



**A comparative financial performance assessment study of selected ceramics companies in Bangladesh using ratio analysis**

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**Abstract:** Financial performance assessment assists a company to measure financial performance, to compare the performance and to take corrective actions if needed. This study aims to assess the financial performance of three opted ceramic companies (RAK, Shinepukur and Monno ceramics) of Bangladesh during the years from 2013 to 2016. Ratio analysis (liquidity, profitability and solvency ratio) has been used to achieve that goal. And the data have been taken from the annual reports of those companies for the reported period. The study found that RAK ceramics is performing better throughout the periods in terms of all the parameters liquidity, profitability and solvency in comparison to other two companies. Monno is found in second and Shinepukur is in third position according to their financial performance. Especially in terms of profitability Shinepukur is doing its worst business as it is found incurring loss year after year. So Shinepukur and other two companies also have been given some recommendations for their better performance in future. The study also suggested the entities to calculate their ratios periodically to find out the strengths and weaknesses to take their decisions in an informed way.

**Keywords:** Ratio analysis, financial performance, ceramics industry, profitability, liquidity, solvency.

**Introduction:** The aim of a company's financial statements is to provide all interested users form their economic decisions properly. Ratio analysis is one of the widely used tools for assessing financial statement data. Ratio analysis refers to the relationship between opted financial statement items which can be expressed either as a rate, a percentage or a usual share. It may serve as a realistic method to track and enhance the performance of the entity. But a single ratio may not be found that much useful always. That's why in this study I am going to apply the intercompany comparisons among three leading ceramics companies in Bangladesh. Country's ceramics industry began its journey in 1958 with Tajma ceramics industry in Bagura. They set up a small production plant to manufacture tableware. Currently more than 80 ceramics producer are there in the country. The industry has developed tremendously over the years and it's a growing sector in the country now which has seen 200 % rises in last five years. It exports premium ceramic goods to the international markets after meeting 85% of the local demand and gives employment of more than 500,000 people. Mainly tiles, table ware and

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sanitary ware are produced by the ceramic industry in the country. For the study I have chosen RAK Ceramics (Bangladesh) Ltd., Shinepukur Ceramics Ltd. (SCL) and Monno Ceramic Industries Ltd.

RAK Ceramics (Bangladesh) Ltd. is Bangladesh's biggest and most renowned brand of tiles and sanitation products. The company was established as a private limited company on 26th November, 1998 in Bangladesh under the company act, 1994 as a joint venture between United Arab Emirates and Bangladesh. On 12<sup>th</sup> November, 2000 the company began its commercial production. On 10<sup>th</sup> June, 2008 it became a public limited company and on 13<sup>th</sup> June, 2010 got listed in Bangladesh's stock exchanges. With its market leading skill, greater production efficiency, world-class manufacturing assets, efficient cost structures, outstanding sales and distribution channels, vigorous customer oriented programs the company secured this glorious position in the industry. RAK's main business is to produce and sell the porcelain tiles, bathroom sets and other kind of sanitary products. Usually the company produces over 2500 versions of porcelain and ceramic tile and constantly adds to its product lines different new designs. In this country the company produces tiles in a large range of sizes from 20 cm× 30 cm to 60 cm × 60 cm. The company has more than 30 versions of sanitary products to sell. Different versions in wash basins (both installed and pedestal), water closets, accessories and marble sets are available in sanitary item.

Shinepukur Ceramics Ltd. (SCL) is a member of BEXIMCO Group that represents the biggest conglomerate in the private sector in Bangladesh. SCL which was registered in Bangladesh in 1997, commissioned its plants in 1998. The production of porcelain tableware began commercially in April, 1999 and bone china in November, 1999. SCL is situated near the Dhaka Export Processing Zone (DEPZ) in the BEXIMCO Industrial Park, 40 km from capital Dhaka city. SCL manufactures world class bone china with supreme quality ingredients and raw materials from famous manufacturers all over the world. These are beautifully designed exhibiting a rare combination of eye catching shapes, excellent translucency and durability. Shinepukur also offers plain porcelain, ivory china and high alumina tableware to fit all the consumer segments in addition to its superb bone china. From dinner to tea plates, soup tureens to soup spoons, from shop tabletop to industrial products and airline in flight items.

Monno Ceramic Industries Ltd. Was established in Bangladesh in 1984 by industrialist and philanthropist Harunar Rashid Khan Monno. It started production in 1985 and got the first export order in the next year. Monno ceramics produces and designs premium bone china and porcelain tableware for many of the world's famous brands. It has a showroom and studio in London where they instigate the continuous development of new products besides the head office and factory is situated in Dhaka. Companies can collaborate with them to create their own tableware or modify their private label portfolio collections. From clay production to tableware manufacture and designing of personalized gift box they monitor every aspect of the process and Monno ceramics has a superb decoration department that offers manual coloured glazing, spray glaze decoration, colored or metallic banding and bespoke in-glaze or on-glaze decal production and application which feature give them a strong position in the industry.

**Aims of the analysis:** This study's main objective is to systematically analyze and compare the financial features, positions and performances of three Bangladeshi ceramic companies in Bangladesh using the tool ratio analysis. The broad objectives of the research set to achieve this key objective are as follows:

1. To assess the firms' past operations in a way that improves managements' judgment and offers them a potential forecast.
2. To evaluate companies' efficiency through the computation of liquidity ratios.
3. To evaluate companies' performance through the computation of profitability ratios.
4. To evaluate companies' position through the computation of solvency ratios.

**Methodology of the Research:** This research is basically made using secondary data collected from RAK, Shinepukur and Monno ceramics companies' annual financial reports and websites. As for calculation of ratios use of financial statements from the reports are must, I used here the main four audited financial statements of the companies' which are statement of financial position, statement of comprehensive income, statement of changes in owners' equity and statement of cash flow for the four periods of 2013 to 2016.

**Literature review:** Assessing financial performance refers to appraisal of three main features of an organization: its profitability, liquidity and solvency and in doing that ratio analysis may be very handy.

**Flurenz C. Tugas** depicted, the main objective of the financial statement is to build resources, besides crushing and revealing numbers in the financial statements. The best way to build resources is to maximize the value of businesses by making the maximum use of capital for a long period of time. And resources building are the consequence of making rational and organized decisions one after another. Financial statement analysis is one of the systematic and empirical pillars underlying the firm decisions in financial management.

**Monir and Rizwan (2019)**, they stated that ratio analysis is a method to determine how the financial activities of a company correlate year to year with others from the same industry. This is applied to evaluate the financial statements in order to be informed about the strengths and weaknesses of the firm to make analytical decisions.

**Lucey (1988)** described that ratio analysis expresses past trends, compare present status and may forecast future patterns, outputs and operations of the business. From the above, it can be said that ratios help to appraise and enhance a company's efficiency.

**Calculations and interpretations of ratios:** This section includes the data analysis through ratio calculations and interpretations of three ceramics companies and comparisons among them. It has been divided into three parts. At first, the revelation of liquidity position of the companies. Secondly the profitability performance and lastly the solvency position among them.

**Liquidity Ratios:** Liquidity ratios refer to the entity's short-term debt paying capacity and its ability to meet immediate need for cash. The ratios discussed here under liquidity ratios are the current ratio, acid test ratio, receivables turnover and inventory turnover.

## 1. Current ratios:

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

The current ratios of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	2.20	2.16	1.59	1.62	1.89
Shinepukur	.97	.58	.65	.56	.69
Monno	1.08	1.03	1.03	1.25	1.10

The table exhibits that average current ratio of RAK is 1.89 which is greater than Shinepukur and Monno ceramics. Monno shows 1.10 and Shinepukur gives lowest average current ratio that is .69. RAK owns the highest ratio that shows they have enough liquid resources to pay their short term debt on demand and Monno has also good enough current assets against the current liabilities. But Shinepukur gives a poor current ratio as their financial statements constantly showed that they have higher current liabilities than the current assets it's getting worse with the periods.

## 2. Acid test ratio:

$$\text{Acid test ratio} = \frac{\text{cash} + \text{short term investments} + \text{receivables}(\text{net})}{\text{current liabilities}}$$

The acid test ratios of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	.90	.96	.53	.46	.71
Shinepukur	.45	.21	.22	.18	.27
Monno	.66	.58	.59	.76	.65

Here again we found that RAK is in first place in terms of its immediate liquidity as it presents the highest average of acid test or quick ratio. Monno is in second and Shinepukur is in third place like before but one thing is clear that Monno is in continuous progression every year whereas other two companies are facing decrement in their short term debt paying ability over the period. And overall consideration tells that all the companies especially Shinepukur should give extra concentration to make their ratios more adequate.

### **3. Receivables turnover:**

$$\text{Receivables turnover} = \frac{\text{Net credit sales}}{\text{Average net receivables}}$$

The receivables turnover of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	6.8 times	6.99 times	41.33 times	9.20 times	16.08 times
Shinepukur	2.23times	4.03 times	10.94 times	21.03 times	9.56 times
Monno	4.36 times	2.17 times	5.25 times	5.17 times	4.24 times

Receivables turnover measures how fast accounts receivables can be converted into cash which is also a means of justifying the liquidity of a firm. This table shows that RAK has got the highest receivable turnover on average which is 16.08 times. In terms of this ratio Shinepukur stood on the second and Monno ceramics is on the third position.

### **4. Inventory turnover:**

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

The inventory turnover of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	1.71 times	1.74 times	1.52 times	1.44 times	1.60 times
Shinepukur	1.94 times	1.58 times	1.63 times	2.55 times	1.93 times
Monno	2.05 times	1.69 times	1.81 times	1.96 times	1.88 times

With inventory turnover we can calculate the number of times a firm sells its inventory during the period. The more the frequency of selling the inventory less is the probability of obsolete and damaged inventory. Considering this no ceramics is doing well enough in this ratio calculation. But comparatively Shinepukur is in better position among three companies. Here Monno is in second and RAK is in third position.

**Profitability Ratios:** Profitability is considered as the measure of organizational success. Profitability ratio calculates the profit/loss or financial performance of an organization for a certain period of time. The ratios that will be discussed under profitability ratios are profit margin, asset turnover, return on assets, return on common stockholders' equity, earnings per share (EPS).

## **5. Profit margin:**

$$\text{Profit margin} = \frac{\text{Net income}}{\text{Net sales}}$$

The profit margin of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	18.52%	11.76%	15.07%	16.39%	15.44%
Shinepukur	(6.05)%	.92%	(.72)%	(2.90)%	(2.19)%
Monno	1.11%	.37%	.41%	.27%	.54%

The profit margin ratio tests net profit earned from each taka of sales. Profit margin table shows that RAK's profitability is very satisfactory and unusually higher than Shinepukur's and Monno's profit margin. Though Monno is making a little amount of profit with difficulty Shinepukur is found in losing situation over the period. The cost of goods sold is higher than the sales revenue in every year which is clearly shown in its financial statements. So obviously Monno and Shinepukur should focus on gearing up their profitability.

## **6. Asset turnover:**

$$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Average assets}}$$

The asset turnover of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	.53 times	.53 times	.51 times	.52 times	.52 times
Shinepukur	.24 times	.25 times	.21 times	.31 times	.25 times
Monno	.25 times	.23 times	.25 times	.26 times	.25 times

Asset turnover ratio evaluates the prudence of a company in using its assets to create sales. The higher the ratio the better it is for the entity. RAK generates .52 taka sales from each taka they invested in assets on an average and .25 taka sales from each taka on an average for both Shinepukur and Monno ceramics. RAK is better amongst these three but all of them need to improve more in increasing asset turnover ratio that means increasing efficiency to use assets in generating sales.

## **7. Return on assets:**

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average assets}}$$

The return on assets of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	9.84%	6.20%	7.67%	8.52%	8.06%
Shinepukur	(.81)%	.23%	(.15)%	(.91)%	(.41)%
Monno	.27%	.08%	.10%	.07%	.13%

Return on assets is an overall evaluation of profitability of an organization. RAK's average return of 8.06% is very good and very high in comparison with the return of Shinepukur's (.41) % and Monno's .13%. Though Monno is making some difficult positive return Shinepukur is in the position of making negative result consistently which is disappointing.

## **8. Return on common stockholders' equity:**

$$\text{Return on common stockholders' equity} = \frac{\text{Net income}}{\text{Average common stockholders' equity}}$$

The return on common stockholders' equity of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	13.70%	8.89%	12.37%	15%	12.5%
Shinepukur	(1.25)%	.41%	(.24)%	(1.42)%	(.63)%
Monno	.36%	.11%	.13%	.10%	.18%

Return on common stockholders' equity is another measurement technique of profitability from the perspective of common stockholders of an organization. On an average each taka of investment made by the common stockholders of the RAK ceramics generates .125 taka of net income which is satisfactory and very high compared to the average income of other two entities. Shinepukur is again showing very dissatisfactory result.

## **9. Earnings per share (EPS):**

$$\text{Earnings per share} = \frac{\text{Net income}}{\text{Weighted average common shares outstanding}}$$

The EPS of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	2.58	1.75	2.24	2.71	2.32 tk.
Shinepukur	(.39)	(.02)	.04	(.22)	(.15)
Monno	.35	.11	.13	.09	.17

Earnings per share calculate the net profit gained on each share of common stock and thus help to measure the profitability also. Like all other ratios so far RAK is in first and best position here also where Monno is in second and Shinepukur is in third and losing position.

**Solvency Ratios:** Solvency is a long term financial health measure of a company. It evaluates the capacity of the company to pay its long term financial debt and obligations. Stockholders and long term creditors need to know about the solvency of the company as it decides the

company's ability to pay interest to them at the time it gets due. Ratios will be discussed here are debt to total assets ratio and times interest earned ratio.

**10. Debt to total assets ratio:**

**Debt to total assets ratio= Total debt/Total assets**

The debt to total assets ratio of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	29.15%	31.24%	42.54%	43.82%	36.69%
Shinepukur	34.71%	36.25%	36.25%	36.33%	35.89%
Monno	24.16%	25.77%	25.40%	29.51%	26.21%

Debt to total assets ratio refers to the extent of the leverage of the organization. The greater the ratio the higher the risk that the organization might not be able to pay its financial obligations at the time it gets due. So creditors usually expect to have a lower debt to total assets ratio. Here RAK provides an average ratio of 36.69% and Shinepukur and Monno provides 35.89% and 26.21% respectively all of which are pretty good.

**11. Times interest earned:**

**Times interest earned=**

**Income before income taxes and interest expense / Interest expense**

The times interest earned of three ceramics companies are presented in the following table in different years

Name	2013	2014	2015	2016	Average
RAK	94 times	131 times	58.48 times	31.72 times	78.8 times
Shinepukur	.89 times	1.08 times	1.08 times	.83 times	.97 times
Monno	1.16 times	1.05 times	1.09 times	1.05 times	1.09 times

Times interest earned indicates the company's capacity to pay the amount of interest with the income available to cover them as they get due. Here RAK's interest coverage is found too well where the other two are having a tough time over the period. Especially as a losing company Shinepukur is not showing required amount to cover the interest.

**Suggestions:** Depending on the findings through calculations and analyses of ratios there are some suggestions for these ceramic companies from my perspective which are given below:

For RAK ceramics (Bangladesh) Ltd.:

- ❖ Liquidity position specially current ratio of RAK ceramics is gradually decreasing because of increment in current liabilities over the period (provision for income tax, short term borrowings, accrued expenses etc.). So, RAK should focus on decreasing their current liabilities and increasing assets to improve the liquidity position.
- ❖ RAK may face some uncertainty in paying its financial interest in future as the extent of leverage is rising over the period. To reduce this risk RAK may concentrate on increasing total assets instead of total debt.



For Shinepukur Ceramics Ltd. (SCL):

- ❖ SCL's liquidity condition is drastically decaying as its current assets are being reduced over the period (cash, accounts receivables and inventories). So immediately SCL should take care of their liquidity through current assets increment.
- ❖ Shinepukur is going through loss literally. Their cost of sales and almost all other expenses are tremendously boosting when sales is not increasing in that ratio. Even their assets are decreasing over the period. These factors are contributing to incur loss. So SCL actually have to take care of so many things to come out of the loss and make some profit to sustain in the industry.

For Monno Ceramic Industries Ltd.:

- ❖ Though liquidity is good enough for Monno ceramic but profitability and solvency positions deteriorating over the periods. Increased expenses are reducing the amount of net profit. So Monno ceramics may take some measures to reduce their expenses or make sure those expenses are being used to generate greater revenue.
- ❖ Monno's assets and shareholders' equities are in decreasing amount whereas liabilities are increasing which is alarming for their long term business survival. So Monno should cut off their leverage to some extent and boost owners' investment in the business.

**Conclusions:** Financial statements of an organization consist of lots of data in mathematical figures. But just viewing that information it is tough to understand the financial position and performance of that organization. So it is needed to analyze that information which I have done here for three ceramics companies through ratio analysis. Analyses of liquidity ratios showed that Shinepukur is suffering from liquidity crisis. Monno is in better condition and RAK is strongest in liquidity amongst these three but latter two also need to improve. Profitability ratios analyses revealed that RAK is the most profitable company among them though there is a scope of improvement. Monno is almost in the break-even point making very little profit and anytime can face loss in the business. But Shinepukur is making huge loss almost every year. In terms of solvency ratios analyses both the Monno and Shinepukur are in risk that they might not be able to meet up their long term financial obligation when they get due as they are hugely leveraged and not making that much profit to pay for that large amount of debt. RAK is also highly leveraged but their income is enough for paying the interest amount till the reported period. Overall it is found that Shinepukur is in worst position in terms of all three parameters here and others' position are not also that much satisfactory. The causes of failure may be the inefficiency if management, lower quality products and services and/or poor control over the increasing expenses. Shinepikur obviously and other two ceramics companies should also concentrate on these factors. And they should calculate the ratios periodically so that they can be aware about their strengths and weaknesses to be able to take the decisions accordingly.

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