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Impact of Loan Accessibility on Working Capital Management and Profitability: Comparative Study of Family Versus Non-Family Firms

Abstract

This study is conducted to identify the direction of the relationship between working capital management (WCM) and firm performance of the non-financial sector of Pakistan from 2009 till 2018. This has also looked at the effect of restricted access to loan on the WCM- Profitability relationship. The findings confirmed that restricted loan accessibility impacts the WCM-Profitability relationship. The comparative analysis demonstrated that financially constrained firms are mostly non-family firms that are new, growing, smaller in size, face high risk, maintain high liquidity and tangibility ratios than non-constrained firms. Further, the working capital levels of financially constraint firms is lower because of high operating expenses and greater capital rationing. Managers and scholars may use these findings for the administration of their working capital policies in order to avoid the financial cost and create more opportunities for financial accessibility which is further beneficial for making informed investment decisions, yielding higher profits that contribute towards sustainable growth.

Key Words: Financial Constraints, Working Capital Management, Firm Profitability, Investment Decisions, Loan Accessibility, Family Firms, Sustainable Growth

Introduction

Working capital management (WCM) has become quite popular for the academicians and practitioners for analyzing the firm's performance (Prasad, Sivasankaran, & Shukla, 2019). Chauhan and Banerjee (2018) stated that the sound administration of working capital is significant for any organization particularly, for those that are working in the emerging economies with restricted access to the capital market and long-term investment. Liquidity management is considered essential for the effective administration of the companies (Uyar, 2009). If firms are unable to handle their liquidity position well, it depicts its inefficiency. In this situation, firms have to rely on external sources of funds, but getting external financing is very difficult. If somehow, they get the financiers who are ready to finance them, then still they have to bear the high cost of accompanying it, which will reduce their profits (Zhang, Tong, & Li, 2020). Therefore, researchers recommend that firms must have to make their cash conversion cycle (CCC) efficient. Nobanee, Abdullatif, and AlHajjar (2011) stated that an optimal WCM is depicting firms' ability to liquify cash from stock, accounts receivable, and inventory. By dealing with these mechanisms efficiently, a firm can decrease its dependence on external capital. Therefore, CCC is proved to be a useful measure for the efficacy of the WCM (Sharma, Bakshi, & Chhabra, 2020). Aktas, Croci, & Petmezas, (2015) suggested that the firms' investment in working capital helps to achieve an optimal level of WCM that can help in reducing operating expenses and enhancing operational efficiency.

CCC determines the time gap between the cash inflow (amount paid to suppliers for purchase of raw material), cash inflows (money received from the sale of the finished goods and accounts

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receivable). Therefore, firms want to balance their liquidity and productivity functions in daily business activities through WCM, shorter CCC leads towards high profitability ([Bhatia & Srivastava, 2016](#); [Singhania & Mehta, 2017](#)). On the contrary, [Tauringana and Afrifa \(2013\)](#) claimed that putting extra in working capital will bring higher CCC. They believe longer CCC enhances firm productivity as it will bring about the more noteworthy interests in the stock and receivables that are necessary for the future accomplishment of the goals. Firms can decrease their borrowing cost or increase their fund accessibility for growth by just decreasing the investment in current assets.

By considering the optimistic and adverse effect of WCM-performance relationship, [Madinios, Tsinani, Šević, & Stankevičienė, \(2019\)](#) stated that there is a priori reason to consider this association as non-monotonic. Whereas, [Altaf and Shah \(2017\)](#) argued that the prior literature provided pieces of evidence for the presence of the linear association between them. Researchers like [Soukhakian, and Khodakarami, \(2019\)](#) and [Korent, and Orsag, \(2018\)](#) believe that differences in the cash inflow and outflow can impact firm profitability and often resulting in the inverse relation between CCC and firm's return. Whereas, [Muscettola, \(2014\)](#) believes that in the long run, this relationship turns into a positive bounding because firms can easily manage their long-term funding requirements. Therefore, they consider CCC as the best tool for managing the profitability of small firms.

Conversely, prior findings are evident that one of the reasons for firm liquidation is improper administration of working capital procedures ([Samiloglu & Demirgunes, 2008](#)). They explained the non-directional connection between WCM and corporate return. Although they believed that the shorter CCC leads towards early recovery of receivables but at the same time, it will reduce the customers, interruptions in the production procedures, reduction in the sales volume etc. ([Abushammala & Sulaiman, 2014](#)). Therefore, the present interest of the scholars has shifted toward identifying the best possible way to manage working capital that leads to achieve profitability targets but still they are in infancy to find the way to gain optimal WCM ([Nguyen, Nguyen, Ngo, & Adhikari, 2018](#)). The plan of the firm to utilize its idle resources or increase/decrease the amount of investment in working capital will result in better performance. Firms can easily reduce its cost when reaches to their optimal level of WCM and enhances its profitability ([Aktas et al., 2015](#); [Ullah, & Khushnood, 2019](#)).

Some scholars believed firms are unable to achieve their profitability objective due to limited access to financial sources ([Kasiran, Mohamad, & Chin, 2016](#); [Lu & Wang, 2018](#)). The literature has focused on highlighting the issues that a firm faces due to limited loan accessibility, were previously identified as the firm WCM ([Campello, Graham, & Harvey, 2010](#); [Whited & Wu, 2006](#)). Financial constraints adversely affect the relationship of WCM-profitability. Investment in financially stressed companies is more prone to internal capital fund availability because of external borrowing restrictions ([Kaplan & Zingales, 1997](#); [Schauer, Elsas, & Breitkopf, 2019](#)). Small companies face more economic and financial barriers than the bigger ones, particularly if they are not part of family groups. A family firm faces less financial restriction than non-family firm may be due to inclusion of financial firms in their group that enhances its credibility and loan accessibility ([He, Mao, Rui, & Zha, 2013](#)). But the role of family firms in coping with the financial constraints, enhances loan accessibility and its further influence on WCM-profitability relation is yet to be explored.

The main purpose of this research is to reinvestigate the relationship between WCM and firms' profitability and it also evaluates the influence of loan accessibility on this relationship. This is the salient feature of this study; it not only validates the previous findings but also provides some shreds of evidences form the emerging economies. Whereas, earlier studies mostly focused on the developed economies and overlooked the developing countries like Pakistan, where most of the organizations are new and have faced more restricted access to finance ([Malik & Bukhari, 2014](#)). Furthermore, the present study conducted a comparative analysis of the firms based on their loan accessibility to explain the characteristics of those firms, which is also one of the important contributions of the present study.

Literature Review

WCM is considered as an important component of corporate finance relevant to the administration of short-run financing and investment needs of the firms ([Pratap Singh & Kumar, 2014](#)). It serves as a useful tool for assessing the liquidity of the firms ([Altaf & Shah, 2017](#)). [Madininos et al., \(2019\)](#) claimed that CCC is a way of scrutinizing the decision-making process related to short-term assets and liabilities. It is extensively used for determining the risk and return of liquidity associations ([Singhania & Mehta, 2017](#)). [Soukhakian and Khodakarami, \(2019\)](#) argued that organizations can maintain shorter CCC to enhance firm performance. Whereas, [Tauringana and Afrifa \(2013\)](#) longer CCC leads to increased organizational performance in terms of profitability. Despite this contradiction, still, the amount invested in working capital is significantly large as compared to the resources possessed by the firm, showing its viable utilization.

Successful WCM is essential for the company's sustainability and growth, as it influences the productivity and liquidity position of the businesses ([Deloof, 2003](#); [Prasad et al., 2019](#)). An inadequate WCM reflects poor administration of firm regarding fund management and credit policies that often lead towards liquidation ([Bhunja & Das, 2015](#)). Sometimes, companies adopt strict credit policy for collection of receivables that results loss of customers and decline in the sale ([Ali, 2011](#)) even in some cases attractive discount policies fail to retain the customers. Therefore, firms continuously improve their CCC because WCM performance is based on CCC. That is why it is considered as a substantial factor in increasing the competitiveness of the business ([Koumanakos Dimitrios, 2008](#)).

The positive or negative impact of WCM on firm performance relies upon the duration of CCC adopted by an organization ([Altaf & Shah, 2017](#)). [Tran, Abbott, and Yap, \(2017\)](#) believe that shorter CCC benefits firms particularly, during financial crisis. They argued that business performance can increase until firms reach their most favorable CCC level where WCM positively affects firm profitability ([Lu & Wang, 2018](#); [Rahman, Iqbal, & Nadeem, 2019](#)). In addition, firms can also decrease their financial cost or increase their loan accessibility by decreasing their level of current assets. According to Park, [Park, and Ratti, \(2018\)](#) the conservative pecking order concept expresses that a company should prefer its internal financing instead of external financing for investment purposes because the external financing cost will ultimately hurt the firms' return particularly affect the financially constraint firms.

Therefore, firms try to minimize their external financing to avoid financial costs as well as agency conflicts. By minimizing the financial cost, a firm can eventually increase its performance ([Kasiran et al., 2016](#)). Consequently, firms face financial constraints according to their interest in working capital or CCC ([Afrifa Godfred & Padachi, 2016](#)). Financially constraints firms can also take advantage of shorter CCC. However, another important characteristic that can help the firms to handle the financial crisis is the association with family businesses because these firms face less financing constraints. These firms usually include financial firms in their groups and invest the greater part of their private capital in their own firms ([Lu & Wang, 2018](#)).

Previous research additionally demonstrates that the degree of information asymmetries between new and small organizations is typically high ([Dell'Araccia & Marquez, 2004](#)), both are regular attributes of privately-run companies. Also, family firms may be hesitant to issue equity shares as it can weaken their controlling position and decision-making power ([Khan, Qadeer, Mahmood, & Rizavi, 2017](#)). Family firms maintain a good management system and often take a quick financial decision for the benefits of their business in contrast to non-family business. Therefore, family firms more seek risk management strategies, one of which is the utilization of less debt and avoid the burden of debt ([Shleifer & Vishny, 1986](#)).

These evidences suggested that family firms are generally vulnerable to external funding because they consider it disadvantageous which causes inefficient decisions of investment that are basically for the accessibility of internal capital streams. On contrary to these theoretical considerations, several empirical investigations demonstrated that establishing family businesses and control positively contribute towards the high productivity of the business that enhances the performance as well from

the accounting and market success perspective. This study has therefore analyzed the relationship of WCM and profitability in the context of family and non-family firms under financial constraints.

Research Methodology

This study covers 406 listed firms of Pakistani non-financial sector from 2009 to 2018. Data is collected from the audited annual reports Pakistani firms. However, the final sample of the study is selected after by applying various sample selection rules: (1) deleting the firms having missing or incomplete financial information; (2) showing zero value for their total sales, debts and assets; (3) changed their fiscal year; and finally (4) deleted outliers after winsorizing at 0.5 percent. The sector wise distribution of the selected firms is summarized this table 1.

Table 1. Sector Wise Distribution of Sample

| Sr#. | Sectors | No of Companies | Overall Percentage |
|------|--|-----------------|--------------------|
| 1 | Textile | | |
| | Weaving, Spinning, Dying of Textile | 136 | 33% |
| | Fabricated Textile Articles | 6 | 3% |
| | Other Textile Mills | 12 | 1% |
| 2 | Sugar Mills | 35 | 9% |
| 3 | Chemicals, Chemical Products and Pharmaceuticals | 45 | 11% |
| 4 | Mineral Products | 9 | 2% |
| 5 | Cement | 20 | 5% |
| 6 | Fuel and Energy Sector | 22 | 5% |
| 7 | Motor Vehicles and Parts | 21 | 5% |
| 8 | Paperboard and Products | 9 | 2% |
| 9 | Communication and Information Services | 13 | 3% |
| 10 | Advanced Petroleum Products | 10 | 2% |
| 11 | Electrical Machines and Equipment | 8 | 2% |
| 12 | Additional Services Activities | 11 | 3% |
| 13 | Other Food Products | 19 | 5% |
| 14 | Other Manufacturing | 32 | 8% |

Table 1 reveals that textiles are Pakistan’s largest industry which covers the 37% of Pakistani corporate sector and include 154 companies, while the chemical & pharmaceutical sector is the second largest sector that covers approximately 11% of the total industries with 45 companies. Sugar sector covers 9% of Pakistani corporate sector with 35 companies. Other manufacturing firms have 32 companies that is 8% of the corporate sector of Pakistan. Cement, Energy, Motor Vehicle sectors and food products are at fourth number which covers 5 % by each sector. Communication and additional service activities are covering 3% while mineral products, paper products, advance petroleum products and electric machine equipment sectors are all covering 2% by each sector.

This study is conducted to determine the effect of loan accessibility on WCM and profitability relationship. Particularly, it focuses on the limited or restricted access to finance, so that the WCM-Profitability relationship can be analyzed and depicted the true picture in the context of non-financial Pakistani firms. Model (I) explains the association between WCM and firm’s profitability the study variables. Model (II) describes the relationship of between restricted loan accessibility and WCM-firm’s profitability.

$$Prof_i = \alpha + \alpha WCM_i + \alpha FA_i + \gamma t + \delta_i + \epsilon_i \dots\dots\dots (I)$$

$$Prof_i = \alpha + \alpha WCM_i + \alpha WCM_i * RLA_i + \alpha FA_i + \gamma t + \delta_i + \epsilon_i \dots\dots\dots (II)$$

The RLA is the restricted loan accessibility that a firm face, where the WCM_i is the working capital of a firm, Prof_i is the firm’s profitability and FA_i is the sum effect of firm attributes.

The further model specifications for firm attributes consists of the following:

$$FA = \text{Growth} + \text{Age} + \text{AM} + \text{AT} + \text{Liq} + \text{Lev} + \text{EV} + \text{Size} + \text{FF} \quad (III)$$

Where, Growth (Growth); Age (Age) AM (Asset Maturity), AT (Asset Tangibility), Liq (Liquidity), Lev (Leverage), EV (Earnings Volatility), Size (Size), and Family Firms (FF). Further, the adjustable γt is a time dummy variable, δ_i is the company's unobservable distinct effects, and e_i is the random disturbance. Prof and Age is measured by the way of [Altaf and Shah, \(2017\)](#); WCM through the formula used by [Singhania and Mehta, \(2017\)](#); Growth and Size is measured by following the way of [Tran et al., \(2017\)](#); AM, EV and FF calculated by applying the method of [Khan et al., \(2017\)](#); AT through the way of [Afrifa and Padachi, \(2016\)](#); Liq is calculated by [Kasiran et al., \(2016\)](#) method; Lev by the way adopted by [Lu and Wang, \(2018\)](#). For measurement of study variables See table 2.

Table 2. Variables and Measurement

| Variables | Measurement | Authors |
|-------------------------------|---|---|
| Profitability | Net Profit /Total assets. | Altaf & Shah, (2017) |
| Working Capital Management | (Inventory/CGS) × 365 + (Receivables/ sales) × 365 – (Payables/CGS) × 365 | Singhania &Mehta, (2017) |
| Growth | (Sales-Sale)/Sale | Tran, Abbott. & Yap, (2017) |
| Age | No. of years from the time firm was issued its first IPOs | Altaf & Shah, (2017) |
| Asset Maturity | Sales/Fixed Assets | Khan, Qadeer, Mahmood, & Rizavi, (2017) |
| Tangibility | Fixed Assets/Total Assets | Afrifa & Padachi, (2016) |
| Liquidity | Current Assets/Current Liabilities | Kasiran,Mohamad, and Chin, (2016) |
| Leverage | Total Debt/Total Assets | Lu and Wang, (2018) |
| Earning Volatility | Standard deviation of annual profit before tax and depreciation, scaled by average assets | Khan, Qadeer,Mahmood, and Rizavi, (2017) |
| Size | Natural logarithm of total assets | Tran, Abbott. And Yap, (2017) |
| Family Firm | A dummy variable where '1'= firm associated with family group, or '0' otherwise | Khan, Qadeer, Mahmood, and Rizavi, (2017) |
| Restricted Loan Accessibility | A dummy variable where '1'for firm having restricted access to loans, or '0' otherwise | Baños-Caballero, García-Teruel, & Martínez-Solano, (2014) |

Results & Discussions

Descriptive statistics are used to summarize the information about all the study variables including mean, median, maximum, minimum and standard deviation. Prof. has a mean value of is 0.54 which means Prof. is almost 54% along with a median of 0.21 along with a maximum of 187.492 and minimum value of 0.016. Mean value of WCM is approximately 121 days that explains firms usually take 121 days to complete their operational cycle of working capital. This also show that firms need to minimize their operating cycle through the good administration of their working capital. See table 3 for detailed results of descriptive statistics.

Table 3. Descriptive Statistics

| Variables | Mean | Median | Std. Dev. | Min. | Max. | Skewness | Kurtosis |
|-----------|---------|--------|-----------|--------|---------|----------|----------|
| Prof | 0.542 | 0.210 | 0.662 | 0.016 | 187.492 | 2.544 | 1.554 |
| WCM | 120.558 | 97.834 | 0.970 | -97.00 | 182.607 | -2.025 | -0.203 |
| Growth | 0.651 | 0.631 | 0.514 | 0.011 | 1.000 | -1.044 | 2.023 |

| | | | | | | | |
|------|--------|--------|-------|-------|--------|--------|-------|
| Age | 37.097 | 36.362 | 0.256 | 1.000 | 51.000 | -0.588 | 1.653 |
| AM | 15.302 | 11.222 | 1.635 | 0.050 | 21.084 | 1.891 | 2.352 |
| AT | 0.695 | 0.745 | 0.213 | 0.020 | 1.000 | -1.008 | 1.606 |
| Liq | 0.634 | 0.639 | 1.220 | 0.045 | 3.502 | 0.441 | 0.988 |
| Lev | 0.861 | 0.743 | 0.887 | 0.031 | 1.415 | 1.384 | 1.534 |
| EV | 0.106 | 0.107 | 0.129 | 0.021 | 1.464 | 0.720 | 1.678 |
| Size | 3.384 | 3.421 | 0.855 | 0.078 | 5.700 | -0.382 | 1.746 |
| BGA | 0.649 | 0.625 | 0.754 | 0.000 | 1.000 | 0.754 | 0.454 |

The findings further elucidate that most of the sample firms are larger in size, having an average age of approximately 37 years, possess almost 70% tangible assets with at least 15 years of its maturities. Most of the selected firms are family-oriented (65%), maintaining high liquidity (63%) and leverage (86%) ratios, having more growth opportunities (65%) and are relatively considered riskier. Moreover, the standard deviation values show that there is less variation in the data, skewness and kurtosis prove normality as all values lie within the range of |2|.

Comparative Analysis

Table 4 presents a comparison of firms with restricted loan accessibility (RLA) and non-restricted loan accessibility (NRLA). The findings demonstrate that firms that face restricted loan accessibility are generally less profitable, growing, riskier, maintain low working capital due to high funding costs and greater capital rationing. These are mostly non-family firms that are new, smaller in size, maintain high liquidity, tangibility and asset maturity ratios than non-constrained firms. The correlation coefficients results show almost all the study variables are statistically significant that provides rough support to our research question.

Table 4. Comparison of Firm's Restricted VS Non-restricted Loan Accessibility

| Variables | Correlation | RLA = 1 | | NRLA = 0 | | Test of Differences RLA=1 and NRLA=0 | |
|----------------------------|-------------|---------|-------|----------|--------|---|---------------|
| | | Mean | SD | Mean | SD | t-test | Wilcoxon test |
| Profitability | -0.145*** | 0.038 | 1.875 | 0.543 | 1.492 | -2.81*** | -4.85*** |
| Working Capital Management | -0.106*** | 0.021 | 0.163 | 0.315 | 0.580 | -1.24*** | -2.85*** |
| Growth | 0.275** | 0.521 | 0.110 | 0.342 | 0.731 | -4.75** | 3.85*** |
| Age | -0.718*** | 12.249 | 7.650 | 31.211 | 13.875 | -2.41*** | -2.18*** |
| Asset Maturity | 0.381*** | 15.452 | 2.155 | 12.128 | 2.599 | -3.35*** | -3.33*** |
| Asset Tangibility | 0.412*** | 0.615 | 0.873 | 0.438 | 0.852 | 8.85*** | 7.58*** |
| Liquidity | 0.352** | 1.941 | 1.726 | 1.524 | 1.379 | -2.85*** | -4.48*** |
| Leverage | -0.285*** | 0.416 | 1.491 | 0.584 | 1.872 | 4.22*** | 6.42*** |
| Earnings Volatility | 0.292*** | 0.586 | 1.238 | 0.276 | 0.749 | -5.28*** | -4.03*** |
| Size | -0.391*** | 1.745 | 0.799 | 6.252 | 1.902 | 4.75*** | 3.89*** |
| Family Firms | -0.127*** | 0.248 | 0.285 | 0.746 | 0.787 | 3.25*** | 2.45*** |

* p < 0.1, ** p < 0.05, *** p < 0.01

Estimation Results for Working Capital Management and Firms' Profitability

Table 5 shows the relationship between WCM and firm profitability. Model (I) presents the whole sample results while II & III explain the findings for financially constrained and unconstrained firms. WCM shows a statistically significant negative relationship with profitability which explains that productivity of the firms increases by decreasing the cash conversion phase. Pakistani firms particularly, family firms are more efficient in managing their working capital that leads towards the increase in their sale and further results to high returns. Growth, asset tangibility, leverage and earnings volatility have an adverse relationship with firm profitability. Whereas, liquidity, growth, age, size and asset maturity have a significant positive influence on the dependent variable.

Table 5. Working Capital Management and Firms' Profitability Relation

| Variables | Model I | | Model II | | Model III | |
|----------------------------|-----------|-------|-----------|-------|-----------|-------|
| | B | S.E | B | S.E | B | S.E |
| Working Capital Management | -0.029*** | 0.241 | -0.056*** | 0.799 | 0.141*** | 0.653 |
| Growth | -0.328*** | 0.007 | -0.329*** | 0.007 | -0.328*** | 0.006 |
| Age | 0.077*** | 0.025 | 0.434** | 0.077 | 0.116*** | 0.035 |
| Asset Maturity | 0.009*** | 0.002 | 0.001*** | 0.002 | 0.001*** | 0.002 |
| Asset Tangibility | -0.085*** | 0.031 | 0.039*** | 0.064 | -0.069*** | 0.040 |
| Liquidity | 0.002*** | 0.004 | 0.005*** | 0.008 | 0.002*** | 0.003 |
| Leverage | -0.054*** | 0.007 | -0.041*** | 0.008 | -0.037*** | 0.008 |
| Earnings Volatility | -0.124** | 0.052 | 0.254*** | 0.074 | -0.082*** | 0.078 |
| Size | 0.034*** | 0.018 | 0.259*** | 0.039 | 0.041*** | 0.012 |
| Family Firms | 0.754*** | 0.129 | -0.682*** | 0.173 | 0.141*** | 0.482 |
| Constants | 0.101*** | 0.091 | 0.254*** | 0.074 | 0.107*** | 0.074 |

* p < 0.1, ** p < 0.05, *** p < 0.01

These findings remain consistent in Model (III), based on the sample of financially unconstrained firms. However, financially constrained firms sample presented in Model (II) depicts opposite results. It explains if a firm faces financial barriers then their working capital is poorly administered. These firms are generally new, bigger in size, growing and already included a large amount of debt in their debt structure. Another important finding is that family firms face fewer financial restrictions than non-family firms. This may be due to the inclusion of financial firms in their groups that provide them loan accessibility at the time of need.

Impact of Loan Accessibility

After checking the connection between WCM and firm profitability, we additionally investigate the result of restricted loan access on this relationship, shown in Model I. While, II & III presents the findings for Family and non-family firms respectively. Results explain that Pakistani firms have to improve their policies regarding WCM because their CCC is longer. Firms need to improve it as it consistently affecting firms' operations that ultimately reduces the profit margin. The financial constraints further adversely influence the WCM-Profitability relationship.

Table 6. Loan Accessibility and Working Capital Management-Firms' Profitability Relation

| Variables | Model I | | Model II | | Model III | |
|----------------------------|-----------|-------|-----------|-------|-----------|-------|
| | B | S.E | B | S.E | β | S.E |
| Working Capital Management | -0.253*** | 0.851 | 0.428*** | 0.745 | -0.149*** | 0.652 |
| WCM*RLA | -0.502*** | 0.161 | -0.124*** | 0.176 | -0.327*** | 0.127 |
| Growth | -0.328*** | 0.007 | 0.719** | 0.009 | -0.285*** | 0.006 |
| Age | -0.076*** | 0.026 | 0.294*** | 0.004 | -0.285*** | 0.005 |
| Asset Maturity | 0.009*** | 0.002 | -0.285** | 0.005 | 0.942*** | 0.004 |
| Asset Tangibility | -0.068** | 0.031 | 0.854** | 0.078 | 0.145*** | 0.061 |

| | | | | | | |
|---------------------|-----------|-------|-----------|-------|-----------|-------|
| Liquidity | 0.222*** | 0.152 | -0.128*** | 0.135 | 0.490*** | 0.241 |
| Leverage | -0.053*** | 0.007 | -0.853*** | 0.007 | 0.895*** | 0.005 |
| Earnings Volatility | -0.121** | 0.053 | -0.284*** | 0.092 | 0.855*** | 0.074 |
| Size | 0.046*** | 0.008 | 0.094*** | 0.005 | -0.081*** | 0.009 |
| Constants | 0.032* | 0.055 | 0.089*** | 0.062 | 0.628*** | 0.056 |

* p < 0.1, ** p < 0.05, *** p < 0.01

There is a difference in the findings of Model (II) which depicts that family firms face fewer financial barriers as their associated firms fulfill their funding needs at the time of the crisis. Whereas Model (III) predicts non-family firms face more financial restriction and sometime, it becomes difficult for them to come out of crisis. In precisely, for further financial constraint firms the WCM might be lower because these firms are facing high funding expenses and greater capital rationing. This result illustrates that under restricted access to loans, organizations that are not capable to achieve their operational capital accurately might have to pay a significant cost. Though in general Pakistani firms are facing several financial constraints due to lack of advanced capital markets and formal sources of financing but still family firms are more advantageous to cope up with the crisis and perform better even under financial constraints.

This study recommends that managers of highly constrained firms ought to devote extra time to achieve the benefit of CCC and revise policies for the effective administration of working capital. They must take service from financial advisors and specialists for the arrangement of effective and optimal levels of CCC and get better performance of their firms. It is also suggested that additional mechanisms of operational capital like profitable securities, cash, stock management etc. ought to be explored and their association with further proxies of profitability must be considered.

Conclusion

The present study is conducted to determine the effect of loan accessibility on the WCM-Profitability relationship by using the data of all non-financial firms from 2009-2018. The outcomes uncover that WCM and firms' profitability is inversely related to each other that explains currently Pakistani firms are poorly administered their working capital. They must reduce their CCC by offering some discount policies to their customers that help them to easily recover receivables. Firms can easily fulfill their financing needs by opting for such policies and avoiding external financing which is indeed costly for them. The result of this study shows that all the study variables have a significant association with the profitability of a firm. Additionally, the findings uncover that the characteristics of financially constraints and unconstraint firms are substantially different. Financially constraint firms are generally large, new, non-family firms that have high leverage ratio for meeting their day to day expenses and also maintain a high liquidity ratio. These firms are growing and face larger risks due to a high debt ratio. However, financially unconstraint firms are larger, older, growing, family firms who maintain low liquidity ratio but a high leverage ratio. These firms possess more tangible assets with longer asset maturities that positively contribute to their firms' profitability. A comparative analysis shows that family firms face fewer financial barriers due to inclusion of financial firms in their group. Their associated firms fulfill their funding needs at the time of crisis whereas non-family firms face more risks and financial constraints.

The present study adds to the current literature by analyzing the impact of loan accessibility on the WCM-profitability relationship in the context of a developing capital market. Although, it will help to evaluate the significance of loan accessibility, WCM, and profitability of all sectors of Pakistan. But the scope of the study is limited to the non-financial firms of Pakistan Stock Exchange. It neglected financial companies due to regulation constraints and exclude SMEs due to unavailability of data. Future researchers may explore these neglected industries in order to enhance the scope of the study. This research can be expanding into country wise analysis to check the impact of restricted loan access on working capital and profitability because financial constraints varies country by country.

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