

## IMPACT OF FREE CASH FLOW ON THE FINANCIAL PERFORMANCE: EVIDENCE FROM COMMERCIAL BANKS OF PAKISTAN

**Zill e Humma Komal**

Student, Department of Management Science  
National University of Modern Languages (NUML), Islamabad  
[zillehumma098@gmail.com](mailto:zillehumma098@gmail.com)

**Sadia Saeed**

Lecturer, Department of Management Science  
National University of Modern Languages (NUML), Islamabad  
[sasaeed@numl.edu.pk](mailto:sasaeed@numl.edu.pk)

**Iram Iqbal Qazi**

Assistant Professor, Department of Management Science  
National University of Modern Languages (NUML), Islamabad  
[iiqazi@numl.edu.pk](mailto:iiqazi@numl.edu.pk)

### ABSTRACT

*Free cash flows and financial performance is an area of interest for research especially in financial sector that plays a mediatory role between lenders and borrowers. Financial health of any economy depends upon the sustainability of banking sector that is based upon their sound and efficient financial performance. The link between free cash flows and financial performance of financial sector is empirically investigated in the study. Regression results of the study support that free cash flows have significant positive and negative impact on financial performance of banking sector during time frame 2011-2020. The banks having strong financial position are able to achieve competitive edge in the financial market. So managers at top position and policy makers should design strategies for efficient utilization of free cash flows that not only increases the financial performance but also contribute to stock holders' wealth maximization.*

**Keywords:** Financial performance, Bank size, Return on equity, Return on asset, Agency problems.

### INTRODUCTION

The backbone of a company's performance throughout the year is free cash flow (FCF). Free cash flow is the cash results after deduction of capital expenditure, inventory costs, and dividend payments from operating cash flows (Abughniem et al., 2020). FCF use to assess and analyses a company's health. Internal financing is often aided by free cash flow. Free cash flow is the source to improve firm's financial performance, if used effectively in appealing investments can result in massive growth for the company and immediately increasing the profitability. Potential financiers and lenders are always on the lookout for organizations with big surplus cash flows, as they assess a company's financial stability to repay debts. Stockholders looking for a safe shelter for their excess cash are more likely to invest in companies with larger FCF.

Financial and non-financial performance both are used to evaluate the success of the company. Non-financial success is measured in terms of market share, customer satisfaction and degree of innovation. Financial performance is based upon over all fiscal health of the company. It is determined through efficient utilization of assets, growing revenues and manageable debt. Accounting measurements such as ROE, ROA, profitability and ROI are used to measure financial performance (Lai et al., 2020).

Profitability is an accurate measure to judge the financial performance of the company because it is a combination of two words profit and ability. Profit means the ability of an investment to generate profit and ability indicates the efficient utilization of asset to generate profit. It is a relative measure and most

commonly measures include to evaluate the financial performance are return on asset (ROA), return on equity (ROE), Net income margin (NIM) and Return on investment (ROI). Profitability measurements are so crucial to firm managers, owners, and investors since they represent total efficiency and performance (Ali, Ormal & Ahmad, 2018).

In order for monetary movements to be efficiently managed and successfully employed, a business organization must be able to devise a variety of ways for selecting the most valuable components of its cash flows to put to use in the company's operations in order to boost productivity or performance. The most critical component of cash flow management for firms in order to avoid recurring cash shortages is the act of monitoring, evaluating, and adjusting business cash flows referred to as cash flow management.

This study adds to the body of knowledge on the relationship between free cash flow and financial performance of businesses. Its goal is to investigate the relationship between free cash flow and financial performance in Pakistan, a rapidly growing market. The research is conducted on financial sector because economic progress of the country is based upon its sound financial performance. The study attempts to answer the questions what is the impact of free cash flow on financial performance of financial sector? Is there exist a link between Return on equity, net income margin and free cash flows? To the best of knowledge majority of the studies have been conducted in industrialized countries on the relationship between operational cash flow and company's profitability; however, there have been very few studies on free cash flows and corporate financial performance. This study adds to the empirical assessment of the role of FCF in predicting the financial performance of commercial banks listed on the PSX during the time frame 2011-2020.

### **Significance of the study**

The study's findings will help management, investors, and policymakers to develop strategies, diversified portfolios, and code of conduct. A big quantity of free cash flow indicates that banks have enough cash to cover operating expenses, which may be accessed through management policies. The importance of this study is to show the importance of the relationship between profitability and free cash flow as an indicator of success. This study will benefit investors because it demonstrates the impact of free cash flow on bank fiscal enactment. As a result of this study, investors can easily determine whether they should invest in a particular bank or not, because they can evaluate the effectiveness of banks and determine whether they have enough free cash flow available or not. They must also understand what circumstances affect profitability, as one of the most widely used valuation models ignores cash flow generated after the strength. This study, on the other hand, adds to the study of bank profitability by offering an analytical picture of targeted institutions' effectiveness in increasing profits. The free cash flow report will benefit the reader by informing them of the current financial situation of the company. It needs funds to cover operating expenses, repay bank debt, pay taxes, and purchase new assets. A cash flow report determines whether or not a company has sufficient funds. Policymakers must have a precise picture of their bank's free cash flow situation in order to make informed financing decisions, such as whether a lower or greater level of FCF will benefit their bank, plan ahead for potential cash shortages (or lack thereof) and make a financing decision sooner and lay a solid foundation for credit applications.

## **LITREATURE REVIEW**

### **Theoretical review**

Theoretical review of the study is comprised on risk theory and free cash flow theory.

#### ***Risk Theory***

In order to make educated financing decisions, policymakers need a clear view of their bank's free cash flow status, such as whether a lower or higher level of FCF will help their bank. When a bank invests free cash flows in projects risk is rewarded in the form of profit. This theory supports the connection between free cash flow and profit.

#### ***Free cash flow theory***

Manager's behavior does not confirm optimization of profit instead manages use excess cash for their personal benefits other than investing in projects that can increase profit of the firm (Sila, 2018). From the standpoint of agency costs, considering management behavior in terms of expenditures may help to improve

management as well as internal expenditures that are necessary for the company's growth and development, resulting in the generation of cash flow, and their efficient utilization for achieving financial targets.

#### **Empirical literature of the study**

A corporation's FCF is the amount of money it produces after deducting research and development and eventually investment costs. The relationship between a company's FCF and its success is examined. Between 2002 and 2007, real data from the Taiwan Stock Exchange was used to study the influence of FCF on financial performance however, the results were mixed. On one hand, the findings suggest that having a lot of FCF leads to wasteful spending and poor financial performance. FCF, on the other hand, has been demonstrated to be effective. Financial cash flow is generated as a result of managers' operational efficiency; hence financial performance and FCF are linked (Ali & Ahmad, 2018).

As free cash flow drops, businesses with constrained cash flows that are trying to fund both operations and expansion may run into problems. Furthermore, in order to exist, a company must have sufficient capital on hand to reinvest. Even if a company is profitable, it can fail if it does not have enough cash to pay its bills. Increasing FCF is a sure-fire approach to tap into the market and convert that extra income into revenue and growth (Sila, 2018).

Managers, according to the free cash flow theory, do not work profitably, but instead use increasing free cash flow to achieve personal objectives. Reserves also limit the amount of FCF accessible for personal objectives. In order to stay afloat, companies use a number of survival and growth strategies. To reduce company's costs is one of these initiatives. Managers' major responsibility is to ensure that the company achieves its objectives while also maximizing earnings and cash flow for shareholders (Mohammed, 2018).

As a result, agency theory considers how management could act in the best interests of stockholders by reducing agency costs and enhancing financial reporting. The study has conducted several cash flow and financial performance analyses. Despite this, the three cash flow components as well as financial performance were the focus of all of the research. Despite this, the study's focus was on the three components of cash flow as well as financial success. According to publicly traded institutions, Nigeria's cash flow and financial success is inextricably linked (Amah, 2016).

The study looked at the relationship between FCF and obligation and efficacy in the Nordic Nasdaq large cap market from 2012 to 2017. The study's population consisted of 223 Nordic companies listed on Nasdaq. The study supports the relationship between cash flows and efficacy (Reuter, 2018) On the other hand another study focused on cash flow and financial performance of listed banks in emerging markets in Nigeria. Regression result suggests the cash flow management is essential for improving financial performance (Ogbonnaya, 2016).

A review of the listed companies on the Tehran Stock Exchange carried out free cash flow and earnings management. The study explored positive correlation between these two variables. Companies with high free cash flow used discretionary accrual frequently. It reflects to the money left over after all present obligations, such as payments to keep the business running (Ratnadi, 2020). Besides cash flows company's size has a detrimental impact on its financial problems. Creditors evaluate a company's financial health using working cash flow information. Creditors have faith in a company's ability to meet its obligations if it has a good cash flow, it will avoid financial difficulties (Huang, 2007). A study of 208 publicly traded Vietnamese companies examined the relationship between free cash flow and profitability in developing countries. The result supports free cash flow theory, increased free cash flow leads to higher stock prices ( Nguyen, 2018).

Aftab (2016) demonstrates the impact of free cash flow on profitability of 30 companies listed on the Karachi Stock Exchange (KSE) during a five-year period using free cash flow, capital structure, and firm size as dependent factors and profitability as an independent variable. Secondary data from financial statements was evaluated using a regression model. The result supported the strong relationship between profitability and free cash flow. Similarly the research conducted in Korean Stock Exchange, free cash flow and company size have an impact on firm profitability; however capital liquidity has no impact. According to the Pearson correlation, free cash flows, capital liquidity, and firm size as predictor factors have a significant and positive relationship with the profitability of companies (Ambreen, 2016).

As revealed in a study conducted in Brazil to give critical information for the commercial and governmental sectors' decision-making processes, evaluating financial performance is an important topic in the renewable energy market (Rodrigues, 2018). In line with previous studies the current study attempts to investigate the role of free cash flows on financial performance of financial sector during time frame 2011-2020. To the best of knowledge financial sector in this context has not been examined in isolation in developing country Pakistan.

**Hypothesis of the Study**

From the literature following hypotheses of the study has been designed

1. H0: Free cash flows have no significant effect on the financial performance of financial sector in Pakistan.
2. H1: Free cash flows have significant effect on the financial performance of financial sector in Pakistan.

**RESEARCH METHODOLOGY**

All the commercial banks of Pakistan are the population of the study. The sample of the study is comprised of all the listed banks in Pakistan stock exchange from 2011 to 2020. Bank's financial performance including return on net worth (RONW) and net profit margin (NPM) and free cash flow information are gathered from their audited annual reports. Panel regression with fixed effects after confirmation of hausman test has been used in the study to know the impact of free cash flow on financial performance in banking sector of Pakistan. Multiple proxies including return on net worth (RONW) and net profit margin (NPM) are used to measure the financial performance of banks. On the other hand free cash flow information is quantified by using formula suggested by Wang (2010)

**Model Design and Operational Description of Variables**

The model of the current study is comprised of the following econometric equations

$$RONW_{it} = \alpha + \beta_1 FCF_{it} + \beta_2 Size_{it} + \epsilon_{it} \quad \text{(Equation 1)}$$

$$NPM_{it} = \alpha + \beta_1 FCF_{it} + \beta_2 Size_{it} + \epsilon_{it} \quad \text{(Equation 2)}$$

Where;

RONW<sub>it</sub> = Return on net worth of bank (i) in the year (t)

NPM = Net profit margin of bank (i) in the year (t)

FCF = Free cash flow of bank (i) in the year (t)

BS = Bank size of bank (i) in the year (t)

**Table 1 Operational Description of Variables**

Variables	Symbols	Measurement
Free cash flow	<b>FCF</b>	net operating profit after taxes -investment during period (FCF <sub>it</sub> = OCB <sub>it</sub> - I <sub>it</sub> )
Return on Net worth	<b>RONW</b>	Net income available to common stock holders divided by net worth ( Net income available to common stock holders/ net worth)
Net Profit Margin	<b>NPM</b>	Net profit after tax divided by revenue (Net Profit after tax/Revenue )
Bank Size	<b>BS</b>	Natural Logarithm of assets

**RESULTS OF THE STUDY**

The statistical analysis of data distribution is presented in table 2. Average earning power of equity is 5.47% during time frame 2011-2020. Maximum net income on revenue is earned in listed banking sector is 26.05%. A huge deviation is observed in maximum and minimum values (0.00-29.15) of free cash flows during the data period. Risk is also involved in grossing the average cash flows of banks. The distribution of Income on net worth and net income margin are negatively skewed and most of the values are concentrated on the right side. On the other hand the data of free cash flows is positively skewed. Kurtosis

is greater than 3 indicates that the distribution is leptokurtic and probability of extreme values exist in the data during 2011-2020.

**Table 2 Statistical Summary**

	RONW	Net Profit Margin	Bank size	Free cash flow
Mean	5.47	23.40	27.11	27.35
Median	5.71	23.24	27.13	26.86
Maximum	6.47	26.05	27.81	29.15
Minimum	3.89	20.42	26.46	0.00
Std. Dev.	0.65	0.18	0.42	28.17
Skewness	-1.05	-0.063	0.02	0.65
Kurtosis	4.05	3.02	3.84	3.45
No of Observations	190	190	190	190

Table 3 narrates Income on equity and bank's size is positively related to free cash flows while the association of free cash flows with net income margin is negative. Correlation matrix indicates that association among variables is within tolerable limits. Therefore problem of correlation has not been observed in prescribed data frame.

**Table 3 Correlation Matrix**

	Free cash flow	ROE	Bank size	NET PROFIT MARGIN
Free cash flow	1			
Return on Equity	0.55	1		
Bank size	0.65	0.39	1	
Net profit margin	-0.45	-0.51	-0.38	1

Table 4 indicates the significant values of Levin, Lin & Chu t\* indicating there is no unit root in the data. The cross-sectional distribution is stationary and these are not auto correlated to each other.

**Table 4 Panel Unit Root test**

Variable	Method	Significance	Probability
Return On Net worth	Levin, Lin & Chu t*	-5.92	0
NPM	Levin, Lin & Chu t*	-7.05	0
Free cash Flow	Levin, Lin & Chu t*	0.71	0.00
Bank Size	Levin, Lin & Chu t*	0.82	0.00

Table 5 reveals that free cash flows are significantly negatively related to net income margin. The negative relationship between free cash flow and net profit margin is due to increase capitalized costs, amortization costs and one-time charges of banks. On the other hand size of banks in the context of assets is statistically insignificant at 5% but it is negatively related to net income margin. The results of the study support the impact of free cash flow on net income margin. The findings of the study are in contrast to Elahi et al., (2021) who found positively significant relationship between operating cash flows and financial stability.

**Table 5 Impact of Free Cash Flows on Net Income Margin**

Variable	Coefficient	Std. Error	t- statistic	Prob.
C	0.656	0.082	7.99	0.00
Free cash flow	-0.0103***	0.002	-3.92	0.00
Bank size	-0.0065	0.003	-1.645	0.10
R squared	0.21		Adjusted R squared	0.21
F-statistic (p)	0.00		Durbin Watson stat	1.38

\*\*\*indicate 5% level of significance

Table 6 explores the statistically significant positive impact of free cash flows on return on net worth while bank size has no significant impact on return on equity. This shows that banks are efficiently utilizing the free cash flows in investment opportunities that increase the profitability and lead to increase the basic earning capacity of equity with positive net present values. Musah & Kong 2019; Raza & Farooq; 2017) findings also support that free cash flows are significantly positively related to financial performance. On the other hand the result of the study is in contrast to Nobanee & Abraham (2017) who explored negative relationship between free cash flows and financial performance.

**Table 6: Impact of Free cash flows on Return on Net Worth**

Variable	Coefficient	Std. Error	t- statistic	Prob.
C	-9.68	2.71	-3.56	0.00
Free cash flow	0.52***	0.08	6.00	0.00
Bank size	0.10	0.13	0.77	0.43
R squared	0.30		Adjusted R squared	0.22
F-statistic (p)	0.00		Durbin Watson stat	1.88

\*\*\*indicate 5% level of significance

### ANALYSIS AND CONCLUSION

The study ought to explore the impact of free cash flows on financial performance of financial sector during the time frame 2011-2020. The findings of the study conclude that free cash flows are negatively related to bank's profitability and positively related to return on net worth at 5 % level of significance. It divulges that banks are efficiently investing in investment projects and do lending to sectors appropriately. Moreover one –time costs and amortization of banks are greater that shows negative earnings. In addition to that bank size has no connection with bank's financial performance. Therefore the costs to offer products and services by banks are almost same and distribution of fixed costs on products and services is indifferent in small and large –scale banks.

The results of the study supports that free cash flows are utilized in investment projects that lead to increase the profitability and its financial performance. So policies at management level in banks must be designed to utilize the free cash flows productively that enhance the return on equity in this way management gain the trust from shareholders and maximize shareholders wealth. In addition to that, findings of the study could help the bank officers and shareholders to maintain steady cash flows that not only enhance the performance but also maintain the sustainability of banks. There are various measures for examining the financial performance of banks that can be applied in the future research. Moreover, financial and non-financial sectors are comparatively analyzed in the context of cash flows and financial performance in future. The study is limited to only banks listed in Pakistan stock exchange due to time constraint and availability of authentic data.

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