An Effect of Liquidity on Profitability in Cement Sector Firms

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ABSTRACT

Purpose:
Purpose of the study is to examine how liquidity in Pakistan's cement market affects profitability for this purpose current ratio, cash conversion ratio, cash ratio and working capital to Total Assets are used.
Methodology:
This goal was accomplished through the collection of secondary data of selected company balance sheets and income statements from 2010 to 2019. Secondary data was gathered from a sample of 4 companies listed at Pakistan Stock exchange ,The correlation was performed to inspect the association or link between profitability and liquidity, and regression analysis using the OLS technique was used to estimate the parameters. Profitability (ROE) is considered as dependent and liquidity elements are independent variables (CCE, CR, WCTA & cash ratio) for the study.
Results / Findings:
Study finds CCE and CR having a positive and significant relation, whereas cash ratio having significant and WCTA have an insignificantly negative relationship with the dependent variable. This study finds that the profitability ratios are influenced by the liquidity ratio.
Novelty / Originality of the study:
This study contributes to the literature on the impact of Liquidity on Profitability by considering the Return on equity as Profitability measure (dependent variable) whereas current ratio, cash conversion ratio, cash and working capital to Total Assets are used for the liquidity measure (independent variable).

Key Words:
Liquidity, Profitability, Cement Industry, current ratio, cash conversion ratio, cash ratio, working capital to Total Assets.

INTRODUCTION

Liquidity is most important factor of any organization and its management is essential for any business (Ibe, 2013). Liquidity may have some separate meaning depending to different context, but it always needs to do with one thing cash or ready money. (Ismail, 2016) Stated that to manage liquidity it seems to be simple but actually it is not. Basically, liquidity seeks advice from financial assets or securities which is able to quickly available to fulfill company debts or to utilize for an investment. Liquidity recommends the supply of money that how quickly the company's financial assets and securities may be transformed into cash without lacking their significance. Liquidity is important for each and every company to exist. Liquidity exert influence on reduction cost or development of the corporate, changes within the sales dynamic as well as liquidity influence risk level (Zygmunt, 2017) . Liquidity is vital t because it shows flexibility of company to meet its obligation and unpredicted costs. Over and above that it relates to the common individual similarly.

As described by Krueger in his study that each organization must conserve a proportional sum of liquidity to confront its commitment in line. The liquidity in surplus was capable require across the firm to currency could also be his processes was counterproductive, so as thereto entailed business liquidity may vary company to company condition, he stated that company need to reserve an amount of liquidity which isn't affect its profitability. "The results of his study show a negative" linkage of profitability and liquidity whereas an organization cannot even work desirably and cannot make most of its earning with nil liquidity (kreuger, 2005)

Business expertise to fulfil the payment obligations is measure by liquidity ratios by comparing current assets with current liabilities. If there is insufficient "coverage of the" closing by the former, it means "that the business in meeting its immediate financial obligations" might face difficulties. This case can affect the profitability of business. Liquidity risk may arise due to breakdown or cash flows delays from the borrowers or termination of early termination of projects. Major crises of liquidity increase the chances of major financial crises. It has become a significant barrier and challenge for the trendy era of business.

On the opposite hand poor performances lead to poor profitability which can dictate the capital and if this example happens and prolong this can bring the corporate to its end (hossain, 2020). Potential investors and creditors always want to ensure that they will retreat to their original

investment and also the return thereon. Investors can ensure this by examining performance and analyzing the symptoms that are associated with profitability. Changes in a company's earnings are often measured by comparing the quantity of profit in a very year with the amount of profit in the previous year (Scott, 2003) in the corporate finance literature both liquidity and profitability represent complex phenomena and there are a set of various definitions which describe the terms, according to the context in which they are used or the perspective from which they are analyzed. It is so, because profitability and liquidity are major indicators of the firm's financial performance. Thus, an ultimate goal for any firm is to maximize profitability while being optimally liquid.

The main aim of the corporate is to attain profit or produce profit, consistent with Khaldun implementation of activities and operation within the success of the corporate shows the reflection of profit (Khaldun, 2014; Panigrahi D. K., 2013) when the company's financial analysis is completed, the foreground of the business is Profit instead of liquidity. The primary financial goal of any organization is to increase profits, so managers focus more on profitability. Why not, since profitability is the potential to increase profits, it is measured or estimated by profitability ratios in financial analysis. In step with (richard A.brealey, 2012) profitability ratios are evaluated by (ROA) returning on assets, (ROE) returning on equity (ROE) and payout ratio whereas, liquidity measures by the ratios as describe in starting used to calculate liquidity position of a company. (Zygmunt, 2017) Also pointed on the conclusion that the relevance of liquidity to a corporate performance determines the profitability, which implies that liquidity might influence on profitability.

In developing nations through construction in response to forces of globalization thereby cement sector has reserve major part of growth of economy. Day by day cement industries becoming one of the main significant industries in Pakistan. Cement industry is different to some degree of other industries due to sort of its incentive nature of capital (Ahmad Mansoori, 2011)

The startup of cement industry started long before 1947, the first cement factory developed in the region in 1921, and the region that was WAH at that time of establishment of factory, now it's called Pakistan. From some countable industries, cement industry was one of them established industry before the partition of subcontinent existed in Pakistan. The reason why Pakistan has the existence of first cement industry? It's because Pakistan has rich in availability of minerals, raw

materials. There are many raw materials used in making cement. Limestone and clay are the primary raw material for manufacturing cement, secondary raw materials are shale, marl, latrine, gypsum etc. in any region for developing a cement plant it is necessary to have unlimited resources of limestone and clay for the next of forty to sixty years to support the industry, so Pakistan has unlimited reserve of limestone, gypsum and clay.

“19 businesses make up the cement sector, 16 of which and 24 plants are now in operation. The zone “is split into two halves: North and South, with the former containing parts of Punjab, KPK, and AJK and the latter covering parts of Sindh” and Baluchistan. The cement sector is very well-organized and exclusively owned, with the majority of participants listed on the PSX. The market capitalization of the industry is expected to reach PKR 690 billion. The major drivers of the sector's growth are government expenditure on development initiatives and general economic growth”. (Pakistan Strategy, 2020)

The cement industry nationalized in 1972 as consequence of nationalization the aggregate number of units at the time were 10 with having the capacity of 2.8 million in tons yearly were handed over to SSCP, State Cement Corporation of Pakistan (SSCP) come into existence by following the orders of economic reforms order. under the dominion of Scup for The Long-time cement industry be in charge within the code of strict regulation and price control.

The cement industry is without question the highest profitable and rising industry in the world, with daily expenditures and financial growth. Owing to the fact that cement is a substance used during construction, the cement manufacturer should examine the quality and material of the cement once it has been made and enhance the elements. Because CPEC and other construction projects in Pakistan, the cement industry is at an all-time high. The cement sector contributes to the nation by providing approximately 150,000 jobs per year. During 2015-2016, the cement sector shipped approximately 7.716 million tones and earned approximately 560 million dollars. Furthermore, in 2017-2019, approximately 700 million dollars are earned. (Ahasan, 2019)

Cement businesses play an essential role in Pakistan's socioeconomic development. From sixteen cement companies listed on Pakistan's stock exchange, as this research is based on Pakistan so we have selected top four cement firm of Pakistan (CemNet.com, n.d.) although Gilgit ballista does not have any listed cement manufacturing company so rest of it, top value and worth able corporations being listed below:

- ✓ Lucky cement
- ✓ Bestway cement
- ✓ Maple leaf cement
- ✓ cherat cement co ltd

One of the most important aspects of the country's economy is infrastructure. The cement sector is critical for economic growth, development, and unemployment reduction. The sector is critical not only for the growth of the country, but also for meeting worldwide market demands. Pakistan's cement industry is rapidly increasing. Following the split of India and Pakistan, the country had just four cement manufacturers, each with a capacity of 300.000 tonnes, but the sector has since developed to a capacity of 4500.000 tonnes per year.

PROBLEM STATEMENT:

Liquidity management is obligatory for businesses to maintain whether a business is on small, medium or on large scale. When a business fails to pay its debt, it suffers from catastrophic losses that may result in insolvency. There are so many literatures conduct on management of liquidity and its impact on company's profitability (Madushanka & Jathurika, 2018) but their main area of interest is commercial and Islamic bank, and few studies conduct on cement industry of Pakistan. This research looked at how organizations' cash conversion cycles affected their profitability and working capital had a beneficial influence on profitability, according to the findings of this study in cement firms of Pakistan and research's' independent variables are including liquidity ratios as current ratio, cash conversion efficiency, working capital to total assets and cash ratio whereas, dependent variable is profitability ratio such as return on equity.

SIGNIFICIANCE OF STUDY

The main aim of conducting the research is trying to highlight and analyze the liquidity impact on firm's profitability. The main work of management of liquidity is to keep the liquidity at certain level to achieve firm's target profitability. This research is useful to measure the influence of liquidity management and its effect on industries profitability, and to provide the firm that capability to understand their impastation of liquidity on profit of an organization so that firm become able overcome liquidity crises as the firm will know its consequences.

Research GAP:

Many studies have been undertaken on the influence of a bank's liquidity on its profitability. Similar research has looked into the impact of liquidity management and working capital management on the cement industry's profitability but only few studies conducted on impact of liquidity on profitability of cement industry of Pakistan. The impacts of working capital management on business profitability were investigated by (Björkman & Hillergren). According to Lamberg & Vålming, (2009) investigated the influence of liquidity management on profitability, focusing on the liquidity methods utilized by businesses during the financial crisis of 2007/08. Liquidity strategies had no influence on profitability, according to the study, which was focused on small-cap firms on the Stockholm Stock Exchange. However, liquidity forecasts were shown to have a favorable impact during the crisis.

Furthermore, our research varies from previous research in the following respects. To begin with, most previous research has emphasized the link between "liquidity and profitability in the framework of a financial crisis, as liquidity turn" into incredibly valuable after the crisis. Our research will focus on the above-mentioned relationships in the normal course of business, rather than under unusual circumstances such as crises.

- Determining to what extent liquidity management possess impact on profitability on the industry of cement.
- Identification of ratios of liquidity that have high impact on industry of cement in Pakistan.

LITERATURE REVIEW

The literature will cover brief assessment of what other authorities have documented on the subject of research.

LIQUIDITY:

Liquid asset are the assets that show the how a company is good in paying its short-term obligation. Liquid asset can easily convertible into cash without having any declining in their market values (Junaidu Muhammad Kurawa, 2014). The precondition of successful operation in business is efficient management. Company should assure that they are acquiring the sufficient level of liquidity to pay off its short-term obligation. Study of liquidity now being important for both internal and external analyst (Bhunia & Khan, 2011)

Now a days it is very important to sustain a liquidity level in a business to succeed in a business world. In the form of cash or in the form of liquid assets the availability of capital for investment is express liquidity. Every industry, according to the nature of business must have to sustain a proportional level pf liquidity these certain levels are determined by industry in order to achieve desired profit. Liquidity can be maintained in day-to-day operation by managers with doing a proper liquidity management in order to smoothly run their business when it comes to pay obligation or when it becomes due (Eljelly, 2004).

Many literatures were endeavored to figure out the liquidity and also managers utilize projected tactics to form a firm profitable as necessary to cater the investors. The long-established ratio that has been recognized for the computation of liquidity are current ratio and quick ratio. In a research article James A. Largay and Clyde P. Stickney characterized these two rations as static and point out their appropriateness (largay & stickney, 1980). To get a grip on this undeviating or a constant analysis other researcher suggested a high effectual measures like cash conversion cycle (Richards & Laughlin, 1980), the lambda (Emery, 1984), the net liquid balance (Cox & Shulman) From the 80's the cash conversion cycle is being suggested the most applicable and also effective liquidity ratio for computing one's firm efficiency in turning their assets into cash without losing their value of significance

PREREQUISTIC OF LIQUIDITY MANAGEMENT:

Accourding to Kaur & Janglani Stated that well developed company emphasize higher sales on the basis of few cash which impact cash flows and small companies focus on stock management and credit management policies.

For an effective management of liquidity, plaining and controlling of both current assets and liabilities is necessary to reduces the risk in meeting its short-term obligations (Mohammed, Puat, Amirrudin, & Hashim, 20 september 2020)

RISK OF LIQUIDITY:

The risks of having insufficient money were made clear by the worldwide financial crisis of 2008. The inability of a commercial bank to meet payment demands using cash or cash equivalent instruments is referred to as liquidity risk. From a market standpoint, "the failure of offsetting or unwinding one position without altering its price" is another definition of liquidity risk.

According to (Adalsteinsson), there are three basic causes of liquidity risks: the first is a systematic source, which generates external liquidity risks such as market uncertainty; the second is an

individual source, which creates liquidity risk due to bank specific factors such as bank reputational harm and bank failure; The third component, known as the technical source (timing source), causes liquidity risk by misaligning the intake and outflow of liquidity assets.

MINIMIZE RISK

If working capital was increased over time, existing assets' holding value would increase, which would have a negative impact on profitability once more. To put it another way, neither the assets nor the liabilities should be out of balance. A well-monitored minimum level of working capital at a calculated risk is usually sensible for higher profitability. (Panigrahi a. , 2014).

LIQUIDITY MEASUREMENT

Liquidity may be quantified quantitatively using a variety of indicators; nevertheless, we'll start with working capital because it's the most important factor in determining liquidity. Simply put, working capital is the money a business needs to carry out its regular business activities. Working capital can be divided into two categories, gross working capital and net working capital, according to (Sharma, 2008) While net working capital is the difference between current assets and current liabilities, gross working capital refers to current assets.

Businesses frequently use words like "cash," "short-term finance," "receivables," "inventory," "payables," "prepaid charges," and others when discussing working capital. (Sagner, 2010)

Thus, a significant subject for financial leaders to think about is WCW (Working Capital Management), which covers managing cash inflow and outflow, inventory, trade receivables, short-term finance, and other things. Working capital management is critical since it is tied to sales growth and plays an essential role in financial management (Sharma, 2008)

Working capital management is a must for good financial managers since the ability to maximize profits may be hampered/affected by an organization having too much or too little working capital. Inefficient use of cash, increased management and monitoring requirements, bad debt loss, and low profitability can all arise from having too much working capital. While a lack of operating cash would inevitably result in business disruption or termination, reputational harm, missed business chances, difficulty in dealing with unexpected crises, and so on. Even though working capital is critical to a company's survival and growth, it is nevertheless overlooked for a variety of reasons (Sharma, 2008). Strong net working capital, as one indicator of liquidity, potentially equates to high liquidity for a corporation. But it's worth noting that, while all of the words in the working capital category can account for working capital, their liquidity levels vary. Risk-bearing

securities and treasury bills, for example, have varying amounts of liquidity, even though they all fall within the category of current assets. When analyzing liquidity, it's important to pay careful consideration to the detained category of working capital.

A firm's highly liquid assets are compared to its current obligations in the cash ratio. The ratio is used to measure whether a company can satisfy its short-term obligations, or whether it has enough liquidity to continue operating. It is the most conservative of all the liquidity indicators since it excludes inventory (which is included in the current ratio) and accounts receivable (which is included in the quick ratio). If receivables can be swiftly converted into cash, this ratio may be too cautious. (Bragg, 2022)

LIQUIDITY PREFERENCE THEORY

Liquidity preference is the demand for money, defined as liquidity in macroeconomic theory. John Maynard Keynes used the notion in his book The General Theory of Employment, Interest, and Money (1936) to explain, how interest rates are determined by the supply and demand for money. Money's demand as an asset was hypothesized to be dependent on the interest foregone by not holding bonds (here, the term bonds can be understood to also represent stocks and other less liquid assets in general, as well as government bonds). Return rates, he claims, cannot be a reward for saving as if one person hoards his savings in cash, say, under his mattress, he would receive no interest despite though he has kept from spending all of his current income.

CONCEPT OF PROFITABILITY:

The discrepancy between the income produced from the sale of an output and the full opportunity cost of a factor utilized in the manufacture of that output is defined as profit (Aburime,2008:1). Because of their for-profit nature, banks' ultimate purpose is to maximize profits. According to the preceding definition, profitability is associated with two aspects: revenues earned and costs. As a result, increasing revenue and controlling costs are two strategies to improve profitability. Breakeven analysis, cost control, and ratio analysis are all examples of approaches to improve profitability in general. (Ibe, The Impact of Liquidity Management on the Profitability of Banks in Nigeria, june, 2013).

Profitability is acknowledged as an objective of business operations (the traditional concept). There are numerous publications that examine the relationship between liquidity and profitability.

(Filbeck & Krueger, 2005) investigated working capital management across industries and discovered that profitability rose due to lower financing costs caused by enterprises decreasing their current assets as a means of funding their expansion rather than releasing additional debt.

Garcia-Teruel and Martinez-Solano (2007) investigated how working capital management affects profitability**.** Their findings suggested that reducing the cash conversion cycle boosted the firm's profitability. Managers can boost the value and profitability of their company by reducing inventories and the average days accounts receivable remain outstanding, hence cutting receivables and the cash conversion cycle.

Chakraborty (2008) investigated the link concerning working capital management and business profitability in a sampling of Indian firms. He discovered that working capital was adversely associated to profitability and that an investment in working capital was required to keep the firm operational, implying that working capital and firm profitability have a positive relationship.

Singh (2008) backed up those findings by stating that inventories are the most important variable in working capital management and company profitability, thus they must be managed carefully and effectively.

In past literature, some researchers observed that profitability is more important for firms than liquidity, because profit can convertible in to liquid assets. Some researcher said that profitability is important and necessary much more than liquidity as it help firm to immediate survival, some said that liquidity is foundation for the long survival of business, and few argued both liquidity and profitability are equally needed to maintain or to achieve at the sometime. Stability of a firm is confirmed by profitability and liquidity tells that firm has enough cash for obliged payment.

LIQUIDITY AND PROFITABILITY:

Managing tradeoff between profitability and liquidity is a critical issue in today's aggressive. Competition in every industry. If the company decrease its liquidity, its profitability would increase or vice versa studies that supported the trade-off theory are: El jelly confirm the negative relation of profitability and liquidity by applying regression and correlation analysis on the sample Saudi Arabia companies (Eljelly, 2004) other authors also confirms the negative relation included (Deloof, 2003). On the other hand, some studies support that there is a positive link between profitability and liquidity which shows tradeoff theory of profitability and liquidity infirm. (Niresh, 2012) in his article "From 2007 to 2011, 31 listed manufacturing enterprises in Sri Lanka had a

cause-and-effect link between liquidity and profitability." discover no exceptional "relation between current ratio, quick ratio, and cash ratio and profitability ratios proxied by net profit, capital return employed, and ROE. Also, in their study "also, (Md Kaysher Hamid, 2016) found no distinct relation between liquidity and profitability in "pharmaceuticals and chemical sector of Bangladesh".

LIQUIDITY AND PROFITABILTY:

As previously stated, bank's view wealth boosting as their ultimate aims, and many studies (albertazzi & Leonardo, 2010)(Albert Azzi & Gambacorta, 2009, Pasi Ouras & Kosmidou, 2007, Stir hand Rumble, 2006) "focus on the factors that influence bank profitability, while only a few looks at the relationship between liquidity and profitability.

RESEARCH HYPOTHESES:

H1 (a): current ratio has an influence on profitability.

H2 (a): cash conversion efficiency has an influence on profitability.

H3 (a): cash ratio has an influence on profitability.

H4 (a): working capital to T/A has an influence on profitability.

RESEARCH METHEDOLOGY:

This chapter describes the research's methodology in detail. The procedure for data collection and the sample strategy employed have both been described. This research is quantitative and casual in nature. Our procedure in research is explanatory because research focal point is to find out the correspondence between variables and their impact on IVs and DV. Research collection data through secondary source, financial statements for 10 years' data will be used form PSX listed companies of cement sector of Pakistan.

COLLECTION OF DATA:

Data collection is the process of obtaining information from all pertinent sources to pinpoint solutions to the study's problem, verify the hypothesis, and analyses the findings. On the other side, data gathered from sources that already exist are referred to as secondary data. Secondary data includes both public and published information. Information gathered and maintained by organizations to support their operations makes up most secondary data to interact with various parties regarding crucial issues and to conduct operations. Payroll information, meeting minutes, reports, and etc. all include vital information for academics (Saunders, Lewis, & Thornhill). Most

of the time, secondary data is less expensive. When compared, it is easier to access and enables the researcher to quickly obtain information. The disadvantages of secondary data include the possibility that they were gathered for purposes unrelated to those of the research, which might make them insufficient or unsuitable to respond to the question, if necessary, supervisions not taken. Additionally, the investigator or analyst has no command on the caliber of the data utilized, and sometimes it might be challenging to get secondary data (Saunders, Lewis, & Thornhill).

Prior to determining one of the two data sources to use for our investigation, we weighed the advantages and disadvantages of each. We chose secondary data since it suited our study aims and query. This is because the purpose of our study is to analyses how liquidity affects the profitability of cement firms and secondary data will make it possible to carry out the study effectively and efficiently. Due to the size of the data set required to complete our study objectives, high-quality data must be employed in the analysis.

It would be ineffective and impossible to try to get this type of data using traditional data collecting techniques. Additionally, our study covers five companies that have different operational units in different provinces of Pakistan. Therefore, it is quick and effective to analyze secondary data from these institutions that is present in their reports.

QUANTITATIVE DATA COLLECTION:

A quantitative study is the best type of research strategy for this kind of inquiry. OPENDOORS, a corporate information and research service maintained by (Shah, 2009), is where empirical data was gathered. Open doors secondary data is of very high caliber and dependability. This is due to the fact that the database's material is gathered for all listed companies on Pakistan stock exchange different sources and is extract, processed, and compiled by a committed group of professionals. Open Doors was used in addition to documents.pub (United States Documents, n.d.) to gather data for our study.

SAMPLING:

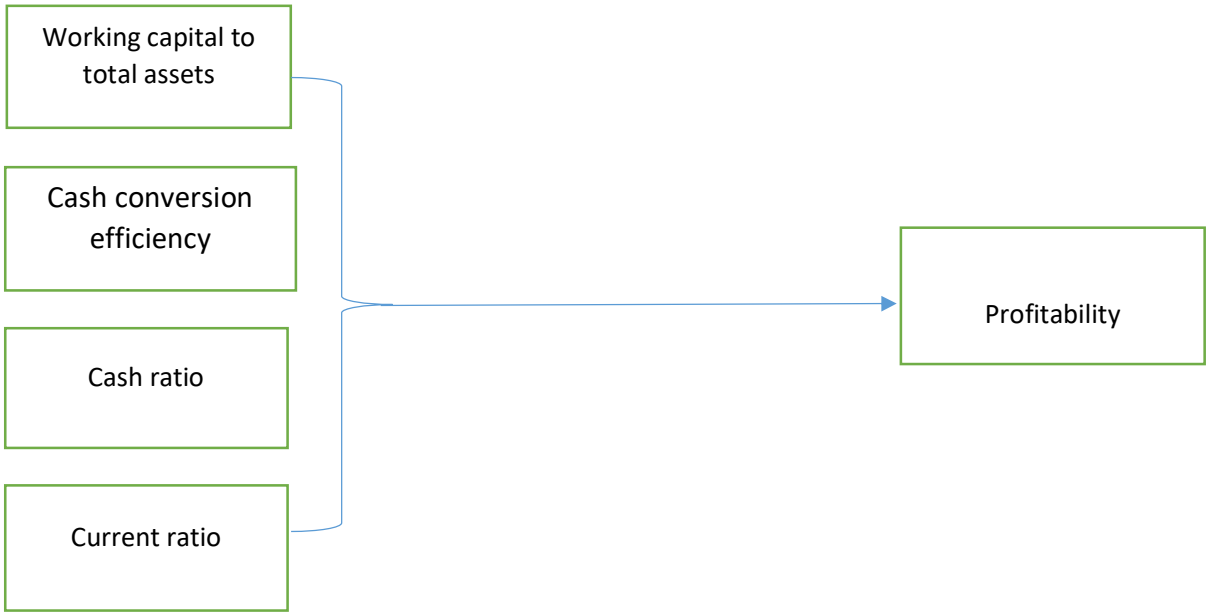
When performing research, it is typically impossible to gather the data necessary on a sizable group of people or things in order to be able to analyze or respond to all of the questions. Due of this, only a tiny portion of the whole collection of goods is with the use of sampling, chosen. It is significant to notice that the chosen sample for a certain demographic need to be representative of

the population. If the sample is adequate, then conclusions that apply to the entire group or population may be reached population (Walliman, 2011).

A non-probability sample (judgmental sampling) shall be used for objectives related to achieving our study goal. The chosen sample will provide relevant data with which to examine the study issue and theoretical considerations. (Saunders, Lewis, & Thornhill). . This study primarily focuses on the cement industry of Pakistan, hence from the population of 22 listed companies top four cement companies taken under to make up our sample. All these five companies are listed on Pakistan stock exchange. Additionally, a ten-year period from 2010 to 2019 will be taken into account for our analysis.

CONCEPTUAL FRAMEWORK

INDEPENDENT VARIABLE **DEPENDENTVARIABLE**



The framework shows independent and dependent variable, independent variable includes liquidity ratios as current ratio, cash conversion efficiency, working capital to total assets and cash ratio whereas, dependent variable is profitability ratio such as return on equity.

RESULT AND DISCUSSION:

The significance of analyzing and interpreting previously developed models is highlighted in this section. We only use secondary sources of information.

CORRELATION

Table no: 1

	ROE	C	CASH_CON...	CASH_RATIO	CURRENT...	WC_TO_TO...
ROE	1.000000	NA	0.592694	0.088835	0.280116	0.222166
C	NA	NA	NA	NA	NA	NA
CASH...	0.592694	NA	1.000000	0.336991	0.358300	0.286911
CASH...	0.088835	NA	0.336991	1.000000	0.649389	0.304833
CURR...	0.280116	NA	0.358300	0.649389	1.000000	0.865005
WC_T...	0.222166	NA	0.286911	0.304833	0.865005	1.000000

values for correlation coefficients are always in the range of +1 to -1. a correlation value of +1 represents an ideal association between the dependent and independent variables, whereas a correlation coefficient of -1 implies an ideal negative correlation. a correlation value of 0 indicates that the dependent and independent variables have no relationship. dependent and independent relationships should be closer to 1, while independent and independent relationships should be closer to zero. correlation shows the relation between iv's and dv's. all ratios' values explain itself as positively correlated with dependent variable roe (return on equity). these four-liquidity ration that we use as our predictors cash conversion efficiency (CCE), cash ratio (Csh-R), current ratio (cr) and working capital to total assets (WCTA).

independent variable CCE is strongly positively significant relation with roe having a value 0.592 and the interaction term of CCE is also shows positive correlated with cash ratio, current ratio and WCTA with having values 0.336, 0.358 and 0.286 respectively.

current ratio having (0.28011) has a moderate positive relation with roe and highly correlated with WCTA (0.865) and cash ratio (0.648).

WCTA is significantly low positive correlated with roe with a value of (0.222) and strong significant relation with current ratio, since all independent variables are measured with current assets or current liabilities therefore, there result shows a strong correlation with each other.

REGRESSSION ANALYSIS:

Table no:2

Dependent Variable: ROE
Method: Panel Least Squares
Date: 12/30/22 Time: 15:40
Sample: 1 40
Periods included: 4
Cross-sections included: 10
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.361135	0.111808	-3.229965	0.0027
CASH_CONVERSION_EFFICENCY	1.230762	0.276359	4.453485	0.0001
CURRENT_RATIO	0.147174	0.072162	2.039485	0.0490
CASH_RATIO	-0.142155	0.062811	-2.263242	0.0299
WC_TO_TOTAL__ASSEST	-0.504545	0.313616	-1.608797	0.1166

R-squared	0.438876	Mean dependent var	0.134405
Adjusted R-squared	0.374748	S.D. dependent var	0.226066
S.E. of regression	0.178757	Akaike info criterion	-0.489113
Sum squared resid	1.118390	Schwarz criterion	-0.278003
Log likelihood	14.78225	Hannan-Quinn criter.	-0.412782
F-statistic	6.843704	Durbin-Watson stat	2.200585
Prob(F-statistic)	0.000352		

Equation

Roe= a +b1cce +b2cashratio + b3CRR + b4WC/TA + e

ROE = -0.361 +1.230 -0.142+ 0.147 -0.504

BREUSCH-PAGAN TEST:

Table no: 3

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.117968 (0.7312)	0.452977 (0.5009)	0.570945 (0.4499)
Honda	0.343465 (0.3656)	-0.673036 (0.7495)	-0.233042 (0.5921)
King-Wu	0.343465 (0.3656)	-0.673036 (0.7495)	-0.411134 (0.6595)
Standardized Honda	0.646106 (0.2591)	-0.051376 (0.5205)	-3.135835 (0.9991)
Standardized King-Wu	0.646106 (0.2591)	-0.051376 (0.5205)	-3.199521 (0.9993)
Gourieroux, et al.	--	--	0.117968 (0.6013)

in this breusch pegan test it shows that pols is appropriate for our data. If p-value is greater than 0.05 then accept the null hypothesis and go for pols, if p-value is less than 0.05 then reject null hypothesis and go for random or fixed effect. here we have the value greater than 0.05 we will continue our research based on pols.

So, the coefficients of the variables shown in table 4.21 indicate that all the forecaster variables make addition to the variation in the criterion variable, at different degrees of significance. for instance, cce makes the highest contribution to the prediction of the roe with a coefficient of 1.23. The association between the dependent variable, roe and the independent variables, and their influences on profitability is presented in table 4.21. Table 4.21 explains an increment in cce by 1 unit; the roe increased by 1.23 units that were statistically significant. Table 4.21 also shows that when cr increased by one unit, the roe increased by 0.147 units, which was statistically significant. the relationship between cash ratio and roe is significantly negative. When cash ratio increases, the roe decreases by 0.142. The consequence of this outcome is that if the effect of the other independent variables is in control, the cash ratio will bear a negative relationship with roe, even though it is highly significant. Working capital also has negative relation with dependent variable. it is shown in table that the multiple correlation coefficients between the dependent variable ROE

and the independent variables CASH RATIO, CR, WCT and CCC was 0.361 negatively significant. It recommended that profitability is moderately acknowledged by its CR, QR and CCC. R-Square value is 0.4388, which suggests that 44% of the dependent variable's change was caused by changes in the independent variable. In other words, the return on equity is affected by the following variables in combination: current ratio, working capital to total asset, cash conversion efficiency, and cash ratio. The error term is responsible for the remaining change. Adjusted R-square value is 0.37.

F-Statistics is a method for evaluating the general applicability of a model, especially when there are many independent variables. F statistics show cumulative effect of all independent variables on dependent variable. If probability value of F-stats is greater than 0.05 or 5% it portrays high error, chances and we could express that cumulative effect is insignificant on the other vice versa. Regression table shows the result of p-f statistic is 0.0003 which is less than 0.05 so, regression model is significant. Durbin Watson stat is 2.20 giving indication that the model doesn't have any autocorrelation.

CONCLUSION:

The authors of the ongoing study investigate the influence of liquidity on profitability in Pakistani cement firms. The technique was developed in accordance with earlier studies in this field, including those by (Adesina Olufemi Dadepo, nov, 2020; Khaldun, 2014)

Composed firms that have been recorded under PSE for the years 2010 through 2019 are chosen as the population for this study, and a sample of 4 companies has been collected from that population. Data from the balance sheet and income statements of the allegedly documented corporation from 2010 to 2019 are needed for analysis.

Therefore, managing the trade-off between liquidity and profitability is a significant issue. In order to obtain the best returns, it is vital for every organization to maintain the balance between profitability and liquidity. The goal of this study was to investigate the theoretically dubious profitability/liquidity trade-off. Interestingly, the study discovered that the liquidity ratio had a dual impact on the profitability of the chosen cement firms employed in the study—both positive and negative.

RECOMANDATION:

According to the study's findings, management is advised to pay close concentration to liquidity management in order to increase sales to the company, which would result in profitability. Conductive to improve the posture of liquidity and increase potential to make max profit, the government should also create an environment which allows manufacturing enterprises to access credit from financial institutions and industrial development organizations at a reasonable cost. It is also recommended that more research be done on the same subject but in a new industry and with a larger sample size.

FUTURE RESEARCH OF AREAS:

Future research should make an effort to increase the analysis trend in order to ascertain how liquidity management impact profitability over time and should also utilize a new model to demonstrate the association between liquidity management and profitability.

LIMITATION:

We would like to make it clear that, mainly there are three limitations of this study, which are as under: The study is confined to ten years data only, I. e. from 2010–2019, therefore, a detailed analysis covering a lengthy period, which may give slightly different results has not been made The study is based on secondary data collected from the website www.opendoors.com and the websites of sample companies; therefore the quality of the study depends purely upon the accuracy, reliability and quality of the secondary data source. The study is based on four companies of the Cement Industry in PAKISTAN that are also drawn from the companies listed in PSX. Therefore, the accuracy of results is purely based on the data of sample units If one takes more sample units the results may go slightly differently.

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