A Comparative Financial Liquidity Analysis of Fatima and Fauji Fertilizer Companies Limited

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Abstract

The primary purpose of this research is to reasonably study the liquidity position of two major organizations in the fertilizer sector, namely Fatima and Fauji Fertilizer Companies Limited. The annual secondary panel data was taken from 2010 to 2018. For that, annual published reports were collected from the official website of the State Bank of Pakistan. The Excel tool analyzed the data through tables and bar graphs. However, the results concluded that the financial position of Fauji fertilizer was better in terms of liquidity management than Fatima fertilizers. Therefore, Fatima Fertilizer is advised to improve its liquidity position, which may simultaneously reduce its business risk. Otherwise, it will be damaging to its business. However, liquidity plays an essential role in business, so both companies must invest in the most liquid assets, such as the T- bills and other marketable securities, to improve their liquidity position. Finally, both companies must try to improve their net profit as well.

Keywords: Liquidity Position, Liquidity Ratios, Current Ratio, Quick Ratio, Cash Ratio.

Introduction

Pakistan is considered mainly an agricultural country and about 70% of its total economy depends on agriculture. Agriculture plays a significant role in Pakistan's economic growth and development. It serves as a critical element and backbone in the country's development. It is typically observed to be a strong pillar of economic growth and development. Agriculture is essential in the sustainability of social life for all developing and developed countries. There are specific reasons for low productivity in these income-growing countries: Poor forming, soil degradation, soil erosion alkalinity, mismanaged water system, depletion of water, land distribution, poor farming practices, low understanding of agricultural products and so on.

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Fertilizer

These chemical products increase productivity and make the soil more fertile. Fertilizer technology is developed due to the rising need for chemicals for growing plants than earlier by farmers. Owing to the use of fertilizers, farms have become capable of producing a consistently high level of production. Agricultural inputs are responsible for producing about 40% -60% of all food (Huyum, 2019). According to a report by the African Union in 2006, it is impractical to increase agricultural growth without the increasing use of fertilizers (African Union 2020). Fertilizers help to change the weak agricultural crop to profitable agrarian productivity. One major problem our farmers face nowadays is low crop yield due to the need for agricultural knowledge given the latest technology and lower mineral techniques. Therefore, the region's agriculture field officers should be deployed to educate and disseminate awareness to the farmers regarding the chemical fertilizers that can effectively counter crop disease and help to increase productivity.

Fertilizers are chemicals that help grow plants quicker than earlier, sometimes before the time. There are two types of fertilizers: organic and inorganic fertilizers, which contain the elements of Nitrogen (N), Phosphorus (P), Zink (Z), Boron (B), and Sulphur. These ingredients play an essential role in fertilizers. Whereas Nitrogen provides immediate green impact, a sign of good fertilizer according to farmers, phosphorus helps in root growth and energy transfer activities within the plants and crops.

History of Pakistan Fertilizer Industry

With the development of the West Pakistan Industrial Development Corporation (WPIDCs), this plant was for single super phosphate at Lyallpur and is currently located in Faisalabad. The plant for ammonium Sulphate was established at Daud and Khel Fertilizers in Pakistan in 1957. In Multan, WPSIDC established another factory for the production of ammonium nitrate and urea during the period by 1962.

Esso: currently known as Engro, which established the first plant in the private sector that went into production in late 1968. Dawood Hercules at Chicho-ki Mallian was another private sector plant established in 1971 and before the separation of East and West Pakistan. However, the separation of East Pakistan was a massive catastrophe for the entire country but luckily not for the fertilizer industry; even though the agriculture sector was not that prosperous at the time of the separation of East Pakistan, it had its large set up in West Pakistan (Masood, 2021).

The fertilizer industry has faced a lot of financial crises because East Pakistan has the most significant wealth. Almost 80% of the wealth was in East Pakistan. East Pakistan's separation was one of the reasons that the Fertilizer Company could not boom up to that level. Low demand is another reason, as organic fertilizers were used to fulfil needs. At the time of the separation of East Pakistan, Dawood Hercules (established in 1968), National Gas & fertilizer (1968), and Esso (currently named Engro, established in 1965) were three companies that were surviving.

Seven key players in the fertilizer sector are listed on the Pakistan Stock Exchange. These are given below

1. Engro Fertilizers Limited
2. Fatima Fertilizer Limited
3. Fauji Fertilizer Limited
4. Fauji Bin Qasim Limited
5. Dawood Hercules Fertilizers Limited

6. Pak Arab Fertilizers Limited
7. Agritech Fertilizers Limited

However, our target research studies are based on the following two companies:

Fatima Fertilizers Limited

On December 24, 2003, Fatima fertilizer was documented as a combined effort of two chief business groups. One is the Arif Habib Group, and the other is the Fatima Group. This merged group thoroughly combined manufacturing capabilities. It was proficient in producing two intermediary products, ammonia and nitric acid. Four finishing products were urea, calcium ammonium nitrate, nitro phosphate (NP) and nitrogen phosphorus potassium (NPK) at Sadiqabad, Rahim Yar Khan.

Fauji Fertilizer Limited

In 1978, FFC was recognized as an undertaking of two business units, Fauji Foundation and Haldor Tapsoe. In 1982, the first urea compound was ordered. 1992, the first plant was enhanced, and in 1993, a succeeding plant was established.

In 2002, when the government of Pakistan started the privatization method, FFC purchased the Pak Saudi Fertilizers Limited (PSFL) urea plant from the National Fertilizer Corporation, positioned at Mirpur Mathelo, district Ghotki.FFC purchased this plant from a national fertilizer corporation at Rs 8151 million, a leading transaction in the industrial sector. Now, FFC owns three plants with a collective capability of 5770 MTPD of pilled urea.

Problem Statement

Lee (2022) reported that most of the research on corporate finance focuses on long-term assets and liabilities. Still, the short-term assets and liabilities study needs to be addressed partly. The literature from venous studies justifies the need to effectively manage short-term assets and liabilities to help achieve the established goals of a particular business. Therefore, this project aims to see the liquidity position of Fatima fertilizer and Fauji fertilizer, as these are the largest fertilizer-producing companies in Pakistan. So, after this project analysis, we will know which one is effectively managing its current assets, which is effective in managing its working capital, and what its role is in the fertilizer sector. Lastly, it would be suggested which is vital in the liquid position and which one should still develop its liquidity position.

Study Objectives

Liquidity is a critical element in the accomplishment and failure of any business. So, this study will comparatively examine the liquidity of Fauji fertilizer and Fatima fertilizer by applying liquidity ratios; both are leading businesses in the fertilizer sector of Pakistan. The objective of the study is to evaluate the liquidity of both companies; as we know, current assets and current liabilities play a significant role in the liquidity management of the company, so here I recognize how both companies are effectively

managing their current assets and how companies are efficient in paying their short term liabilities. This study will undoubtedly tell us about the liquidity position of Fauji fertilizer and Fatima fertilizer and give us a clear picture of which one is effectively using its liquid assets and which one is in a better liquidity position. I will also advise either of them to develop their liquidity position.

Literature Review

Management of Liquidity

Nujure (2020) suggested that we can define liquidity as a firm's competency to repay its current liabilities and convert its current assets into cash deprived of attainment of any loss. A firm can only be fully fledged if it has suitable liquidity measures. The current ratio, quick ratio and cash ratio have imperative parts in liquidity ratios and play countless roles in the liquidity activities of any firm (Hinson et al., 2024). We can discover the current ratio by dividing its current assets by its current liabilities, while the cash ratio can be obtained by adding cash + marketable securities + cash equivalent. Lastly, the figure can be divided by the current liabilities in the account.

Similarly, the quick ratio can be found by dividing cash account receivables by current liabilities (Williamson, 2022). The primary emphasis of most companies is on liquidity ratios, as they support the completion of business tasks on a calendar basis. A firm must have a resourceful volume of liquid assets to run any business and efficiently compensate for its routine expenses. It will be unbreakable for a specific company to attain listed objectives if it has unsatisfactory or surplus liquidity. A firm cannot achieve profitability by holding too many current assets, as liquidity and profitability have an inverse relationship. So, a firm must have the most favourable level of liquidity to manage liquidity and profitability ratios.

According to Canina et al. (2019), liquidity management plays a central role in attracting investors who will finance in the short term; mainly, short-term investors analyze the liquidity position of a firm. Liquidity assessment is helpful for investors and creditors as it tells us whether the firm is in a better surviving position. Financial statements are used to explore the liquidity position of any firm. The industry average is used to measure the performance of any business. A firm's liquidity ratios must be greater or equal to the industry average; otherwise, it may face problems with liquidity. Liquidity ratios explain whether the firm is in a position to meet its day-to-day expenses or not.

To attain long-term goals, the accomplishment of short-term objectives is obligatory. Two things are central to the execution of short-term objectives. Firstly, a firm must be able to meet its cash requirements, and secondly, it must have those types of liquid assets that can be easily converted into cash without incurring any loss. Liquid assets play an essential role in maintaining the liquid position of any firm. They are always reported first in the balance sheet according to their easiness of converting into cash, for example, money, accounts receivable and inventory in almost every manufacturing firm (Bureau et al., 2024).

Nujure (2020) explained that Liquidity may be defined as a firm's competency to pay its current liabilities and easily convert current assets into cash exclusive of getting lost. A firm can only grow up if it has suitable liquidity arrangements. The current ratio, quick ratio, and cash ratio are the essential ratios which can play a significant role in the liquidity management of any firm. The current ratio can be obtained by dividing current assets by its current liabilities (Hoshi, 2018). We can get the cash ratio by adding cash plus cash equivalents plus marketable securities and dividing the sum by current liabilities. The quick ratio can be obtained by dividing cash plus accounts receivable by current liabilities.

Companies deal with liquidity ratios in a well-organized way as liquidity ratios help to accomplish business operations on a schedule base. Successfully leading a company must have sufficient capacity to pay its short-term liabilities. A company can only be in an excellent liquid position if it has satisfactory or surplus liquidity and can accomplish stated objectives. There is an inverse

relation between profitability and liquidity. A firm cannot achieve profitability by holding too many liquid assets. It is necessary to have the most favourable level of liquidity to manage liquidity and profitability ratios.

Canina et al. (2019) explained that liquidity management plays a vital role in attracting investors because when investors are going to invest for a short period, they generally analyze the liquidity position of a firm. So, liquidity assessment is essential for investors and creditors. It tells whether the firm is in a better survival position or not. Financial statements are helpful for both investors and creditors in analyzing the liquidity position of a firm. A firm is better positioned if its liquidity ratios are equal to or greater than the industry average. Liquidity ratios tell us the firm is positioned to meet its daily expenses.

Before achieving long-term goals, it's necessary to meet the short-term objectives of a firm. To achieve short-term objectives, the firm must be able to fulfil its cash requirements. Secondly, the firm must have those types of liquid assets which can be converted into cash without bearing any loss. Liquid assets play an essential role in managing the liquidity position of a firm and are always reported first in the balance sheet. Cash, accounts receivable, and inventory are the most liquid assets in almost all manufacturing firms.

Management of Liquidity in Financial Institutions

Rais and Majid (2021) suggested that financial institutions mainly emphasise liquidity management. Liquidity management is theism's ability to meet day-to-day expenses. So, less liquidity is a significant risk for Islamic and commercial banks as less liquidity increases the chances of liquidity risk, bankruptcy, and bank default. Liquidity management is the art of the number of firms that could not maintain their liquidity position and faced business failure. Because of this, liquidity management is a significant input factor in financial institutions. Money markets help meet the short-term obligations of banks because they are where securities can be traded. For this reason, most banks focus on the money market to pay their liabilities

Management of Current Assets

For the well-being of any business, a business must hold more considerable assets than its liabilities. A company with more current assets can quickly meet its short-term liabilities. An increase in liabilities may damage the business because an increased liability concerning assets shows that the company cannot meet its short-term liabilities. In 1996, Deloof and Jegers defined that the primary motive of any business is profit maximization, and liquidity management is undoubtedly also of great importance (Bialowolski et al., 2024).

An increase in liquidity only sometimes means profit. Sometimes, an increase in liquidity brings less profit to a business. On the other hand, if a firm is not managing its liquidity well, it's also harmful to business. So, the best possible level of managing liquidity helps determine the liquidity and profitability of a company. Assets are of two types: current and noncurrent assets; current assets are used in daily operating activities. A firm may bring its long-term assets at rent, but they have to bear the cost of current assets (Nazir, 2022).

A firm cannot reduce liquidity risk only by investing in current assets; the effective management of current assets is also significant. Sometimes, high investments may shrink risk but may also reduce profit margin; a firm must invest at the particular most advantageous level into current assets so that the profit of a firm may not be cut. Every business needs to measure its current assets and liabilities in this censor period. Every company tries to calculate its current assets continuously

because current assets are used to accomplish daily business operations. Day-to-day proceedings help a firm to achieve short-term objectives. To attain long-term goals, the accomplishment of short-term objectives is compulsory.

Cash Management

According to Owolabi and Obida (2020), cash management is one of the key factors of liquidity management, and it helps a firm achieve profitability. Every firm must have The lowest cash level to meet every day routine expenses. The majority of firms need more complexity in managing their minimum cash level. On the other hand, substantial cash shows a firm's inefficiency, so firms must hold sufficient money to manage day-to-day expenses (Harsono, 2024). Cash management is dependent on the nature and environment of a particular business such as financial institutions requires most liquid assets as compare to non-financial institutions and some of the trading and producer companies also hold a good amount of liquid assets and cash. Shah and Sana (2022) suggested that, Working capital is used as a important factor for the recognition of liquidity position of any a firm.

Panighari (2021) explained that in earlier time foremost emphasis of several firms was on capital budgeting but now major attention of every industry is the management of proficient working capital. Working capital is equal to current assets minus current liabilities. Positive working capital tells that a firm’s current assets are exceeding then its current liabilities. Negative working capital demonstrates that a firm has additional liabilities as compare to its current assets.

Panighari (2021) according to him maintenance of positive working capital is good for surviving of any business otherwise; business will face complicatedness in future. Firms must hold sufficient amount of liquid assets to meet daily routine expenses for example cash for the wagers salaries and other daily scheduled expenditures. A positive cash flow is necessary for the ongoing of business; business may face difficulty in future if it has downbeat cash flow. If profitability of any firm is on the rise or it is growing it means firm has positive cash flow, on the other hand negative cash flow shows firms profit is diminishing and firm is facing cash difficulties.

Data and Methodology

Annual secondary data of liquidity ratios from 2010 to 2018 of two fertilizer firms, one of them is Fauji fertilizer and the other one is Fatima Fertilizer Company, have been examined. Those are listed on the Pakistan stock exchange. For the literature review, the recent diverse articles of unliked writers were considered to identify their points of view. Those published in reputable impact factor journals. Data on these firms was collected from the annual published reports from the State Bank of Pakistan. For data analysis, Excel software has been used to explore results more straightforwardly to explain the results and reach this research's final findings and conclusion, as is the case in most other studies.

Data Analysis

Analysis of the data is based on the following table 1 and table 2 as shown comprehensively below:

Table 1: Ratio analysis of Fatima fertilizer company Ltd.

Fatima Fertilizer Company Ltd

Liquidity Ratio	2010	2011	2012	2013	2014	2015	2016	2017	2018
Current Ratio	0.64	0.84	0.68	0.76	0.97	0.68	1.03	0.93	0.89
Quick Ratio	0.08	0.41	0.09	0. 02	1	0.43	0.78	0.75	0.69
Cash Ratio	0.04	0.39	0.08	0.02	0.06	0.03	0.3	0.04	0.023
Mean	0.25	0.55	0.28	0.27	0.68	0.38	0.7	0.57	0.53
S. Deviation	0.33	0.25	0.34	0.43	0.49	0.33	0.37	0.47	0.45

Table 2: Ratio analysis of Fauji fertilizer company Ltd.

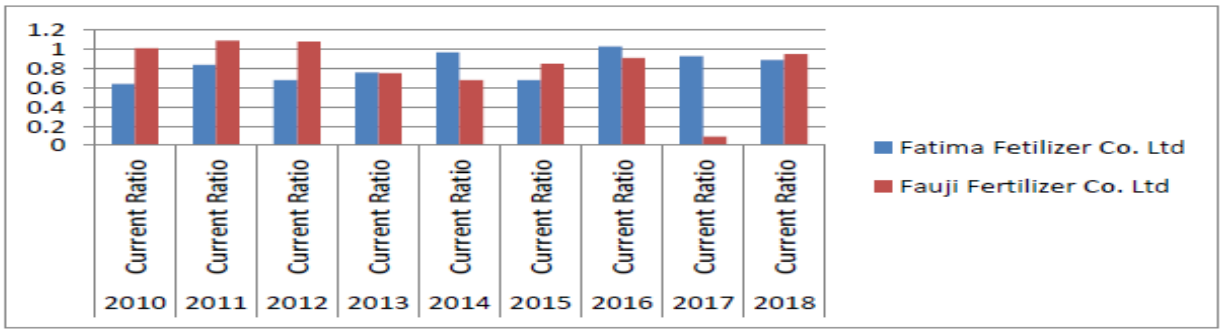
Fauji Fertilizer Company Ltd

Liquidity Ratio	2010	2011	2012	2013	2014	2015	2016	2017	2018
Current Ratio	1.01	1.09	1.08	0.75	0.68	0.85	0.91	0.09	0.95
Quick Ratio	0.81	0.86	0.82	0.58	0.65	0.71	0.86	0.09	0.9
Cash Ratio	0.39	0.16	0.26	0.08	0.09	0.26	0.13	0.006	0.04
Mean	0.74	0.70	0.72	0.47	0.47	0.60	0.63	0.06	0.63
S. Deviation	0.32	0.48	0.42	0.35	0.33	0.31	0.43	0.05	0.51

Current Ratio

From the current ratio shown in figure 1, we will know whether the firm has enough current assets to meet its liabilities. The current ratio of Fatima fertilizer was 0.6 in 2010, and it increased slightly in 2011 by 0.84. in 2016, it again increased by 1.03; in 2018, it decreased by 0.89 overall; it did not reduce too much. While the current ratio of Fauji fertilizer in 2010 was 1.01, it declined in 2013 by 0.75, and again in 2014, it decreased by 0.68. In 2018, it increased by 0.95. As we compare and conclude that the overall current ratio of Fauji fertilizer is more effectively managed than Fatima fertilizer, we can say the Fauji fertilizer is better at managing the current ratio than Fatima fertilizer.

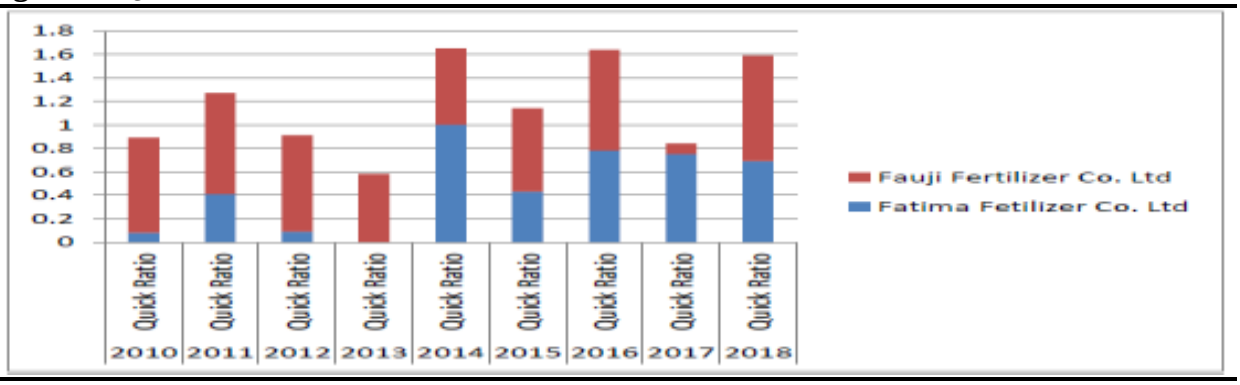
Figure 1: Current ratio



Acid Test Ratio or Quick Ratio

It tells us about that how liquid assets are effectively used to meet its short term liabilities. As the Fig.2 shows the Quick ratio of Fatima fertilizer in 2010 was 0.08 and it continuously decreased from 2011 to 2013 and in 2014 it increased by 1 and lastly in 2018 it lower side by 0.69. Quick ratio of Fauji fertilizer in 2010 was 0.81 and it lower side by 0.58 in 2013 and again increased by 0.65 in 2014 and in last it again increased by 0.9 in 2018. In terms of comparison and conclusion we will able to know that Fauji fertilizer is managing its quick ratio very well as compare to Fatima fertilizer.

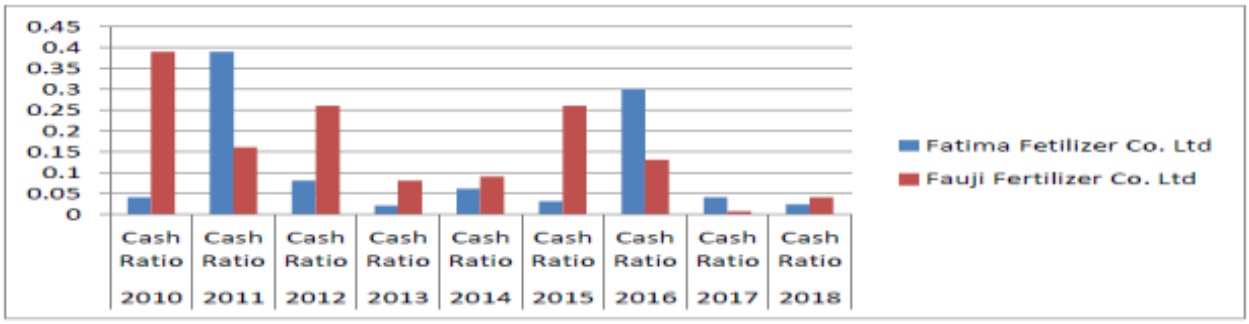
Figure 2: Quick ratio



Cash Ratio

It tells us that either the firm has ready cash to meet its routine basis expenses or not. As the fig.3 shows that in 2010 cash ratio of Fatima fertilizer was 0.04 and in 2013 it decreased by 0.02 and again it increased in 2017 by 0.04 and at last in 2018 it again decreased by 0.023. Cash ratio of Fauji fertilizer in 2010 was 0.39 and overall from 2011 to 2014 it decreased and again in 2015 it increased by 0.26 and then it again lower side and in 2018 it was 0.04. If we compare and conclude the cash ratios of both companies, we will come to know that cash ratio management of Fauji fertilizer is somehow better than Fatima fertilizer. Further it can be shown in graph which can clearly identify the cash ratios of both these companies.

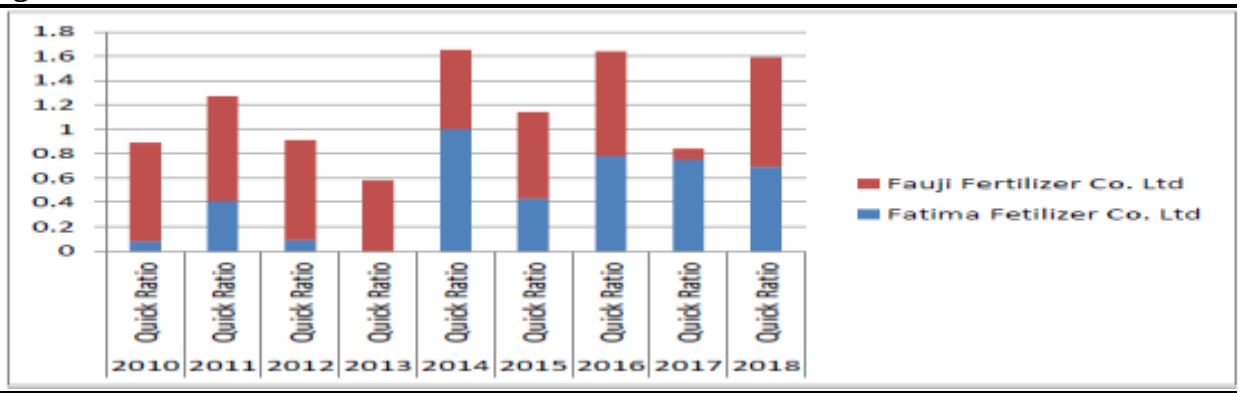
Figure 3: Cash ratio



Mean of Liquidity Ratios

The arithmetic mean is an average of all numeric values. From 2010 to 2018 average value of each liquidity ratio is identified by using these we can clearly identify liquidity of both companies as reported in fig.4 Average value of Fatima fertilizer was 0.25 and it increased in 2011 by 0.55 from 2012 to 2013 it decreased again in 2014 it again increased and at last in 2018 arithmetic mean of Fatima fertilizer limited was 0.53. While arithmetic mean of Fauji fertilizer Ltd was 0.74 by 2010 and in 2013 it diminished up to 0.47 and in 2018 it was 0.63 overall it decreased from 2011 to 2018. In terms of contrast arithmetic mean of Fauji fertilizer is better than Fatima fertilizer. Graph is revealed further.

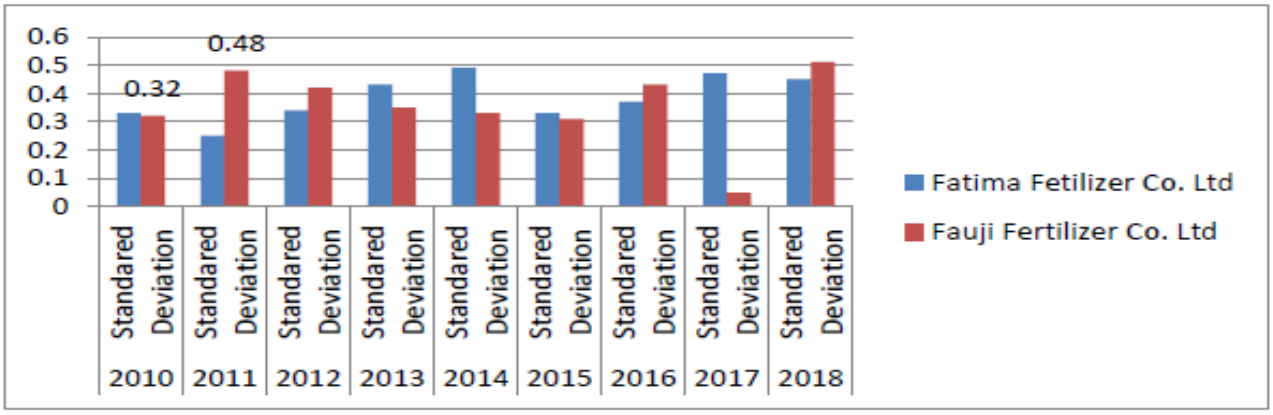
Figure 4: Arithmetic mean



Standard Deviation

Mostly for the measurement of major risk in business standard deviation is used. So logically for the measurement of risk we have calculated the standard deviation of both companies after researching it is identified that risk of Fatima fertilizer overall increased from 2010 to 2018 as demonstrated by fig.5. As talking about Fauji fertilizer its risk is increased from 2010 to 2012 by 0.32 to 0.42and in 2015 its risk decreased by 0.31 again in 2017 it decreased by 0.05 and in last in 2018 it increased by 0.51. As we compare to both of the companies, it will be concluded that risk of Fatima Fertilizer Company limited is higher as compare to Fauji fertilizer company Ltd.

Figure 5: Standard deviation



Conclusion and Recommendations

The findings of this research hold significant importance due to their direct relevance to the research questions, which are crucial for understanding and assessing the financial health of Fatima and Fauji Fertilizer Companies Limited.

This research contributes directly to practical decision-making processes. Investors, management, and other stakeholders can use the findings to make informed judgments about the financial health and risk management strategies of Fatima and Fauji Fertilizer Companies Limited.

Therefore, the primary focus of this analysis is to compare the liquidity position of both Fatima and Fauji fertilizer companies limited. The panel secondary data for the sample period from 2010 to 2018 have been taken for comparison. Therefore, the final result concluded that the liquidity position of the Fauji Fertilizer Company was better. Keeping in view the different management of all liquidity ratios, such as cash, quick, and current ratios, the average performance result of all the liquidity ratios was done to ensure the same result. This result concluded that the average performance of the Fauji fertilizer company was also better than that of the Fatima fertilizer company. Therefore, the standard deviation of Fatima fertilizer is high compared to that of Fauji fertiliser, which is unsuitable for a company that shows that the business is at a higher risk. Overall, the liquidity management position of Fauji Fertilizer is good. Further, Fatima Fertilizer is advised to improve its liquidity ratios and reduce its business risk.

The literature often advocates for the practical relevance of liquidity ratios in evaluating a company's ability to meet its short-term obligations. This research aligns with this perspective, as the analysis focuses on cash, quick, and current ratios, demonstrating their practical utility in the context of the fertilizer industry.

However, liquidity plays an essential role in business, so both companies must invest in the most liquid assets through t-bills and other marketable securities to improve their liquidity position. Finally, both companies must try to improve their net profit as well.

This research only considers the sample data of nine years. So, for future research, it is advised to increase the period and more companies from the fertilizer sector. This will bring more accurate results for firms in Pakistan's fertilizer sector.

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