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# IDENTIFYING THE EFFECTS OF MERGERS AND ACQUISITIONS ON TURKISH BANKS' PERFORMANCES

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## ABSTRACT

Globalization has opened more capital pools of financing in emerging markets where foreign banks can now consider and engage in partnerships, mergers and acquisitions. Banks, the backbone of the financial system, intervene with mergers and acquisitions at a higher rate to better meet the considerations of the industry and the competition. All around the emerging markets, the financial sector has been carrying out acquisitions of private banks, especially in Turkey, where the post-crisis restructuring efforts include merger and acquisition opportunities and strategies for the Turkish Banking Sector. This paper aims to find the effects of mergers, acquisitions and share transfers on the performances of the Turkish Banks between 2001-2012. The Probit Model has been used to identify the performance changes of nine banks that were subject to merger and acquisition. Seven independent variables of Capital Adequacy Ratio, Fixed Assets / Total Assets, Financial Assets / Total Assets, Interest Income / Total Assets, Liquid Assets / Short-term Liabilities, Net Profit / ROA, Net Profit / ROE were used. Based on the analysis, three of the ratios: Fixed Assets / Total Assets, Interest Income / Total Assets, Liquid Assets / Short Term Liabilities decreased following the merger/acquisition in Turkish banks' financials after the merger/acquisition activity of a foreign bank.

## 1. INTRODUCTION

There has been a similar pattern in Turkey with respect to the mergers and acquisitions that occur around the world. Mergers and acquisition initially focused on bringing financially fragile companies back into the system, and then refocused to public institutions and banking sector. Turkey's economic indicators have become more attractive and are drawing more attention of foreign banks to consider strategic investments in the banking sector.

In this study, we analyzed the impact of mergers, acquisitions, and transfer of share activities on the performances of the Turkish Banks between 2001-2012. For this purpose, the ratios that are meaningful for analysts, managers and as well as shareholders were selected through banks' capital adequacy, liquidity, asset structure and quality, resource efficiency, personnel productivity, operational efficiency, and profitability.

The paper is organized as follows: In the literature review part, the reasons for a merger are analyzed along with the evaluation of the merger and acquisitions from the financial perspective. In the data and methodology part, merger, acquisition, and transfer of shares activities are analyzed from a banks' point of view using a C.A.M.E.L.(S). technique (Capital Adequacy, Asset Quality, Management Soundness, Earnings/Profitability and Liquidity

criteria)" and then selected ratios and C.A.M.E.L.S are used with a Probit Model to determine the impact of merger, acquisition or transfer of shares on banks' ratios. The third section covers the empirical findings, based on the accounting data of the targeted banks between the years 2001 – 2012, to determine whether their financial structures are affected after the transaction. The last section concludes.

### 1.1. Literature Review

The major reasons and rationale for Banks' mergers could be summarized based on four hypotheses; *diversity*, *synergy*, *market share* and *manager benefit maximization*. According to the **Synergy Hypothesis,** merged banks would create synergies though economies of scale, leading to increased stock prices and profitability. According to the **Diversity Hypothesis,** mergers would provide diversified product and services portfolios for banks, while minimizing risks with a broader geographical exposure. Risk-mitigating diversification would lead to increased stock prices for both target and acquirer banks. According to the **Market Share Hypothesis,** merger of two competitors would result in decreased price competition due to the increased prices and decreased supervisory costs. **Manager Benefit Maximization Hypothesis** states that a bank manager would prefer the merger not only for increasing shareholder's profitability but also to maintain his/her own job security and maximize his/her benefits. This situation would not lead to an increase in public welfare (Palombo, 1997).

Scale concept is one of the major reasons for mergers and acquisition and is accepted by academics as a sole rationale for a merger/acquisition strategy. However, based on several studies, solely relying on economies of scale would not lead to targeted results for both investors and operations. Although it is observed that there is no single consensus on the effects and results of merger, acquisition or transfer of shares, there are many different empirical studies on this topic around the world (Sarıkamış, 2003). The literature also indicates not just country-based analyses but also models adopting benchmarks from different countries. Some of these studies are summarized below:

Correa (2006) study covers international bank acquisitions between 1994 and 2003. The banks used in the study are selected from USA, Germany, France, Brazil, Argentina, and Panama. Correa observed that the performance of the banks has improved only after two years have passed from the transaction date.

Lin (2009) focused on scale dimension as a major factor in cross-border bank merger and acquisition activities. Based on World Bank data, it has been determined that large-scale banks with high profits have more tendency for acquisition compared to the small ones. In addition, low cost is also determined to be an important indicator for bank selection.

Mehra (2011) evaluated merger and acquisition within the American banking system, analyzing 1986-2008 quarter-based dataset using a logit model and pointing out that banks that faced merger/ acquisition in their history are more inclined to consolidation. In addition, regulations influence banks towards consolidation. Large scale banks strategically position mergers as a means to increase their market share and agree that liquidity issues during the merger process have a negative impact on their earnings.

Piskula (2011) uses regression model to review bank mergers in the USA from a management strength point of view. Banks prefer a strong management environment for a merger engagement, since it receives positive feedback from the market participants as well.

Al-khasawneh (2006) studied merger announcements' effect on market reactions and banks' efficiency dynamics in the USA. The results indicated that banks with lower efficiency ratios started to increase their profitability only after 4 years after the merger. A second finding shows that cumulative earnings of inefficient banks in a merger would be positive.

Lee (2010) pointed out that the banks with strong branch network performed better within mergers occurring between 1994 and 2006 in the USA and additionally pointed out that banks with lower-than-average profitability per branch ratios were less successful in mergers.

Shawver (2002) performed a study on premiums paid in merger and acquisitions, based on data of 178 transactions between 1996 and 2001 in the USA observing that premiums paid were realized based on ROE. The level of premium paid for the acquired banks would have a negative influence on the liquidity of the acquisition. Stepwise Regression Analysis was used in the study.

Koetter (2008) reviewed the success of bank merger and acquisitions in Germany from profitability and cost points of view. Using Unbalanced Panel data have proved the success from the cost point of view, while few positive results have been derived from the profitability point of view.

Halkos and Tzeremes (2013) studied the effectiveness of 45 bank merger and acquisitions in Greece between 2007 - 2011 using Data Envelopment Analysis concluding that, the merger of two effective banks could end up as a non-effective bank, and that mergers aiming towards cost-effectiveness could not achieve their goals.

Leeamornsiri (2005) pointed out the importance of human resources while analyzing five bank mergers in Thailand concluding that having human resources policies in place would lead to a more successful adaptation of bank personnel to the new bank culture in the post-merger era.

Okoro (2010) analyzed the reasons of an unsuccessful bank merger taken place in Nigeria pointing that one of the most important reasons was cultural differences.

Yagcilar (2010) studied competition behavior and dynamics of commercial banks that operated in the Turkish Banking Sector between 1992 and 2008. In addition, the effect of merger and acquisition with competitive strategy on the competitive structure was analyzed. In order to analyze the influence of foreign capital entrance on the competition levels, non-parametric Kruskal-Wallis and Mann-Whitney U tests were used. The findings of the study show that foreign banks that open branches in Turkey have high levels of market strength, whereas public banks compete by-operating on lower margins.

Demiral (2009) reviewed bank mergers in Turkey through Data Envelopment Analysis in their study of analyzing the effect of the merger and acquisitions process on banks in Turkey. In the study, it was observed that among twelve large-scale and voluntary bank mergers occurring in Turkey between the years 2002 and 2007, six had performance increase, three had performance decrease and three were indifferent in terms of performance.

Kılıç and Ahmet (2008) used Data Envelopment Analysis on Turkish Banks (acquired/not acquired) operating between 2002 and 2008 and concluded that scale ineffectiveness leads to total ineffectiveness. Based on the analysis, seven out of ten acquired banks had a negative change of effectiveness percentage. Once the effectiveness values of (acquired/not acquired) banks were reviewed, it was observed that effectiveness averages for not acquired banks were above that of acquired banks before, during or after the acquisition period. It was also indicated that acquired banks have scale ineffectiveness that affects total effectiveness negatively.

Due to banking sectors' importance on building blocks of economies, regulation, supervision and measurement, their financial performances are crucial. Although banking supervision and regulation practices may differ between countries, on-site and off-site regulation systems are still operative (Çinko and Avcı, 2008).

The findings from the above banking studies show that majority mergers, acquisitions and transfers of shares activities did not result in success. The ratios analyzed during the studies differ and even in the studies claiming success of the transactions, some ratios are still negative.

## 2. DATA AND METHODOLOGY

The main purpose of this study is to review the influence of merger, acquisition or transfer of share activities on banks' ratios, due to the strategic importance of the banking sector in terms of economic stability as well as its impact on other sectors.

The sample of this study consists of nine private and foreign owned banks operating in Turkey, which faced merger, acquisition or transfer of shares between the years 2001-2012. Banks whose shares are partially or totally acquired by foreign investors are included in the study.

### 2.1. Turkish Banking System Acquisitions

The majority of the merger and acquisition activities in Turkey occur in the form of acquisition of the Turkish banks by foreign banks. While regional spillover effect appears in advanced European countries' entries into less developed markets, the purpose of the acquisitions in Turkey are increasing profit potential, promoting growth, and improving efficiency by reducing costs. The banks included in the model have faced acquisitions between the years 2001-2012.

**1- Türk Ekonomi Bankası A.Ş. - BNP Paribas (France)**: TEB's 42% share was bought by BNP Paribas in 2004. The acquisition is in line with synergy and market share hypothesis.

**2- Türkiye Garanti Bankası A.Ş. - General Electric CF (USA)**: GE made a strategic financial investment through buying Dogus Group's Garanti Bank shares in 2005. When GE decided to sell its shares after the strategy change towards shrinking in finance sector, the purchase value of 2.47 billion TL have reached to nearly 5.85 billion TL in Borsa Istanbul (Istanbul Stock Exchange).

**3- Yapı ve Kredi Bankası A.Ş. - Koçbank A.Ş.:** Unicredit (Italy)- Koçbank acquired total shares of Yapı Kredi Bankası in 2006, and merged under Yapı Kredi brand, considering brand values of Yapı Kredi Bankası and Worldcard. Koc Group declared that the merged bank would be a leader in every operational area of the banking sector. The acquisition is in line with synergy and market share hypothesis.

**4- Finansbank A.Ş. - National Bank of Greece**: Finansbank's majority shares were transferred to National Bank of Greece (NBG) in 2006. This acquisition is applicable to the synergy and market share hypothesis, and location-based advantages due to the invested country have been realized.

**5- Denizbank A.Ş. - Dexia PB (Franco-Belgian)**: Denizbank's 75% shares were sold to one of the top 15 European banks, Dexia, in 2006. Through this merger, Dexia was aimed to enter the Turkish banking sector, which is one of the fastest-growing retail banking sector in the world, as well as creating synergies through know-how and transferring experiences between the parties. Diversification, synergy and market share hypothesis are applicable. In 2013, Dexia sold its shares to the Russian Bank, Sberbank.

**6- Şekerbank T.A.Ş. - Bank Turan Alem Securities JSC**: Şekerbank sold 34% of its paid capital to one of the largest banks of Middle Asia. Sekerbank's focus of increasing domestic market share while creating potentials abroad, and Bank Turan Alem's rapid growth strategy through targeting West are in line with diversification and market share hypothesis. Location-specific advantages exist in this merger.

**7- Akbank T.A.Ş. - Citigroup**: Although Citigroup's purchase of Akbank's 20% shares for 3,1 billion USD Dollar in 2006 is one of the largest transactions in Turkish banking sector, Citibank accepted to be a minority shareholder with representation through a single member at the Board of Directors. Citigroup pointed out that this method was more suitable for entering riskier markets and the contract already allowed purchase of new Akbank shares from Sabancı Group.

**8- OYAK bank A.Ş – INGBANK A.Ş.:** INGBANK acquired OYAK Bank in 2007. Diversification, synergy and market share hypothesis are applicable.

**9- Tekfenbank A.Ş. - Eurobank EFG Holding S.A.:** Another acquisition in 2007 is the sale of Tekfenbank's 70% of shares to Eurobank EFG Holding. Diversification, synergy and market share hypothesis are applicable.

The analysis is based on the "Selected Ratios" as revealed by the Banks Association of Turkey, with analysis period (between the years 2001-2012) covering 12 years of data.

### 2.2. Methodology

Two methods are used in the study. The first one is the ratio analysis combining CAMELS (**C**apital Adequacy, Asset Quality, **M**anagement Quality, **E**arnings, **L**iquidity, and **S**ensitivity to Market Risk), a scoring system developed in the United States, and factor analysis based on the balance sheet data of the 9 private and/or foreign

owned banks that faced a merger, acquisition, or transfer of shares. The second one is the Probit Model through E-views.

### 2.2.1. CAMELS Analysis

In the beginning of 1970s, the federal regulators in USA developed an off-site regulation system, CAMELS Scoring System, in order to integrate banking regulation process.

CAMELS (**C**apital Adequacy, Asset Quality, **M**anagement Quality, **E**arnings, **L**iquidity, and **S**ensitivity to Market Risk)

Initially the CAMEL System only consisted of 5 components and named based on the initials of these components:

C - Capital Adequacy
A - Asset Quality
M - Management Quality
E - Earnings
L - Liquidity

Due to the increase of the derivative products and changing market conditions, the model has been revised to CAMELS with 6 components, sensitivity to market risk represented with the initial "S" added to the model (Kaya, 2001). CAMELS score is a quantitative evaluation of a bank's financial status, asset quality, risk, and general performance (Hirtle and Lopez, 1999). It could also be used as an early warning system as well.

When the CAMELS evaluation system is being used, banks are first evaluated against each CAMELS component. To perform this, several financial ratios are being used and evaluation is performed on a scale of 1-5. "1" represents the best performing banks and performance decreases as the score increases. After each component is scored, the banks' general score is calculated based on the weighted averages of all other components. The weights for each component are set under the supervision of analyst and auditor, considering banks' scale, size, general and bank specific circumstances.

The number of ratios used in this study total 56. In order to base the study on fewer but more meaningful variables, CAMELS analysis ratios are used to select banking performance ratios through SPSS software and Factor Analysis. Also, some CAMELS components are used in the analysis based on "Selected Ratios" declared on the Banks Association of Turkey website.

### 2.2.2. Factor Analysis

Besides CAMELS, factor analysis has been performed in order to consider statistically significant ratios within the 56 ratios as revealed by the Banks Association of Turkey, which are used as the basis for the variable selection in the ratio analysis and Probit model.

Consistency of the variables was checked initially through Kaiser-Meyer-Olkin and Barlett's test statistics methods. The variables that have cross-correlation of less than 0,5 in the Anti-image matrix were removed from the model. The ratios that are selected through CAMEL technique and Factor Analysis are represented below.

#### 1) Capital Adequacy Ratio (CAR)

CAPITAL ADEQUACY RATIO= Capital Base/ (Credit Risk + Market Risk+ Operational Risk)

This ratio is also called as 'BIS' (Bank of International Settlement), 'BASEL' or 'COOKE'. Although official ratio is required to be above 8%, Banking Regulation and Supervision Agency (BRSA) requires a minimum of 12% in Turkey. The capital adequacy ratio is targeted to be high in order to meet potential and/or extraordinary losses from banks' bearing risks, compensate through increased liquidity for immediate deposit exits due to financial crisis

or panic, as well as having a more effective performance. In its periodic supervisions, BRSA warns the banks through its own auditors and ensures that necessary actions are taken in accordance with the audit results.

**2) Net Income / Total Assets (ROA)**

This ratio indicates how efficient banks are using their assets to generate earnings.

**3) Financial Assets / Total Assets (FVTA)**

Financial assets in this ratio are; Fair Value Profit or Loss on Financial Assets (net) + Financial Assets Available for sale (net)+ Investments held to maturity (net) + Hedge Derivative Financial Assets.

**4) Fixed Assets / Total Assets (FATA)**

The calculation of this ratio consists of hardware, auto vehicles, and fixture of the banks obtained through financial leasing, other premises leased through long-term leasing contracts, economic-value added, capitalized expenses as part of the amount of special costs and goodwill. Since the merged or acquired banks' Non-Financial Fixed Asset item could be high largely due to goodwill in the balance sheet, fixed assets should cover both financial and non-financial assets.

*5)* **Interest Income / Total Assets (NIM)**

This ratio represents the ratio of interest income, one of the most important income items, to total assets. It is also called as Interest Margin. The ratio has a positive influence on the profitability of the banks. However, if this ratio is too high, there would be a negative influence on the effectiveness of the banking system. As effectiveness of the financial intermediation increases in the system, interest margin decreases accordingly.

**6) Net Income / Equity (ROE)**

One of the most important profitability ratios of the banks is defined as return on equity in the literature. The ratio shows how efficient banks use their equities (Öçal *et al.*, 1997).

**7) Liquid Assets / Short-term Liabilities (LACL)**

Liquid Assets consist of Cash and Cash Equivalent and Central Bank deposits + Fair Value Profit or Loss on Financial Assets (net) + Banks + Receivables from Money Markets + Financial Assets Available for sale (net).

### 2.2.3. Probit Model

Using the official ratios of Banks Association of Turkey between the years of 2001-2012 from the identified 12 banks, the Probit model was used in the next part of the study.

"Merger" is considered as qualitative dependent dummy variable and probit analysis is performed via E views program. "The Probit Model" is considered for the years 2001-2012, the influence of merger, acquisition and transfer of share activities in Turkey on banks' ratios are examined.

### Dependent Variable

The dependent variables that are used in the regression models could be both qualitative and quantitative. "Merger", that is selected as the dependent variable in the model, receives values of either 0 or 1, based on existence or non-existence of the merger. "0" dummy variable is assigned till the year of merger, "1" dummy variable is assigned after the year of the merger.

### Independent Variables

7 variables that have influence on banks' financial structure and related ratios are selected via Factor and CAMELS technique as independent variable. These variables are listed below.

1) Fixed Assets / Total Assets (FATA)
2) Financial Assets / Total Assets (FVTA)
3) Interest Income / Total Assets (NIM)
4) Liquid Assets / Short Term Liabilities (LACL)
5) Capital Adequacy Ratio (CAR)
6) Net Income / Total Assets (ROA)
7) Net Income / Total Equity (ROE)

## 3. EMPIRICAL FINDINGS

Descriptive statistics related to the variables in the model are displayed in Table 1. Average, median, maximum, minimum, standard deviation, skewness, kurtosis, Jarque-Bera test (used to decide on the compatibility with the normal distribution and probability value related with this test) and observation numbers with respect to the dependent and independent variables are displayed in the table. It is observed that "Financial Assets / Total Assets" variable has normal distribution.

**Table-1.** Descriptive Statistics

| | FATA | FVTA | NIM | LACL | CAR | ROA | ROE |
|---|---|---|---|---|---|---|---|
| **Mean** | 5,1253 | 25,2013 | 11,95 | 59,6488 | 17,3893 | 1,6135 | 13,122 |
| **Median** | 4,1727 | 23,1102 | 11,4484 | 55,6108 | 16,4549 | 1,6587 | 14,4621 |
| **Maximum** | 19,4718 | 53,8131 | 27,9129 | 316,0193 | 44,5124 | 5,8509 | 40,2136 |
| **Minimum** | 1,0212 | 3,4281 | 6,6192 | 13,9707 | 7,2393 | -12,5544 | -178,6366 |
| **Std. Dev.** | 3,5196 | 10,9338 | 3,8403 | 32,2827 | 5,3827 | 1,749 | 20,9712 |
| **Skewness** | 2,3381 | 0,5104 | 1,8717 | 5,1482 | 2,5258 | -5,1906 | -7,766 |
| **Kurtosis** | 9,4153 | 2,5997 | 7,8979 | 41,4226 | 11,8703 | 44,9974 | 72,1579 |
| **Jarque-Bera** | 259,9712 | 4,959 | 156,76 | 6.527,05 | 429,8298 | 7.720,14 | 20.724,22 |
| **Probability** | - | 0,0838 | - | - | - | - | - |
| **Sum** | 507,4015 | 2.494,93 | 1.183,05 | 5.905,23 | 1.721,54 | 159,7402 | 1.299,08 |
| **Sum Sq. Dev.** | 1.213,96 | 11.715,68 | 1.445,29 | 102.133,20 | 2.839,40 | 299,7859 | 43.099,37 |
| **Observation** | 99 | 99 | 99 | 99 | 99 | 99 | 99 |

**Source:** This table presents descriptive statistics of variables included in this study.

Based on the results displayed in the Table 2, and after the statistical and financial evaluation of the ratios that are selected through CAMELS and Factor Analysis, it is determined that merger, acquisition, or transfer of share activities do not have any positive influence on the asset quality, management competency, market risk or liquidity of the banks.

Probit model is predicted based on the maximum probability method. Model's prediction is realized after 6 iterations. In Table 2 Binary Probit, parameter predictions for each independent variable, standard error rates, z statistics and significance values are displayed.

Significance values are examined in order to observe the influence of the independent variables on the dependent variable, merger, and acquisition.

Ho: $\beta=0$ (Independent variable has no influence on the dependent variable)

H1: $\beta\neq0$ (Independent variable has influence on the dependent variable)

Table-2. Binary Probit

| Dependent Variable: MERGER | | | | |
|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Error** | **z-Statistic** | **P□ob.** |
| C | 10.76719 | 2.299837 | 4.681717 | 0.0000 |
| FATA | -0.373360 | 0.127339 | -2.932015 | 0.0034 |
| **FVTA** | **0.041272** | **0.023868** | **1.729149** | **0.0838** |
| NIM | -0.453077 | 0.128163 | -3.535155 | 0.0004 |
| LACL | -0.082911 | 0.022441 | -3.694566 | 0.0002 |
| **CAR** | **0.050199** | **0.071570** | **0.701391** | **0.4831** |
| **ROA** | **-0.415979** | **0.496171** | **-0.838377** | **0.4018** |
| **ROE** | **0.040129** | **0.038766** | **1.035151** | **0.3006** |
| McFadden R-squared | 0.673142 | Mean dependent var | | 0.646465 |
| S.D. dependent var | 0.480500 | S.E. of regression | | 0.263620 |
| Akaike info criterion | 0.586275 | Sum squared resid. | | 6.324087 |
| Schwarz criterion | 0.795982 | Log likelihood | | -21.02062 |
| Hannan-Quinn criter. | 0.671123 | Deviance | | 42.04123 |
| Restr. Deviance | 128.6223 | Restr. log likelihood | | -64.31117 |
| LR statistic | 86.58110 | Avg. log likelihood | | -0.212329 |
| Prob. (LR statistic) | 0.000000 | | | |

**Source:** This table presents the results from the binary probit model estimations.

When the Probit Model in Table 2 is examined, significance values of the three independent variables [ Fixed Assets / Total Assets (FATA), Interest Income / Total Assets (NIM), Liquid Assets / Total Assets (LACL)] are smaller than 0,05. At the 5% significance level, Ho is accepted if the p-value p> 0,05 and rejected otherwise. It is considered that three independent variables have significance on the dependent variable. After all, for three independent variables, parameter value is meaningful, for 5 independent variables [ Net Income / Equity (ROE), Net Income / Total Assets (ROA), Capital Adequacy Ratio (CAR) and Financial Assets / Total Assets (FVTA)] parameter value is not meaningful. Independent Variables explain 67 % of the Dependent Variables.

Once the table is analyzed, there are many values other than parameter predictions. McFadden R-squared value is similar to the certainty coefficient in the classic linear regression model. This value represents the explanation rate of the dependent variable in terms of independent variables. Independent variables explain approximately 67% of the dependent variable. The LR statistics value in the table is similar to the F test in the classic linear regression model. The most fundamental difference is the convenience of LR statistic to K square distribution. Model's significance is tested based on this test statistics.

Ho: $\beta o = \beta 1 = \ldots\ldots\ldots\ldots = \beta n = 0$ (Model is not significant.)

H1: $\beta o \neq \beta 1 \neq \ldots\ldots\ldots\ldots = \beta n \neq 0$ (Model is significant.)

Significance value of LR statistics is calculated as 0.0000. According to this, Ho hypothesis is rejected with 5% error rate, meaning that the probit model is significant.

Based on this study, targeted growth and profitability aims have not been achieved through merger, acquisition, or transfer of shares of the banks, ending up with the conclusion that planned results have not been met. The study shows that required benefits of merger, acquisition or transfer of shares are not realized as opposed to the expenses incurred, which is also parallel to the related literature findings.

## 4. CONCLUSION

Bank merger, acquisition, and transfer of share activities in Turkey are not comparable globally due to the number of transactions and lack of long-term data. In addition, access to data is difficult and further complicated by the lack of an integrated database for merger and acquisitions.

The increased number of bank mergers, acquisitions, and transfer of share activities in financial markets over the last ten years has become a major study area in the literature. The aim of this study is to analyze the influence of bank merger, acquisition, and transfer of share activities on the banks. Merger and acquisition concepts and

rationale towards merger and acquisitions are explained with performance analysis as the basis point. Since there is an increased concentration of foreign investment in the banking sector, this study is performed based on the ratios derived from the Banking Association of Turkey for the banks' acquired between 2001 and 2012.

The study is qualitative and sectional. Two methods are used for the study. First one is the ratio analysis based on the balance sheet data of the nine banks that are faced merger, acquisition, or transfer of shares. The second one is the Probit model. Variables for the model are selected using factor analysis and CAMELS analysis. 7 out of 56 statistically significant ratios are selected using Factor analysis.

Based on the analysis of the accounting data, the study indicates that expected success levels have not been met. In addition, a consolidated financial statement is not being developed during the year of the merger, and special costs related with the merger are reflected to the financial statement after one year of the merger. These two factors also make it difficult to perform the ratio analysis across years.

Based on the results using the Probit model, no significant findings could be derived for items such as capital adequacy and asset quality. It is concluded that merger, acquisition, or transfer of shares have a diminishing effect on the asset quality, management capability, market risk and liquidity ratios. This study contributes in the existing literature that merger and acquisition of banks in Turkey could not benefit from the economy of scale.

The findings from the literature show that majority of the bank merger, acquisition and transfer of shares activities did not result in success. The ratios analyzed during the studies differ. Even in the studies claiming success of the transactions, some ratios are indicated as negative.

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