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RESEARCH PAPER

Financial Determinants of Corporate Cash Holdings: Evidence from Textile Sector of Pakistan

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ABSTRACT

A certain level of cash holding in the organization is critical for the free-flowing operation of the firms. Firms with excess cash holding and cash equivalents can utilize them for reinvestments. Cash holding is basic support for firms who want investment opportunities for rapid growth in the economy. The motive of this research is to deeply understand the determinants of cash holding of Pakistan's textile sector. A sample of 57 listed non-financial firms from the textile sector of Pakistan were selected. The correlation and regression are used to analyze the results of textile sector of Pakistan. The result of regression shows that cash flow, debt structure, Internal liquidity, and dividend shows significance with the cash holding. The remaining independent variable like size, leverage, and asset tangibility shows the insignificant result with the cash holding. The policy implication for textile sector with respect to textile sector of Pakistan is to get awareness of the determinants, which affects the cash holding of textile sector of Pakistan. The study also help the SECP to initiate polices for rapid growth opportunities, which will help the textile sectors to increase the export of their goods.

KEYWORDS Cash Holding, Security and Exchange Commission of Pakistan (SECP), Pakistani Firms, Cash Equivalent

Introduction

The cash holding has a considerable effect on firm performance and its behavior. The textile firms have a different attribute to the level of cash which refers to the size of the firm. Some firms prefer an optimal level of cash for investment, some need cash for investment opportunities and some firms hold their cash to avoid the external source of financing. So, this research provides an overview of the textile sector of Pakistan for cash holding and also the determinants that affect the cash holding. The textile industry is about 60 % of the total exports of Pakistan in the year 2019 (Arshad & Arshad, 2019). The textile sector is distributed into spinning, weaving, finished goods, and simply the textile sector. So, there are lots of textile firms that have different motives for cash holding. Some textile firms have transaction motives, some have precautionary motives and some textile firms have speculative motives.

The liquidity of cash holdings meets the economic process of firms' operating activities, production, and less financial risks (Lins, Servaes, & Tufano, 2010). On contrary, low liquid cash makes Pakistan's' textile sector adding expenditure cost of cash holding. Rather, excess cash holdings potentially minimize the rate of return on investments by evolving the self-interest behavior of both management and the dominant shareholders. However, the textile firms have various attributes that contribute to a certain level of cash holding having a direct relation to the size of the firm and the complexity of the organization (Sheikh & Rafique, 2019). Some organizations adopt an optimal level of cash holdings for investment purposes, while other organizations favor cash holdings from the external

source (Cho, Cho, & Lee, 2019). The strategy opted for cash holding is the most significant financial decision for the textile sector. Every organization possesses its in-house cash holding patterns (Farrell, Wheat, & Grandet, 2019). One of the main concern for the organization's investor is high cash holdings are either value constructive or value destructive (H. Chen, Yang, Zhang, & Zhou, 2020)? According to the practitioner's organizations that hold high cash have a positive impact in encouraging the organization's value as compared to the organizations that comparatively hold low cash. On contrary, some practitioners also show their agreement for the companies that possess high cash holdings and favor activities that lead to the minimum value of the organization (Manoel & da Costa Moraes, 2019). Few motives have been identified for cash holdings for organizations; like the agency is one of the most significant motive, similarly transaction, tax, and precautionary (Akben-Selcuk & Sener, 2020; Marwick, Hasan, & Luo, 2020). Further determinants behind these motives for cash holding details and drives the behavior of Pakistan's textile firm. However, determinants that are highly dominate the cash holding policy of the firm yet it remains relatively unexplored. This factor has the most significant role in shaping the motives of small and large textile firms.

Literature Review

The firms do not need to hold cash in perfect capital markets (Opler, Pinkowitz, Stulz, & Williamson, 1999); (Drobetz & Grüninger, 2007); (Bigelli & Sánchez-Vidal, 2012). When the firm is out of cash to make new investments and ongoing operations, they arrange the fund with zero cost to make the firm at a sustainable level (Opler et al., 1999). On the contrary, the perfect markets are not perfect when we analyze them practically and the transaction cost for raising funds matters for the firms. The previous and groundbreaking studies on cash holding used the two theoretical studies that explain the cash holding policy for the firms, which are namely Trade-off theory and Pecking Order Theory (Dittmar, Mahrt-Smith, & Servaes, 2003); (Ferreira & Vilela, 2004); (Drobetz & Grüninger, 2007); (Y. R. Chen, 2008); (D'Mello, Krishnaswami, & Larkin, 2008); (Al-Najjar & Belghitar, 2011);(Kim, Kim, & Woods, 2011); (Bigelli & Sánchez-Vidal, 2012).

The study of (Al-Najjar & Belghitar, 2011) and (Sola, Teruel, & Solano, 2010), explains the trade –off theory. They propose that the firms have to maintain the cash holding at an optimal level. The firm should consider the cost of a liquid asset and also the marginal benefits. This is the trade-off between benefits and costs for holding cash. The study of (Ferreira & Vilela, 2004) explores the three important benefits of holding cash. (i). minimizing the risk of financial difficulties, (ii). At the time of financial distress, the firm can adopt and implement a better investment policy, (iii). The cost of external fund/liquidity assets will be minimizing by holding the cash. Furthermore, the study of (Opler et al., 1999), which is based on the study of (Beckhart, 1936), from the benefit/advantage of cash holding, there are two motives: (i) *Precautionary motive* (ii). *Transaction Motive*. In Precautionary motive, firms hold cash for investment emerged as unexpected opportunities, and at that time of investment, the other sources have a high cost of financing (Ozkan & Ozkan, 2004). In Transaction cost motive, when there is a shortage of cash internally, firm maintain cash externally by selling assets, issue new debt/equity instruments and cutting dividends and maintain fixed and variable cost (Opler et al., 1999); (Ozkan & Ozkan, 2004)

The Pecking Order Theory is on the work and study of (Myers & Majluf, 1984). The Pecking Order theory is the explanation of the financing behavior concerning cash holding. They explain that the purpose of cash holding is mainly investment opportunities. They explain the overall tendency of the firm to rely on sources of internal funds principally and the external resources secondary. The theory also explains that most firms do not hold targeted cash holding, in lieu, they used cash as a safeguard swapping between the investments and the retained earnings (Ferreira & Vilela, 2004). The study of (Y. R. Chen, 2008) explains those firms that hold cash have greater opportunities for investment as compared to rely on external funds and bear the extra cost of funds.

In this literature, we are going to highlight multiple studies of cash holding and its determinants concerning the Pakistan Textile sector. This chapter will also emphasize the merits and demerits of applying cash holding in the textile sector of Pakistan. The literature also explains the behavior of the firms in different phases and cycles of business attributes and using cash as a tool. The literature explains the relationship of cash holding with the variables like the size of the firm, leverage, asset tangibility, dividends, cash flow, growth opportunity, internal liquidity.

The relationship of cash holding is positively related to the first-mover advantage in the product (Ma, Mello, & Wu, 2020). The study also describes the joint effect of profitability, first-mover advantage, right time of financing, and cost of participation on the cash holding and industries, which results in rich industry penetration and cash holdings (Ma et al., 2020). The study also supports the positive effect of cash holding on investment opportunities in the market. The study found a strong relationship between the cash holding and the R&D. however, the study also found the strong relationship of industries and the optimal cash to get the growth opportunity and also for the first-mover advantage in the market. Optimal cash will increase the first-mover advantage because the firm doesn't wait for borrowing and cost-saving also (Ma et al., 2020). The study explores the firms of China, which is the largest developing country, worldwide. They explore cash holding in terms of the structure of ownership and corporate governance (Ahmed, Qi, Ullah, & Kimani, 2020). They investigate the 115 number of Chinese firms from 2012 to 2016 (Ahmed et al., 2020). The findings showed that cash holding is negatively related to intangible assets and leverage. They found a strong relationship of cash holding with the dividend, cash flow, and investment opportunity. The study made a unique relationship between cash holding and corporate governance. They explore the dimension of cash holding determinants and agency problems in Chinese firms(Ahmed et al., 2020).

The high-leverage firms have a larger tendency to hold more cash (Ahmed et al., 2020). A highly leveraged firm, can take better control of its finances and collect more cash (Ahmed et al., 2020). The study of determinants of cash holdings on the Hotel services in Greek range from 2003 to 2013 finds that small hotel services have high leverage level because they have to progressively maintain a certain level of cash holding for day to day operation as compared to larger hotel services (Dimitropoulos, 2020). While studying the manufacturing companies in Malaysia, found that leverage and cash holding are negatively related (Murthy, Mariadas, Sinniah, Perumal, & Nadarajan, 2020). The study in China shows the mixed results of cash flow because they found positively related to cash in terms, which is insignificant. The insignificant and positive relationship does not explain the pecking order theory. However, the study concluded that firms in China hold cash when they are greater exposed to risk (Ahmed et al., 2020). The cash flow of volatility of firms is higher because they have the zero dividend payout ratio and firms who have the dividend payout ratio have less cash flow volatility (Lozano & Yaman, 2020). The study in Malaysia researched 20 Manufacturing companies and found that cash flow has a significantly positive effect on cash holdings (Murthy et al., 2020). The study investigates the non-financial firms of Thailand period from 2011 to 2015. The study finds out that cash flow has a positive effect on the cash holdings (Thanatawee, 2019a). The Thai firms have maintained the high reserves and use that reserves to manage the better cash flow accordingly (Thanatawee, 2019a). The results of the Indonesian stock market showed that cash holding significantly positively affects the cash flow, indicates that the higher the level of cash flow result will be higher the cash holding in Indonesian Market (Herlambang, Murhadi, & Cendrati, 2019). The study conducted on Pakistan non-financial firm during the financial crises range from 2005 to 2014, which further divided into pre crises (2005 – 2007) and then crises period (2008 -2010) after that post crises (2011 – 2014) concluded that cash flow has the positive impact during all the three phases of crises (Jebran, Iqbal, Bhat, Khan, & Hayat, 2019). However, the level of significance and its value in pre crises are much higher as compared to post crises period, which means that the relationship of cash flow and cash

holding is affected by the financial crises due to maintaining a certain level of cash reserves (Jebran et al., 2019).

The asset tangibility is found to be negatively related to cash holding of the firm from different regions, including Europe, Africa, the middle east, Asian Pacific, and South America (Aftab, Javid, & Akhter, 2018). The study conducted on Vietnam's stock exchange; focus on the number of 18 energy-related firms, found that asset tangibility is positively related to cash holding of the firm (Thu, 2018). The liquidity holding of cash and the tangible and intangible asset is positively related to each other when investigating the Japanese firm (Hosono, Miyakawa, & Takizawa, 2017). The dividend payment is strongly related to the cash holding in Chinese listed firms (Ahmed et al., 2020). The effect of cash holding on the dividend and non-dividend paying firm is different on European firms during the 2008 financial crisis (Lozano & Yaman, 2020). The results show that non-dividend-paying firms have a higher level of cash and the dividend-paying firm has less level of cash as studied by the European firm during the financial crises of 2008 (Lozano & Yaman, 2020). The study found that an increase in dividend payout is from the source of buffer cash which leads to the decrease in cash holdings (Mollagholamali, Javadi, & Al-Thaqeb, 2020).

The study found a unique economic relationship between dividend payout, cash holding, and policy uncertainty(Mollagholamali et al., 2020). At the first stage, the study evaluates that in the presence of economic uncertainty, firms add value to shareholders by minimizing the cash holdings and increasing the dividend payout ratios (Mollagholamali et al., 2020). At the second stage, with the addition of instrumental variables, the study found that policy uncertainty becomes an insignificant effect and dividend payout has a significant effect on the cash holdings (Mollagholamali et al., 2020). The net working capital is negatively and significantly related to the cash holding of the MNC's of Pakistan listed firm on KSE – 100 indexes, (Sheikh, Mehmood, & Kamal, 2018). The networking capital is also found negatively related to the cash holding of the firm when investigating the SME (Martínez-Sola, García-Teruel, & Martínez-Solano, 2018). Furthermore, networking capital is negatively related to firms in Pakistan (Ullah & Kamal, 2018). The results of the Indonesian firm also showed that cash holding is affected by the growth opportunity (Sari, Kurniawati, & Wulandari, 2019). The study conducted in Pakistan showed the KSE -100 index listed firms have positive and significant results on the cash holdings (Khan, Peng, Ahmad, Mahmood, & Ahmad, 2019). The results have similarities with trade – off model described in the study of (Ferreira & Vilela, 2004); explain that the firms with more growth opportunities/investment opportunities have the greater advantage because of positive NPV's and saves the cost of borrowing from other financial institutions. The study investigated the different structure of bond financing of the U.S firms which are traded their stock in NYSE & NASDAQ. The research on the relationship of cash holding and the structure of debt is investigated in U.S firms. The relationship of debt structure and the cash holding of the firm is found to be U-shaped, which means that the firm using the bond for financing and the firm that are not using the bond to raise funds showed the increasing cash holdings (Colla, Lin, & Nagler, 2018). The study concluded that firms, that entirely rely on bond financing and firms, which are not relying on bond financing, having a larger cash holding (Colla et al., 2018).

Based on this literature review, following hypothesis are developed;

H_1: Size has significant impact on cash holding position of textile firms in Pakistan
H_2: Leverage has significant impact on cash holding of textile firms in Pakistan.
H_3: Debt structure has significant impact on cash holding of textile firms in Pakistan. .
H_4: Cash flow has significant impact on cash holding of textile firms in Pakistan.
H_5: Internal Liquidity has significant impact on cash holding of textile firms in Pakistan.
H_6: Tangibility has significant impact on cash holding of textile firms in Pakistan.
H_7: Dividends has significant impact on cash holding of textile firms in Pakistan.

Material and Methods

The research on cash holding and its determinants on the textile sector of Pakistan is descriptive. Our research collects a sample of non-financial firms from the textile sector of Pakistan and to analyze the non-financial firms, textile sector of Pakistan, OLS (Regression) & Correlation with unbalanced Panel data. For accuracy, used the panel data models, used particularly to control problems of heterogeneity,. This kind of heterogeneity when ignored showed factors of the error term and further creates the problem of heterogeneity bias in the OLS (Regression). The use of the panel data model is accordant with preceding studies (Ferreira & Vilela, 2004).

The research endorses the quantitative sampling method which is easily available and updated annually collectible financial statements. The total number of 57 non-financial firms from the textile sector of Pakistan selected, listed in PSE – 100 indexes. The period ranges from 2009 – 2018, narrow down to PSE listed with non-financial firms. The data compiled and organized from published "Financial Statement Analysis" by securities and exchange of those firms which are listed on Karachi Stock Exchange (2009-2018). The published report provides detailed information about firm balance sheets and income statements with further details of financial statement analysis with the complete set of ratio calculations. The approach adopted in this research to collect a sample of Textile firms in Pakistan. According to the data compiled by the SBP, quoted in FSA of FY 2018, the textile sector of Pakistan covers 87.63% share. The textile companies registered is more than 130. For our research analysis, we sort up to date annualized reports of fifty-seven (57) companies to see the complete picture of their cash holding and their determinants in Pakistan. For that purpose, collect data for 10 years (2009-2018), FSA from the site of SBP. The data collected from the FSA is transferred to excel sheets of selected variables for ratios calculation and arranged in panel data with total data of 10 years. The arranged data of different companies is further narrow down by applying the ratios and formula as described for each dependent and independent variable. After applying the ratios and formulas in excel, then used the STATA is used to get brief results for discussion. The correlation ad OLS (Regression) tables are analyzed in the above chapter. For analysis of regression analysis, the linear multiple regressions model is used for a defined purpose. As per the research of (Uyanık & Güler, 2013), the base model for regression is used as under:

$$yi = \beta 0 + \beta 1\, xi1 + \cdots + \beta k\, xik + \cdots + \beta K\, xiK + \varepsilon i$$

Where ***y*** is denoted for the dependent variable, the ***ϰ***'s are used for independent variables, and **ε** is the error term in the above-mentioned equation**.** The parameters from **β1** through **βK** indicate the effect of dependent (*y)* and independent (***ϰ*)**; the intercept is denoted with **β0**. The variables for the study is further placed in the above equation, the following is obtained:

$CASH_{it} = \beta 0 + \beta 1\ LEV_{it} + \beta 2\ NWC_{it} + \beta 3\ SIZE_{it} + \beta 4\ GROWTHOP_{it} + \beta 5\ STDEBT_{it} + \beta 6\ TANG_{it} + \beta 7\ CFLOW_{it} + \beta 8\ DIV\ dummy_{it} + \varepsilon_{it}$

Econometric Model

To check the dependence of cash holding and their determinants, a model has been developed by following, (Morais, Nave, & Rodrigues, 2018).

$CASH_{it} = \beta 0 + \beta 1\ LEV_{it} + \beta 2\ NWC_{it} + \beta 3\ SIZE_{it} + \beta 4\ GROWTHOP_{it} + \beta 5\ STDEBT_{it} + \beta 6\ TANG_{it} + \beta 7\ CFLOW_{it} + \beta 8\ DIV\ dummy_{it} + \varepsilon_{it}$

Where

$CASH_{it}$ is the cash and cash equivalents of firm i at time t
LEV_{it} is the leverage in Market of firm i at time t
NWC_{it} is the net working operating capital of the firm i at time t
$SIZE_{it}$ is the size with the natural log of the firm i at time t
$STDEBT_{it}$ is the ratio of short term and total debt of firm i at time t.
$TANG_{it}$ is the asset tangibility of firm i at time t.
$CFLOW_{it}$ is the cash flow (operating) of the firm i at time t.
DIV $dummy_{it}$ is the dividend payment with dummy variable of the firm i at time t.

Research Variables

Table 1
Variables and definitions

Variables	Acronyms	Definition
Cash Holding	*Cash*	Cash plus cash equivalent divided by total assets
Size	*SIZE*	Natural logarithm of total assets
Leverage	*LEV*	Total debt over total assets
Debt Structure	*STDEBT*	The ratio between short-term debt and total debt
Cash flow	*OCFLOW*	Earnings before depreciation and amortization less interest expenses, taxes, and dividends divided by total assets
Internal Liquidity	*NWC*	Working Capital minus cash divided by total assets
Asset tangibility	*TANG*	A tangible fixed asset to total assets
Dividends	*DIV*	1 if firm pay dividend in that year and 0 otherwise

Dependent Variable

Cash Holding

The dependent variable is Cash holding which is defined as cash and cash equivalent divided by total assets (Morais et al., 2018; Saeed, Belghitar, & Clark, 2014).

$$\text{Cash Holding} = \frac{\text{Cash+Cash Equivalent}}{\text{Total Assets}}.$$

Table 2
Independent Variables

Size	Size defines as Natural logarithm of total assets (Drobetz & Grüninger, 2007; Morais et al., 2018; Saeed et al., 2014; Uyar & Kuzey, 2014).
Leverage	Leverage defines as Total debt over total assets, where total debt is the sum of long-term debt and short-term debt (Drobetz & Grüninger, 2007; Morais et al., 2018; Saeed et al., 2014; Uyar & Kuzey, 2014).
Cash Flow	Cash flow defined as Earnings before depreciation and amortization fewer interest expenses, taxes, and dividends divided by total assets (Morais et al., 2018; Saeed et al., 2014)
Asset Tangibility	Asset tangibility define as a tangible fixed asset to total assets (Drobetz & Grüninger, 2007; Lei, Qiu, & Wan, 2018; Morais et al., 2018; Uyar & Kuzey, 2014)
Dividend	Dividends define as 1 if firm pay dividend in that year and 0 otherwise. A dividend is used as the dummy variable in the research analysis (Drobetz & Grüninger, 2007; Morais et al., 2018; Saeed et al., 2014; Uyar & Kuzey, 2014).
Net Working Capital (Internal Liquidity)	Net Working Capital (Internal Liquidity) define as working capital minus cash divided by total assets (Morais et al., 2018; Saeed et al., 2014)
Debt Structure	Debt Structure defines as the ratio between short-term debt and total debt (Morais et al., 2018)

Results and Discussion

Descriptive Statistics

The descriptive study shows the overview of the sample data of textile firms, which consist of mean, standard deviations, observation with minimum and maximum values. The table 3 shows the descriptive statistics, where the Pakistan textile sector holds the average

cash as an asset of 1.1 %. The maximum cash holding of the Pakistan textile sector is 86%, which shows the positive trend of the textile sector of Pakistan for cash holding. The Pakistan textile sector is covering a larger portion of the business sector and a major contribution to the economy of Pakistan. The cash flow of the textile firms of Pakistan with an average of 34% and a maximum value of 55%. The cash flow also has a positive attribute in the textile sector of Pakistan during recent years. The leverage also has an average of 45% and a minimum of 24% in descriptive statics of the textile sector of Pakistan. The leverage of the textile sector also has a positive attribute on the cash holding of the firms. The leverage of the textile sector is also a major impact on the cash holding of the textile sector of Pakistan. The debt structure of Pakistan listed textile firm has an average of 63 % which shows that the Pakistan textile firms have more short term debt and less long term debt. The maximum number showed 100%, which also opens the door for long term debt for the banking sector and explained that most of the textile firms financed by the short term debt. The asset tangibility has an average of 32% with a maximum of 83% in the Textile sector of Pakistan. So the asset tangibility with a maximum of 83%, which shows that most of the firms have greater asset tangibility because the firm, is large and wants investment opportunities. The internal liquidity has an average of -5% which shows that the textile sector of Pakistan has less internal liquidity. On the contrary, the maximum value of internal liquidity has a value of 66%. This shows that most family-oriented firms, backed by resources. They having greater liquidity but overall textile sector, the firms are -less internal liquidity. The average dividend is 41%, shows that most of the textile sector in Pakistan pay the dividend. The maximum number is 100%, which shows some of the firms pay a dividend at their full capacity. This is because family-oriented businesses with more than 10% voting rights and some of the firms are up to 30 to 50% voting right. These kinds of firms are totally family oriented and because they buy the stock itself than they pay the dividend. That's why there is a maximum of 100% of the value in a dividend.

Table 3
Descriptive Statistics

Variables	Obs	Mean	St. Dev	Minimum	Maximum
Cash	442	0.011	0.014	0	0.086
SIZE	442	15.108	1.286	12.108	17.772
OCFLOW	442	0.034	0.095	-0.448	0.551
LEV	442	0.454	0.187	0.024	1.699
STDEBT	442	0.635	0.262	0.001	1
TANG	442	0.321	0.222	-0.997	0.834
NWC	442	-0.05	0.22	-1.276	0.664
DIV	442	0.412	0.493	0	1

Note : Dependent Variable: Cash Holding (Cash), Independent Variables: Size of the firm (SIZE), Cash flow (OCFLOW), Leverage (LEV), Debt Structure (STDEBT), Asset Tangibility (TANG), Internal Liquidity (NWC) and Dividend use as a dummy (DIV), from the Period 2009-2018.

Correlation Analysis

Table 4 reflect the correlation between variables. Correlation describes the relation between each of the variables e.g. the change of variable changes the other variables. The above table of "Correlation Coefficient" having a value that shows there is a linear relationship or not between the variables. The correlation coefficient with absolute value and values lies within the range of 0 and 1. The minimum value of the correlation matrix between Asset tangibility and leverage is (-0.768) and the maximum value of the correlation matrix between Internal liquidity and asset tangibility is (0.641). However, the values of the correlation matrix, each pair of variables, should between (-0.7 to 0.7), which further elaborate that there is no such collinearly in regression of those particular variables. (Thanatawee, 2019b; Wathen, Marchal, & Lind, 2017).

Table 4
Correlation Analysis

Variables	*Cash*	*SIZE*	*OCFLOW*	*LEV*	*STDEBT*	*TANG*	*NWC*	*DIV*
Cash	1							
SIZE	-0.0552	1						
OCFLOW	0.132**	-0.112*	1					
LEV	-0.0935*	-0.0935*	-0.207***	1				
STDEBT	-0.142**	0.185***	0.0262	-0.107*	1			
TANG	0.0705	0.326***	0.220***	-0.768***	0.155**	1		
NWC	0.151**	0.278***	0.121*	-0.398***	-0.128**	0.641***	1	
DIV	0.136**	0.358***	0.120*	-0.222***	0.0904	0.334***	0.329***	1

="* p < 0.05, ** p < 0.01, *** p < 0.001"

Note: Dependent Variable: Cash Holding (Cash), Independent Variables: Size of a firm (SIZE), Cash flow (OCFLOW), Leverage (LEV), Debt Structure (STDEBT), Asset Tangibility (TANG), Internal Liquidity (NWC) and Dividend use as a dummy (DIV), from the Period 2009-2018.

The correlation analysis shows that firm size is negatively correlated with the cash holding of the firms, consistent with the finding of (Lozano & Yaman, 2020) and concluded in their study that larger firms have maximum level of cash holding as compared to smaller firms. One of the reasons is that the larger firm intends to grow and expands as they seek the growth opportunity and invest in a particular area to grow in size. As compared to larger firms, the smaller ones hold more cash holding due to transaction, precautionary, or cash flow motives. The cash flow (0.132) is found positive and correlated with the cash holding of the firm which supports the study of (Mugumisi & Mawanza, 2014). The cash flow of the firm in Pakistan increases as the cash holding of the firm. The leverage to cash holding has a correlation (-0.0935), which is negatively correlated with each other. The leverage shows the level of a loan incurred by the business. The leverage to cash holding shows the negative relationship match the result of (Thanatawee, 2019b), which means textile firms in Pakistan rely on equity financing rather than debt financing. The trend of the business community in Pakistan is family owned and they generate their financing from other family members. The cash holding and debt structure are negatively correlated (-0.142) with each other (Mugumisi & Mawanza, 2014). The negative relation shows that the firm in Pakistan relies on short-term debt and less reliant on long-term debt when they required cash as a substitute. The asset tangibility and cash holding are positively correlated (0.0705). the asset tangibility is calculated by the fixed asset, which is divided by the total assets (Uyar & Kuzey, 2014). The asset tangibility elaborates on a firm's ability to recover its debt from a current tangible asset. This describes the firm's ability to cover all its debt with current tangible assets. The cash holding and asset tangibility show a positive correlation (0.0705), which describes that firms in Pakistan have better asset tangibility and having greater ability to cover their debt obligation. The internal liquidity and cash holding of the firm have positively correlated (0.151), which supports the findings of (Jamil, Anwar, Afzaal, Tariq, & Asif, 2016). The positive correlation of liquidly (Networking capital) and cash holding means as the internal liquidity increases then the cash holding will also increase. The dividend and cash holding are positively correlated, which also supports the study of (Mugumisi & Mawanza, 2014; Thanatawee, 2019b). The positive correlation shows that as the cash holding of the firm increase then the dividend also increases.

Regression Analysis (Random Effect Model)

The Regression analysis is further analyzed by the fixed and random effect with the help of Hausman Selection. So first, we analyzed with the fixed effect and then the Random Effect. In the selection of Fixed and Random effect, the Hausman test is carried out to find out the null hypothesis is that the recommended model is Fixed or the Random model. So

we do the same, first the fixed-effect model and then the Random effect. The Hausman selection is performed, which indicates that the use of the random effect model.

The Ordinary Least Square (OLS), Regression Analysis is used for analyzing the data. The value of R squared (0.0740), which is 7.4 % of the variation of the dependent variable (Cash Holding) is explained by the independent variables like size, cash flow, leverage, debt structure, asset tangibility, internal liquidity, and dividend (dummy). The Prob (F – Statistics) shows that 0.0000, which means that the results we get are significant jointly.

Table 5
Regression Analysis

Variables	Coefficient	St. Error	t – stat	Prob.
SIZE	- 0.0009159	.0006123	-1.50	0.135
OCFLOW	.014916	.0074206	2.01	0.045
LEV	-0.0073586	.0058858	-1.25	0.212
STDEBT	-0.0064403	.0027533	-2.34	0.020
TANG	-0.0072954	.0062241	-1.17	0.242
NWC	.0089705	.0043072	2.08	0.038
DIV	.0039809	.0015257	2.61	0.009
Observations	442			
R – Square	0.0740			
Adjusted R – Square	0.0591			
F – statistic	4.96			
Prob (F – statistic)	0.0000			

Note: DEPENDENT VARIABLE: Cash Holding (Cash), INDEPENDENT VARIABLE: Size of a firm (SIZE), Cash flow (OCFLOW), Leverage (LEV), Debt Structure (STDEBT), Asset Tangibility (TANG), Internal Liquidity (NWC), and Dividend use as a dummy (DIV), from the Period 2009-2018.

The regression coefficient correlation in above table shows the negative and insignificant relationship between cash holding and size of the firm (β_1 = - 0.009159) at 5% significance level. This shows that larger firms hold less cash and smaller firm holds more cash. The larger firms continuously invest the buffer cash as investment oppertuinities. The smaller firms hold cash for precautionary motive and for uncertain circumstances. There is a positive and significant relationship cash flow with cash holding (β2 = 0.014916) at 5% significance level. The leverage is negatively and insignificantly associated with the cash holding (β_3 = - 0.073586) at 5% significance level. The debt structure is also show negative relationship with cash holding (β_4 = - 0.0064403) at 5% significance level. The asset tangibility is negatively insignificant with cash holding (β_5 = - 0.0072954) at 5% significance level. The internal liquidity is positive and significant relationship with cash holding (β_6 = - 0.0089705) of the firm at 5% significance level. The dividend (dummy) is also positive and significant relation with cash holding (β_7 = 0.0326297) at 5% significance level. The value of probability for the slope of coefficient explain that P(x_2 = 0.045 < 0.05 ; x_4 = 0.020 < 0.05 ; x_6 = 0.038 < 0.05 ; x_7 = 0.009 < 0.05). This showed that determinants (CFLOW, STDEBT, NWC and DIV dummy) having a significant relationship statistically with cash holding. Furthermore, The Significant cash flow is consistent with the study (Herlambang et al., 2019; Thanatawee, 2019b). The debt structure is also significant and consistent with the study (Mugumisi & Mawanza, 2014). The internal liquidity (NWC) is positive and significant. The result consistent with the study of (KWAN & LAU, 2020). The dividend payout is also positive and significant.

Conclusion

The core purpose of this research is to evaluate the effect of cash holding with its determinants in Textile firms of Pakistan. By using the Random effect model, the size of the firm is negatively related to the cash holding of textile firms (Lozano & Yaman, 2020). So the larger firms hold more cash as compared to smaller firms. The textile sector in Pakistan with

larger firms holds cash for investment opportunities. However, this paper develops the literature that small firms hold less cash and larger firm hold more cash. The finding is supported by the research of (KWAN & LAU, 2020). The cash flow and cash holding of the firm are having a positive and significant relationship. This means that firms hold cash as well as those positive cash flow activities. The trend of Pakistani firms has positively related to the cash flows and cash holding for consistent growth. The results are consistent with the studies of (Herlambang et al., 2019; Thanatawee, 2019b). The leverage is reflecting the negative and insignificant results when investigating the textile sector of Pakistan. This means that when the leverage of a firm decreases, the cash holding of the firm increases and vise versa. The result of our research is consistent with the study of (Bates, Kahle, & Stulz, 2009; Megginson & Wei, 2010; Tong, 2006). The relationship of cash holding and debt structure is a significant but negative effect. The negative relationship elaborates that textile firms in Pakistan rely on short term debt, rather than the long term debt. The reason behind is that majority of the textile firm in Pakistan is based on family-owned business and they generate their cash and less relay on long term debt. The result of our study is consistent with the study of (Mugumisi & Mawanza, 2014). Further, the asset tangibility shows a negative and insignificant relationship with the cash holding. The result is consistent with the study of (Mugumisi & Mawanza, 2014). The rise in asset tangibility in the balance sheet of the firm means that they are not involved in the investment activities (Lei et al., 2018). The study also found that for firms who are on the path of financial development, there is a sensitivity in the cash holding to asset tangibility, which results in the growth of the firm (Lei et al., 2018). The internal liquidity (NWC) is found a positive and significant relationship. However, networking capital is an asset that can easily be transformed into cash. The positive relationship means that assets have more liquidity and can turn in to more cash when needed.

Recommendations

The textile sectors of Pakistan have equipment that turns the raw cotton into fabrics that is much expensive. This is the reason for the positive and significant relationship in the case of the Pakistan textile sector. The result is consistent with the study of (KWAN & LAU, 2020). The dividend payout reflects the dummy variable in this study. The dividend (dummy) variable is a significant and positive relationship with the cash holding of the firm. The dividend result is supported by the study of (Mugumisi & Mawanza, 2014; Ozkan & Ozkan, 2004). Doubtlessly, the research comes up with limitations. As discussed earlier that, most of the business in Pakistan is based on Family control business. The business is owned by the single-family is more than 60% to 80% in Pakistan. The future research direction is to collect the data from those firms who are family control business. This will highlight different perspectives of the research in Pakistan. The second limitation is to add more variables or combine the external variables to analyze the effects on the cash holding of the firm. The third limitation in this research is to analyze the firms in Pakistan before and during Covid -19. The business sector is currently facing difficulties and struggling to survive. The firm used cash holding and managing the business. So the before or during Covid-19, the performance and cash holding of the firm varies.

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