Working Capital Management and Corporate Cash Holding: A Comparative Analysis of Conventional and Islamic Banks in Pakistan

Izhar Ullah¹, Dr. Alam Rehman², Muhammad Zeeshan³, Fakhr E Alam Afridi⁴

Abstract

This study was conducted to understand the impact of Working Capital Management on Corporate Cash Holding in the context of conventional and Islamic banks in Pakistan. In this study, we used the panel data of 31 banks in which 24 are conventional banks while 7 are Islamic banks. In this study, the data was collected from the annual reports of both conventional and Islamic banks from 2011 to 2017. The data was analyzed through various statistical techniques i.e. Descriptive Statistic and Correlation, Fixed effects, Random effects and Hausman test. The working capital management proxy such as cash flow ratio has positive and statistically insignificant effect on corporate cash holding of Conventional banks, while firm size and leverage show positive and statistically significant effects on corporate cash holding. Similarly, the cash flow ratio shows a positive and statistically insignificant effect on the corporate cash holding of Islamic banks in Pakistan and a positive and statistically significant effect of control variables. This contains certain managerial implications for both policymakers and investors

Key Words: Working Capital Management, Corporate Cash Holding, Conventional and Islamic Banks, Pakistan

1. Background of the Study

In the environment of today’s business concern, the management of any business firm must utilize the Working Capital in a highly impressive and progressive way for the achievements of their goals and objectives. From a business perspective, the management needs to manage their resource in a highly efficient way to produce high gaining and uniform liquidity for the firms operating in a business environment. The importance of Working Capital management should be managed by using all types of resources in an efficient way (Abuzayed, 2012). The WCM is a uniform way of handling all such types of activities like operational and financial activities for the basic implementation of their rules and policies of all types of business firms and Companies. The WCM is the best way to properly understand and managed the firms or Business Liquid

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Assets and Liquid liabilities (Appuhami, 2008) The Working Capital is about the distinction between the company's Short expressions resources and transient liabilities. Working Capital administration is a business system structured to anticipate and break down that the organization or firms work smoothly and compellingly by appropriately observing and using the accessible transient resources and momentary liabilities to the most ideal results. Working Capital is a significant piece of any organization or business essentially made out of the company's Liquid Assets short company's Liquid liabilities. The Working Capital is the most important part of WCM (Nazir & Afza, 2009). The management of Firms or companies may focus precisely on the utilization of Working Capital to the best possible outcomes. Money holding might be characterized as Cash close by finished or in a bank that can be effectively accessible to buy resources, items, and to disseminate among the financial specialists (Woodford, 2000).

According to Brigham and Houston (2003) that the benefit and liquidity of any business may rely on how the Working Capital as customized and oversaw. So, it is significant to explore the acts of Working Capital uniquely in banking divisions in Pakistan. In a highly competent perspective view, WCM is the most important and necessary part of Working Capital management in the way of process in which the managing of the short-term assets and short-term commitment is very important and necessary to accommodate more bitterly for the management in all type of business firms. Which will reflect more responsibilities for the management to arrange the Working Capital to the best and at least possible outcomes and cost and also to accommodate the capital more efficiently at low possible cost margin (Buck, Gordon, Hall, Harloe, & Kleinman, 2013).

The word Working Capital can be defining as the entire business firm which performed investment in Liquid Assets. The Working Capital administration is about the endeavors of the administration towards the most dynamic use of the company's Liquid Assets and Liquid liabilities. The Working Capital is about the distinction between transient resource and Liquid liabilities. In another way, the Working Capital management also reflects that that firm must have sufficient profitability and liquidity to fulfill and satisfy the current expenses and Liquid liabilities. WCM reflects all the business strategies of any business firm Levy and Sarnat (1994) which can clearly explain the best and efficient utilization of both Liquid Assets as well as Liquid liabilities. The main and basic objective of Working Capital management is that the company should have a sufficient amount of cash to manage its current occurring cost and also able to pay its short-term debts. The Working Capital of any firm reflects the sum of total Liquid Assets minus the sum of total Liquid liabilities (Smith, 1997). The Liquid Assets composed of such things that can be easily transferred into cash within a year, which can be concluded as the company’s most highly liquid assets. The Liquid Assets mainly comprised of cash, accounts receivable, inventory, and short-term investments. The management of the company needs to ensure to maintain sufficient cash flow by properly monitoring the company’s Liquid Assets and liabilities for a better understanding of the working capital (Nwankwo & Osho, 2010).

The process of WCM is mainly composed of three tracking ratios which are inventory ratio, Net WC ratio, and also the Net CR ratio. With the help of these above three ratios, it will be quite helpful for the management to manage the Working Capital in a highly efficient way. These ratios can be used to demonstrate the actual analyses of Working Capital management to best possible outcomes by ensuring that the firms have sufficient Liquid Assets over excess of Liquid liabilities (Akoto, Awunyo-Vitor, & Angmor, 2013). The firms or company will be in a better position if they have sufficient Liquid Assets to pay for their Liquid liabilities which will indicate that the firms or company has a strong financial position. Those firms or company which has a huge amount of Liquid Assets over Liquid liabilities will be quite able to perform their business activities in a highly accurate and efficient way and also have no threat towards
business loss and collapsing. Liquid liabilities are mainly composed of short period operational expenses and short-term accounts payable which are due on the firm to pay within a year (Muhammad, Jan, & Ullah, 2012). The following are some components of all assets and all liabilities which form the structure of Working capital. The Assets of the firms are the Debtors, Liquid Assets, Cash and Bank Balance, Accounts Rec, etc, are the parts of All Firms Assets. All liabilities of the business may have concerned with Liquid liabilities, Creditors, Accounts Payable, unpaid Expenses, and Bank pay overdraft, etc. The income of business may be including working capital, Accrued Income, Short-term Loans, Proposed Dividends and also Inventories turnover, Work-in-progress, Finished Goods are such parts of working capital structure (Ajibolade & Sankay, 2013).

If Liquid Assets and liabilities play the role of eclectic current in a business, then Working Capital has the role of the heart in it. Working Capital funds are created and use in the business. Firms will become bankrupt if they do not use it. It plays the role of lifeblood for all types of firms or companies. For this purpose, the Working Capital which enables the company to earn their money in cash by disposing of their shares in a market and also their borrowings and gains from operations. Cash or money in hand is the only way to directly purchase long term assets, raw materials, and also utilized to pay accounts payables (Sagan, 1955). Raw material contains direct, indirect and Factory overhead expenses are also paid through cash, which results in producing finish goods available for sale (Cavinato, 1992). The key purpose of WCM for every business is to develop high operational efficiency with the help of which the management quiet be able to perform the daily operational activities in a smooth way through which the company earning and profitability can be improved.

Understanding the effect of working capital management on corporate CH of financial firms in Pakistan Mun and Jang (2015) especially banks is a debatable concern for the researcher in general and finding the difference for the said relationship in conventional and Islamic banks in particular. Therefore, this study investigates the relationship to answer both concerns. Nowadays the banking sectors in Pakistan quite smoothly effective and progressive in the stability and growth of the economy of the country, banking sectors are playing a very important role to circulate and accommodate the circular debts of the economy of the country to overcome on the poverty level and also to accelerate the economic growth for the country. So, this research will explain the basic concepts about the Working Capital of the firms to better understand the CH prospective to develop high efficiency in a firm’s profitability and liquidity especially the banking sectors of Pakistan. The banking sectors are playing a very vital role in the economic and also social stability of any country which give great support to the economy in certain situation like financial distress, financial losses and also financial resources allocations by diving a high credits margins to the country in the form loans, scholarships, and credits in different scenarios of the system of the economy (Santiso, 2001).

Guthmann (1934) has described that Working Capital is composed of a firm’s short-term assets through which long-term funds are financed by the firms. When a business firm has greater Liquid Assets as compared to short term liabilities will be referred to as ‘Networking capital’. The Net Working Capital is a concept in which we define that the firms Liquid Assets have been excess over the Liquid liabilities which are paid. Every concept of Working Capital has its importance according to their points of interest (Nwankwo & Osho, 2010). In Gross concept it has been measured about the purpose of size and extent to which Liquid Assets are being used, then this concept will be fruitful. While in the Net concept an undertaking of evaluating the liquidity position of firms is taken through which it becomes feasible and preferable for the firms. So, to understand the Working Capital more concisely and better than it is also necessary to keep in mind the meaning of Liquid Assets and Liquid liabilities in a better way (Brigham &
This is a novel study because of many reasons, firstly in the context of Pakistan, there is no study exist to enhance the association between working capital management and corporate cash holding, of conventional and Islamic bank. 2ndly this research covers the period from 2011-2017. Third, this research underwrites to the body of literature in such a way as earlier no study has been conducting and explained.

2. Literature Review
A lot of studies have been carried out by the researcher about WCM and CH from various perspectives in a different environment. These researchers have used different types of work taken to predict that how WCM impact on the corporate CH by predicting various variables which greatly defines the study of the research thesis. Many researchers also tried in order to analyzed that what type of relation exist between WCM and corporate CH of various financial firms. Working Capital in a highly efficient way (Raheman & Nasr, 2007). It will be finally deserving to established a uniform relationship between the Working capital concepts and components and the Conceptual theories. In Proper managing of the Liquid Assets of any business in WCM concepts, These concepts of WCM will also explore more specifically to predict and monitor the effect of WCM techniques on firm CH by studying overall structures of business firms adopted by the top management to get best possible incomes and results of business firms especially banks regarding their performance according to CH scenarios, in which the comparisons be made amongst the banks included conventional and Islamic banks in Pakistan. According to Autukaite and Molay (2011) have predicted about the reliability of WCM theories and scenarios through which it can be possible to identify main components of working capital, can be taken as an all the essential concepts for the management to properly managed the account receivable, managing of inventory systems and also payout ratios with the help of which management can get the most possible and respective proxies about the average periods of A/R, mutation ratios of inventory and also the payment average period ratio. Eljelly (2004) documented that reasonable position of liquidity management contains planning and controlling Liquid Assets and a similar nature of liabilities in such manner that kill the danger of indebtedness to satisfy their everyday needs. The situation to gauge the relationship between these two components are performed by budgetary instruments for example current proportion and money hole by means of CCC with the assistance of business entity in realm of Saudi Arabia while utilizing factual apparatuses connection and relapse examination. Likewise, Beaumont and Begemann (1997) contend that the benefit and liquidity of any business may relies on the manner by which the Working Capital as customized and oversaw. Along these lines, it is significant so as to explore the acts of Working Capital uncommonly in banking segments in Pakistan. The primary and fundamental objective of Working Capital organization is that the organization ought to have an adequate measure of money so as to deal with its current happening cost and furthermore ready to pay their momentary obligations (DeAngelo, DeAngelo, & Wruck, 2002). Saravanan, Mathimani, Deviram, Rajendran, and Pugazhendhi (2018) investigated about the taking of load of what has been concentrated on WCM up until now and the components which are bound to that be affected by poor Working Capital Management. Van Horn, Gentry, and Faaborg (1995) asserted that “WCM is very essential in order to identify the effect of corporate CH of a firm. He investigated the relationship of the various dimensions of WCM and corporate CH and suggest that each component of WCM can contribute positively in the firm’s capital adequacy and profitability. In the previous studies the Venkatachalam (2017) also investigated that working capital playing a very vital role for maintaining the smooth functioning of any kinds of business i.e. whole sale business or retail business or any other large business organization. Singh and Kumar (2014) argued that WCM is a great platform for each any every type of
business portfolio and also for better financial position and health of the business. Afza and Adnan (2007) also confined that the decision of WCM are considered one of the most crucial decision for any kinds of business organization either they are large or small in size they have needs to maintain adequate amount of Working Capital to run the business smoothly without any interruption. Kargar and Blumenthal (1994) have explained that any firms that does not have efficient Working Capital management system may face consequences like bankruptcy, despite its positive profitability. A business may invest its funds in long-terms and short-terms funds. Long-term investment may be called as ‘fixed investment.’ Its main part is usually in fixed assets. These assets are then use for profit generation during its useful life. Short-term investments are required for the operations of business in order to analyses the performance level of the firms. Gill and Shah (2012)defines and analyzed the firms or Institutes of the Indian era for the period of 2002- 2007. In this study the researcher has taken all the financial data of these firms listed in the Indian stock by taking the data from their financial reports for the period of 2002 to 2007. The study also learns out about the WCM and gaining ratios of these banks. The study suggests that a firms or business having a uniform way of cash handlings processes will greatly be able to allocates their business objectives and also will be able to get high marks of Profitability indexes through gaining high potential of management goals (Cooper, Edgett, & Kleinschmidt, 1997).

Aminu (2015) predicts about the reliability of WCM theories and scenarios through which it can be possible to identify main components of working capital, can be taken as all the essential concepts for the management to properly managed the account receivable, managing of inventory systems and also payout ratios with the help of which management can get the most possible and respective proxies about the average periods of A/R, mutation ratios of inventory and also the payment average period ratio. Godswill, Ailemen, Osabohien, Chisom, and Pascal (2018) studied about the banking sectors of Nigeria in which they have given a great importance to WCM which is declared is a germane for the banks in order to get success in the field of business. In a moment when the oil prices have been declined globally then these banks have gets certain forward steps like non-performing loans, demolishing of the Quality of banks products/ asset, laying off of staff amongst others.

Farokhzad et al., 2004; SAQIB, SARWAR, & MALIK, 2017 examined the relationships of the various dimensions of working capital management and cash holding. (Fox et al., 2009; Persakis & Iatridis, 2015; Yunos, Ghapar, Ahmad, & Sungip, 2018), also examined the various impacts of WCM in order to relates the CH with WCM by explaining various relations of the variables by taking various techniques and tools of regression and statistics in order to predict firms ability to gain high profitability and liquidity. He also worked out in order to know about what type of relation exist between WCM and CH of the firm by allocating various variables including dependent and independent variables. Syed Fairul Afis (2015) have also predicted about what kind of relationship exist between WCM and corporate cash holding in financial firms or business in all listed companies in Malaysian stock exchange. Vijitha and Nimalathasan (2014) also highlighted the importance of WCM and its relationship with the firm’s corporate cash holding through which the firms can predict and defined the best possible outcomes and also to measure their performance level by taking different scenarios of their profitability ratios.

Afrifa and Padachi (2016) and Salia, Hussain, Tingbani, and Kolade (2017) assessed the effect of WCM on profitability among all financial institutions operating in the business circle by providing comprehensive support to the financial positions of the firms or companies listed. Jayarathnea (2014) and Chang, Benson, and Faff (2017) emphasizes that the effects showing by the WCM on firms cash handling situation will greatly roll out the gaining power of the firm’s ability to maximize the earning power for the firms. (Abuzayed, 2012; Shin & Soenen, 1998) and...
Beaumont and Begemann (1997) undergoes in order to know about the main scenarios about the WCM and cash holding of any business firms. The study further examines that the WCM is very essential in order to identify the effect of corporate CH of a firm. He investigated the relationship of the various dimensions of WCM and corporate CH and suggests that each component of WCM can contribute positively in the firm’s capital adequacy and profitability. (Abuzayed, 2012; Usman, Kanwal, Bashir, & Mahmood, 2017) and Sadiq (2017) asserted that WCM is the most considerable measure in the firm financial performance perspective due to which for each firms or business the WCM is to be considered an important hurdle in order to overcome in a highly professional way. (Bates, Wiseman, & Hanrahan, 2006; Isyaku, Rust, Teeuw, & Whitworth, 2016) examine the exact proof on the effect of Working Capital Management, obligation and size on SMEs' presentation in Malaysia concentrating on the assembling area. A board information test of 40 recorded firms for the examination was gotten from the Companies' Commission of Malaysia (CCM) for the period from 2007 to 2015. The Generalized Least Square (GLS) was utilized for testing the theories of the examination. The relocation results show that records of sales period, stock holding period, obligation and size are essentially identified with execution, while creditor liabilities period and CCC are irrelevantly identified with execution. He likewise deciphered that Working capital has positive and huge effect on company's budgetary presentation (Bagh, Nazir, Khan, Khan, & Razzaq, 2016; Nyamao, Patrick, Martin, Odondo, & Simeyo, 2012). The researcher also added his view according to his findings where they concluded that maintenance of adequate amount of Working Capital is very much vital for corporations to meet his current obligations throughout the year.

3. Theoretical Framework and Hypothesis Development

The Theoretical framework of the research study has been structured with the combination of Dependent variables; (Cash Holding), Independent variables; Cash Flow Ratio (CFR) and Control variables (Financial Leverages, (FL), Size of the Firm (FS)).

H1: Cash Flow ratio has positive effect on Cash holding.
H2: Financial Leverage has positive effect on Cash holding.
H3: Firm Size has positive effect on Cash holding.

4. Methodology

4.1 Research Design/ Data and variables

This purpose of this study is to examine the nexus among working capital management, Corporate Cash Holding, of 24 conventional and 7 Islamic banks in Pakistan. We collect the data from Pakistan Stock Exchange (PSX) to find of the nexus of Conventional and Islamic Banks in this
research. We collect the data of working capital management, Corporate Cash Holding, Financial leverage and firm size of Islamic and Conventional banks in Pakistan to conduct empirical investigation for hypothesis testing for the period 2011-2017. We denote WCM, for working capital management, CCH, used for corporate cash holding. Working capital management is measured as (Cash flow ratio). The same measurement method has been used by previous scholars (Appuhami, 2008; Filbeck & Krueger, 2005). Corporate cash holding can be measured as (liquid asset holdings), in the essence of earlier studies (Opler, Pinkowitz, Stulz, & Williamson, 1999). The panel data methods also make it probable to find the nexus between different variables dynamically, so that variations in the variables over different time eras are determine as they arise. We apply fixed effects, random effects models and houseman test with their required molds and known limits. Then, we also present results from a cross-sectional regression for the purpose of comparison.

<table>
<thead>
<tr>
<th>S.N</th>
<th>Variable</th>
<th>Type of Variable</th>
<th>Measurement</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Corporate cash holding</td>
<td>Dependent</td>
<td>Liquid Asset holdings</td>
<td>Opler, Tim, Lee Pinkowitz, René Stulz, and Rohan Williamson, 1999</td>
</tr>
<tr>
<td>4</td>
<td>Firm Size</td>
<td>Control Variable</td>
<td>Measured as log of total assets</td>
<td>Zhou, J., &amp; Elder, R. (2001)</td>
</tr>
</tbody>
</table>

5. Results and Discussions

5.1 Diagnostic tests
The study applied various data diagnostic tests like checking heteroscedasticity and autocorrelation. The Wooldridge test was applied to know the serial correlation in the data. The reported value is insignificant at 5% level, which means that no autocorrelation in the data and the data is free from such problem, further provides signal for statistical tools to be used. The study also conducted Breush-pagan/Cook-Weisberg test for heteroscedasticity and reported Prob> chi2= 0.0791, which confirmed that there is no existence of hetero problem in the data. We also applied language Multiplier test to predict whether fixed and random or OLS is appropriate. The result showed that fixed and random is appropriate for the data analysis and we proceed with that.

5.2 Hausman Test
The Hausman test clearly notices regressor’s in a regression model which clearly determines the Endogenous variables have values that are determined by other variables in the system. This is what the Hausman test will do about the specific variables. The Hausman test will assist you with selecting the best model between fixed impact model or an arbitrary impacts model by plainly demonstrating the craving results or results of the relapse examinations by taking ward factors and autonomous factors of the exploration study.
Table 1: Correlational Analyses of Conventional banks.

<table>
<thead>
<tr>
<th>Variables</th>
<th>ln Ch</th>
<th>LnCFR</th>
<th>FS</th>
<th>Fl</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln Ch</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LnCFR</td>
<td>0.7164</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>0.4184</td>
<td>0.4567</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Fl</td>
<td>0.1687</td>
<td>0.1507</td>
<td>0.3176</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

The above table shows that correlation analysis of the relationship of the various variables which are taken in the research study in order to predict the WCM and CH. These all results predicting about the positivity of correlation between the proxy of Working Capital management, cash flow ratio and corporate CH. The coefficient of determinant is (r=0.71) which indicates that there is strong positive correlation between corporate CH and cash flow ratio the result also determined that firm size also showing positive correlation with CH, which shows that as the size of the firm is to increases, the CH of the firm also tends to increase. The firm leverage ratio shows negative relationship with CH. This means that as the level of leverage of a firm increase, then the CH of the firm tends to decrease.

Table 2: Regression Analysis of Conventional Banks (Fixed Effect Model of Conventional Banks).

<table>
<thead>
<tr>
<th>ln Ch</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T Value</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnCFR</td>
<td>0.035865</td>
<td>0.064158</td>
<td>0.56</td>
<td>0.577</td>
</tr>
<tr>
<td>FS</td>
<td>0.913812</td>
<td>0.085071</td>
<td>10.74</td>
<td>0.000</td>
</tr>
<tr>
<td>FL</td>
<td>0.080908</td>
<td>0.024518</td>
<td>3.37</td>
<td>0.001</td>
</tr>
<tr>
<td>Cons</td>
<td>1.700687</td>
<td>1.030497</td>
<td>1.65</td>
<td>0.101</td>
</tr>
</tbody>
</table>

F-value, 213.89, R-square, 0.72

This table shows the impact of different free factors on the organizations CH. the outcome indicating that income proportion has constructive outcome on the firm CH, as the estimation of P is inconsequential at 5% likelihood, which established that CFR has positive but insignificant impact on CH. The firm size shows positive and significant impact on CH which implies that more full-grown firms will have beneficial outcome on the firm CH, while the results of FE Model shows that the influence of the firm shows positive noteworthy impact on the firm CH, as the P esteem is significant at 5 % likelihood level. The F-value is also significant at 5 % likelihood level, which implies that by and large model is significant. The R2 which explains power of the model shows a value of 0.72, which means that 72 % changes are mainly due to the various IVS used in the Model.

Table 3: Random Effect Model of Conventional Banks.

<table>
<thead>
<tr>
<th>ln Ch</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T Value</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnCFR</td>
<td>0.036822</td>
<td>0.062628</td>
<td>0.59</td>
<td>0.557</td>
</tr>
<tr>
<td>FS</td>
<td>0.907267</td>
<td>0.081763</td>
<td>11.1</td>
<td>0.000</td>
</tr>
<tr>
<td>FL</td>
<td>0.077937</td>
<td>0.024081</td>
<td>3.24</td>
<td>0.001</td>
</tr>
<tr>
<td>Cons</td>
<td>1.584298</td>
<td>0.990257</td>
<td>1.6</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Wald chi2(3) = 430.51, R-square, 0.81

This random effect model table indicates the correlation of the various independent variables of the firms which predict that cash flow ratio is greatly insignificant and optimistic effect on the firm CH, as the value of t-value is significant as 5% probability, which determined that CFR has optimistic but insignificant effect on CH. The firm size shows positive but significant effect on
CH which means that more mature firms have positive effect on the firm CH. while the results of FE Model shows that the leverage of the firm shows positive significant effect on the firm CH, as the t-value is significant at 5% probability level. The t-value is substantial at 5% probability level, meaning that whole model is fit. The R-square which shows the power of the model is 0.81 which means that 81% changes are mainly due to the various IVS used in the Model.

**Table 4: Hausman Test**

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt (diag Vb-VB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnCFR</td>
<td>0.0358652</td>
<td>0.0368218</td>
<td>0.0009566</td>
<td>0.0139279</td>
</tr>
<tr>
<td>FS</td>
<td>0.9138122</td>
<td>0.9072672</td>
<td>0.006545</td>
<td>0.0234909</td>
</tr>
<tr>
<td>FL</td>
<td>0.0809083</td>
<td>0.0779371</td>
<td>0.0029712</td>
<td>0.0046122</td>
</tr>
</tbody>
</table>

b = reliable under H₀ and Hₐ found from xtreg
B = varying under Hₐ, effective under H₀; obtained from xtreg
Test: H₀: difference in coefficients not systematic

\[ chi² = (3) = (b - B)² \frac{V_b - VB}{(-1)}(b - B) = 0.63. \]

Prob>chi² = 0.8899

The Hausman test is taken in order to identify that which one is the best model for this research analyses of the data in both Random and fixed effect method. The above Hausman checking showing that the random effect model is an appropriate model, as the probability value is insignificant at 5% level determining, the RE model is the good choice for the analysis of the data.

**Table 5: Correlational Analysis of Islamic Banks.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>ln Ch</th>
<th>lnCFR</th>
<th>FS</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln Ch</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lnCFR</td>
<td>0.0098</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>0.5189</td>
<td>0.0189</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>FL</td>
<td>0.2909</td>
<td>0.2399</td>
<td>0.085</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

The above table of correlation analysis of the Islamic banks predicts that CH has a unanimous relation between these variables which are taken in the research study. These all results are predicting about the positivity and insignificance of correlation between the proxy of Working Capital management, cash flow ratio and corporate CH. The coefficient of determinant is very low which is (r=0.098) which indicates that there is positive correlation between corporate CH and cash flow ratio. These results also determined that firm Size also showing slightly positive correlation with CH, which shows that as the Size of the firm when gradually increases, the CH of the firm also tends to increase. The firm leverage ratio shows positive relationship with CH. This means that as the level of leverage of a firm increase, then the CH of the firm tends to decrease.
Table 6: Fixed effect model of Islamic Banks.

<table>
<thead>
<tr>
<th>In Ch</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T Value</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnCFR</td>
<td>0.0288492</td>
<td>2945879</td>
<td>0.10</td>
<td>0.922</td>
</tr>
<tr>
<td>FS</td>
<td>1.415986</td>
<td>0.3917099</td>
<td>3.61</td>
<td>0.001</td>
</tr>
<tr>
<td>FL</td>
<td>2.805487</td>
<td>1.64978</td>
<td>1.70</td>
<td>0.097</td>
</tr>
<tr>
<td>Cons</td>
<td>9.492946</td>
<td>4.414872</td>
<td>2.15</td>
<td>0.038</td>
</tr>
</tbody>
</table>

R-square, 0.33, F-value, 34.98

The above table of fixed effect model shows the impact of various exogenous variables on the firms’ endogenous variables which is CH. These above results indicate that cash flow ratio (CFR) has positive effect on the firm CH, as the value of P is slightly insignificant at 5% probability, which determined that CFR has more positive but slightly insignificant effect on CH. The firm size shows positive and significant effect on CH which means that more mature firms will have great effect on the firm CH, while the results of FE Model shows that the leverage of the firm shows positive significant effect on the firm CH, as the P value is significant at 5% probability level. The F value is significant at 5% probability level, which means that overall model is significant. The R-Square which can explain power of the model shows is 0.33, which means that 33% changes are mainly due to the various IVS used in the Model.

Table 7: Random effect of Islamic Banks.

<table>
<thead>
<tr>
<th>In Ch</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T Value</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnCFR</td>
<td>0.0919755</td>
<td>0.2690176</td>
<td>0.34</td>
<td>0.732</td>
</tr>
<tr>
<td>FS</td>
<td>1.478464</td>
<td>0.3646807</td>
<td>4.05</td>
<td>0.000</td>
</tr>
<tr>
<td>FL</td>
<td>2.927538</td>
<td>1.42433</td>
<td>2.06</td>
<td>0.040</td>
</tr>
<tr>
<td>Cons</td>
<td>8.441127</td>
<td>3.876168</td>
<td>2.18</td>
<td>0.029</td>
</tr>
</tbody>
</table>

Wald chi2(3) = 22.40, R-square, 0.77

This random effect model table indicates the correlation of the various independent variables of the firms which predict that cash flow ratio is greatly insignificant and positive effect on the firm CH, as the value of t is insignificant, which determined that CFR has positive but insignificant effect on CH of various independent variables. The firm size shows positive but insignificant effect on CH which means that more firms age has continuous effect and also will have positive effect on the firm CH, while the results of FE Model shows that the leverage of the firm shows positive significant effect on the firm CH, as the P-value is significant at 5% probability level. The F-value is significant at 5% probability level, which means that overall model is significant. The R-Square which can explain power of the model shows is 0.77 which means that 77% changes are mainly due to the various IVS used in the Model.

Table 8: Hausman test

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt (diag Vb-VB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnCFR</td>
<td>0.0288492</td>
<td>0.0919755</td>
<td>0.0631263</td>
<td>0.1200483</td>
</tr>
<tr>
<td>FS</td>
<td>1.415986</td>
<td>1.478464</td>
<td>0.0624785</td>
<td>0.1429849</td>
</tr>
<tr>
<td>FL</td>
<td>2.805487</td>
<td>2.927538</td>
<td>0.1220513</td>
<td>0.8325012</td>
</tr>
</tbody>
</table>

b = steady H0 and h_a got from xtreg , B = unpredictable under H_a efficient under Ho; obtained from xtreg. Test: Ho: difference in coefficients not systematic

\[ \text{chi2(3)} = (b - B)^{t(Vb-VB)^{-1}(b - B)} = 0.39 \]

Prob > chi2 = 0.9416
The Hausman test is taken in order to identify that which one is the best model for this research analyses of the data in both Random and fixed effects model. The above table of Housman model predicts that the random effect model is a suitable model for the analysis of various dependent and independent variables which are taken in the research, this model governs that as the probability value is insignificant at 5% level determining, the RE model is the good choice for the analysis of the data.

6. Conclusion and Discussion

This research conducted in order to better understand the impact of WCM on corporate Cash Holding in the context of conventional and Islamic banking system in Pakistan. Working Capital is the life line for all types of business. In this study we used panel data of 31 banks out of which, 24 are conventional banks, whereas 07 are Islamic banks. Data was collected from annual reports for the period of 2011 to 2017, of both banking system i.e. conventional and Islamic banking. Staticlly data was analyzed by using techniques such as; descriptive statistic and co relation and panel data methods were also used like Fixed effect model, random effect model and Hausman Effect model. The results demonstrate that the proxy of WCM such that cash Flow ratio (CFL) has positive significant effect on the corporate Cash Holding of conventional banks in Pakistan Autukaite and Molay (2011). The study has also documented the positive and significant effect of both firm size and firm leverages on the corporate Cash Holding for conventional banks Saravanan, Mathimani, Deviram, Rajendran, and Pugazhendhi (2018). The study has also found very similar results for Islamic banks portfolio. In this regard, the results have also shown positive insignificant effect of cash flow ratio (CFR) on the corporate cash holding of the Islamic banks. The results have also confirmed the positive significant effect of control variables such that financial leverages and firm size on the CCH of the Islamic banks portfolios. This result will be helpful for managerial decision making for policy makers and investors. The study has also highlighted the importance of WCM in managing corporate Cash Holding for the management of both conventional and Islamic banks in Pakistan.

7. Future Recommendations and Limitation

Future researcher may compare the performance of financial and non-financial firms in the context of Pakistan, specially banking sectors will be fruitful. Similar studies can also add more proxies for measuring Working Capital to picture better results for researchers. A comparative study if conducted by cross country comparison for example between Indian firms and Pakistani firms will enrich the existing literature platform greatly. Furthermore, it will be interesting to see if investigate the same among banks who operate and deal with both conventional and Islamic banking products or between financial and non-financial firms or business. The non-availability of continuous data and confined to the banking sector were among the limitation.
References


