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A Study of Assets Turnover of Selected Electrical Companies of India

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Abstract

Creditors and shareholders invest their money for investing in assets of business and so they are interested in knowing the efficiency and speed with which the assets are converted into sales. Some proportion must be maintained between sales and total assets. If this is not the case it can be said that there is imbalance somewhere in business. Present research paper the researcher has made attempt to study analysis assets turnover of seven electrical companies of India. Namely- Bajaj ltd, Bhel ltd, Havells ltd, khaitan ltd, Wipro ltd, Surya Roshni ltd, Kirloskar ltd. The paper is purely based on secondary data collected from annual report of seven electrical companies. The researcher has presented brief concept of assets turnover and data is mentioned in respective tables after presenting data in respective tables its analyses an interpretation is mention.

➤ **Key words: Electricals companies, Assets Turnover, Working Capital.**

Introduction:

The ratio **which** shows the efficiency with which assets are used in business are known as Turnover Ratio or Efficiency Ratio. Such ratio shows the speed with which assets are converted into cash as compared to sales. The higher these ratios, the higher is the efficiency of business.

In present research study different assets turnover ratio have been computed for measuring the effectiveness of assets utilization. The important ratio pertaining to assets turnover has been studied under the following various heads:

- Total Assets Turnover Ratio
- Working Capital Turnover Ratio
- Inventory Turnover Ratio

❖ Total Assets Turnover Ratio:

The amount invested in business are invested in all assets jointly and sales are affected through them to earn profits, So, in order to find out relation between total assets to sales.

- This ratio is important to know the overall efficiency of the business. The higher this ratio, it shows



that with less amount of investment in total assets, the business has a capacity to sell more and as such its profitability is also more.

- This ratio is calculated by using the following formula:

$$\text{Total Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

- Total assets mean all fixed assets and current assets total. And net sales mean sales less sales returns.

Table 1 show the Total assets turnover ratio of selected electrical ltd.

The company -wise analysis is as under:

Table: 1

Total assets turnover ratio of selected electrical ltd.

Year	Bajaj	Bhel	Havells	Khaitan	Kirloskar	Surya Roshani	Wipro
2009-10	3.67	2.05	1.94	1.26	2.50	1.94	0.99
2010-11	3.85	2.05	1.89	1.36	2.41	1.63	1.01
2011-12	1.58	0.71	1.37	0.85	1.27	1.59	0.82
2012-13	1.57	0.68	1.47	0.93	1.13	1.75	0.82
2013-14	1.58	0.53	1.39	0.92	0.92	1.57	0.85
2014-15	1.50	0.43	1.44	0.82	0.87	1.37	0.76
2015-16	1.64	0.38	1.37	0.65	0.94	1.43	0.76
2016-17	1.40	0.48	1.33	0.17	0.64	1.63	0.72
2017-18	1.38	0.46	1.26	0.69	0.50	14.76	0.76



2018-19	1.29	0.47	1.40	0.96	0.47	1.98	0.71
2019-20	1.09	0.35	1.34	-	0.57	1.84	0.77
Average	1.87	0.78	1.47	0.78	1.11	2.86	0.82

Source: Annual Report of Selected Electrical ltd from 2009-10 to 2019-20.

1. Total Assets turnover ratio of all selected electrical companies has shown decreasing trend during 2009-10 to 2019-20.
2. There was decreasing trend for Bajaj ltd company during 2009-10 to 2019-20, except 2010-11. The ratio decreased from 3.67 time to 1.09 times during 2009-10 to 2019-20, which indicates that Bajaj ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Bajaj ltd is 1.87. It was above average during 2009-10 and 2010-11. But below average during 2011-12 to 2019-20.
3. There was decreasing trend for Bhel ltd company during 2009-10 to 2019-20. The ratio decreased from 2.05 times to 0.35 times during 2009-10 to 2019-20, It indicate that Bhel ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Bhel company is 0.78. It was above average during 2009-10 and 2010-11. But below average during 2011-12 to 2019-20.
4. There was decreasing trend for Havells ltd company during 2009-10 to 2019-20. The ratio decreased from 1.94 times to 1.26 times during 2009-10 to 2019-20, It indicate that Bhel ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Havells ltd is 1.47. It was above average during 2009-10, 2010-11 and 2012-13. But below average during 2011-12, 2013-14 to 2019-20.
5. There was decreasing trend for Khaitan ltd company during 2009-10 to 2019-20, except 2010-11. The ratio decreased from 1.36 time to 0.17times during 2009-10 to 2019-20, which indicates that Khaitan ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Khaitan ltd is 0.78. It was above average during 2009-10 to 2014-15 and 2018-19. But below average during 2015-16 to 2017-18.
6. There was decreasing trend for Kirloskar ltd company during 2009-10 to 2019-20. The ratio decreased from 2.50 times to 0.47 times during 2009-10 to 2019-20, It indicate that Kirloskar ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Kirloskar ltd is



1.11. It was above average during 2009-10 to 2012-13. But below average during 2013-14 to 2019-20.

7. There was decreasing trend for Surya Roshani ltd company during 2009-10 to 2019-20, except 2017-18. The ratio decreased from 14.76 time to 1.43 times during 2009-10 to 2019-20, which indicates that Surya Roshni Its has not effective utilized investment in total assets. Average total assets turnover ratio of Surya Roshani ltd is 2.86. It was above average during 2017-18. But below average during 2009-10 to 2016-17 and 2018-19 to 2019-20.
8. There was decreasing trend for Wipro ltd company during 2009-10 to 2019-20, except 2010-11. The ratio decreased from 1.1 time to 0.71 times during 2009-10 to 2019-20, which indicates that Wipro ltd has not effective utilized investment in total assets. Average total assets turnover ratio of Wipro ltd is 0.82. It was above average during 2009-10 to 2013-14. But below average during 2014-15 to 2019-20.

➤ Anova Single Factor for Total assets turnover ratio.

H₀1: There is no significance difference among Total assets turnover ratio of selected electrical companies during 2009-10 to 2019-20.

H₁: There is a significance difference among Total assets turnover ratio of selected electrical companies during 2009-10 to 2019-20.

Significance level: 5%

The table 1.1 represents the anova single factor test for Total Assets Turnover Ratio ratio of selected electrical ltd.

Table no:1.1

Anova test for Total assets turnover ratio of selected electrical ltd.

SUMMARY						
Groups	Count	Sum	Average	Variance		



Bajaj	11	20.55	1.868182	0.901416		
Bhel	11	8.59	0.780909	0.405909		
Havells	11	16.2	1.472727	0.051002		
Khaitan	11	8.61	0.782727	0.165322		
Kirloskar	11	12.22	1.110909	0.506489		
Surya Roshani	11	31.49	2.862727	15.6071		
Wipro	11	8.97	0.815455	0.010107		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	39.07205	6	6.512008	2.583	0.025	2.23119242
Within Groups	176.4735	70	2.52105			
Total	215.5455	76				

Interpretation:

Above anova tables shows that p-value (0.025) is higher than significance value (0.05). Therefore, H_0 is Accepted. So, there is no significance difference among Total assets turnover ratio of selected electrical companies during 2009-10 to 2019-20.

❖ Working Capital Turnover Ratio:

Business capital is broadly divided into two groups: Fixed Capital and Working Capital. Fixed capital refers to the funds invested in such fixed or permanent assets as land, building, machinery etc, while working capital refers to the funds locked up in materials, work-in-progress, finished goods, receivables and cash etc. Current assets are those assets which can be converted into cash within a period of one year or less.



According to working capital is the excess of current assets over current liabilities. This concept is advocated by such authorities as Lincoln, Stevens and saliers.

$$\text{Working capital} = \text{Current asset} - \text{Current liabilities}$$

Working Capital Turnover Ratio indicates whether working capital has been effectively utilised in making sales. The ratio is calculated as follows:

$$\text{Working capital Turnover Ratio} = \frac{\text{Net sales}}{\text{Working Capital}}$$

Table 2 show the current assets turnover ratio of selected electrical ltd.

Table: 2

Total assets turnover ratio of selected electrical ltd.

Year	Bajaj	Bhel	Havells	Khaitan	Kirloskar	Surya Roshani	Wipro
2009-10	3.67	3.13	14.97	1.41	10.5	4.54	2.39
2010-11	5.40	3.31	22.60	1.50	11.75	4.02	2.53
2011-12	15.00	2.36	42.46	4.36	10.89	13.57	2.31
2012-13	16.50	2.05	13.59	4.89	11.44	13.42	2.71
2013-14	40.00	1.45	9.85	4.65	7.54	14.10	2.19
2014-15	42.00	1.12	23.20	3.90	2.83	11.90	1.83
2015-16	46.00	0.98	4.88	8.30	3.22	11.27	1.57
2016-17	14.00	1.30	4.07	0.59	3.19	11.88	1.30
2017-18	23.50	0.98	7.08	7.35	1.35	11.63	1.60
2018-19	33.00	1.99	7.80	7.65	1.83	12.93	1.52



2019-20	12.25	2.14	8.23	00	1.21	10.81	1.72
Average	22.85	1.89	14.43	4.05	5.98	10.92	1.97

Source: Annual Report of Selected Electrical ltd from 2009-10 to 2019-20.

The company -wise analysis is as under:

1. The working capital turnover ratio in Bajaj ltd has shown a mixed trend during the study period 2009-10 to 2019-20. It was 12.25 times in 2019-20 and reduced to 3.67 time in 2009-10 showing a decreasing trend during 2009-10, 2010-11, 2019-20. It was 14.00 time in 2016-17 and 46.00 times in 2015-16 showing an increasing trend during 2011-12 to 2018-19. Average Working capital Turnover Ratio of Bajaj ltd is 22.85. It was above average during 2013-14 to 2015-16, 2017-18 to 2018-19. But below average during 2009-10 to 2012-13, 2016-17.and 2019-20.
2. The working capital turnover ratio in Bhel ltd has shown a decreasing trend during the study period 2009-10 to 2019-20. It was 1.12 times in 2014-15 and reduced to 0.98 time in 2015-16, and 2017-18 showing a decreasing trend during 2014-15, 2015-16,2017-18. It was 1.45 time in 2013-14 and 3.31 times in 2010-11 showing an increasing trend during 2009-10 to 2013-14, 2016-17, and 2019-20. Average Working capital Turnover Ratio of Bhel ltd is 1.89. It was above average during 2009-10 to 2012-13, 2018-19,2019-20. But below average during 2013-14, to 2017-18.
3. The working capital turnover ratio in Havells ltd has shown a mixed trend during the study period 2009-10 to 2019-20. It was 8.23 times in 2019-20 and reduced to 4.07 time in 2016-17 showing a decreasing trend during 2015-16 to 2019-20. It was 9.85 time in 2013-14 and 42.46 times in 2011-12 showing an increasing trend during 2009-10 to 2013-14 and 2014-15. Average Working capital Turnover Ratio of Havells ltd is 14.43. It was above average during 2009-10 to 2011-12, and 2014-15. But below average during 2012-13, 2013-14, and 2015-16.
4. The working capital turnover ratio in Khaitan ltd has shown a mixed trend during the study period 2009-10 to 2019-20. It was 1.41 times in 2009-10 and reduced to 0.59 time in 2016-17 showing a decreasing trend during 2009-10, 2010-11, and 2016-17. It was 3.90 time in 2016-17 and 8.30 times in 2015-16 showing an increasing trend during 2011-12 to 2015-16, and 2017-18 to 2018-19. Average Working capital Turnover Ratio of Khaitan ltd is 4.05. It was above average during 2011-12 to 2015-16, 2017-18 to 2018-19. But below average during 2009-10 to 2011-12, and 2016-17.



5. The working capital turnover ratio in Kirloskar Ltd has shown a mixed trend during the study period 2009-10 to 2019-20. It was 2.83 times in 2014-15 and reduced to 1.21 time in 2009-10 showing a decreasing trend during 2009-10, 2010-11, 2019-20. It was 3.19 time in 2016-17 and 11.75 times in 2010-11 showing an increasing trend during 2015-16, 2016-17, 2009-10 to 2013-14. Average Working capital Turnover Ratio of Kirloskar Ltd is 5.98. It was above average during 2009-10 to 2013-14. But below average during 2014-15 to 2019-20.
6. The working capital turnover ratio in Surya Roshni Ltd has shown an increasing trend during the study period 2009-10 to 2019-20. Except 2010-11. It was 4.54 time in 2009-10 and 13.57 times in 2010-11 showing an increasing trend during 2009-10 to 2019-20. Average Working capital Turnover Ratio of Surya Roshni Ltd is 10.92. It was above average during 2011-12 to 2018-19. But below average during 2009-10, 2010-11 and 2019-20.
7. The working capital turnover ratio in Wipro Ltd has shown a mixed trend during the study period 2009-10 to 2019-20. It was 1.52 times in 2018-19 and reduced to 1.30 time in 2016-17 showing a decreasing trend during 2014-15, to 2019-20. It was 1.50 time in 2017-18 and 2.53 times in 2010-11 showing an increasing trend during 2009-10 to 2014-15 and 2017-18. Average Working capital Turnover Ratio of Wipro Ltd is 1.97. It was above average during 2009-10 to 2013-14. But below average during 2014-15 to 2019-20.

❖ **Anova Single Factor** current assets turnover ratio.

H₀: There is no significance difference among test Working capital Turnover Ratio of selected electrical companies during 2009-10 to 2019-20.

H₁: There is a significance difference among test Working capital Turnover Ratio of selected electrical companies during 2009-10 to 2019-20.

Significance level: 5%

The table 2.1 represents the anova single factor test Working capital Turnover Ratio for selected electrical Ltd.



Table no:2.1

Anova test for Working capital Turnover Ratio of selected electrical ltd.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Bajaj	11	251.32	22.84727	226.5215		
Bhel	11	20.81	1.891818	0.666376		
Havells	11	158.73	14.43	128.6268		
Khaitan	11	44.6	4.054545	8.494267		
Kirloskar	11	65.75	5.977273	19.6813		
Surya Roshni	11	120.07	10.91545	11.82599		
Wipro	11	21.67	1.97	0.2232		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	3941.554	6	656.9257	11.61117	5.542	2.2311924
Within Groups	3960.394	70	56.57706			
Total	7901.948	76				

Interpretation:

Above anova tables shows that p-value (5.542) is higher than significance value (0.05). Therefore, H0 is Accepted. So, there is no significance difference among Working capital Turnover Ratio of selected electrical companies during 2009-10 to 2019-20.



Inventory Turnover Ratio:

The rate at which a business converts inventory into sales is an important indicator of business activity. The management of any business enterprise must maintain adequate quantity of stocks on hand in order to continue the business as a going concern. But it must avoid an accumulation of inventory in excess of normal requirements for the simple reason that the excessive stock not only tie up the funds and increase storage costs they may also lead to subsequent losses if the goods become outdate or unsaleable. An analyst, who is interested in determining the efficiency of buying and selling of over stocked situation. Inventory turnover ratio can be computed on a cost basis or sale price basis by applying one of these equations:

$$\text{Inventory Turnover Ratio:} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory at Cost}}$$

OR

$$\text{Inventory Turnover Ratio:} = \frac{\text{Net sales}}{\text{Average Inventory at selling price}}$$

It is, thus, clear that this ratio establishes relationship between average inventory at cost and cost of goods sold or between average inventory at sale price and the net sales.

In short, this relates to the number of times the stock is turned over on the average and must be replaced during a given accounting period.

Other names for this ratio are: Stock Velocity Ratio or Inventory Turnover Ratio or Merchandise Inventory Turnover.

Of the two methods of calculating stock turnover ratio, the best is one which uses the cost of the goods sold and the average inventory at cost.

Table 3 show the Inventory turnover ratio of selected electricals ltd.

The company -wise analysis is as under:



Table :3

Inventory turnover ratio of selected electricals ltd

Year	Bajaj	Bhel	Havells	Khaitan	Kirloskar	Surya Roshani	Wipro
2009-10	8.50	1.04	11.35	1.74	8.88	9.14	7.50
2010-11	7.00	1.05	8.68	2.00	7.20	8.37	5.64
2011-12	7.70	2.24	7.65	1.70	6.17	8.56	6.11
2012-13	6.25	2.21	7.27	1.66	5.15	10.44	4.86
2013-14	8.00	2.15	7.64	1.60	3.27	11.32	9.09
2014-15	6.20	1.75	8.52	1.35	2.17	7.47	6.25
2015-16	6.20	1.68	7.50	0.88	4.10	7.67	5.18
2016-17	5.40	2.07	8.35	0.80	5.43	6.81	4.60
2017-18	5.17	2.26	6.28	10.96	3.43	8.25	4.35
2018-19	6.71	2.54	5.21	7.23	5.20	9.60	3.43
2019-20	3.88	1.68	7.79		1.40	8.25	2.49
Average	6.48	1.88	7.57	2.56	4.76	8.72	5.40

Source: Annual Report of Selected Electrical ltd from 2009-10 to 2019-20.

1. Inventory Turnover Ratio of Bajaj ltd has shown as decreasing trend during 2009-10 to 2019-20. Average Inventory Turnover Ratio of Bajaj ltd is 6.48. It was above average during 2009-10 to 2011-12, 2013-14, and 2018-19. But below average during 2012-13 ,2013-14 to 2017-18 and 2019-20.
2. Inventory Turnover Ratio of Bhel ltd has shown as increasing trend during 2009-10 to 2019-20. Average Inventory Turnover Ratio of Bhel ltd is 1.88. It was above average during 2011-12 to 2013-



14, 2016-17 to 2018-19. But below average during 2009-10 to 2010-11 and 2014-15, 2015-16 and 2019-20.

3. Inventory Turnover Ratio of Havells It has shown decreasing trend during 2009-10 to 2019-20. Average Turnover Inventory ratio of Havells ltd is 7.57. It was above ratio during 2009-10 to 2011-12, 2013-14, 2014-15, 2016-17, and 2019-20. But below average during 2012-13, 2015-16, and 2018-19.
4. Inventory Turnover Ratio of Khaitan ltd it has shown decreasing trend 2009-10 to 2019-20 except 2017-18, 2018-19. Average Turnover Inventory ratio of Khaitan ltd is 2.56. It was above ratio during 2017-18 and 2018-19. But below average ratio during 2009-10 to 2016-17.
5. Inventory Turnover Ratio of Kirloskar ltd it has shown decreasing trend 2009-10 to 2019-20 except. Average Inventory Turnover Ratio of Kirloskar ltd is 4.76. It was above ratio during 2009-10 to 2012-13. But below average ratio during 2013-14 to 2019-20.
6. Inventory Turnover Ratio of Surya Roshani ltd has shown a mix trend during 2009-10 to 2019-20. Average Inventory Turnover Ratio of Surya Roshni ltd is 8.72. It was above average during 2009-10 to 2013-14, and 2018-19 But below average during 2014-15 to 2017-18 and 2019-20.
7. Inventory Turnover Ratio of Wipro ltd has decreasing trend during 2009-10 to 2019-20, except. Average Inventory Turnover Ratio of Wipro ltd is 5.40. It was above average during 2009-10 to 2011-12 and 2013-14, 2014-15. But below average during 2012-13, 2015-16 to 2019-20.

➤ **Anova Single Factor** for Inventory turnover ratio.

H₀19: There is no significance difference among test inventory turnover ratio of selected electrical companies during 2009-10 to 2019-20.

H₁: There is a significance difference among test inventory turnover ratio of selected electrical companies during 2009-10 to 2019-20.

Significance level: 5%

The table 3.1 represents the anova single factor test inventory turnover ratio for selected electrical ltd.



Table no:3.1

Anova test for Inventory turnover ratio of selected electrical ltd.

SUMMARY						
Groups	Count	Sum	Average	Variance		
Bajaj	11	71.01	6.455455	1.804807		
Bhel	11	20.67	1.879091	0.241889		
Havells	11	86.24	7.84	2.36178		
Khaitan	11	29.92	2.72	10.94822		
Kirloskar	11	52.4	4.763636	4.813285		
Surya Roshni	11	95.88	8.716364	1.757205		
Wipro	11	59.5	5.409091	3.374089		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	418.5506	6	69.75844	19.29978	3.884	2.23119242
Within Groups	253.0128	70	3.614468			
Total	671.5634	76				

Interpretation:

Above anova tables shows that p-value (3.884) is higher than significance value (0.05). Therefore, H₀ is Accepted. So, there is no significance difference among inventory turnover ratio of selected electrical companies during 2009-10 to 2019-20.



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