# Multiple Bank Relationship and Their Impact on Firm's Performance: Evidence from Pakistan

**Jahanzaib Sultan[1], Yang Qing[1], Ammar Abid[2]**

1 School of Management, Wuhan University of Technology, Wuhan, P.R. China, 430070
2 School of Accounting, Zhongnan University of Economics and Law, Wuhan P.R. China.430064
**E-mail:** jzsultan@hotmail.com, yangq@whut.edu.cn, ammar.abid@hotmail.com

**Abstract:** Firms always face a pressure for better performance. A lot of indicators are being studied with respect to their effect on firm's performance. Banking sector plays a vital role in terms of financing firms for their different projects and future investments. This paper is quite significant as it is targeting the low addressed area of Pakistan. A vital contribution is made by this research in order to understand the relationship of banks and firms and how the firm's performance is affected by number of banks in relation with firm. It further opens the new horizons of research to investigate this relationship in depth. The bank relationship is remained a topic of interest in developed countries but meagre research was done in developing and emerging markets. This paper attempts to explain the firm-bank relationship and its impact on firm's performance with the help of OLS regression analysis with robust errors. The data for 180 listed firms is collected from Karachi Stock Exchange (KSE). We use two proxies for bank relationship. A dummy variable is used for bank relations (1 if number of bank relations is more than 5 otherwise 0) and the second variable is actual number of relations a firm is maintaining with banks. Return on asset (ROA) and return on equity (ROE) are used as dependent variables as an indicator of firm performance. It concludes that the number of bank relations do affect firm's performance significantly but negatively. As far as the bank relation dummy is concern it shows significant relation with ROA but no such relationship with ROE. After investigating the initial relationship, it can be said that bank relations are important for firms but there must be optimal number of banking relations.
**Key words:** Multi-Bank relationship (MBR); Firm performance; Return on Asset; Return on Equity

## INTRODUCTION

Banking sector is the back bone and main source of capital for firms, so a lot of studies have been carried out on their relationship with firms (Berger et al. 2008). It is even more important to investigate the role of banking sector in emerging markets as the market characteristics are quite different than developed markets so their role can be quite different in emerging markets (Barth et al., 2006).Therefore, it became necessary to study this firm bank relationship in developing and emerging markets.

Bank relationship is associated with firm performance as it increases access to capital. In a study of German firms, Agarwal and Elston (2001) proposed that the firms in relation with banks must have high profitability and growth. However, they found no evidence for such hypothesis for Germany. The exclusive bank relation benefits firms in order to access capital, better project choice and increase profitability (Petersen and Ranjan, 1995).

Although as a research interest bank relationship is not a new topic yet a very few attempt is made regarding developing markets (A.N. Berger et al., 2008) like China, India and Pakistan but as per authors knowledge it is the first attempt to investigate this relationship in context of Pakistan.

This paper investigates this less addressed developing market in order to formulate an opinion about the impact of multiple bank relation with a firm performance. Literature suggests mixed effects of bank relationship with firms and their performance. One stream of research is in favor of more than one bank relationship while the other stream suggests one strong bank relationship. Bank can help by providing valuable capital and monitoring (Gorton and Schmid, 2000). In contrast, bank relationship may affect the firm's performance negatively (Mahrt-Smith, 2006).

As evident from previous literature, the phenomena of banking relation with respect to firm performance remains an interest to researchers. Though there is a lot of research in this regard but very few are in context to developing nation and emerging markets. This paper tries to explore the relation between firm performance and banking relation in Pakistan as a case. The study particularly focusses on the impact of multiple bank relations on firm performance. As no previous study has focused on this issue therefore this is very eminent study in order to explore the impact of multiple bank relations.

In the next session we will discuss the literature on banking relationship, multiple relationship and determinants of firm performance. Remainder part will discuss the banking sector of Pakistan then the data and methodology will be presented. In the end we will discuss the results and conclude with some suggestion for future research in Pakistan context in this regard.

## 1. Literature review

The firm's close relationship with the banks is always remain beneficial for them as documented in the previous literature. The close relationship allows firm to raise additional capital (Hoshi, Kashyap and Scharfstein, 1991). Another benefit of close banking relation is reported that it will reduce the bankruptcy cost and improve capital investments during financial distress (Hoshi, Kashyap and Scharfstein, 1990; Nakatani, 1984). In spite of above mentioned

benefits, Prowse (1990) posits that close banking relationship like equity ownership sometimes alleviates problems like agency cost of debt.

However, it is also evident from literature that there are some costs associated with close banking relation as well. Explaining his theoretical model Rajan (1992) posits that trusting on single bank relation may undermines the performance and owner's determinations. Weinstein and Yafeh (1998), during their study on Japanese banks find that they charge relatively high interest rates from the closely related firms.

The empirical evidences from literature are quite diversified as some of the researchers supports the close relationship between firms and banks while some don't. Johnson (2003) posits that using short-term bank debt can reduce negative effects of underinvestment problems on leverage but it will result in the rise of liquidity risk. For market to book value of equity, Gorton and Schmid (2000) found some evidence of positive effect with respect to close banking relations. If a firm maintain a close and single banking relation for a longer time it will help the firm to earn better credits from that bank. As per result, the firm can reduce financing costs and collaterals.

As close banking relationships have mixed evidence in literature same is the case for multiple bank relationship. Some researchers argue their benefits and some argue their negative impact. Degryse and Ongena (2001) are of the view that the negative impact may be the high transaction cost while maintaining multiple bank relations. Lower hold-up costs or larger overall credit lines are the benefits of the multiple relations with bank as advocated by Von Thadden (1994). There are also some studies that attempt to explain the factors that determine the number of banking relationships and whether the number of banking relationship has as impact on value. While doing the study on domestic bank and foreign bank relationship Fok, Chang and Lee (2004) report that domestic bank relationships are negatively related with firm performance but the same relations with foreign banks have positive impact on firm performance.

It is quite evident that banking relations have impact on firm performance and profitability. Most of the researches are attempted to explain this relationship in the developed markets and only few examples are there for developing nations and markets. There are certainly many other factors involved in firm performance and their effect is being tested and argued by many researchers.

Another attribute of better performance and profitability is Liquidity of the firm. Liquidity is the ratio of firm's current assets to current liabilities. Liquidity helps in capturing firm specific attribute as it reflect the ability to manage working capital and acquire a greater quantity of cash balance relative to current liabilities which reflects better performance and profitability of the said firm.

## 2. Hypothesis

As the researches in the developed countries, the impact of bank relations have some impact on the performance because of their controlling effect on the firm decision making specially in Japan. But some other researchers reported mixed effect. For our research we expect positive effect of multiple bank relations on firm performance so we have built our hypothesis as follow:

H1: There is a significant relation between number of bank relation and firm's Return on Asset (ROA).

H2: There is a significant relation between number of bank relation and firm's Return on Equity (ROE).

H3: There is a significant relation between multiple bank relationship and firm's Return on Asset (ROA).

H4: There is a significant relation between multiple bank relationship and firm's Return on Equity (ROE).

## METHODOLOGY AND DATA ANALYSIS

As most of the researches focuses on developed markets, for this research we have taken Pakistan as our area of interest being the emerging market and developing country. Total number of listed firms on Karachi stock exchange (KSE) are 581. 75 firms are from financial and equity investment sector. This reduced the number of firms to 506 in which 24 listed firms are commercial banks. 32 firms are from insurance sector which reduced our sample of interest to 450 listed companies. We have taken data of 180 non-financial firms (for which data is available) listed on Karachi stock exchange (KSE) from 2008 to 2013 and total number of observations is 1056. The data was collected from published annual reports of the companies, their respected websites and stock exchange. Different variables are taken into consideration like ROA, ROE, Size, liquidity and leverage. Bank relations is the variable of main consideration in this piece of research. In order to remove the bias from our model we have controlled the effect with the other determinants of the firm performance.

We use return on asset (ROA) and return on equity (ROE) as an indicator of firm performance. The multiple bank relationship (MBR) is taken as dummy variable in order to explain its effect on the performance of the firm. The dummy is valued as 1 if there are banking relations more than 5. In order to further explain the bank relationship we use number of bank relationship as second parameter. To explain the other variation in firm performance, we include some frequently used variables i.e. firm size, leverage and liquidity as control variables for our research.Onaolapo and Kajola (2010) posits significant relationship for debt to asset ratio (leverage) with firm performance so we use it as an explaining variable of performance.Large size firms, with an effective implementation of operations, can generate better performance than smaller firms (Penrose, 1959). So it can be said that the size and performance relationship is of mixed nature and both sort of evidence can be found.

Data analysis is done with the help of descriptive statistics and OLS regression. The OLS regression is done separately for ROA and ROE. In first model we have checked the effect on ROA and in second regression on ROE as performance indicators.

$1^{st}$ Model

$$ROA = I + \beta 4\,NBR + \beta 5\,MBR(Dummy) + \beta 1\,SIZE + \beta 2\,LIQUIDITY + \beta 3\,LEVERAGE + \varepsilon \qquad (1)$$

$2^{ND}$ Model

$$ROE = I + \beta 4\,NBR + \beta 5\,MBR(Dummy) + \beta 1\,SIZE + \beta 2\,LIQUIDITY + \beta 3\,LEVERAGE + \varepsilon \qquad (2)$$

Return on asset ranges from negative (-1.21) to positive value i.e. 3.12. The firms have ROA is 0.0431 as an average. The mean value for ROE is quite low as 0.1011 but it vary from minimum -17.74369 to maximum 11.57286. These statistics depict that many firms reported

negative equity due to heavy losses over time. Mostly the firms are maintaining more than 1 bank relations as the average is 9.3131 with a range from 29 to 1. MBR is a dummy variable for number of bank relationship which is valued as 1 if relations are more than 5. MBR mean value is also high (0.7228) that also verifies that firms have more than 5 bank relations on most of the occasions. SIZE has a maximum value of 27.72644 and minimum value 14.60215. The mean value is 21.936 with a standard deviation of 1.8189 because the firms in data set are the largest firms in Pakistan. The result shows that the firms are not highly leveraged and on average, leverage is 13% of total assets.

The figures and values for correlation matrix shows that there is no value higher than 0.8 so the problem of multicollinearity does not exist in our variables.

**Table 1 Regression Results for ROA**

**Regression Table for ROA**

| Variable | Expected Sign | Coefficient | t-Statistic s | Robust std. Err. | P>t |
|---|---|---|---|---|---|
| NBR | + | -0.0013 | -1.10 | 0.0012 | 0.003 |
| MBR | + | -0.0263 | -1.53 | 0.0172 | 0.060 |
| SIZE | + | 0.0261 | 3.47 | 0.0075 | 0.011 |
| LEVERAGE | - | -0.0963 | -1.64 | 0.0589 | 0.212 |
| LIQUIDITY | + | 0.0187 | 2.53 | 0.0074 | 0.004 |

ROA is return on asset. ROE return on equity. NBR is number of bank relationship. MBR is dummy variable for multiple bank relations is 1 (if number of bank relationship is >5). SIZE is natural log of sales. LEVERAGE is the ratio of debt to assets. LIQUIDITY is ratio of current assets to current liabilities

The regression results of our 1st model is shown in Table 1. The regression analysis for return on assets is done using OLS method with robust standard errors. Return on asset ROA is used as dependent variable for the above regression analysis. The results show that number of bank relations (NBR) has a significant impact on firm performance at 1% which is as expected but the sign is opposite so hypothesis H1 is accepted. The dummy variable for the presence of bank relationships more than five has also shown significant and negative impact on firm performance (ROA) at 10% level. SIZE and LIQUIDITY are positively related to ROA and significant results are depicted at 1% level. However, the results for LEVERAGE are not significant for the study.

**Table 2 Regression Results for ROE**

**Regression Table for ROE**

| Variable | Expected Sign | Coefficient | t-Statistic s | Robust std. Err. | P>t |
|---|---|---|---|---|---|
| NBR | + | -0.0008 | -0.13 | 0.0061 | 0.0128 |
| MBR | + | -0.0201 | -0.26 | 0.0786 | 0.1753 |
| SIZE | + | 0.0460 | 2.80 | 0.0164 | 0.0136 |
| LEVERAGE | - | -0.0133 | -0.08 | 0.1733 | 0.3554 |
| LIQUIDITY | + | 0.0176 | 1.89 | 0.0093 | 0.0008 |

ROA is return on asset. ROE return on equity. NBR is number of bank relationship. MBR is dummy variable for multiple bank relations is 1 (if number of bank relationship is >5). SIZE is natural log of sales. LEVERAGE is the ratio of debt to assets. LIQUIDITY is ratio of current assets to current liabilities

Table 2 shows the results for 2nd regression with same method as earlier for return on equity (ROE). In this model the ratio of ROE is used as dependent variable. The above model is also passed by F-statistics i.e. 2.36. Results for number of bank relations, NBR is almost same as it has negative and significant effect on ROE of the firm at 5%. But our dummy variable for bank relationship has not shown any significant relationship with ROE. LEVERAGE is also insignificant for ROE which is due to firm's negative equity in our data set. Whereas, the results for SIZE and LIQUIDITY remain significant at 5% and 1% respectively.

## DISCUSSION AND CONCLUSION

The main purpose of this paper is to investigate the nature of relationship between banks and listed firms in Pakistan. We focus on the number of banking relations a listed firm is maintaining and how this relationship is affecting their performance. The results show that the number of bank relations have a negative effect on firm performance which is consistent with Degryse and Ongena (2001). Our research suggests that the firm must maintain a few banking relations in order to achieve high performance.

Banks are the biggest source of funding for financing in Pakistan. But it is a question of interest that how many banking relations must be maintained or what is the optimal number of bank relations. The firms are approaching banks in order to get financing for future investments and meeting current requirements of the business. On average the listed firms in Pakistan are maintaining 8 bank relations which is quite high. In contrast, the firms in developed countries are loyal in their relationship with banks and maintaining a single main bank relationship which is beneficial for the firms and their performance. This can be concluded for Pakistani firms that the number of banking relations should be reduced in order to reduce its negative impact on firm performance. Another reason for these different results is the high interest rate prevailing in Pakistan than the developed countries.

This paper has contributed in order to understand the initial understanding of bank relations and firm's performance as no such research has been done before in this respect, to the best of author's knowledge. This research can be further enriched by adding different avenues. Future research can be done including bank ownership type, firm's ownership type and bank relationship type.

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