	
P(T<=t) one-tail	0.00152			0.02288			0.01764			0.08526	
P(T<=t) two-tail	0.00304			0.04576			0.03528			0.17053	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 33: t test for Efficiency Performance of Targets

The ratio of Total Expense to Total Income

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.77571	0.90605		0.76339	0.86475		0.76339	0.90605		0.79844	0.77073
Variance	0.05567	0.11892		0.04794	0.05048		0.04794	0.11892		0.21330	0.04919
Observations	27	27		27	27		27	27		24	24
df	26			26			26			23	
t Stat	-2.089**			-2.2676**			-2.41***			0.25029	
P(T<=t) one-tail	0.02333			0.01595			0.01180			0.40229	
P(T<=t) two-tail	0.04666			0.03190			0.02361			0.80459	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 34: Descriptive Statistics for Capital Adequacy Data of Targets

Years	-2	-1	1	2
Mean	0.1066	0.0933	0.1136	0.1130
Max	0.2028	0.1775	0.7568	0.7536
Min	0.0195	0.0100	0.0276	0.0291
Number of Observations	27	27	27	26

Table 35: t test for Capital Adequacy of Targets

Period(years)	+2	-2		+1	-1		+1	-2		+2	+1
Mean	0.1112	0.09997		0.11360	0.09335		0.11360	0.09997		0.11299	0.11514
Variance	0.01742	0.00173		0.01762	0.00167		0.01762	0.00173		0.01778	0.01826
Observations	27	27		27	27		27	27		26	26
df	26			26			26			25	
t Stat	0.41214			0.69917			0.49889			-0.4658	
P(T<=t) one-tail	0.34181			0.24533			0.31103			0.32270	
P(T<=t) two-tail	0.68361			0.49065			0.62205			0.64539	

* Significant at 10 % level

** Significant at 5 % level

*** Significant at 1 % level

Table 36: List of Firms Included in Firm Performance Analysis

Firm Performance Analyses	
Acquirers	Targets
AB Bankas Snoras	ABS Banka
Banco Industrial	Banco Santander-Chile S.A.
Banco Santander	Banco Sud Americano
Bank Austria	Banja Luka
Bank Hapoalim	BankBoston
Bank of Nova Scotia	BBVA Bancomer
Bank VTB	Ceska Sporitelna, a.s.
BAWAG psk	CSOB
Banco Bilbao VA	Eesti Krediidipank
Citigroup	Hansapank
EBRD	Interbanka(BAWAG)
Erste Bank	KandH Bank
HSBC	Latvijas Krajbanka
HVB Bank	Nova Banka
Intesa Sanpaolo S.p.a.	Procredit Banka BiH
KBC	Seguros BBV-Probursa
Latvian Business Bank	Slovenska Sporitelna, a.s.
Ledo	Tuzlanska Banka
MKB	Unionbank
MKB Bank NyRt(magyar kb)	United Georgian Bank
NLB D.D.	UPI Banka
OTP Bank	Banco Wiese Sudameris
Primer Banco del Istmo, SA	Zivnostenska Banka
Procredit Group	
Raiffeisen Bank	

Table 36 (continued)

Royal and Sun Alliance Ins. Gr. PLC
Scotiabank
Standard Bank Group Ltd
Swedbank
Unibanco Holdings SA
UniCredit S.p.A.

Table 37: List of Firms Included in Stock Market Reaction Analysis

Stock Market Analyses	
Acquirers	Targets
Allied Irish Banks	Akbank
Arab Bank	BACB
Banca Popolare	Banco Santander-Chile S.A.
Banco Industrial	Banco Sud Americano
Banco Itau	Colpatria Bank
Banco Santander	Denizbank
Bancolombia	Finansbank
Bank Austria	Grupo Financiero
Bank Hapoalim	Rosbank
Bank of China Ltd	Sekerbank
Bank of Georgia	
Bankas Snoras	
Banpro	
Barclays Bank	
Bayer Landesbank	
Banco Bilbao VA	
CCB	
Chimimport	
Citigroup	
Commerzbank	
Deutsche Bank AG	
Dexia Bank	
Erste Bank	
Gazprombank	

Table 37 (continued)

GE
Getin Holding
HSBC
IFC
Industrial and Commercial Bank of China Ltd
ING Group NV
International Personal Finance PLC
Intesa
KBC
Ledo
Milestone
National Bank of Greece
Bank of Nova Scotia
OTP Bank
Pichincha
Privredna Bank Zagreb
QBE Insurance Group Limited
Raiffeisen
Royal and Sun Alliance Insurance Group PLC
SEB
Societe Generale
Standard Bank Group Ltd
Swedbank
Unibanco Holdings SA
Unibanco-Uniao de Bancos Brasileiros
UniCredit S.p.A.
Volksbank
VTB Bank

CHAPTER 5

CONCLUSIONS

In this thesis study, the effects of recent m&a boom in financial markets of emerging economies are put on the spot. As being one of the highest foreign capital attracting field of financial m&a, commercial banks in these economies are analyzed. The results of multinationals' bank acquisition on the firm performance as well as on shareholders' wealth are analyzed. As being a latest trend, yet these acquisitions have not attracted the attention they deserve from researchers. In order to fill this gap in the existing literature, the focus of the study is expanded to cover all cross-border bank acquisitions in emerging economies. The impact of these acquisitions on the wealth of the shareholders of both sides are analyzed both in the short and long-term. Conventional event study analysis with market model is used to examine the immediate effect of the deal announcement on stock price. An event window of 40 days in the pre- and post-acquisition period around the deal announcement date is selected. Stock market reaction is used as a proxy.

For the analyses of short-term effects, cumulative abnormal returns are examined in an event window of one year after the acquisition. No significant effect is found in the periods tested. For the target banks, this may be due to the very nature of emerging markets. For any news, it may take longer time for a reaction in the market to occur than it may in developed markets. So, long-term analyses become important. In the long-term, holding period returns are tested for one year following the day before the deal announcement. And significant change is found for targets banks. This shows that acquired banks managed to change the market view against these acquisitions only in the long-term.

The results for the acquirers are almost as expected when derived from the literature. The markets in which they operate neither negatively nor positively reacted to these deals in the short-term. This may result from the fact that multinationals acquire such targets not primarily for shareholder wealth-maximization but rather for risk diversification purposes and growth opportunities that these targets offer. But long-term results make difference. These results suggest that acquired firm stock show significant holding period returns in the year after the acquisition. This can be interpreted as the change in the view of the market against these acquisitions. In this year, results and prospects from the acquisitions seem to be well realized by the markets and reflected as positive returns by the stockholders.

The analyses are furthered to examine the effects on the firm performance. Foreign investors understandably have several prospects before getting involved into these acquisitions. Whether these expectations on the firm performance in the post-acquisition period are realized is analyzed in the second part of this thesis study. Before that, those items the expected changes in which are considered to be major motivations of foreign investors are identified by thoroughly examining the literature on bank characteristics and motivations for bank acquisitions. These efforts resulted in 8 ratios in 6 different topics as profitability, leverage risk, size, market share, efficiency and capital adequacy.

These items are analyzed for expected changes by comparing pre- and post-acquisition performances of target banks and acquirers. Target banks are found to outperform their pre-acquisition performances in profitability following the deal. However, markets do not react to acquirers in the same way as they do to target banks. The results show that bank acquisitions do not have significant impact on the acquiring firms' performances.

Leverage risk is found to decrease for acquirers in the post-acquisition period; however this decrease is not statistically significant. Regarding the size, on the average, target banks are found to grow in the post-acquisition period while this

growth in size is not reflected in deposit size. The results suggest that deposit sizes of targets do not change significantly with the acquisition. Market share analyses also draw a similar picture as that of size. Targets do not improve in market share following the acquisition. Their market shares even drop insignificantly in the second year of the acquisition. Combined with the results of decreasing deposit and increasing asset size, new management of the targets can be considered unsuccessful in offering the product and services the customers demand. These results signal major problems for the future performance of the acquired banks.

The impact of these transactions on target efficiency is also tested. Targets found to improve in efficiency in the post-acquisition period. Both non-interest and total expenses show decreases with the acquisition. These results, together with those for profitability, suggest that new management of the targets outperform the former in cost-reduction and profit-maximization. Despite poor performance in external activities such as improving market share and attracting deposits, superior practices of the acquirers are seem to be well acquired and employed successfully in internal processes. Capital adequacy level of the targets, a major determinant of company's strength against several risks, is also tested by the ratio of total equity to total assets and found not to change in the post-acquisition period.

To sum up, the concept and the results of the analyses of cross-border bank acquisitions in emerging economies differ significantly from those presented in the existing literature on domestic and cross-border bank acquisitions either in or among developed economies. This thesis study and its results provide a valuable base for further studies of researchers on the subject.

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