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A Comparative Study on Value Added Ratios of Ultratech Cement Ltd and Ambuja Cement Ltd

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Abstract

This is a comparative study of Ultratech Cement Ltd and Ambuja Cement Ltd. For the comparison Value Added Statement and Value-Added Ratios are used. For the purpose of calculation of Value-Added Statement and Value-Added Ratios data was taken from the annual reports of both companies from 2017-18 to 2021-22. For the purpose of data analysis T-test is used. Important findings of this study are that 4 ratios out of 5 are showing that there is no significant difference between the performance of both companies.

Introduction

Value Added Statement (VAS) is getting more and more popularity because of its some of the great features as well because of some limitations of the traditional reporting method (Haller et al., 2018). It is not a totally new concept for people. It got a huge popularity in the UK and South Africa back then in 1970-1980. Since it provides more information and in a different and creative way it become a talk of town. Basically, it shows that how much amount of Value or wealth (in some sense) is generated and applied by the business during a specific period of time (Gorton, 2017). Because of its this features it becomes more popular in recent times but it got more attention of stakeholders.

Concept of Value-Added Statement

The concept of Value-Added Statement (VAS) is not totally new concept. It was used by UK and South Africa back then in 1970-80 (Dan et al., 2018). But in recent times, it becomes a new sensation to the accounting people. Value Added Statement (VAS) is complementary

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statement of Income statement, which generally shows that how much Value is produced and utilised by an organisation during a particular course of time (Setyowati et al., 2020).

Minnis & Sutherland, (2017), suggest that Value Added Statement can take a place of Income statement but it is not true. It is a complimentary to the Income statement not a substitute of it. It is just that Value Added Statement present the financial data in a more influential and creative way so that the full potential use of the financial information can be attained (Lev, 2018).

Review of Literature

Scalzer et al., (2019), This study was conducted in Brazil on Brazilian electricity producing companies to know the return on the capital as a financial asset. Here interesting fact was that all of the sample companies are earning a good amount of profit from the business. Still somehow, they are not able to sustain in the market. After a particular time period company was in a situation of bankruptcy. So, this study was done to know the reason behind it with the help of Value-Added Statement (VAS) (Singh & Shabani, 2017). At the end of study, it was found out that there is a huge amount of debt is included in the capital structure of all companies, which consequently giving them benefits of leverage but also increasing their financial risk. So, suggestions made by this study was that companies should use a reasonable amount of debt.

Silvia & Wangka, (2022), This study was initiated with a view to made a comparison between Bharat Petroleum Corporation Ltd and Hindustan Petroleum Corporation Ltd with the help of Value-Added Statement (VAS). The primary objective of this research was to find out whether there is any significant difference in the principle important factor or not. First the Value-Added Statement is prepared after that value added Ratios are calculated. For the purpose of analysis student-t test is used. Important finding was that there is no such significant difference between these two samples (Delacre et al., 2017).

Dyduch, & Krasodomska (2017), This study was conducted on Poland's mining companies with a view to find out Social Responsibility performed by companies. This paper emphasized the fact that companies do uses the resources of society so they should also reimburse the cost with the potential benefits. Now to analyse this function researchers used the Value-Added Statement. It is found out that most of the mining companies are aware about their duties related to Social Responsibility (Rodrigues & Mendes, 2018).

Polisetty & Madhuri (2018), The main objective of this study was to find out the value generation and utilisation of it of Volkswagen company. For this purpose, researchers prepared a Value-Added Statement of Volkswagen for the five years period and used correlation to achieve the subsidiary objectives of the research. Important findings of this research were that company can provide or disclose much information through the use of Value-Added Statement and also Value-Added Statement can easily use as a supplement statement to the income statement (Chen et al., 2018). Also, in the context of Volkswagen company it is generating an enough amount of value and also utilising in a proper way

Santos et al., (2019), This study was aimed to find out the fact about Value Added Statement that it is really beneficial for the investors or it is just a mere myth. To find out this they taken the samples from Brazilian Stock Exchange and after taking more than 155 samples and 714 observations they had concluded that Value Added Statement is definitely much more expressive in terms of financial information disclosure to its users than income statement (Dichev, 2017). So, it can be reasonably said that it is providing much more information to investors.

Methods

Objectives of the study

To prepare Value Added Statement (VAS) and Calculate the Gross Value Added (GVA) and Net Value Added (NVA) of Ultratech Cement Ltd and Ambuja Cement Ltd. To compare and analyse the changes in Value Added Ratios (VAR) of Ultratech Cement Ltd and Ambuja Cement Ltd.

Sample Selection

The samples are selected with the help of Non – Probability / Judgemental sampling technique. All the companies, which are manufacturing any type of cement is population of the study. From the population of cement industry, TWO major cement manufacturing companies are selected on the basis of their market share.

Sample Profile

Ultratech Cement Ltd is an Indian originated cement manufacturing company founded in 1983. Aditya Birla group of companies has its ownership stake. So Ultratech Cement Ltd is a subsidiary of Aditya Birla group of companies. Ultratech Cement Ltd is manufacturing grey cement as well RMCs (Ready Mix Concrete). The headquarter of Ultratech Cement Ltd is in Mumbai, Maharashtra, India. Currently It is the market leader of Indian Cement Industry.

Ambuja Cement Ltd is also an Indian origin cement manufacturing company. It was founded in 1983. Formerly it was known as Gujarat Ambuja Cement Ltd. Recently Ambuja Cement Ltd is takeover by Adani Group of companies. So now Adani Group is the parent company. Currently Ambuja Cement Ltd is on second position to the Ultratech Cement Ltd, a Market leader of Indian Cement industry.

Period of the Study

The period of this study is from 2017-18 to 2021-22.

Hypotheses of the Study

H0: There is no significant difference in the NVA to Sales ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H1: There is a significant difference in the NVA to Sales ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H0: There is no significant difference in the contribution to employees to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H1: There is a significant difference in contribution to employees to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H0: There is no significant difference in contribution to government to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H1: There is a significant difference in contribution to government to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H0: There is no significant difference in contribution to providers of capital to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H1: There is a significant difference in contribution to providers of capital to NVA ratio of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H0: There is no significant difference in Contribution to Owners to NVA of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

H1: There is a significant difference in Contribution to Owners to NVA of Ultratech Cement Ltd and Ambuja Cement Ltd during the study period.

Data Collection and Analysis

Data Collection

In this study all the data are taken from the annual reports of the Ultratech Cement Ltd and Ambuja Cement Ltd respectively for the 5 years starting from 2017-18 to 2021-22

Data Analysis

For the purpose of analysis of data and fulfilment of the objectives this study uses two tools. First is Value Added Ratios (VAR) and second is Student-t test or t-test.

Value Added Ratios

Value Added Ratios are the accounting ratios which shows the relationship between the various elements of the Value-Added Statement. These ratios are very much helpful for the analysis of Value-Added Statement. This ratio can be performed as a tailor-made (pre-prepared) or one can also frame the Value-Added Ratios as per the need of the study.

T-test

T-test is a statistical test to measure the significance between two samples. T-test has many variants which can be used by as per the requirement of the study. Here in this study a two tailed T-test is performed to find out that if there are any significant difference is existed between both samples

Table 1. Value Added Statement (VAS) of Ultratech Cement Ltd for 5 Years

Generation of Value	2017-18	2018-19	2019-20	2020-21	2021-22
Sales	30,978.62	41,608.81	42,429.89	44,725.80	52,598.83
add: Change in stock	-111.2	46.35	-357.83	450.15	-383.16
Value of Production	30,867.42	41,655.16	42,072.06	45,175.95	52,215.67
add: other income	588.57	463.44	651.06	734.17	507.81
Gross Output	31,455.99	42,118.60	42,723.12	45,910.12	52,723.48
less: Brought in Goods & Service					
(A) Material Used	4,519.95	5,698.20	5,727.98	5,793.67	7,096.49
(B) other expenditure	20,632.85	28,485.04	29,948.57	30,663.90	37,175.76
GVA	6,303.19	7,935.36	7,046.57	9,452.55	8,451.23
less: Depreciation	1,847.93	2,450.73	2,722.66	2,700.23	2,714.75
NVA	4,455.26	5,484.63	4,323.91	6,752.32	5,736.48
Distribution of Value					
To Employees	1,810.24	2,291.07	2,519.86	2,353.02	2,534.68
To Providers of capital (Interest on loan)	1,237.60	1,777.86	1,991.65	1,485.65	944.71
To Government (Tax)	1,077.01	1,068.07	-568.16	2,538.70	1,190.06
To Owners	330.41	347.63	380.56	374.95	1,067.03
NVA	4,455.26	5,484.63	4,323.91	6,752.32	5,736.48

Source: Annual Reports of Ultratech Cement Ltd

Table 2. Value Added Statement (VAS) of Ambuja Cement Ltd for 5 Years

Generation of Value	2017-18	2018-19	2019-20	2020-21	2021-22
Sales	23,608.69	26,040.94	27,103.55	24,516.17	28,965.46
add: Change in stock	-77.72	-197.87	143.64	256.45	-530.34
Value of Production	23,530.97	25,843.07	27,247.19	24,772.62	28,435.12
add: other income	322.61	371.44	580.74	449.59	352.44
Gross Output	23,853.58	26,214.51	27,827.93	25,222.21	28,787.56
less: Brought in Goods & Service					
(A) Material Used	7,804.61	8,895.12	8,953.41	7,360.51	9,970.93
(B) other expenditure	11,653.01	14,127.60	14,591.38	10,758.95	14,535.90
GVA	4,395.96	3,191.79	4,283.14	7,102.75	4,280.73
less: Depreciation	1,219.45	1,153.94	1,152.52	1,161.78	1,152.49
NVA	3,176.51	2,037.85	3,130.62	5,940.97	3,128.24
Distribution of Value					
To Employees	1,511.24	1,524.37	1,570.75	1,540.40	1,529.15
To Providers of capital (Interest on loan)	205.78	170.5	169.87	140.22	145.66
To Government (Tax)	822.85	-54.15	1,092.15	884.75	1,453.43
To Owners	636.64	397.13	297.85	3,375.60	0
NVA	3,176.51	2,037.85	3,130.62	5,940.97	3,128.24

Source: Annual Reports of Ambuja Cement Ltd

Table 3. NVA to Sales ratio

Ultratech Cement Ltd				Ambuja Cement Ltd			
Year	NVA (Rs.)	Sales (Rs.)	NVA/ Sales*100	Year	NVA (Rs.)	Sales (Rs.)	NVA/Sales*100
2017-18	4,455.26	30,978.62	14.38	2017-18	3,176.51	23,608.69	13.45
2018-19	5,484.63	41,608.81	13.18	2018-19	2,037.85	26,040.94	7.83
2019-20	4,323.91	42,429.89	10.19	2019-20	3,130.62	27,103.55	11.55
2020-21	6,752.32	44,725.80	15.10	2020-21	5,940.97	24,516.17	24.23
2021-22	5,736.48	52,598.83	10.91	2021-22	3,128.24	28,965.46	10.80

Source: Annual Reports of Ultratech Cement Ltd and Ambuja Cement Ltd

Analysis: Table no. 3 shows the data of NVA to Sales ratios of both Ultratech Cement Ltd and Ambuja Cement Ltd. If an analysis made to this ratio by comparing both companies it can be said there is a mixed trend for this ratio in both of the companies. Ultratech Cement Ltd has highest in 2020-21 at 15.10 % and lowest in 2019-20 at 10.19 %. On the other hand, Ambuja Cement Ltd has it highest in 2020-22 at 24.23 and lowest in 2018-19 at 7.83 %. By analysing both companies it can be concluded that Ultratech Cement company has more stability in its NVA to Sales ratio than Ambuja Cement Ltd.

Table 4. Contribution to employees to NVA ratio

Year	Contribution to Employees (Rs.)	NVA (Rs.)	NVA/ Contribution to Employees*100	Year	Contribution to Employees (Rs.)	NVA (Rs.)	NVA/ Contribution to Employees *100
2017-18	1,810.24	4,455.26	40.63	2017-18	1,511.24	3,176.51	47.58
2018-19	2,291.07	5,484.63	41.77	2018-19	1,524.37	2,037.85	74.80
2019-20	2,519.86	4,323.91	58.28	2019-20	1,570.75	3,130.62	50.17
2020-21	2,353.02	6,752.32	34.85	2020-21	1,540.40	5,940.97	25.93
2021-22	2,534.68	5,736.48	44.19	2021-22	1,529.15	3,128.24	48.88

Source: Annual Reports of Ultratech Cement Ltd and Ambuja Cement Ltd

Analysis: Table no. 4 shows the Contribution to employees to NVA ratio. These ratios show that how much amount from total Net Value Added (NVA) is used for employees. By analysing this table, it is visible that the highest and lowest point of Ultratech Cement Ltd was 58.28 % in 2019-20 and 34.85 % in 2021-22 respectively. On the other side Ambuja Cement Ltd has its highest in 2018-19 at 74.80 % and lowest in 2020-21 at 25.93 %. If both companies compared on the basis of this ratio, then Ultratech Cement Ltd has more stable situation then Ambuja Cement Ltd.

Table 5. Contribution to government to NVA ratio

Ultratech Cement Ltd				Ambuja Cement Ltd			
Year	Contribution to Government (Rs.)	NVA (Rs.)	Contribution to Government/ NVA *100	Year	Contribution to Government (Rs.)	NVA (Rs.)	Contribution to Government/ NVA *100
2017-18	1,077.01	4,455.26	24.17	2017-18	822.85	3,176.51	25.90
2018-19	1,068.07	5,484.63	19.47	2018-19	-54.15	2,037.85	-2.66
2019-20	-568.16	4,323.91	-13.14	2019-20	1,092.15	3,130.62	34.89
2020-21	2,538.70	6,752.32	37.60	2020-21	884.75	5,940.97	14.89
2021-22	1,190.06	5,736.48	20.75	2021-22	1,453.43	3,128.24	46.46

Source: Annual Reports of Ultratech Cement Ltd and Ambuja Cement Ltd

Analysis: Table no. 5 shows the data about Contribution made to Government to NVA ratio. This ratio shows that amount of value from Net Value Added (NVA) contributed to government as a part of taxes. The highest point for Ultratech Cement Ltd was 2020-21 at 37.60 % and lowest in 2019-20 at (-13.14 %). Fir Ambuja Cement Ltd lowest was in 2018-19 at (-2.66 %) and highest was 46.46% in 2021-22. From that table it is visible that in overall condition both companies are on same position of stability in contribution to government to NVA ratio.

Table 6. Contribution to providers of capital to NVA

Ultratech Cement Ltd				Ambuja Cement Ltd			
Year	Contribution to Providers of Capital (Rs.)	NVA (Rs.)	Contribution to Providers of Capital/ NVA *100	Year	Contribution to Providers of Capital (Rs.)	NVA (Rs.)	Contribution to Providers of Capital/ NVA *100
2017-18	1,237.60	4,455.26	27.78	2017-18	205.78	3,176.51	6.48
2018-19	1,777.86	5,484.63	32.42	2018-19	170.5	2,037.85	8.37
2019-20	1,991.65	4,323.91	46.06	2019-20	169.87	3,130.62	5.43
2020-21	1,485.65	6,752.32	22.00	2020-21	140.22	5,940.97	2.36
2021-22	944.71	5,736.48	16.47	2021-22	145.66	3,128.24	4.66

Source: Annual Reports of Ultratech Cement Ltd and Ambuja Cement Ltd

Analysis: Table no. 6 shows the data about Contribution to providers of capital to NVA ratio of both sample companies. From which it can be said that in 2019-20 with 46.06 % Ultratech Cement Ltd has highest point and its lowest point was 16.47 % in 2021-22. On the other side Ambuja Cement Ltd recorded its lowest at 2.36 % in 2020-21 and highest in 2018-19 at 8.37 %. From the table it can be concluded that for this ratio Ambuja Cement Ltd is having a good stability than Ultratech Cement Ltd.

Table 7. Contribution to owners to NVA ratio

Ultratech Cement Ltd				Ambuja Cement Ltd			
Year	Contribution to Owners (Rs.)	NVA (Rs.)	Contribution to Owners/ NVA*100	Year	Contribution to Owners (Rs.)	NVA (Rs.)	Contribution to Owners/ NVA*100
2017-18	330.41	4,455.26	7.42	2017-18	636.64	3,176.51	20.04
2018-19	347.63	5,484.63	6.34	2018-19	397.13	2,037.85	19.49
2019-20	380.56	4,323.91	8.80	2019-20	297.85	3,130.62	9.51
2020-21	374.95	6,752.32	5.55	2020-21	3,375.60	5,940.97	56.82
2021-22	1,067.03	5,736.48	18.60	2021-22	0	3,128.24	0.00

Source: Annual Reports of Ultratech Cement Ltd and Ambuja Cement Ltd

Analysis: Table no. 7 shows the data about Contribution to Owners to NVA ratio. This ratio states the situation that how much of total wealth/value generated by company is distributed among the owners of the company. Ultratech Cement Ltd has recorded its highest in 18.60 % in 2021-22 and lowest with 5.55 % at 2020-21. On the other hand, Ambuja Cement Ltd shown a poor performance with this ratio and recorded lowest in 2021-22 with 0 and highest in 2020-21 at 56.82. The data of this ratio concluded that Ambuja Cement Ltd has lack of stability in this ratio than Ultratech Cement Ltd.

Table 8. Result of study

Ratio	Calculated Value of t - test	Table value (for two tail) of t - test	Result
NVA to Sales Ratio	-0.27	2.31	H ₀ is ACCEPTED
Contribution to Employees to NVA Ratio	-0.64	2.31	H ₀ is ACCEPTED
Contribution to Government to NVA Ratio	-0.52	2.31	H ₀ is ACCEPTED
Contribution to Providers of capital to NVA Ratio	4.56	2.31	H ₀ is REJECTED
Contribution to Owners to NVA Ratio	-1.19	2.31	H ₀ is ACCEPTED

Conclusion

The findings of this research indicate that there is not a statistically significant difference between Ultratech Cement Ltd. and Ambuja Cement Ltd. during the time period covered by the study in terms of the ratio of NVA to Sales, the ratio of Contribution to Employees to NVA, the ratio of Contribution to Government to NVA, and the ratio of Contribution to Owners to NVA. This is due to the fact that the null hypothesis for each of these ratios was accepted. On the other hand, due to the fact that the null hypothesis was not found to be true, one can assert that there is a substantial disparity between the contributions made by Ultratech Cement Ltd. and those made by Ambuja Cement Ltd. during the course of the research in terms of the ratio of NVA to providers of capital.

Both of the businesses are devoting a significant portion of their overall worth to the benefit of their workers, and as a result, the management of each organization has to make certain that appropriate benefits will be maintained for the business. Ambuja Cement Ltd. has a bad tax management strategy, and in order for the firm to have a better future, they will need to improve it. In order to take advantage of leverage, Ambuja Cement Ltd. might augment its existing capital structure with additional loan capital. The stockholders of Ultratech Cement Ltd. deserve a greater return on their investment.

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